

# HAUPTKATALOG

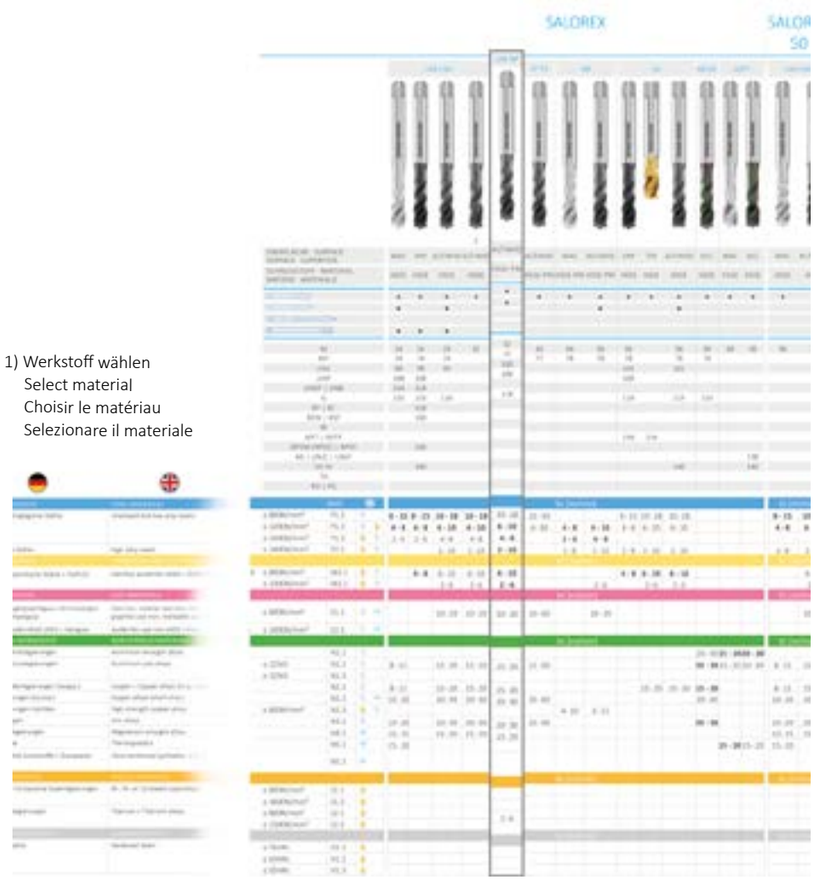
MAIN CATALOGUE I CATALOGUE PRINCIPA I CATALOGO PRINCIPALE

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REINZ NORIS

# HOW I USE THIS CATALOGUE?

## STEP 1




1) Werkstoff wählen
Select material
Choisir le matériau
Selezionare il materiale

2) Produkt durch Eignung wählen
Select product by suitability
Choisir le produit par adéquation
Selezionare il prodotto in base all'idoneità

* Genauere Werkstoffauswahl siehe S. 286
For more detailed material selection see p. 286
Pour une sélection plus précise des matériaux, voir p. 286
Per una selezione più dettagliata dei materiali si veda pag. 286

Produktbezeichnung merken
Remember product name
Mémoriser le nom du produit
Ricordare il nome del prodotto

## STEP 2

3) Gewindeart prüfen
Check thread type
Vérifier le type de filetage
Controllare il tipo di filettatura

4) Produktnamen auswählen
Select product name
Sélectionner le nom du produit
Selezionare il nome del prodotto




| DIN 371 | $d_1$ [mm] | P [mm] | $d_2$ [mm] | $l_1$ [mm] | $l_2$ [mm] | $l_3$ [mm] | $\varnothing d_3$ [mm] | a [mm] | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | M 3 | 0,5 | 2,5 | 56 | 6 | - | 2,2 | - | | | |
| | M 4 | 0,7 | 3,3 | 63 | 7 | - | 2,8 | 2,1 | | | |
| | M 5 | 0,8 | 4,2 | 70 | 8 | - | 3,5 | 2,7 | | | |
| | M 6 | 1 | 5 | 80 | 10 | - | 4,5 | 3,4 | | | |
| | M 7 | 1 | 6 | 80 | 10 | - | 5,5 | 4,3 | | | |
| | M 8 | 1,25 | 6,8 | 90 | 14 | - | 6 | 4,9 | | | |
| | M 9 | 1,25 | 7,8 | 90 | 14 | - | 7 | 5,5 | | | |
| | M 10 | 1,5 | 8,5 | 100 | 16 | - | 7 | 5,5 | | | |
| | M 11 | 1,5 | 9,5 | 100 | 18 | - | 8 | 6,2 | | | |
| | M 12 | 1,75 | 10,2 | 110 | 18 | - | 9 | 7 | 7490.08090112 | 7490.14090112 | 7490.00090112 | 7490.16090112 |
| | M 14 | 2 | 12 | 110 | 20 | - | 11 | 9 | 7490.08090114 | | 7490.00090114 | |
| | M 16 | 2 | 14 | 110 | 22 | - | 12 | 9 | 7490.08090116 | 7490.14090116 | 7490.00090116 | 7490.16090116 |
| | M 18 | 2,5 | 15,5 | 125 | 25 | - | 14 | 11 | | | | |
| | M 20 | 2,5 | 17,5 | 140 | 25 | - | 16 | 12 | 7490.08090120 | 7490.14090120 | 7490.00090120 | 7490.16090120 |
| | M 22 | 2,5 | 19,5 | 140 | 27 | - | 18 | 14,5 | | | | |
| | M 24 | 3 | 21 | 160 | 30 | - | 18 | 14,5 | 7490.08090124 | 7490.14090124 | 7490.00090124 | 7490.16090124 |
| | M 27 | 3 | 24 | 160 | 30 | - | 20 | 16 | | | | |

5) Abmessung wählen
Select dimension
Choisir la dimension
Selezionare la dimensione

# SYMBOLERKLÄRUNGEN
SYMBOL EXPLANATION / EXPLICATION DU SYMBOLE / SPIEGAZIONE DEL SIMBOLO

## ALLGEMEIN
GENERAL / GÉNÉRAL / GENERALE

| | |
|---|---|
|  | Überlaufschaft<br>Run-through shank<br>Queue passante<br>Gambo passante |
|  | Verstärkter-Schaft<br>Reinforced shank<br>Queue renforcée<br>Gambo rinforzato |
| AZ | Ausgesetzte Zähne. Bei klemmenden Werkstoffen wird die Schneidleistung verbessert.<br>Interrupted threads. With clamping material, the cutting capacity is improved.<br>Denture intermittente. La coupe est ainsi améliorée en cas de matériaux grippants.<br>Profilo dei taglienti. Migliore fissaggio che consente maggiori prestazioni di taglio. |
| FT | Ferro-Titan<br>Ferro-titanite<br>Ferro-titanite<br>Ferro-Titanit |
| 1xD | Nutzlänge 1xD<br>Usable length 1xD<br>Longueur utilisable 1xD<br>Lunghezza utilizzabile 1xD |
| 1,5xD | Nutzlänge 1,5xD<br>Usable length 1,5xD<br>Longueur utilisable 1,5xD<br>Lunghezza utilizzabile 1,5xD |
| 2xD | Nutzlänge 2xD<br>Usable length 2xD<br>Longueur utilisable 2xD<br>Lunghezza utilizzabile 2xD |
| 2,5xD | Nutzlänge 2,5xD<br>Usable length 2,5xD<br>Longueur utilisable 2,5xD<br>Lunghezza utilizzabile 2,5xD |
| 3xD | Nutzlänge 3xD<br>Usable length 3xD<br>Longueur utilisable 3xD<br>Lunghezza utilizzabile 3xD |
| 4xD | Nutzlänge 4xD<br>Usable length 4xD<br>Longueur utilisable 4xD<br>Lunghezza utilizzabile 4xD |
| AUT | Gewindebohrer für Automateneinsatz<br>Taps for CNC lathes<br>Tarauds pour tour automatique<br>Maschi a filettare per macchine automatiche |
| CNC | Optimierte Werkzeuge für die CNC-Synchronbearbeitung<br>Optimized tools for the synchronous CNC machining<br>Outils optimisés pour l'usinage synchrone CNC<br>Utensili ottimizzati per la lavorazione con macchine CNC |



SYMBOLERKLÄRUNGEN
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## ALLGEMEIN
GENERAL / GÉNÉRAL / GENERALE

| | |
|---|---|
| EL | Werkzeuge mit doppelter Gesamtlänge $L_1$<br>Tools with double total length $L_1$<br>Outils de longueur totale $L_1$ double pour la réalisation de filets dans des lieux exigus.<br>Utensili con lunghezza doppia per filettature in punti di difficile accesso. |
| ELF | Gewindebohrer mit Überlänge und extralangen Nuten zur Herstellung von tiefen und tiefliegenden Gewinden.<br>Taps with over length and extra long grooves for the manufacture of deep and low based threads.<br>Taraud avec surlongueur et goujures ultra-longues pour réaliser des filets profonds et bas.<br>Maschi extra lunghi per filettature posizionate in fori estremamente profondi. |
| HP | Höchste Performence<br>High performance<br>Haute performance<br>Prestazioni elevate |
| S | Konisch abgesetztes Führungsgewinde<br>Conically stepped guide thread<br>Filet de guidage conique<br>Maschio con rastrematura posteriore |
| SN | Spanlos-Ausführung mit Schmiernuten<br>Cold forming tap design with lubricating grooves<br>Taraud SPANLOS avec rainures de lubrification afin de garantir l'apport de lubrifiant en cas de filets profonds.<br>Per assicurare l'apporto del lubrificante nelle filettature profonde. |
| TS | Optimierte Werkzeuge für die Hochgeschwindigkeitsbearbeitung<br>Optimized tools for high-speed machining<br>Outils optimisés pour l'usinage à haute vitesse<br>Utensili ottimizzati per la lavorazione |

## GEWINDEBOHRER & GEWINDEFORMER
MACHINE TAPS & COLD FORMING TAPS / TRAUDS MACHINE & TARAUDS Á REFOULER / MASCHI A MACCINA & MASCHI A RULLARE

| | |
|---|---|
|  | Durchgangsloch<br>Through hole<br>Trou débouchant<br>Foro passante |
|  | Durchgangsloch & Sackloch<br>Through hole & Blind hole<br>Trou débouchant & Trou borgne<br>Foro passante & Foro cieco |
|  | Nicht reversieren<br>No reversal<br>Ne pas renverser la marche<br>Non invertire la marcia |
|  | Sackloch<br>Blind hole<br>Trou borgne<br>Foro cieco |
|  | MKB Werkzeuge mit durchgehender Kühlmittelbohrung<br>MKB Tools with internal coolant bore<br>MKB Outils avec trou d'arrosage continu<br>MKB Utensili con passaggio di lubrorefrigerante interno |
|  | Vohrbohrdurchmesser<br>Tap drill diameter<br>Diamètre d'avant trou<br>Diametro del trapano a colonna |

## GEWINDESCHNEIDFUTTER
TAP HOLDERS / MANDRINS DE TARAUDAGE / MANDRINI

| | |
|---|---|
|  | Bohren und Senken<br>Drilling and countersinking<br>Pour forage et chanfreinage<br>Per forare e allargare |
|  | Dichtscheibe<br>Sealing disks<br>Disques d'étanchéité<br>Dischi di tenuta |
|  | Druckpunktmechanismus<br>Pressure-point mechanism<br>Mécanisme á point de poussée<br>Meccanismo „Punto di pressione" |
|  | Erweiterter Spannbereich<br>Extended clamping range<br>Plage de serrage étendue<br>Gamma di serraggio estesa |
|  | Max. Kühlmitteldruck 50 bar<br>Max. Coolant pressure 50 bar<br>Pression max. Pression du liquide de refroidissement 50 bar<br>Pressione massima del refrigerante Pressione del refrigerante 50 bar |
|  | Max. Kühlmitteldruck 100 bar<br>Max. Coolant pressure 100 bar<br>Pression max. Pression du liquide de refroidissement 100 bar<br>Pressione massima del refrigerante Pressione del refrigerante 100 bar |
|  | Längenausgleich<br>Length compensation<br>Compensation de longueur<br>Compensazione longitudinale |
|  | Minimallängenausgleich<br>Minimal length compensation<br>Compensation de longueur minimale<br>Compensazione longitudinale minima |
|  | Schnellwechseleinsatz<br>Quick-change adapter<br>Adaptateur à changement rapide<br>Adattatore a cambio rapido |
|  | Spannmutter<br>Clamping nut<br>Ecrou de serrage<br>Dado di serraggio |
|  | Spannzange<br>Collet<br>Pince de serrage<br>Pinza |
|  | Überlaskupplung<br>Overload clutch<br>Accouplement débrayable<br>Frizione |

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## GEWINDESCHNEIDFUTTER
TAP HOLDERS / MANDRINS DE TARAUDAGE / MANDRINI

| | |
|---|---|
|  | Werkzeugadaptierung über Schnellwechsel-Einsätze Typ IE<br>Tool adaptation by means of quick-change adapters type IE<br>Montage de l'outil avec adaptateurs à changement rapide type IE<br>Serraggio dell'utensile tramite bussole a cambio rapido tipo IE Typ IE |
|  | MKBA Kühlmittelzufuhr entlang des Werkzeugsschaftes<br>MKBA Coolant supply along the tool shank<br>MKBA Arrosage le long de la queue de l'outil<br>MKBA Alimentazione del refrigerante lungo il gambo dell'utensile |
|  | Zugausrastung<br>Front release<br>Déclenchement à l'arrachement<br>Rilascio a trazione |

## GEWINDEFRÄSER
THREAD MILLS / FRAISES Á FILETER / FRESA A FILETTARE

| | |
|---|---|
|  | Außengewinde<br>External threads<br>Filetage extérieur<br>Filettature esterne |
|  | Gewindeprofil mit 55° Profilwinkel<br>Thread profile with 55° profile angle<br>Angle du profil avec un pas de 55<br>Angolo del profilo con passo di 55 |
|  | Gewindeprofil mit 60° Profilwinkel<br>Thread profile with 60° profile angle<br>Angle du profil avec un pas de 60<br>Angolo del profilo con passo di 60 |
|  | Innengewinde<br>Internal threads<br>Filetage intérieur<br>Filettature interne |
|  | Linksdrehend<br>Left hand rotation<br>Rotation de la main gauche<br>Rotazione a sinistra |
|  | Rundgewinde<br>Round thread<br>Filetage rond<br>Filettatura tonda |
|  | Sägengewinde<br>Buttress thread<br>Filetage pas d'artillerie<br>Filettatura a dente di sega |

## GEWINDEFRÄSER
THREAD MILLS / FRAISES Á FILETER / FRESA A FILETTARE

| | |
|---|---|
|  | Wendeplatte mit 2 Schneiden<br>Indexable insert with 2 cutting edges<br>Plaquette avec 2 arêtes de coupe<br>Inserto indicizzabile con 2 taglienti |
|  | Wendeplatte mit 4 Schneiden<br>Indexable insert with 4 cutting edges<br>Plaquette avec 4 arêtes de coupe<br>Inserto indicizzabile con 4 taglienti |
|  | Trapez-Gewinde, ACME-Gewinde<br>Trapezoidal thread, ACME thread<br>Filetage trapézoïdal, filetage ACME<br>Filettatura trapezoidale, fil. ACME |
|  | Innensechsrund-Schraube<br>Hexagon socket screw<br>Vis à six pans creux<br>Vite ad esagono cavo |
|  | Innensechsrund-Schraubenkopf<br>Hexagon socket screw head<br>Tête de vis à six pans creux<br>Testa della vite con esagono incassato |
|  | Nur ein Werkzeug für Kernloch, Senkung und Gewinde<br>Just one tool for core hole, countersink and thread<br>Seulement un outil pour le perçage, le taraudage et le chanfreinage<br>Un unico utensile per forare, svasare e filettare |
|  | Nur ein Werkzeug für Senkung und Gewinde<br>Just one tool for countersink and thread<br>Seulement un outil pour le taraudage et le chanfreinage<br>Un unico utensile per svasare e filettare |
|  | Stirnplatte<br>Faceplate<br>Plastron<br>Frontale |
|  | MKB Werkzeuge mit durchgehender Kühlmittelbohrung<br>MKB Tools with internal coolant bore<br>MKB Outils avec trou d'arrosage continu<br>MKB Utensili con passaggio di lubrorefrigerante interno |
|  | MKN Kühlmittelzufuhr entlang des Werkzeugsschaftes<br>MKN Coolant supply along the tool shank<br>MKN Arrosage le long de la queue de l'outil<br>MKN Alimentazione del refrigerante lungo il gambo dell'utensile |
|  | Werkzeug fertigt ausschließlich das Gewinde<br>The tool only produces the thread<br>L'outil réalise uniquement le filet<br>L'utensile realizza solo la filettatura |



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## SPIRALBOHRER
TWIST DRILL / FORET / PUNTA ELICOIDALE

| | |
|---|---|
|  | 4 Führungsfasen<br>4 guide phases<br>4 chanfreins de guidage<br>4 fasi della guida |
|  | 2 Schneiden<br>2 Cutting<br>2 Couper<br>2 Taglio |
|  | Bohrungstoleranz<br>Drilled hole diameter<br>Diamètre de perçage<br>Diametro foro praticato |
| 5xD | Nutzlänge 5xD<br>Usable length 5xD<br>Longueur utilisable 5xD<br>Lunghezza utilizzabile 5xD |
|  | Spitzenwinkel<br>Point angle<br>Angle de pointe<br>Angolo del punto |
|  | Schafttoleranz h6<br>Shank tolerance h6<br>Tolérance de la tige h6<br>Tolleranza del gambo h6 |
|  | Werkzeuge mit radialer Kühlmittelbohrung<br>Tools with radial coolant bore<br>Outils avec arrosage radial<br>Utensili con foro di raffreddamento radiale |

## SCHNEIDEISEN & GEWINDELEHREN
DIES / FILIÉRES / FILIERE

| | |
|---|---|
|  | 3-Stufen-Design<br>3-Step-Design<br>Conception en 3 étapes<br>Design in 3 fasi |
| GEL | Geläppt<br>Lapped<br>Effondré<br>Lappato |

# KAPITELÜBERSICHT
# CHAPTER OVERVIEW
# PRÉSENTATION DU CAPITRE
# PANORAMICA DEL CAPITOLO


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ALLGEMEINE INFORMATIONEN
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# 01

GEWINDEBOHRER
MACHINE TAPS
TARAUDS MACHINE
MACHI A MACCINA

AUSKLAPPSEITE
FOLD-OUT PAGE
PAGE-DÉPLIANT
PIEGHEVOLE

## AUSWAHLÜBERSICHT

DIE ANGEGEBENEN SCHNITTGESCHWINDIGKEITEN (VC IN M/MIN) SIND RICHTWERTE UND MÜSSEN DEN INDIVIDUELLEN ARBEITSBEDINGUNGEN ANGEPASST WERDEN.

* Für konische und Tr-Gewinde müssen die Schnittwerte um 50% reduziert werden.

## GUIDE DE SELECTION

LES VALEURS DE VITESSE DE COUPE (VC EN M/MIN) INDIQUÉES DANSLES COLONNES RESPECTIVES NE SONT QU'INDICATIVES ET DOIVENT ÊTRE ADAPTÉES INDIVIDUELLEMENT AUX CONDITIONS D'USINAGE.

* Pour les filetages coniques et trapézoïdaux les valeurs de coupe doivent être réduites de 50%.

## SUMMARY OF ASSORTMENT

THE LISTED CUTTING SPEEDS (VC IN M/MIN) ARE STANDARD VALUES. THIS VALUES HAVE TO BE ADJUSTED TO INDIVIDUAL WORK CONDITIONS.

* For conical threads and trapezoidal threads the cutting speeds have to be reduced by 50%.

## SCELTA DEGLI UTENSILI

I VALORI DI VELOCITÀ DI TAGLIO (VC IN M/MIN) QUI ELENCATI SONO PURAMENTE INDICATIVI E DEVONO ESSERE ADATTATI ALLE CONDIZIONI D'IMPIEGO.

* Per filetti conici e filetti trapezoidali le velocità di taglio devono essere ridotte del 50 %.

| | DE | EN | FR | IT | | MAT. | ❄ |
|---|---|---|---|---|---|---|---|
| P | STAHLWERKSTOFFE | STEEL MATERIALS | ACIERS | ACCIAI | | | |
| | Un- und niedriglegierte Stähle | Unalloyed and low-alloy steels | Aciers non et faiblement alliés | Acciai non legati e basso legati | ≤ 800N/mm² | P1.1 | Emulsion |
| | | | | | ≤ 1200N/mm² | P1.2 | Emulsion, Schneidöl |
| | | | | | ≤ 1400N/mm² | P1.3 | Schneidöl, Emulsion |
| | Hochlegierte Stähle | High alloy steels | Aciers hautement alliés | Acciai alto legati | ≤ 1400N/mm² | P2.1 | Schneidöl, Emulsion |
| M | ROSTFREIE STÄHLE | CORROSION AND ACID PROOF STEELS | ACIERS INOX/RESIST. ACIDES | ACCIAI INOX E RESISTENTI AGLI ACIDI | | | |
| | Rostfreie austenitische Stähle + DUPLEX Stähle | Stainless austenitic steels + DUPLEX steels | Aciers inoxydables austénitiques + Aciers DUPLEX | Acciai inossidabili austenitici + | ≤ 800N/mm² | M1.1 | Schneidöl, Emulsion |
| | | | | Acciai DUPLEX | ≤ 1300N/mm² | M1.2 | Schneidöl, Emulsion |
| K | GUSSWERKSTOFFE | CAST MATERIALS | FONTES | GHISE | | | |
| | Grauguss, Kugelgraphitguss, Vermiculargraphitguss, Temperguss | Cast iron, nodular cast iron, Vermicular graphite cast iron, malleable cast iron | Fonte grise, fonte à graphite sphéroïdal, Fonte à graphite vermiculaire, Fonte malléable | Ghisa grigia, ghisa nodulare, Ghisa a grafite vermiculata, ghisa malleabile | ≤ 800N/mm² | K1.1 | Emulsion, Trocken |
| | Gusseisen ausferritisch (ADI) + Hartguss | Ausferritic cast iron (ADI) + Hard casting | Fonte ausferritique (ADI) + Fontes trempées | Ghisa ausferritica (ADI) + Ghise in conchiglia | ≤ 1400N/mm² | K2.1 | Emulsion, Trocken |
| N | NICHTEISEN-WERKSTOFFE | NON FERROUS MATERIALS | MATÉRIAUX NON FERREUX | MATERIALI NON FERROSI | | | |
| | Aluminium-Knetlegierungen | Aluminium wrought alloys | Alliages d'aluminium corroyés | Leghe malleabili di alluminio | | N1.1 | Emulsion |
| | Aluminium-Gusslegierungen | Aluminium cast alloys | Fontes d'alu | Leghe fuse di alluminio | ≤ 12%Si | N1.2 | Emulsion |
| | | | | | ≥ 12%Si | N1.3 | Emulsion |
| | Kupfer + Kupferlegierungen (langsp.) | Copper + Copper alloys (long-chip.) | Cuivre + Alliages cuivre (cop. longs) | Rame + Leghe rame (truciolo lungo) | | N2.1 | Emulsion |
| | Kupferlegierungen (kurzsp.) | Copper alloys (short-chip.) | Alliages cuivre (cop. courts) | Leghe rame (truciolo corto) | | N2.2 | Emulsion, Trocken |
| | Kupferlegierungen hochfest | High-strength copper alloys | Alliages cuivre haute résistance | Leghe rame ad alta resistenza | ≥ 800N/mm² | N2.3 | Schneidöl, Emulsion |
| | Zinklegierungen | Zinc alloys | Alliages de zinc | Leghe zinco | | N3.1 | Emulsion |
| | Magnesiumlegierungen | Magnesium wrought alloys | Alliages de magnésium corroyés | Leghe malleabili di magnesio | | N4.1 | Trocken |
| | Thermoplaste | Thermoplastics | Thermoplastiques | Resine termoplastiche | | N5.1 | Trocken |
| | Faserverstärkte Kunststoffe + Duroplaste | Fibre-reinforced synthetics + Duroplastics | Plastiques chargées en fibres + Thermodurcissables | Resine epossidiche + Plastiche termoindurenti | | N5.2 | Trocken |
| S | SPEZIALWERKSTOFFE | SPECIAL MATERIALS | MATÉRIAUX SPÉCIAUX | MATERIALI SPECIALI | | | |
| | Ni-, Fe- oder Co-basierte Superlegierungen | Ni-, Fe- or Co-based superalloys | Superalliages à base de Ni, Fe ou Co | Superleghe a base di Ni, Fe o Co | ≤ 800N/mm² | S1.1 | Schneidöl |
| | | | | | ≤ 1600N/mm² | S1.2 | Schneidöl |
| | Titan + Titanlegierungen | Titanium + Titanium alloys | Titane + Alliages de titane | Titanio + Leghe di titanio | ≤ 800N/mm² | S2.1 | Schneidöl |
| | | | | | ≤ 1300N/mm² | S2.2 | Schneidöl |
| H | GEHÄRTETE WERKSTOFFE | HARDENED STEELS | ACIERS TRAITÉS | ACCIAI TEMPRATI | | | |
| | Gehärtete Stähle | Hardened steels | Aciers traités | Acciai temprati | ≤ 55HRc | H1.1 | Schneidöl |
| | | | | | ≤ 63HRc | H1.2 | Schneidöl |
| | | | | | ≤ 65HRc | H1.3 | Schneidöl |

### SALOREX

| | UNI CNC | UNI CNC | UNI CNC | UNI CNC | UNI HP | ST TS | HR | HR | VA | VA | VA | NW CNC | SOFT | SOFT |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | S | | | | | | | | | | |
| OBERFLÄCHE · SURFACE · SURFACE · SUPERFICIE | WAC | VAP | ALTINHD | ALTINHD | ALTINHD | ALTINHD | WAC | ALTINHD | VAP | TIN | ALTINHD | DLC | WAC | DLC |
| SCHNEIDSTOFF · MATERIAL · MATIÈRE · MATERIALE | HSSE | HSSE | HSSE | HSSE | HSSE-PM | HSSE-PM | HSSE-PM | HSSE-PM | HSSE | HSSE | HSSE | HSSE | HSSE | HSSE |
| (Symbol 1) | • | • | • | • | • | • | • | • | • | • | • | • | • | • |
| (Symbol 2) | • | | • | | • | | | • | | | • | | | |
| (Symbol 3) | | | | | | | | | | | | | | |
| (Symbol 4) | • | • | • | | | | | | | | | | | |
| M | 22 | 24 | 26 | 29 | 30 | 34 | 34 | 34 | 34 | | 36 | 36 | 36 | 36 |
| MF | 72 | 72 | 72 | | 75 | 75 | 76 | 76 | 76 | | 76 | 76 | | |
| UNC | 96 | 96 | 97 | | 98 | | | | 99 | | 99 | | | |
| UNF | 106 | 106 | | | 107 | | | | 107 | | | | | |
| UNEF \| UN8 | 112 | 112 | | | | | | | | | | | | |
| G | 114 | 114 | 114 | | 116 | | | | 117 | | 117 | 117 | | |
| RP \| RC | | 126 | | | | | | | | | | | | |
| BSW \| BSF | | 128 | | | | | | | | | | | | |
| W | | | | | | | | | | | | | | |
| NPT \| NPTF | | | | | | | | | 132 | 132 | | | | |
| NPSM (NPSC) \| NPSF | | 134 | | | | | | | | | | | | |
| MJ \| UNJC \| UNJF | | | | | | | | | | | | | | 136 |
| EG-M | | 138 | | | | | | | | | 138 | | | 138 |
| TR | | | | | | | | | | | | | | |
| RD \| PG | | | | | | | | | | | | | | |
| MAT. | Vc [m/min] | | | | | | | | | | | | | |
| P1.1 | **8 - 15** | **8 - 15** | **10 - 18** | **10 - 18** | 10- 18 | 10- 50 | | | 8- 15 | 10- 18 | 10- 18 | | | |
| P1.2 | **4 - 8** | **4 - 8** | **6 - 10** | **6 - 10** | **6 - 10** | 6- 30 | **4 - 8** | **6 - 10** | 4- 8 | 6- 10 | 6- 10 | | | |
| P1.3 | 2- 6 | 2- 6 | 4- 8 | 4- 8 | **4 - 8** | | **2 - 6** | **4 - 8** | | | | | | |
| P2.1 | | | 2- 10 | 2- 10 | **2 - 10** | | 2- 8 | 2- 10 | 2- 8 | 2- 10 | 2- 10 | | | |
| M1.1 | | **4 - 8** | 6- 10 | 6- 10 | **6 - 10** | | | | **4 - 8** | **6 - 10** | **6 - 10** | | | |
| M1.2 | | | 2- 6 | 2- 6 | **2 - 6** | | | 2- 6 | | 2- 6 | 2- 6 | | | |
| K1.1 | | | 10- 20 | 10- 20 | 10- 20 | 10- 60 | | 10- 20 | | | | | | |
| K2.1 | | | | | | | | | | | | | | |
| N1.1 | | | | | | | | | | | | 20- 30 | **15 - 20** | **20 - 30** |
| N1.2 | 8- 15 | | 15- 20 | 15- 20 | 15- 20 | 15- 60 | | | | | | **20 - 30** | 15- 20 | 20- 30 |
| N1.3 | | | | | | | | | | | | | | |
| N2.1 | 8- 15 | | 15- 20 | 15- 20 | 15- 20 | | | | | 15- 20 | 15- 20 | **15 - 20** | | |
| N2.2 | 10- 20 | | 20- 30 | 20- 30 | 20- 30 | 20- 60 | | | | | | 20- 30 | | |
| N2.3 | | | | | | | 4- 10 | 6- 12 | | | | | | |
| N3.1 | 10- 20 | | 20- 30 | 20- 30 | 20- 30 | 20- 60 | | | | | | **20 - 30** | | |
| N4.1 | 10- 15 | | 15- 20 | 15- 20 | 15- 20 | | | | | | | | | |
| N5.1 | 15- 20 | | | | | | | | | | | | **15 - 20** | 15- 20 |
| N5.2 | | | | | | | | | | | | | | |
| S1.1 | | | | | | | | | | | | | | |
| S1.2 | | | | | | | | | | | | | | |
| S2.1 | | | | | 2- 6 | | | | | | | | | |
| S2.2 | | | | | | | | | | | | | | |
| H1.1 | | | | | | | | | | | | | | |
| H1.2 | | | | | | | | | | | | | | |
| H1.3 | | | | | | | | | | | | | | |

### SALOREX 50 · SL15 · SL25 · SL30

| | SALOREX 50 UNI CNC | SALOREX 50 UNI CNC | SL15 ST | SL15 ST TS | SL15 ST CNC | SL15 TI | SL15 TI+ | SL15 NI | SL25 HR | SL25 HR | SL30 TI | SL30 TI |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| OBERFLÄCHE · SURFACE · SURFACE · SUPERFICIE | WAC | ALTINHD | WAC | TIN | TIN | TICN | TICN | TICN | WAC | ALTINHD | VAP | TIN |
| SCHNEIDSTOFF · MATERIAL · MATIÈRE · MATERIALE | HSSE | HSSE | HSSE | HSSE-PM | HSSE | HSSE | HSSE | HSSE-PM | HSSE-PM | HSSE-PM | HSSE-PM | HSSE-PM |
| (Symbol 1) | • | • | • | • | • | • | • | • | • | • | • | • |
| (Symbol 2) | | | | | • | | | | | • | | |
| (Symbol 3) | | | | | • | | | | | | | |
| (Symbol 4) | | | • | | | | | | | | | |
| M | 28 | 28 | 38 | 38 | 38 | 43 | 42 | 42 | 40 | 40 | 42 | 42 |
| MF | | | 78 | | 78 | | | | | 76 | | |
| UNC | | | | | | | | | | | 100 | |
| UNF | | | | | | | | | | | 108 | |
| G | | | 118 | | | | | | | | | |
| MJ \| UNJC \| UNJF | | | | | | 136 | | 136 | | | | |
| MAT. | Vc [m/min] | | | | | | | | | | | |
| P1.1 | **8 - 15** | **10 - 18** | **8 - 15** | 10- 50 | 10- 18 | | | | | | | |
| P1.2 | **4 - 8** | **6 - 10** | **4 - 8** | 6- 30 | 6- 10 | | | | **4 - 8** | **6 - 10** | | |
| P1.3 | | | | | | | | | **2 - 6** | **4 - 8** | 2- 6 | 4- 8 |
| P2.1 | 2- 8 | 2- 10 | | | 2- 10 | | | | 2- 8 | 2- 10 | | |
| M1.1 | | 6- 10 | | | 6- 10 | | | | | | | |
| M1.2 | | 2- 6 | | | 2- 6 | | | | | 2- 6 | 2- 6 | 4- 8 |
| K1.1 | | 10- 20 | | 10- 60 | 10- 20 | | | | | 10- 20 | | |
| K2.1 | | | | | | | | | | | | |
| N1.1 | | | | | | | | | | | | |
| N1.2 | 8- 15 | 15- 20 | 8- 15 | 15- 60 | 15- 20 | | | | | | | |
| N1.3 | | | | | | | | | | | | |
| N2.1 | 8- 15 | 15- 20 | 8- 15 | | 15- 20 | | | | | | | |
| N2.2 | 10- 20 | 20- 30 | 10- 20 | 20- 60 | 20- 30 | | | | | | | |
| N2.3 | | | | | 6- 12 | | | | **4 - 10** | **6 - 12** | | |
| N3.1 | 10- 20 | 20- 30 | 10- 20 | 20- 60 | 20- 30 | | | | | | | |
| N4.1 | 10- 15 | 15- 20 | 10- 15 | | 15- 20 | | | | | | | |
| N5.1 | 15- 20 | | 15- 20 | | | | | | | | | |
| N5.2 | | | | | | | | | | | | |
| S1.1 | | | | | | **4 - 8** | | | | | **2 - 6** | **4 - 8** |
| S1.2 | | | | | | | | **1 - 4** | | | | |
| S2.1 | | | | | | **4 - 8** | | | | | **2 - 6** | **4 - 8** |
| S2.2 | | | | | | **1 - 4** | **2 - 6** | | | | | **1 - 4** |
| H1.1 | | | | | | | | | | | | |
| H1.2 | | | | | | | | | | | | |
| H1.3 | | | | | | | | | | | | |

### STABIL

| | UNI CNC | UNI CNC | UNI CNC | UNI HP | ST TS | HR | VA | VA | NW | SOFT | TI | TI | TI |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | AZ |
| OBERFLÄCHE · SURFACE · SURFACE · SUPERFICIE | WAC | NITVAP | ALTINHD | ALTINHD | TIN | ALTINHD | NIT | ALTINHD | DLC | DLC | VAP | TIN | VAP |
| SCHNEIDSTOFF · MATERIAL · MATIÈRE · MATERIALE | HSSE | HSSE | HSSE | HSSE | HSSE-PM | HSSE-PM | HSSE | HSSE | HSSE | HSSE | HSSE-PM | HSSE-PM | HSSE-PM |
| (Symbol 1) | • | • | • | • | • | • | • | • | • | • | • | • | • |
| (Symbol 2) | | | | | | | | | | | | | |
| (Symbol 3) | | | | | | | | | | | | | |
| (Symbol 4) | • | • | | | | | | | | | | | |
| M | 44 | 46 | 46 | 48 | 48 | 48 | 48 | 48 | 50 | 50 | 50 | 50 | 50 |
| MF | 80 | 82 | 82 | 84 | 84 | 84 | 84 | | 84 | | | | |
| UNC | 102 | 102 | | | | | 103 | | | | 103 | 103 | |
| UNF | 108 | 108 | | | | | | | | | 109 | 109 | |
| UNEF \| UN8 | 113 | | | | | | | | | | | | |
| G | 119 | 119 | 119 | | | | 119 | | 119 | | | | |
| BSW \| BSF | | | 128 | | | | | | | | | | |
| EG-M | | | 139 | | | | | 139 | | 139 | | | |
| MAT. | Vc [m/min] | | | | | | | | | | | | |
| P1.1 | **8 - 15** | **8 - 15** | **10 - 18** | 10- 18 | 10- 50 | | 8- 15 | 10- 18 | | | | | |
| P1.2 | **4 - 8** | **4 - 8** | **6 - 10** | **6 - 10** | 6- 30 | **6 - 10** | 4- 8 | 6- 10 | | | | | |
| P1.3 | 2- 6 | 2- 6 | 4- 8 | **4 - 8** | | **4 - 8** | | | | | 2- 6 | 4- 8 | 2- 6 |
| P2.1 | | | 2- 10 | **2 - 10** | | 2- 10 | 2- 8 | 2- 10 | | | | | |
| M1.1 | | 4- 8 | 6- 10 | **6 - 10** | | | **4 - 8** | **6 - 10** | | | | | |
| M1.2 | | | 2- 6 | **2 - 6** | | 2- 6 | | 2- 6 | | | 2- 6 | 4- 8 | 2- 6 |
| K1.1 | | | 10- 20 | 10- 20 | 10- 60 | 10- 20 | | | | | | | |
| K2.1 | | | | | | | | | | | | | |
| N1.1 | | | | | | | | | **20 - 30** | **20 - 30** | | | |
| N1.2 | 8- 15 | | 15- 20 | 15- 20 | 15- 60 | | | | **20 - 30** | **20 - 30** | | | |
| N1.3 | | | | | | | | | | | | | |
| N2.1 | 8- 15 | | 15- 20 | 15- 20 | | | 8- 15 | 15- 20 | 15- 20 | | | | |
| N2.2 | 10- 20 | | 20- 30 | 20- 30 | 20- 60 | | 10- 20 | | 20- 30 | | | | |
| N2.3 | | | | | | **6 - 12** | | | | | | | |
| N3.1 | 10- 20 | | 20- 30 | 20- 30 | 20- 60 | | 10- 20 | | **20 - 30** | | | | |
| N4.1 | 10- 15 | | 15- 20 | 15- 20 | | | 10- 15 | | | | | | |
| N5.1 | 15- 20 | | | | | | 15- 20 | | | 15- 20 | | | |
| N5.2 | | | | | | | | | | | | | |
| S1.1 | | | | | | | | | | | **2 - 6** | **4 - 8** | **2 - 6** |
| S1.2 | | | | | | | | | | | | | |
| S2.1 | | | | 2- 6 | | | | | | | **2 - 6** | **4 - 8** | **2 - 6** |
| S2.2 | | | | | | | | | | | | **1 - 4** | |
| H1.1 | | | | | | | | | | | | | |
| H1.2 | | | | | | | | | | | | | |
| H1.3 | | | | | | | | | | | | | |

### DL15 · INNEN-SPAN · SATZ

| | DL15 ST | DL15 VA | DL15 TI | DL15 NI | INNEN-SPAN RA15 | SATZ ST | SATZ ERGO | SATZ ERGO |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | | FT |
| OBERFLÄCHE · SURFACE · SURFACE · SUPERFICIE | WAC | NIT | TICN | TICN | VAP | WAC | WAC | NIT |
| SCHNEIDSTOFF · MATERIAL · MATIÈRE · MATERIALE | HSSE | HSSE | HSSE | HSSE-PM | HSSE | HSSE | HSSE | HSSE |
| (Symbol 1) | | | • | • | • | | | |
| M | | | 52 | 52 | 146 | 68 | 70 | 71 |
| MF | | | | | 146 | 94 | 95 | |
| UNC | | | | | 146 | 110 | 111 | |
| UNF | | | | | | | 111 | |
| G | | | | | | 124 | 125 | |
| MJ \| UNJC \| UNJF | | | 136 | 136 | | | | |
| TR | 143 | 144 | | | | | | |
| MAT. | Vc [m/min] | | | | Vc [m/min] | Vc [m/min] | | |
| P1.1 | 2- 8 | 8- 15 | | | **6 - 12** | • | | |
| P1.2 | | 4- 8 | | | **2 - 6** | | • | |
| P1.3 | | | 4- 8 | | | | • | • |
| P2.1 | | 4- 8 | | | | | • | |
| M1.1 | | 4- 8 | | | **2 - 6** | | • | |
| M1.2 | | | 4- 8 | | | | • | |
| K1.1 | | | | | | | • | |
| K2.1 | | | | | | | • | |
| N1.1 | | | | | | • | • | |
| N1.2 | | | | | | • | • | |
| N1.3 | | | | | | | • | |
| N2.1 | 6- 8 | 8- 15 | | | | • | • | |
| N2.2 | 6- 8 | 10- 20 | | | | • | • | |
| N2.3 | | | | | | | • | • |
| N3.1 | | 10- 20 | | | | • | • | |
| N4.1 | | 10- 15 | | | | • | • | |
| N5.1 | | 15- 20 | | | | • | | |
| N5.2 | | | | | | | | • |
| S1.1 | | | 4- 8 | | | | • | |
| S1.2 | | | | 1- 4 | | | | • |
| S2.1 | | | 4- 8 | | | | • | |
| S2.2 | | | 1- 4 | | | | | • |
| H1.1 | | | | | | | | • |
| H1.2 | | | | | | | | |
| H1.3 | | | | | | | | |

### TWIN

| | ST | ST | ST CNC | VG | VG | HR | HR | HR | GG | GG | GGV | GGV | MS | AMPCO | MG | HT | HT |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | AZ | | | AZ | | | | | | | | | | | | |
| OBERFLÄCHE · SURFACE · SURFACE · SUPERFICIE | WAC | WAC | TICN | WAC | WAC | NIT | TICN | WAC | NIT | TICN | TICN | TICN | WAC | WAC | OSM | TICN | ALTIN |
| SCHNEIDSTOFF · MATERIAL · MATIÈRE · MATERIALE | HSSE | HSSE | HSSE | HSSE | HSSE | HSSE | HSSE | HM | HSSE | HSSE | HSSE-PM | HM | HSSE | HSSE-PM | HSSE | HSSE-PM | HM |
| (Symbol 1) | • | • | | • | • | • | • | | • | • | • | | • | • | • | • | • |
| (Symbol 2) | | | | | | • | • | • | • | | • | • | | | | | |
| (Symbol 3) | | | • | | | | | | | | | | | | | | |
| (Symbol 4) | | | | | | • | | | | | | | | | | | |
| M | 54 | | 66 | | | 56 | 56 | 56 | 58 | 58 | 60 | 60 | 62 | 62 | 62 | 62 | 62 |
| MF | 86 | | | | | 86 | 86 | 86 | 88 | 88 | 88 | 88 | 93 | | | 90 | 90 |
| UNC | | | | | | 104 | | | 104 | | | | | | | | |
| UNF | | | | | | 109 | | | 109 | | | | | | | | |
| G | 120 | | | | | 120 | 120 | 120 | 121 | 121 | | | 122 | | | 121 | 121 |
| RP \| RC | 126 | | | 127 | | | 127 | | | | | | 126 | | | | |
| BSW \| BSF | 129 | | | | | | | | | | | | | | | | |
| W | 130 | | | | | | | | | | | | | | | | |
| NPT \| NPTF | 133 | 133 | | 133 | 133 | | | | | | | | | | | | |
| NPSM (NPSC) \| NPSF | 134 | | | | | | | | | | | | | | | | |
| TR | | | | | | | | | | | | | 142 | | | | |
| RD \| PG | 145 | | | | | | | | | | | | | | | | |
| MAT. | Vc [m/min] | | | | | | | | | | | | | | | | |
| P1.1 | **8 - 15 *** | **2 - 8** | **10 - 18** | | | | | | | | | | | | | | |
| P1.2 | | | **6 - 10** | **4 - 8** | **4 - 8** | **4 - 8** | **6 - 10** | | | | | | | | | | |
| P1.3 | | | | 2- 6 | 2- 6 | 2- 6 | **4 - 8** | 6- 10 | | | | | | | | | |
| P2.1 | | | 2- 10 | | | 2- 8 | 2- 10 | | | | | | | | | | |
| M1.1 | | | | 2- 6 | 2- 6 | | | | | | | | | | | | |
| M1.2 | | | | | | | | | | | | | | | | | |
| K1.1 | | | 10- 20 | 6- 10 | 6- 10 | 8- 15 | 10- 20 | 20- 60 | **8 - 15** | **10 - 20** | **10 - 40** | **30 - 80** | | | | | |
| K2.1 | | | | | | | | 10- 30 | | | **6 - 15** | **10 - 40** | | | | | |
| N1.1 | | | | | | | | | | | | | | | | | |
| N1.2 | | | 15- 20 | 8- 15 | 8- 15 | | | | | | | | | | | | |
| N1.3 | | | | | | | | **20 - 40** | | | | | | | | | |
| N2.1 | 8- 15 * | 2- 8 | 15- 20 | 6- 10 | 6- 10 | | | | | | | | | | | | |
| N2.2 | 10- 20 * | 5- 10 | 20- 30 | 8- 15 | 8- 15 | | | 30- 60 | | | | | **20 - 30** | | | | |
| N2.3 | | | | 2- 6 | 2- 6 | 4- 10 | 6- 12 | 10- 30 | | | | | | **4 - 12** | | | |
| N3.1 | 10- 20 * | 5- 10 | 20- 30 | | | | | | | | | | | | | | |
| N4.1 | 10- 15 * | 5- 8 | 15- 20 | | | | | | | | | | | | **20 - 40** | | |
| N5.1 | 15- 20 * | 8- 10 | | | | | | | | | | | | | | | |
| N5.2 | | | | | | | | 10- 30 | 6- 10 | | | | | | | | |
| S1.1 | | | | | | | | | | | | | | | | | |
| S1.2 | | | | | | | | | | | | | | | | | |
| S2.1 | | | | | | | | | | | | | | | | | |
| S2.2 | | | | | | | | | | | | | | | | | |
| H1.1 | | | | | | | | 2- 6 | | | | | | | | **2 - 4** | |
| H1.2 | | | | | | | | | | | | | | | | | **1 - 3** |
| H1.3 | | | | | | | | | | | | | | | | | |

Schmiermittelempfehlung • Lubricant recommendation
Lubrification recommandée • Raccomandazioni per i lubrificanti

Emulsion • Emulsion
Émulsion • Emulsione

Schneidöl • Cutting oil
Huile de coupe • Olio da taglio

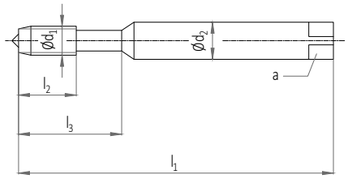
Trocken • DRY
Sèche • Secco

Die angegebenen Schnittgeschwindigkeiten (Vc in m/min) sind Richtwerte und müssen den individuellen Arbeitsbedingungen angepasst werden
The specified cutting speeds (Vc in m/min) are guide values and must be adapted to the individual working conditions..
Les vitesses de coupe indiquées (Vc en m/min) sont des valeurs indicatives et doivent être adaptées aux conditions de travail individuelles.
Le velocità di taglio specificate (Vc in m/min) sono valori indicativi e devono essere adattate alle condizioni di lavoro individuali.

BESTELLNUMMERÜBERSICHT
INDEX OF CATALOGUE NUMBERS | RÉPERTOIRE DES NUMÉROS DE CATALOGUE | INDICE DEI NUMERI DI CATALOGO

| | | | | | | M | | | | | MF | | | | | | UNC | | | UNF | | | UNEF | UN | G | | | Rp | | Rc | BSW | BSF | W | NPT | NPTF | NPSM | | NPSF | | MJ | UNJC | UNJF | EG-M | EG-UNC | EG-UNF | Tr | | Rd | Pg |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | ISO1 | ISO2 | ISO2 | ISO3 | 7G | ISO1 | ISO2 | ISO2 | ISO2 +0,1 | ISO3 | 7G | 3B | 2B | 2B +0,05 | 3B | 2B | 2B +0,05 | 2B | 2B | | +0,05 | +0,1 | | +0,05 | - | - | MED | MED | - | - | | - | | - | ISO1 | 3B | 3B | 6H mod | 2B | 2B | 7H | 7H | 7H | |
| SALOREX | | | | | | RH | RH | LH | RH | RH | RH | RH | LH | RH | RH | RH | RH | RH | RH | RH | RH | RH | RH | RH | RH | RH | RH | RH | RH | RH | RH | RH | RH | RH | RH | RH | RH | RH | RH | RH | RH | RH | RH | RH | LH | RH | RH |
| UNI CNC | 5 | 6 | 7 470 | HSSE | | 22 | 22 | 22 | 22 | 22 | 72 | 72 | 74 | | 74 | 74 | 96 | 96 | 97 | 106 | 106 | 106 | 112 | 112 | 114 | 115 | | | 126 | 128 | | | | | | 134 | | 134 | | | | 138 | 140 | 141 | | | | |
| UNI CNC EL | | 6 | 7 4X0 | HSSE | EL | | 64 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| UNI CNC MKB | | 6 | 7 480 | HSSE | MKB | | 28 | | | | 74 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| UNI CNC S | | | 7 655 | HSSE | | | 29 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| UNI HP | | 6 | 7 490 | HSSE-PM | | | 30 | | 30 | | 75 | | | | | | | 98 | | | 107 | | | | 116 | | | | | | | | | | | | | | | | | | | | | | | |
| UNI HP MKB | | 6 | 7 460 | HSSE-PM | MKB | | 32 | | 32 | | 75 | | | | | | | | | | | | | | 116 | | | | | | | | | | | | | | | | | | | | | | | |
| ST TS | | 6 | 7 880 | HSSE-PM | | | 34 | | | | 75 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| HR | | 6 | 7 643 | HSSE-PM | | | 34 | | | | 76 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| HR MKB | | 6 | 7 853 | HSSE-PM | MKB | | 34 | | | | 76 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| VA | | 6 | 7 605 | HSSE | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 132 | 132 | | | | | | | | | | |
| VA | | 6 | 7 645 | HSSE | | | 34 | | | | 76 | | | | | | | 99 | | | 107 | | | | 117 | | | | | | | | | | | | | | | | | | | 138 | | | | | |
| VA MKB | | 6 | 7 855 | HSSE | MKB | | 36 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| NW CNC | | 6 | 7 471 | HSSE | | | 36 | | | | 76 | | | | | | | | | | | | | | 117 | | | | | | | | | | | | | | | | | | | | | | | |
| SOFT | | 6 | 7 64S | HSSE | | | 36 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 137 | | | 138 | | | | | |
| SALOREX50 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| UNI CNC | | 6 | 7 66C | HSSE | | | 28 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SL15 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ST | 5 | 6 | 7 600 | HSSE | | | 38 | | | | 78 | | | | | | | | | | | | | | 118 | | | | | | | | | | | | | | | | | | | | | | | |
| ST EL | | 6 | 7 710 | HSSE | EL | | 65 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ST TS | | 6 | 7 900 | HSSE-PM | | | 38 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ST CNC | | 6 | 7 60C | HSSE | | | 38 | | | | 78 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ST CNC ELF MKB | | | 9 84C | HSSE | ELF MKB | | 66 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ST CNC MKB | | 6 | 7 84C | HSSE | MKB | | 38 | | | | 78 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| TI | | 6 | 7 604 | HSSE | | | 42 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 136 | 137 | 137 | | | | | | | |
| TI+ | | | 6 6B4 | HSSE | | | 42 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| NI | | 6 | 7 6A7 | HSSE-PM | | | 42 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 136 | 137 | 137 | | | | | | | |
| SL25 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| HR | | 6 | 7 603 | HSSE-PM | | | 40 | | | | 78 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| HR MKB | | 6 | 7 843 | HSSE-PM | MKB | | 40 | | | | 78 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SL30 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| TI | | | 6 614 | HSSE-PM | | | 42 | | | | | | | | | | | 100 | | 108 | 108 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| STABIL | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| UNI CNC | 5 | 6 | 7 5C0 | HSSE | | 44 | 44 | 44 | 44 | 44 | 80 | 80 | 80 | | 80 | 102 | 102 | | | 108 | 108 | | 113 | | 119 | | | | | 128 | | | | | | | | | | | 139 | 140 | 141 | | | | | | |
| UNI CNC EL | | 6 | 7 5D0 | HSSE | EL | | 65 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| UNI HP | | 6 | 7 410 | HSSE | | | 48 | | 48 | | 84 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ST TS | | 6 | 7 160 | HSSE-PM | | | 48 | | | | 84 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| HR | | 6 | 7 533 | HSSE-PM | | | 48 | | | | 84 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| VA | 5 | 6 | 7 535 | HSSE | | | 48 | | | | 84 | | | | | | | 103 | | | | | | | 119 | | | | | | | | | | | | | | | | | 139 | | | | | | |
| NW | | 6 | 7 571 | HSSE | | | 50 | | | | 84 | | | | | | | | | | | | | | 119 | | | | | | | | | | | | | | | | | | | | | | | |
| SOFT | | 6 | 7 57S | HSSE | | | 50 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 139 | | | | | |
| TI | | 6 | 7 084 | HSSE-PM | | 50 | 50 | | | | | | | | | | | 103 | | | 109 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| TI AZ | | | 6 094 | HSSE-PM | | | 50 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| DL15 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ST TR-STUFEN | | | 9 720 | HSSE | TR | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 143 | 143 | | |
| VA TR-EINSCHNITT | | | 9 745 | HSSE | TR | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 144 | 144 | | |
| TI | | 6 | 7 504 | HSSE | | | 52 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 136 | 137 | 137 | | | | | | |
| NI | | 6 | 7 507 | HSSE-PM | | | 52 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 136 | 137 | 137 | | | | | | |
| TWIN | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ST | 5 | 6 | 7 100 | HSSE | | 54 | 54 | 54 | | | 86 | 86 | | | | | | | | | | | | | 120 | | | 126 | | 127 | | 129 | 130 | 133 | 133 | 134 | | 134 | | | | | | | | 145 | 145 |
| ST AZ | | | 5 110 | HSSE | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 133 | | | | | | | | | | | | | |
| ST CNC ELF MKB | | | 9 81C | HSSE | ELF MKB | | 66 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| VG | | 6 | 7 102 | HSSE | | | | | | | | | | | | | | | | | | | | | | | | | | 127 | | | | 133 | 133 | | | | | | | | | | | |
| VG AZ | | 6 | 7 112 | HSSE | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 133 | | | | | | | | | | | | |
| HR | | 6 | 7 103 | HSSE | | | 56 | | | | 86 | | | | | | | 104 | | | 109 | | | | 120 | | | | | 127 | | | | | | | | | | | | | | | | |
| HR EL | | 6 | 7 183 | HSSE | EL | | 65 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| HR MKB | | 6 | 7 813 | HSSE | MKB | | 56 | | | | 86 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| HR MKB | | 6 | 7 300 | HM | MKB | | 56 | | | | 86 | | | | | | | | | | | | | | 120 | | | | | | | | | | | | | | | | | | | | | | |
| GG | | 6 | 7 200 | HSSE | | | 58 | | | | 88 | | | | | | | 104 | | | 109 | | | | 121 | | | | | | | | | | | | | | | | | | | | | | |
| GG MKB | | 6 | 7 820 | HSSE | MKB | | 58 | | | | 88 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| GGV | | 6 | 7 20G | HSSE-PM | | | 60 | | | | 88 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| GGV MKB | | 6 | 7 82G | HSSE-PM | MKB | | 60 | | | | 88 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| GGV MKB | | 6 | 7 30G | HM | MKB | | 60 | | | | 88 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| MS | | 5 | 6 250 | HSSE | | | 62 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| MS AUT | | | 5 250 | HSSE | AUT | | | | | | 93 | | 93 | | 93 | | | | | | | | | | 122 | 122 | 122 | 126 | 126 | | | | | | | | | | | | | | | | 142 | | | | |
| AMPCO | | 6 | 7 106 | HSSE-PM | | | 62 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| MG | | | 6 10A | HSSE | | | 62 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| HT | | 6 | 7 10H | HSSE-PM | | | 62 | | | | 90 | | | | | | | | | | | | | | 121 | | | | | | | | | | | | | | | | | | | | | | |
| HT | | | 6 260 | HM | | | 62 | | | | 90 | | | | | | | | | | | | | | 121 | | | | | | | | | | | | | | | | | | | | | | |
| INNENSPAN | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| RA15 | | | 7 682 | HSSE | | | 146 | | | | 146 | | | | | | | 146 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SATZ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ST | | | 5 000 | HSSE | | 68 | 68 | | | | 94 | | | | | | | 110 | | | | | | | 124 | | | | | | | | | | | | | | | | | | | | | | |
| ERGO | | | 5 020 | HSSE | | | 70 | | | | 94 | | | | | | | 111 | | | 111 | | | | 125 | | | | | | | | | | | | | | | | | | | | | | |
| ERGO FT | | | 5 030 | HSSE | | | 71 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

3xD CNC





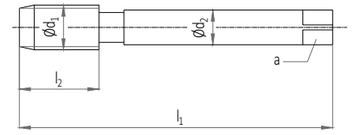


DIN 371

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | $d_1$ [mm] | P [mm] | [mm] | $l_1$ [mm] | $l_2$ [mm] | $l_3$ [mm] | Ø $d_2$ [mm] | a [mm] | | | | |
| OBERFLÄCHE · SURFACE · SURFACE · SUPERFICIE | | | | | | | | | WAC | WAC | WAC | WAC | WAC |
| SCHNEIDSTOFF · MATERIAL · MATIÈRE · MATERIALE | | | | | | | | | HSSE | HSSE | HSSE | HSSE | HSSE |
| ANSCHNITTFORM · CHAMFER FORM · FORME D'ENTRÉE · FORMA D'IMBOCCO | | | | | | | | | C / 2-3 | C / 2-3 | C / 2-3 | C / 2-3 | C / 2-3 |
| TOLERANZ · TOLERANCE · TOLÉRANCE · TOLLERANZA | | | | | | | | | ISO1 | ISO2 | ISO2 | ISO3 | 7G |
| | | | | | | | | | RH | RH | LH | RH | RH |
| | M | 1,6 | 0,35 | 1,25 | 40 | 4 | 11 | 2,5 | 2,1 | | | | |
| | M | 2 | 0,4 | 1,6 | 45 | 4 | 12 | 2,8 | 2,1 | 6470.02000020 | 6470.0B000020 | | 6470.14000020 | 6470.1D000020 |
| | M | 2,2 | 0,45 | 1,75 | 45 | 4,5 | 12 | 2,8 | 2,1 | | 6470.0B000022 | | | |
| | M | 2,3 | 0,4 | 1,9 | 45 | 4,5 | 12 | 2,8 | 2,1 | | 6470.0B000023 | | | |
| | M | 2,5 | 0,45 | 2,05 | 50 | 5 | 15 | 2,8 | 2,1 | | | | | |
| | M | 2,6 | 0,45 | 2,15 | 50 | 5 | 15 | 2,8 | 2,1 | | | | | |
| | M | 3 | 0,5 | 2,5 | 56 | 6 | 18 | 3,5 | 2,7 | 6470.02000030 | 6470.0B000030 | 6470.4A000030 | 6470.14000030 | 6470.1D000030 |
| | M | 3,5 | 0,6 | 2,9 | 56 | 7 | 20 | 4 | 3 | | 6470.0B000035 | | | |
| | M | 4 | 0,7 | 3,3 | 63 | 7 | 21 | 4,5 | 3,4 | 6470.02000040 | 6470.0B000040 | 6470.4A000040 | 6470.14000040 | 6470.1D000040 |
| | M | 5 | 0,8 | 4,2 | 70 | 8 | 25 | 6 | 4,9 | 6470.02000050 | 6470.0B000050 | 6470.4A000050 | 6470.14000050 | 6470.1D000050 |
| | M | 6 | 1 | 5 | 80 | 10 | 30 | 6 | 4,9 | 6470.02000060 | 6470.0B000060 | 6470.4A000060 | 6470.14000060 | 6470.1D000060 |
| | M | 7 | 1 | 6 | 80 | 10 | 30 | 7 | 5,5 | | 6470.0B000070 | | | |
| | M | 8 | 1,25 | 6,8 | 90 | 14 | 35 | 8 | 6,2 | 6470.02000080 | 6470.0B000080 | 6470.4A000080 | 6470.14000080 | 6470.1D000080 |
| | M | 9 | 1,25 | 7,8 | 90 | 14 | 35 | 9 | 7 | | 6470.0B000090 | | | |
| | M | 10 | 1,5 | 8,5 | 100 | 16 | 39 | 10 | 8 | 6470.02000100 | 6470.0B000100 | 6470.4A000100 | 6470.14000100 | 6470.1D000100 |



3xD CNC



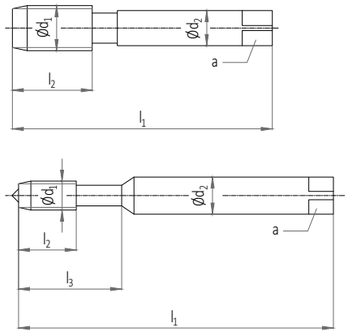




DIN 376

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | $d_1$ [mm] | P [mm] | [mm] | $l_1$ [mm] | $l_2$ [mm] | $l_3$ [mm] | Ø $d_2$ [mm] | a [mm] | | | | |
| OBERFLÄCHE · SURFACE · SURFACE · SUPERFICIE | | | | | | | | | WAC | WAC | WAC | WAC |
| SCHNEIDSTOFF · MATERIAL · MATIÈRE · MATERIALE | | | | | | | | | HSSE | HSSE | HSSE | HSSE |
| ANSCHNITTFORM · CHAMFER FORM · FORME D'ENTRÉE · FORMA D'IMBOCCO | | | | | | | | | C / 2-3 | C / 2-3 | C / 2-3 | C / 2-3 |
| TOLERANZ · TOLERANCE · TOLÉRANCE · TOLLERANZA | | | | | | | | | ISO1 | ISO2 | ISO2 | 7G |
| | | | | | | | | | RH | RH | LH | RH |
| | M | 3 | 0,5 | 2,5 | 56 | 6 | - | 2,2 | - | | 7470.0B000030 | | |
| | M | 4 | 0,7 | 3,3 | 63 | 7 | - | 2,8 | 2,1 | | 7470.0B000040 | | |
| | M | 5 | 0,8 | 4,2 | 70 | 8 | - | 3,5 | 2,7 | | 7470.0B000050 | | |
| | M | 6 | 1 | 5 | 80 | 10 | - | 4,5 | 3,4 | | 7470.0B000060 | | |
| | M | 7 | 1 | 6 | 80 | 10 | - | 5,5 | 4,3 | | 7470.0B000070 | | |
| | M | 8 | 1,25 | 6,8 | 90 | 14 | - | 6 | 4,9 | | 7470.0B000080 | | 7470.1D000080 |
| | M | 9 | 1,25 | 7,8 | 90 | 14 | - | 7 | 5,5 | | 7470.0B000090 | | |
| | M | 10 | 1,5 | 8,5 | 100 | 16 | - | 7 | 5,5 | | 7470.0B000100 | | 7470.1D000100 |
| | M | 11 | 1,5 | 9,5 | 100 | 18 | - | 8 | 6,2 | | 7470.0B000111 | | |
| | M | 12 | 1,75 | 10,2 | 110 | 18 | - | 9 | 7 | 7470.02000112 | 7470.0B000112 | 7470.4A000112 | 7470.1D000112 |
| | M | 14 | 2 | 12 | 110 | 20 | - | 11 | 9 | | 7470.0B000114 | 7470.4A000114 | 7470.1D000114 |
| | M | 16 | 2 | 14 | 110 | 22 | - | 12 | 9 | 7470.02000116 | 7470.0B000116 | 7470.4A000116 | 7470.1D000116 |
| | M | 18 | 2,5 | 15,5 | 125 | 25 | - | 14 | 11 | | 7470.0B000118 | | |
| | M | 20 | 2,5 | 17,5 | 140 | 25 | - | 16 | 12 | 7470.02000120 | 7470.0B000120 | 7470.4A000120 | 7470.1D000120 |
| | M | 22 | 2,5 | 19,5 | 140 | 27 | - | 18 | 14,5 | | 7470.0B000122 | | |
| | M | 24 | 3 | 21 | 160 | 30 | - | 18 | 14,5 | | 7470.0B000124 | 7470.4A000124 | 7470.1D000124 |
| | M | 27 | 3 | 24 | 160 | 30 | - | 20 | 16 | | 7470.0B000127 | | |
| | M | 30 | 3,5 | 26,5 | 180 | 35 | - | 22 | 18 | | 7470.0B000130 | | |
| | M | 33 | 3,5 | 29,5 | 180 | 35 | - | 25 | 20 | | 7470.0B000133 | | |
| | M | 36 | 4 | 32 | 200 | 40 | - | 28 | 22 | | 7470.0B000136 | | |
| | M | 39 | 4 | 35 | 200 | 40 | - | 32 | 24 | | 7470.0B000139 | | |
| | M | 42 | 4,5 | 37,5 | 200 | 45 | - | 32 | 24 | | 7470.0B000142 | | |
| | M | 45 | 4,5 | 40,5 | 220 | 45 | - | 36 | 29 | | 7470.0B000145 | | |
| | M | 48 | 5 | 43 | 250 | 50 | - | 36 | 29 | | | | |
| | M | 52 | 5 | 47 | 250 | 50 | - | 40 | 32 | | | | |

3xD CNC




| | NORIS SALOREX UNI CNC | NORIS SALOREX UNI CNC | NORIS SALOREX UNI CNC | NORIS SALOREX UNI CNC | NORIS SALOREX UNI CNC |
|---|---|---|---|---|---|
| |  |  |  |  |  |
| OBERFLÄCHE · SURFACE · SURFACE · SUPERFICIE | WAC | VAP | VAP | VAP | VAP |
| SCHNEIDSTOFF · MATERIAL · MATIÈRE · MATERIALE | HSSE | HSSE | HSSE | HSSE | HSSE |
| ANSCHNITTFORM · CHAMFER FORM · FORME D'ENTRÉE · FORMA D'IMBOCCO | E / 1,5-2 | C / 2-3 | C / 2-3 | C / 2-3 | E / 1,5-2 |
| TOLERANZ · TOLERANCE · TOLÉRANCE · TOLLERANZA | ISO2 | ISO1 | ISO2 | 7G | ISO2 |
| | RH | RH | RH | RH | RH |

DIN 352

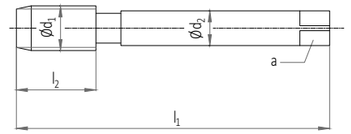
| | $d_1$ [mm] | P [mm] | [mm] | $l_1$ [mm] | $l_2$ [mm] | $l_3$ [mm] | Ø $d_2$ [mm] | a [mm] | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| M | 3 | 0,5 | 2,5 | 40 | 6 | 18 | 3,5 | 2,7 | 5470.0D000030 | | | | |
| M | 4 | 0,7 | 3,3 | 45 | 7 | 22 | 4,5 | 3,4 | 5470.0D000040 | | | | |
| M | 5 | 0,8 | 4,2 | 50 | 9 | 25 | 6 | 4,9 | 5470.0D000050 | | | | |
| M | 6 | 1 | 5 | 56 | 10 | 28 | 6 | 4,9 | 5470.0D000060 | | | | |
| M | 8 | 1,25 | 6,8 | 63 | 14 | - | 6 | 4,9 | 5470.0D000080 | | | | |
| M | 10 | 1,5 | 8,5 | 70 | 16 | - | 7 | 5,5 | 5470.0D000100 | | | | |
| M | 12 | 1,75 | 10,2 | 75 | 18 | - | 9 | 7 | 5470.0D000112 | | | | |

DIN 371

| | $d_1$ [mm] | P [mm] | [mm] | $l_1$ [mm] | $l_2$ [mm] | $l_3$ [mm] | Ø $d_2$ [mm] | a [mm] | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| M | 1,6 | 0,35 | 1,25 | 40 | 4 | 11 | 2,5 | 2,1 | | | | | |
| M | 2 | 0,4 | 1,6 | 45 | 4 | 12 | 2,8 | 2,1 | | | 6470.0B010020 | | |
| M | 2,2 | 0,45 | 1,75 | 45 | 4,5 | 12 | 2,8 | 2,1 | | | 6470.0B010022 | | |
| M | 2,3 | 0,4 | 1,9 | 45 | 4,5 | 12 | 2,8 | 2,1 | | | 6470.0B010023 | | |
| M | 2,5 | 0,45 | 2,05 | 50 | 5 | 15 | 2,8 | 2,1 | | | | | |
| M | 2,6 | 0,45 | 2,15 | 50 | 5 | 15 | 2,8 | 2,1 | | | | | |
| M | 3 | 0,5 | 2,5 | 56 | 6 | 18 | 3,5 | 2,7 | | 6470.02010030 | 6470.0B010030 | 6470.1D010030 | 6470.0D010030 |
| M | 3,5 | 0,6 | 2,9 | 56 | 7 | 20 | 4 | 3 | | | 6470.0B010035 | | |
| M | 4 | 0,7 | 3,3 | 63 | 7 | 21 | 4,5 | 3,4 | | 6470.02010040 | 6470.0B010040 | 6470.1D010040 | 6470.0D010040 |
| M | 5 | 0,8 | 4,2 | 70 | 8 | 25 | 6 | 4,9 | | 6470.02010050 | 6470.0B010050 | 6470.1D010050 | 6470.0D010050 |
| M | 6 | 1 | 5 | 80 | 10 | 30 | 6 | 4,9 | | 6470.02010060 | 6470.0B010060 | 6470.1D010060 | 6470.0D010060 |
| M | 7 | 1 | 6 | 80 | 10 | 30 | 7 | 5,5 | | | 6470.0B010070 | | |
| M | 8 | 1,25 | 6,8 | 90 | 14 | 35 | 8 | 6,2 | | 6470.02010080 | 6470.0B010080 | 6470.1D010080 | 6470.0D010080 |
| M | 9 | 1,25 | 7,8 | 90 | 14 | 35 | 9 | 7 | | | | | |
| M | 10 | 1,5 | 8,5 | 100 | 16 | 39 | 10 | 8 | | 6470.02010100 | 6470.0B010100 | 6470.1D010100 | 6470.0D010100 |
| M | 12 | 1,75 | 10,2 | 110 | 18 | 44 | 12 | 9 | | | 6470.0B010112 | | |



3xD CNC

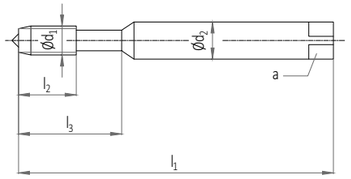



| | NORIS SALOREX UNI CNC | NORIS SALOREX UNI CNC | NORIS SALOREX UNI CNC |
|---|---|---|---|
| |  |  |  |
| OBERFLÄCHE · SURFACE · SURFACE · SUPERFICIE | VAP | VAP | VAP |
| SCHNEIDSTOFF · MATERIAL · MATIÈRE · MATERIALE | HSSE | HSSE | HSSE |
| ANSCHNITTFORM · CHAMFER FORM · FORME D'ENTRÉE · FORMA D'IMBOCCO | C / 2-3 | C / 2-3 | E / 1,5-2 |
| TOLERANZ · TOLERANCE · TOLÉRANCE · TOLLERANZA | ISO2 | 7G | ISO2 |
| | RH | RH | RH |

DIN 376

| | $d_1$ [mm] | P [mm] | [mm] | $l_1$ [mm] | $l_2$ [mm] | $l_3$ [mm] | Ø $d_2$ [mm] | a [mm] | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| M | 3 | 0,5 | 2,5 | 56 | 6 | - | 2,2 | - | 7470.0B010030 | | |
| M | 4 | 0,7 | 3,3 | 63 | 7 | - | 2,8 | 2,1 | 7470.0B010040 | | |
| M | 5 | 0,8 | 4,2 | 70 | 8 | - | 3,5 | 2,7 | 7470.0B010050 | | |
| M | 6 | 1 | 5 | 80 | 10 | - | 4,5 | 3,4 | 7470.0B010060 | | |
| M | 7 | 1 | 6 | 80 | 10 | - | 5,5 | 4,3 | | | |
| M | 8 | 1,25 | 6,8 | 90 | 14 | - | 6 | 4,9 | 7470.0B010080 | | |
| M | 9 | 1,25 | 7,8 | 90 | 14 | - | 7 | 5,5 | | | |
| M | 10 | 1,5 | 8,5 | 100 | 16 | - | 7 | 5,5 | 7470.0B010100 | | |
| M | 11 | 1,5 | 9,5 | 100 | 18 | - | 8 | 6,2 | | | |
| M | 12 | 1,75 | 10,2 | 110 | 18 | - | 9 | 7 | 7470.0B010112 | 7470.1D010112 | 7470.0D010112 |
| M | 14 | 2 | 12 | 110 | 20 | - | 11 | 9 | 7470.0B010114 | | 7470.0D010114 |
| M | 16 | 2 | 14 | 110 | 22 | - | 12 | 9 | 7470.0B010116 | 7470.1D010116 | 7470.0D010116 |
| M | 18 | 2,5 | 15,5 | 125 | 25 | - | 14 | 11 | 7470.0B010118 | | 7470.0D010118 |
| M | 20 | 2,5 | 17,5 | 140 | 25 | - | 16 | 12 | 7470.0B010120 | 7470.1D010120 | 7470.0D010120 |
| M | 22 | 2,5 | 19,5 | 140 | 27 | - | 18 | 14,5 | 7470.0B010122 | | 7470.0D010122 |
| M | 24 | 3 | 21 | 160 | 30 | - | 18 | 14,5 | 7470.0B010124 | | 7470.0D010124 |
| M | 27 | 3 | 24 | 160 | 30 | - | 20 | 16 | 7470.0B010127 | | |
| M | 30 | 3,5 | 26,5 | 180 | 35 | - | 22 | 18 | 7470.0B010130 | | |
| M | 33 | 3,5 | 29,5 | 180 | 35 | - | 25 | 20 | 7470.0B010133 | | |
| M | 36 | 4 | 32 | 200 | 40 | - | 28 | 22 | 7470.0B010136 | | |
| M | 39 | 4 | 35 | 200 | 40 | - | 32 | 24 | | | |
| M | 42 | 4,5 | 37,5 | 200 | 45 | - | 32 | 24 | | | |
| M | 45 | 4,5 | 40,5 | 220 | 45 | - | 36 | 29 | | | |
| M | 48 | 5 | 43 | 250 | 50 | - | 36 | 29 | | | |
| M | 52 | 5 | 47 | 250 | 50 | - | 40 | 32 | | | |

3xD CNC



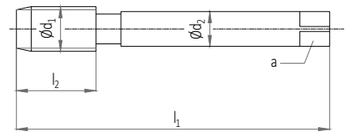

DIN 371

| | NORIS SALOREX UNI CNC | NORIS SALOREX UNI CNC | NORIS SALOREX UNI CNC | NORIS SALOREX UNI CNC | NORIS SALOREX UNI CNC |
|---|---|---|---|---|---|
| |  |  |  |  |  |
| OBERFLÄCHE · SURFACE · SURFACE · SUPERFICIE | VAP | ALTINHD | ALTINHD | ALTINHD | ALTINHD |
| SCHNEIDSTOFF · MATERIAL · MATIÈRE · MATERIALE | HSSE | HSSE | HSSE | HSSE | HSSE |
| ANSCHNITTFORM · CHAMFER FORM · FORME D'ENTRÉE · FORMA D'IMBOCCO | E / 1,5-2 | C / 2-3 | C / 2-3 | C / 2-3 | E / 1,5-2 |
| TOLERANZ · TOLERANCE · TOLÉRANCE · TOLLERANZA | ISO3 | ISO2 | ISO3 | 7G | ISO2 |
| | RH | RH | RH | RH | RH |

| d1 [mm] | P [mm] | [mm] | l1 [mm] | l2 [mm] | l3 [mm] | Ø d2 [mm] | a [mm] | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| M 1,6 | 0,35 | 1,25 | 40 | 4 | 11 | 2,5 | 2,1 | | | | | |
| M 2 | 0,4 | 1,6 | 45 | 4 | 12 | 2,8 | 2,1 | | 6470.0B090020 | | | |
| M 2,2 | 0,45 | 1,75 | 45 | 4,5 | 12 | 2,8 | 2,1 | | | | | |
| M 2,3 | 0,4 | 1,9 | 45 | 4,5 | 12 | 2,8 | 2,1 | | | | | |
| M 2,5 | 0,45 | 2,05 | 50 | 5 | 15 | 2,8 | 2,1 | | | | | |
| M 2,6 | 0,45 | 2,15 | 50 | 5 | 15 | 2,8 | 2,1 | | | | | |
| M 3 | 0,5 | 2,5 | 56 | 6 | 18 | 3,5 | 2,7 | 6470.16010030 | 6470.0B090030 | 6470.14090030 | 6470.1D090030 | 6470.0D090030 |
| M 3,5 | 0,6 | 2,9 | 56 | 7 | 20 | 4 | 3 | | | | | |
| M 4 | 0,7 | 3,3 | 63 | 7 | 21 | 4,5 | 3,4 | 6470.16010040 | 6470.0B090040 | 6470.14090040 | 6470.1D090040 | 6470.0D090040 |
| M 5 | 0,8 | 4,2 | 70 | 8 | 25 | 6 | 4,9 | 6470.16010050 | 6470.0B090050 | 6470.14090050 | 6470.1D090050 | 6470.0D090050 |
| M 6 | 1 | 5 | 80 | 10 | 30 | 6 | 4,9 | 6470.16010060 | 6470.0B090060 | 6470.14090060 | 6470.1D090060 | 6470.0D090060 |
| M 7 | 1 | 6 | 80 | 10 | 30 | 7 | 5,5 | | | | | |
| M 8 | 1,25 | 6,8 | 90 | 14 | 35 | 8 | 6,2 | 6470.16010080 | 6470.0B090080 | 6470.14090080 | 6470.1D090080 | 6470.0D090080 |
| M 9 | 1,25 | 7,8 | 90 | 14 | 35 | 9 | 7 | | | | | |
| M 10 | 1,5 | 8,5 | 100 | 16 | 39 | 10 | 8 | 6470.16010100 | 6470.0B090100 | 6470.14090100 | 6470.1D090100 | 6470.0D090100 |
| M 12 | 1,75 | 10,2 | 110 | 18 | 44 | 12 | 9 | | 6470.0B090112 | | | |



3xD CNC

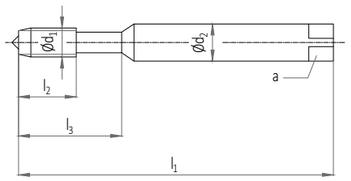



DIN 376

| | NORIS SALOREX UNI CNC | NORIS SALOREX UNI CNC | NORIS SALOREX UNI CNC | NORIS SALOREX UNI CNC | NORIS SALOREX UNI CNC |
|---|---|---|---|---|---|
| |  |  |  |  |  |
| OBERFLÄCHE · SURFACE · SURFACE · SUPERFICIE | VAP | ALTINHD | ALTINHD | ALTINHD | ALTINHD |
| SCHNEIDSTOFF · MATERIAL · MATIÈRE · MATERIALE | HSSE | HSSE | HSSE | HSSE | HSSE |
| ANSCHNITTFORM · CHAMFER FORM · FORME D'ENTRÉE · FORMA D'IMBOCCO | E / 1,5-2 | C / 2-3 | C / 2-3 | C / 2-3 | E / 1,5-2 |
| TOLERANZ · TOLERANCE · TOLÉRANCE · TOLLERANZA | ISO3 | ISO2 | ISO3 | 7G | ISO2 |
| | RH | RH | RH | RH | RH |

| d1 [mm] | P [mm] | [mm] | l1 [mm] | l2 [mm] | l3 [mm] | Ø d2 [mm] | a [mm] | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| M 3 | 0,5 | 2,5 | 56 | 6 | - | 2,2 | - | | | | | |
| M 4 | 0,7 | 3,3 | 63 | 7 | - | 2,8 | 2,1 | | | | | |
| M 5 | 0,8 | 4,2 | 70 | 8 | - | 3,5 | 2,7 | | | | | |
| M 6 | 1 | 5 | 80 | 10 | - | 4,5 | 3,4 | | | | | |
| M 7 | 1 | 6 | 80 | 10 | - | 5,5 | 4,3 | | | | | |
| M 8 | 1,25 | 6,8 | 90 | 14 | - | 6 | 4,9 | | | 7470.14090080 | | |
| M 9 | 1,25 | 7,8 | 90 | 14 | - | 7 | 5,5 | | | | | |
| M 10 | 1,5 | 8,5 | 100 | 16 | - | 7 | 5,5 | | 7470.0B090100 | 7470.14090100 | | |
| M 11 | 1,5 | 9,5 | 100 | 18 | - | 8 | 6,2 | | | | | |
| M 12 | 1,75 | 10,2 | 110 | 18 | - | 9 | 7 | 7470.16010112 | 7470.0B090112 | 7470.14090112 | 7470.1D090112 | 7470.0D090112 |
| M 14 | 2 | 12 | 110 | 20 | - | 11 | 9 | | 7470.0B090114 | 7470.14090114 | 7470.1D090114 | |
| M 16 | 2 | 14 | 110 | 22 | - | 12 | 9 | 7470.16010116 | 7470.0B090116 | 7470.14090116 | 7470.1D090116 | 7470.0D090116 |
| M 18 | 2,5 | 15,5 | 125 | 25 | - | 14 | 11 | | 7470.0B090118 | | | |
| M 20 | 2,5 | 17,5 | 140 | 25 | - | 16 | 12 | 7470.16010120 | 7470.0B090120 | 7470.14090120 | 7470.1D090120 | 7470.0D090120 |
| M 22 | 2,5 | 19,5 | 140 | 27 | - | 18 | 14,5 | | 7470.0B090122 | | | |
| M 24 | 3 | 21 | 160 | 30 | - | 18 | 14,5 | | 7470.0B090124 | 7470.14090124 | | |
| M 27 | 3 | 24 | 160 | 30 | - | 20 | 16 | | | | | |
| M 30 | 3,5 | 26,5 | 180 | 35 | - | 22 | 18 | | 7470.0B090130 | | | |
| M 33 | 3,5 | 29,5 | 180 | 35 | - | 25 | 20 | | 7470.0B090133 | | | |
| M 36 | 4 | 32 | 200 | 40 | - | 28 | 22 | | 7470.0B090136 | | | |
| M 39 | 4 | 35 | 200 | 40 | - | 32 | 24 | | 7470.0B090139 | | | |
| M 42 | 4,5 | 37,5 | 200 | 45 | - | 32 | 24 | | 7470.0B090142 | | | |
| M 45 | 4,5 | 40,5 | 220 | 45 | - | 36 | 29 | | 7470.0B090145 | | | |
| M 48 | 5 | 43 | 250 | 50 | - | 36 | 29 | | | | | |
| M 52 | 5 | 47 | 250 | 50 | - | 40 | 32 | | | | | |

3xD CNC



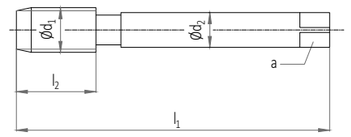

DIN 371

| | NORIS SALOREX UNI CNC MKB | NORIS SALOREX UNI CNC MKB | NORIS SALOREX50 UNI CNC | NORIS SALOREX50 UNI CNC |
|---|---|---|---|---|
| |  |  |  |  |
| OBERFLÄCHE · SURFACE · SURFACE · SUPERFICIE | VAP | ALTINHD | WAC | ALTINHD |
| SCHNEIDSTOFF · MATERIAL · MATIÈRE · MATERIALE | HSSE | HSSE | HSSE | HSSE |
| ANSCHNITTFORM · CHAMFER FORM · FORME D'ENTRÉE · FORMA D'IMBOCCO | E / 1,5-2 | E / 1,5-2 | C / 2-3 | C / 2-3 |
| TOLERANZ · TOLERANCE · TOLÉRANCE · TOLLERANZA | ISO2 | ISO2 | ISO2X | ISO2X |
| | RH | RH | RH | RH |

| d1 [mm] | P [mm] | [mm] | l1 [mm] | l2 [mm] | l3 [mm] | Ø d2 [mm] | a [mm] | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| M 1,6 | 0,35 | 1,25 | 40 | 4 | 11 | 2,5 | 2,1 | | | | |
| M 2 | 0,4 | 1,6 | 45 | 4 | 12 | 2,8 | 2,1 | | | | |
| M 2,2 | 0,45 | 1,75 | 45 | 4,5 | 12 | 2,8 | 2,1 | | | | |
| M 2,3 | 0,4 | 1,9 | 45 | 4,5 | 12 | 2,8 | 2,1 | | | | |
| M 2,5 | 0,45 | 2,05 | 50 | 5 | 15 | 2,8 | 2,1 | | | | |
| M 2,6 | 0,45 | 2,15 | 50 | 5 | 15 | 2,8 | 2,1 | | | | |
| M 3 | 0,5 | 2,5 | 56 | 6 | 18 | 3,5 | 2,7 | | | 666C.0B000030 | 666C.0B090030 |
| M 3,5 | 0,6 | 2,9 | 56 | 7 | 20 | 4 | 3 | | | | |
| M 4 | 0,7 | 3,3 | 63 | 7 | 21 | 4,5 | 3,4 | | | 666C.0B000040 | 666C.0B090040 |
| M 5 | 0,8 | 4,2 | 70 | 8 | 25 | 6 | 4,9 | 6480.0D010050 | 6480.0D090050 | 666C.0B000050 | 666C.0B090050 |
| M 6 | 1 | 5 | 80 | 10 | 30 | 6 | 4,9 | 6480.0D010060 | 6480.0D090060 | 666C.0B000060 | 666C.0B090060 |
| M 7 | 1 | 6 | 80 | 10 | 30 | 7 | 5,5 | | | | |
| M 8 | 1,25 | 6,8 | 90 | 14 | 35 | 8 | 6,2 | 6480.0D010080 | 6480.0D090080 | 666C.0B000080 | 666C.0B090080 |
| M 9 | 1,25 | 7,8 | 90 | 14 | 35 | 9 | 7 | | | | |
| M 10 | 1,5 | 8,5 | 100 | 16 | 39 | 10 | 8 | 6480.0D010100 | 6480.0D090100 | 666C.0B000100 | 666C.0B090100 |
| M 12 | 1,75 | 10,2 | 110 | 18 | 44 | 12 | 9 | | | | |



3xD CNC

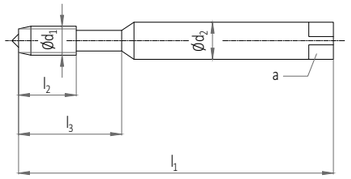



DIN 376

| | NORIS SALOREX UNI CNC MKB | NORIS SALOREX UNI CNC MKB | NORIS SALOREX50 UNI CNC | NORIS SALOREX50 UNI CNC | NORIS SALOREX UNI CNC S |
|---|---|---|---|---|---|
| |  |  |  |  |  |
| OBERFLÄCHE · SURFACE · SURFACE · SUPERFICIE | VAP | ALTINHD | WAC | ALTINHD | ALTINHD |
| SCHNEIDSTOFF · MATERIAL · MATIÈRE · MATERIALE | HSSE | HSSE | HSSE | HSSE | HSSE |
| ANSCHNITTFORM · CHAMFER FORM · FORME D'ENTRÉE · FORMA D'IMBOCCO | E / 1,5-2 | E / 1,5-2 | C / 2-3 | C / 2-3 | C / 2-3 |
| TOLERANZ · TOLERANCE · TOLÉRANCE · TOLLERANZA | ISO2 | ISO2 | ISO2X | ISO2X | ISO2 |
| | RH | RH | RH | RH | RH |

| d1 [mm] | P [mm] | [mm] | l1 [mm] | l2 [mm] | l3 [mm] | Ø d2 [mm] | a [mm] | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| M 3 | 0,5 | 2,5 | 56 | 6 | - | 2,2 | - | | | | | |
| M 4 | 0,7 | 3,3 | 63 | 7 | - | 2,8 | 2,1 | | | | | |
| M 5 | 0,8 | 4,2 | 70 | 8 | - | 3,5 | 2,7 | | | | | |
| M 6 | 1 | 5 | 80 | 10 | - | 4,5 | 3,4 | | | | | |
| M 7 | 1 | 6 | 80 | 10 | - | 5,5 | 4,3 | | | | | |
| M 8 | 1,25 | 6,8 | 90 | 14 | - | 6 | 4,9 | | | | | |
| M 9 | 1,25 | 7,8 | 90 | 14 | - | 7 | 5,5 | | | | | |
| M 10 | 1,5 | 8,5 | 100 | 16 | - | 7 | 5,5 | | | | | |
| M 11 | 1,5 | 9,5 | 100 | 18 | - | 8 | 6,2 | | | | | |
| M 12 | 1,75 | 10,2 | 110 | 18 | - | 9 | 7 | 7480.0D010112 | 7480.0D090112 | 766C.0B000112 | 766C.0B090112 | |
| M 14 | 2 | 12 | 110 | 20 | - | 11 | 9 | 7480.0D010114 | 7480.0D090114 | 766C.0B000114 | 766C.0B090114 | |
| M 16 | 2 | 14 | 110 | 22 | - | 12 | 9 | 7480.0D010116 | 7480.0D090116 | 766C.0B000116 | 766C.0B090116 | |
| M 18 | 2,5 | 15,5 | 125 | 25 | - | 14 | 11 | | | | | |
| M 20 | 2,5 | 17,5 | 140 | 25 | - | 16 | 12 | 7480.0D010120 | 7480.0D090120 | 766C.0B000120 | 766C.0B090120 | |
| M 22 | 2,5 | 19,5 | 140 | 27 | - | 18 | 14,5 | | | | | |
| M 24 | 3 | 21 | 160 | 30 | - | 18 | 14,5 | | | | | 7655.0B090124 |
| M 27 | 3 | 24 | 160 | 30 | - | 20 | 16 | | | | | 7655.0B090127 |
| M 30 | 3,5 | 26,5 | 180 | 35 | - | 22 | 18 | | | | | 7655.0B090130 |
| M 33 | 3,5 | 29,5 | 180 | 35 | - | 25 | 20 | | | | | 7655.0B090133 |
| M 36 | 4 | 32 | 200 | 40 | - | 28 | 22 | | | | | 7655.0B090136 |
| M 39 | 4 | 35 | 200 | 40 | - | 32 | 24 | | | | | 7655.0B090139 |
| M 42 | 4,5 | 37,5 | 200 | 45 | - | 32 | 24 | | | | | 7655.0B090142 |
| M 45 | 4,5 | 40,5 | 220 | 45 | - | 36 | 29 | | | | | 7655.0B090145 |
| M 48 | 5 | 43 | 250 | 50 | - | 36 | 29 | | | | | 7655.0B090148 |
| M 52 | 5 | 47 | 250 | 50 | - | 40 | 32 | | | | | 7655.0B090152 |

3xD HP



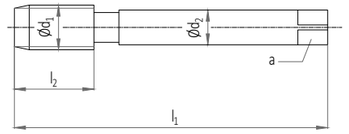

| | NORIS SALOREX UNI HP | NORIS SALOREX UNI HP | NORIS SALOREX UNI HP | NORIS SALOREX UNI HP |
|---|---|---|---|---|
| |  |  |  |  |
| OBERFLÄCHE · SURFACE · SURFACE · SUPERFICIE | ALTINHD | ALTINHD | ALTINHD | ALTINHD |
| SCHNEIDSTOFF · MATERIAL · MATIÈRE · MATERIALE | HSSE-PM | HSSE-PM | HSSE-PM | HSSE-PM |
| ANSCHNITTFORM · CHAMFER FORM · FORME D'ENTRÉE · FORMA D'IMBOCCO | C / 2-3 | C / 2-3 | E / 1,5-2 | E / 1,5-2 |
| TOLERANZ · TOLERANCE · TOLÉRANCE · TOLLERANZA | ISO2X | ISO3X | ISO2X | ISO3X |
| | RH | RH | RH | RH |

DIN 371

| $d_1$ [mm] | P [mm] | [mm] | $l_1$ [mm] | $l_2$ [mm] | $l_3$ [mm] | Ø $d_2$ [mm] | a [mm] | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| M 1,6 | 0,35 | 1,25 | 40 | 4 | 11 | 2,5 | 2,1 | | | | |
| M 2 | 0,4 | 1,6 | 45 | 4 | 12 | 2,8 | 2,1 | | | | |
| M 2,2 | 0,45 | 1,75 | 45 | 4,5 | 12 | 2,8 | 2,1 | | | | |
| M 2,3 | 0,4 | 1,9 | 45 | 4,5 | 12 | 2,8 | 2,1 | | | | |
| M 2,5 | 0,45 | 2,05 | 50 | 5 | 15 | 2,8 | 2,1 | | | | |
| M 2,6 | 0,45 | 2,15 | 50 | 5 | 15 | 2,8 | 2,1 | | | | |
| M 3 | 0,5 | 2,5 | 56 | 6 | 18 | 3,5 | 2,7 | 6490.0B090030 | 6490.14090030 | 6490.0D090030 | 6490.16090030 |
| M 3,5 | 0,6 | 2,9 | 56 | 7 | 20 | 4 | 3 | | | | |
| M 4 | 0,7 | 3,3 | 63 | 7 | 21 | 4,5 | 3,4 | 6490.0B090040 | 6490.14090040 | 6490.0D090040 | 6490.16090040 |
| M 5 | 0,8 | 4,2 | 70 | 8 | 25 | 6 | 4,9 | 6490.0B090050 | 6490.14090050 | 6490.0D090050 | 6490.16090050 |
| M 6 | 1 | 5 | 80 | 10 | 30 | 6 | 4,9 | 6490.0B090060 | 6490.14090060 | 6490.0D090060 | 6490.16090060 |
| M 7 | 1 | 6 | 80 | 10 | 30 | 7 | 5,5 | | | | |
| M 8 | 1,25 | 6,8 | 90 | 14 | 35 | 8 | 6,2 | 6490.0B090080 | 6490.14090080 | 6490.0D090080 | 6490.16090080 |
| M 9 | 1,25 | 7,8 | 90 | 14 | 35 | 9 | 7 | | | | |
| M 10 | 1,5 | 8,5 | 100 | 16 | 39 | 10 | 8 | 6490.0B090100 | 6490.14090100 | 6490.0D090100 | 6490.16090100 |
| M 12 | 1,75 | 10,2 | 110 | 18 | 44 | 12 | 9 | | | | |



3xD HP



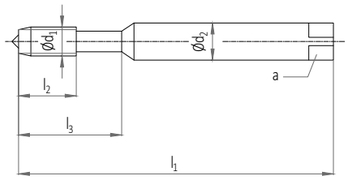

| | NORIS SALOREX UNI HP | NORIS SALOREX UNI HP | NORIS SALOREX UNI HP | NORIS SALOREX UNI HP |
|---|---|---|---|---|
| |  |  |  |  |
| OBERFLÄCHE · SURFACE · SURFACE · SUPERFICIE | ALTINHD | ALTINHD | ALTINHD | ALTINHD |
| SCHNEIDSTOFF · MATERIAL · MATIÈRE · MATERIALE | HSSE-PM | HSSE-PM | HSSE-PM | HSSE-PM |
| ANSCHNITTFORM · CHAMFER FORM · FORME D'ENTRÉE · FORMA D'IMBOCCO | C / 2-3 | C / 2-3 | E / 1,5-2 | E / 1,5-2 |
| TOLERANZ · TOLERANCE · TOLÉRANCE · TOLLERANZA | ISO2X | ISO3X | ISO2X | ISO3X |
| | RH | RH | RH | RH |

DIN 376

| $d_1$ [mm] | P [mm] | [mm] | $l_1$ [mm] | $l_2$ [mm] | $l_3$ [mm] | Ø $d_2$ [mm] | a [mm] | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| M 3 | 0,5 | 2,5 | 56 | 6 | - | 2,2 | - | | | | |
| M 4 | 0,7 | 3,3 | 63 | 7 | - | 2,8 | 2,1 | | | | |
| M 5 | 0,8 | 4,2 | 70 | 8 | - | 3,5 | 2,7 | | | | |
| M 6 | 1 | 5 | 80 | 10 | - | 4,5 | 3,4 | | | | |
| M 7 | 1 | 6 | 80 | 10 | - | 5,5 | 4,3 | | | | |
| M 8 | 1,25 | 6,8 | 90 | 14 | - | 6 | 4,9 | | | | |
| M 9 | 1,25 | 7,8 | 90 | 14 | - | 7 | 5,5 | | | | |
| M 10 | 1,5 | 8,5 | 100 | 16 | - | 7 | 5,5 | | | | |
| M 11 | 1,5 | 9,5 | 100 | 18 | - | 8 | 6,2 | | | | |
| M 12 | 1,75 | 10,2 | 110 | 18 | - | 9 | 7 | 7490.0B090112 | 7490.14090112 | 7490.0D090112 | 7490.16090112 |
| M 14 | 2 | 12 | 110 | 20 | - | 11 | 9 | 7490.0B090114 | | 7490.0D090114 | |
| M 16 | 2 | 14 | 110 | 22 | - | 12 | 9 | 7490.0B090116 | 7490.14090116 | 7490.0D090116 | 7490.16090116 |
| M 18 | 2,5 | 15,5 | 125 | 25 | - | 14 | 11 | | | | |
| M 20 | 2,5 | 17,5 | 140 | 25 | - | 16 | 12 | 7490.0B090120 | 7490.14090120 | 7490.0D090120 | 7490.16090120 |
| M 22 | 2,5 | 19,5 | 140 | 27 | - | 18 | 14,5 | | | | |
| M 24 | 3 | 21 | 160 | 30 | - | 18 | 14,5 | 7490.0B090124 | 7490.14090124 | 7490.0D090124 | 7490.16090124 |
| M 27 | 3 | 24 | 160 | 30 | - | 20 | 16 | | | | |
| M 30 | 3,5 | 26,5 | 180 | 35 | - | 22 | 18 | 7490.0B090130 | 7490.14090130 | 7490.0D090130 | 7490.16090130 |
| M 33 | 3,5 | 29,5 | 180 | 35 | - | 25 | 20 | | | | |
| M 36 | 4 | 32 | 200 | 40 | - | 28 | 22 | | | | |
| M 39 | 4 | 35 | 200 | 40 | - | 32 | 24 | | | | |
| M 42 | 4,5 | 37,5 | 200 | 45 | - | 32 | 24 | | | | |
| M 45 | 4,5 | 40,5 | 220 | 45 | - | 36 | 29 | | | | |
| M 48 | 5 | 43 | 250 | 50 | - | 36 | 29 | | | | |
| M 52 | 5 | 47 | 250 | 50 | - | 40 | 32 | | | | |

M DIN 13

3xD HP



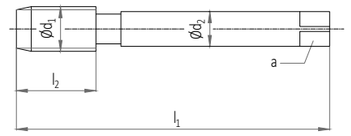



| | NORIS SALOREX UNI HP MKB | NORIS SALOREX UNI HP MKB | NORIS SALOREX UNI HP MKB | NORIS SALOREX UNI HP MKB |
|---|---|---|---|---|
| OBERFLÄCHE · SURFACE · SURFACE · SUPERFICIE | ALTINHD | ALTINHD | ALTINHD | ALTINHD |
| SCHNEIDSTOFF · MATERIAL · MATIÈRE · MATERIALE | HSSE-PM | HSSE-PM | HSSE-PM | HSSE-PM |
| ANSCHNITTFORM · CHAMFER FORM · FORME D'ENTRÉE · FORMA D'IMBOCCO | C / 2-3 | C / 2-3 | E / 1,5-2 | E / 1,5-2 |
| TOLERANZ · TOLERANCE · TOLÉRANCE · TOLLERANZA | ISO2X | ISO3X | ISO2X | ISO3X |
| | RH | RH | RH | RH |

DIN 371

| $d_1$ [mm] | P [mm] | [mm] | $l_1$ [mm] | $l_2$ [mm] | $l_3$ [mm] | Ø $d_2$ [mm] | a [mm] | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| M 1,6 | 0,35 | 1,25 | 40 | 4 | 11 | 2,5 | 2,1 | | | | |
| M 2 | 0,4 | 1,6 | 45 | 4 | 12 | 2,8 | 2,1 | | | | |
| M 2,2 | 0,45 | 1,75 | 45 | 4,5 | 12 | 2,8 | 2,1 | | | | |
| M 2,3 | 0,4 | 1,9 | 45 | 4,5 | 12 | 2,8 | 2,1 | | | | |
| M 2,5 | 0,45 | 2,05 | 50 | 5 | 15 | 2,8 | 2,1 | | | | |
| M 2,6 | 0,45 | 2,15 | 50 | 5 | 15 | 2,8 | 2,1 | | | | |
| M 3 | 0,5 | 2,5 | 56 | 6 | 18 | 3,5 | 2,7 | | | | |
| M 3,5 | 0,6 | 2,9 | 56 | 7 | 20 | 4 | 3 | | | | |
| M 4 | 0,7 | 3,3 | 63 | 7 | 21 | 4,5 | 3,4 | 6460.0B090040 | 6460.14090040 | 6460.0D090040 | 6460.16090040 |
| M 5 | 0,8 | 4,2 | 70 | 8 | 25 | 6 | 4,9 | 6460.0B090050 | 6460.14090050 | 6460.0D090050 | 6460.16090050 |
| M 6 | 1 | 5 | 80 | 10 | 30 | 6 | 4,9 | 6460.0B090060 | 6460.14090060 | 6460.0D090060 | 6460.16090060 |
| M 7 | 1 | 6 | 80 | 10 | 30 | 7 | 5,5 | | | | |
| M 8 | 1,25 | 6,8 | 90 | 14 | 35 | 8 | 6,2 | 6460.0B090080 | 6460.14090080 | 6460.0D090080 | 6460.16090080 |
| M 9 | 1,25 | 7,8 | 90 | 14 | 35 | 9 | 7 | | | | |
| M 10 | 1,5 | 8,5 | 100 | 16 | 39 | 10 | 8 | 6460.0B090100 | 6460.14090100 | 6460.0D090100 | 6460.16090100 |

3xD HP





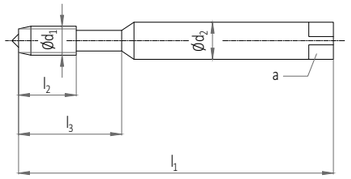

| | NORIS SALOREX UNI HP MKB | NORIS SALOREX UNI HP MKB | NORIS SALOREX UNI HP MKB | NORIS SALOREX UNI HP MKB |
|---|---|---|---|---|
| OBERFLÄCHE · SURFACE · SURFACE · SUPERFICIE | ALTINHD | ALTINHD | ALTINHD | ALTINHD |
| SCHNEIDSTOFF · MATERIAL · MATIÈRE · MATERIALE | HSSE-PM | HSSE-PM | HSSE-PM | HSSE-PM |
| ANSCHNITTFORM · CHAMFER FORM · FORME D'ENTRÉE · FORMA D'IMBOCCO | C / 2-3 | C / 2-3 | E / 1,5-2 | E / 1,5-2 |
| TOLERANZ · TOLERANCE · TOLÉRANCE · TOLLERANZA | ISO2X | ISO3X | ISO2X | ISO3X |
| | RH | RH | RH | RH |

DIN 376

| $d_1$ [mm] | P [mm] | [mm] | $l_1$ [mm] | $l_2$ [mm] | $l_3$ [mm] | Ø $d_2$ [mm] | a [mm] | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| M 3 | 0,5 | 2,5 | 56 | 6 | - | 2,2 | - | | | | |
| M 4 | 0,7 | 3,3 | 63 | 7 | - | 2,8 | 2,1 | | | | |
| M 5 | 0,8 | 4,2 | 70 | 8 | - | 3,5 | 2,7 | | | | |
| M 6 | 1 | 5 | 80 | 10 | - | 4,5 | 3,4 | | | | |
| M 7 | 1 | 6 | 80 | 10 | - | 5,5 | 4,3 | | | | |
| M 8 | 1,25 | 6,8 | 90 | 14 | - | 6 | 4,9 | | | | |
| M 9 | 1,25 | 7,8 | 90 | 14 | - | 7 | 5,5 | | | | |
| M 10 | 1,5 | 8,5 | 100 | 16 | - | 7 | 5,5 | | | | |
| M 11 | 1,5 | 9,5 | 100 | 18 | - | 8 | 6,2 | | | | |
| M 12 | 1,75 | 10,2 | 110 | 18 | - | 9 | 7 | 7460.0B090112 | 7460.14090112 | 7460.0D090112 | 7460.16090112 |
| M 14 | 2 | 12 | 110 | 20 | - | 11 | 9 | 7460.0B090114 | | 7460.0D090114 | |
| M 16 | 2 | 14 | 110 | 22 | - | 12 | 9 | 7460.0B090116 | 7460.14090116 | 7460.0D090116 | 7460.16090116 |
| M 18 | 2,5 | 15,5 | 125 | 25 | - | 14 | 11 | | | | |
| M 20 | 2,5 | 17,5 | 140 | 25 | - | 16 | 12 | 7460.0B090120 | 7460.14090120 | 7460.0D090120 | 7460.16090120 |
| M 22 | 2,5 | 19,5 | 140 | 27 | - | 18 | 14,5 | | | | |
| M 24 | 3 | 21 | 160 | 30 | - | 18 | 14,5 | 7460.0B090124 | 7460.14090124 | 7460.0D090124 | 7460.16090124 |
| M 27 | 3 | 24 | 160 | 30 | - | 20 | 16 | | | | |
| M 30 | 3,5 | 26,5 | 180 | 35 | - | 22 | 18 | 7460.0B090130 | 7460.14090130 | 7460.0D090130 | 7460.16090130 |
| M 33 | 3,5 | 29,5 | 180 | 35 | - | 25 | 20 | | | | |
| M 36 | 4 | 32 | 200 | 40 | - | 28 | 22 | | | | |
| M 39 | 4 | 35 | 200 | 40 | - | 32 | 24 | | | | |
| M 42 | 4,5 | 37,5 | 200 | 45 | - | 32 | 24 | | | | |
| M 45 | 4,5 | 40,5 | 220 | 45 | - | 36 | 29 | | | | |
| M 48 | 5 | 43 | 250 | 50 | - | 36 | 29 | | | | |
| M 52 | 5 | 47 | 250 | 50 | - | 40 | 32 | | | | |

M DIN 13

3xD

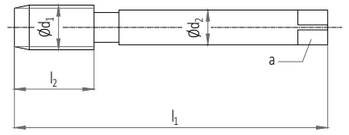



| | NORIS SALOREX ST TS | NORIS SALOREX HR | NORIS SALOREX HR | NORIS SALOREX HR MKB | NORIS SALOREX VA |
|---|---|---|---|---|---|
| |  |  |  |  |  |
| | TS | | | | |
| OBERFLÄCHE · SURFACE · SURFACE · SUPERFICIE | ALTINHD | WAC | ALTINHD | ALTINHD | VAP |
| SCHNEIDSTOFF · MATERIAL · MATIÈRE · MATERIALE | HSSE-PM | HSSE-PM | HSSE-PM | HSSE-PM | HSSE |
| ANSCHNITTFORM · CHAMFER FORM · FORME D'ENTRÉE · FORMA D'IMBOCCO | C / 2-3 | C / 2-3 | C / 2-3 | C / 2-3 | C / 2-3 |
| TOLERANZ · TOLERANCE · TOLÉRANCE · TOLLERANZA | ISO2 | ISO2 | ISO2 | ISO2 | ISO2 |
| | RH | RH | RH | RH | RH |

DIN 371

| $d_1$ [mm] | P [mm] | | $l_1$ [mm] | $l_2$ [mm] | $l_3$ [mm] | Ø $d_2$ [mm] | a [mm] | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| M 1,6 | 0,35 | 1,25 | 40 | 4 | 11 | 2,5 | 2,1 | | | | | |
| M 2 | 0,4 | 1,6 | 45 | 4 | 12 | 2,8 | 2,1 | | | | | 6645.0B010020 |
| M 2,2 | 0,45 | 1,75 | 45 | 4,5 | 12 | 2,8 | 2,1 | | | | | |
| M 2,3 | 0,4 | 1,9 | 45 | 4,5 | 12 | 2,8 | 2,1 | | | | | |
| M 2,5 | 0,45 | 2,05 | 50 | 5 | 15 | 2,8 | 2,1 | | | | | |
| M 2,6 | 0,45 | 2,15 | 50 | 5 | 15 | 2,8 | 2,1 | | | | | |
| M 3 | 0,5 | 2,5 | 56 | 6 | 18 | 3,5 | 2,7 | | 6643.0B000030 | 6643.0B090030 | | 6645.0B010030 |
| M 3,5 | 0,6 | 2,9 | 56 | 7 | 20 | 4 | 3 | | | | | |
| M 4 | 0,7 | 3,3 | 63 | 7 | 21 | 4,5 | 3,4 | 6880.0B090040 | 6643.0B000040 | 6643.0B090040 | | 6645.0B010040 |
| M 5 | 0,8 | 4,2 | 70 | 8 | 25 | 6 | 4,9 | 6880.0B090050 | 6643.0B000050 | 6643.0B090050 | 6853.0B090050 | 6645.0B010050 |
| M 6 | 1 | 5 | 80 | 10 | 30 | 6 | 4,9 | 6880.0B090060 | 6643.0B000060 | 6643.0B090060 | 6853.0B090060 | 6645.0B010060 |
| M 7 | 1 | 6 | 80 | 10 | 30 | 7 | 5,5 | | | | | |
| M 8 | 1,25 | 6,8 | 90 | 14 | 35 | 8 | 6,2 | 6880.0B090080 | 6643.0B000080 | 6643.0B090080 | 6853.0B090080 | 6645.0B010080 |
| M 9 | 1,25 | 7,8 | 90 | 14 | 35 | 9 | 7 | | | | | |
| M 10 | 1,5 | 8,5 | 100 | 16 | 39 | 10 | 8 | 6880.0B090100 | 6643.0B000100 | 6643.0B090100 | 6853.0B090100 | 6645.0B010100 |

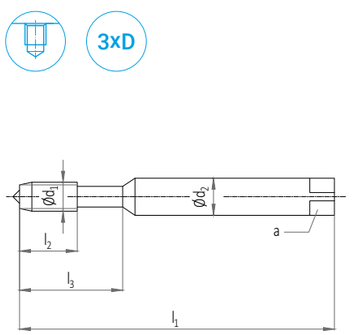
3xD




| | NORIS SALOREX ST TS | NORIS SALOREX HR | NORIS SALOREX HR | NORIS SALOREX HR MKB | NORIS SALOREX VA |
|---|---|---|---|---|---|
| |  |  |  |  |  |
| | TS | | | | |
| OBERFLÄCHE · SURFACE · SURFACE · SUPERFICIE | ALTINHD | WAC | ALTINHD | ALTINHD | VAP |
| SCHNEIDSTOFF · MATERIAL · MATIÈRE · MATERIALE | HSSE-PM | HSSE-PM | HSSE-PM | HSSE-PM | HSSE |
| ANSCHNITTFORM · CHAMFER FORM · FORME D'ENTRÉE · FORMA D'IMBOCCO | C / 2-3 | C / 2-3 | C / 2-3 | C / 2-3 | C / 2-3 |
| TOLERANZ · TOLERANCE · TOLÉRANCE · TOLLERANZA | ISO2 | ISO2 | ISO2 | ISO2 | ISO2 |
| | RH | RH | RH | RH | RH |

DIN 376

| $d_1$ [mm] | P [mm] | | $l_1$ [mm] | $l_2$ [mm] | $l_3$ [mm] | Ø $d_2$ [mm] | a [mm] | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| M 3 | 0,5 | 2,5 | 56 | 6 | - | 2,2 | - | | | | | |
| M 4 | 0,7 | 3,3 | 63 | 7 | - | 2,8 | 2,1 | | | | | |
| M 5 | 0,8 | 4,2 | 70 | 8 | - | 3,5 | 2,7 | | | | | |
| M 6 | 1 | 5 | 80 | 10 | - | 4,5 | 3,4 | | | | | |
| M 7 | 1 | 6 | 80 | 10 | - | 5,5 | 4,3 | | | | | |
| M 8 | 1,25 | 6,8 | 90 | 14 | - | 6 | 4,9 | | | | | |
| M 9 | 1,25 | 7,8 | 90 | 14 | - | 7 | 5,5 | | | | | |
| M 10 | 1,5 | 8,5 | 100 | 16 | - | 7 | 5,5 | | | | | |
| M 11 | 1,5 | 9,5 | 100 | 18 | - | 8 | 6,2 | | | | | |
| M 12 | 1,75 | 10,2 | 110 | 18 | - | 9 | 7 | 7880.0B090112 | 7643.0B000112 | 7643.0B090112 | 7853.0B090112 | 7645.0B010112 |
| M 14 | 2 | 12 | 110 | 20 | - | 11 | 9 | | 7643.0B000114 | 7643.0B090114 | 7853.0B090114 | 7645.0B010114 |
| M 16 | 2 | 14 | 110 | 22 | - | 12 | 9 | 7880.0B090116 | 7643.0B000116 | 7643.0B090116 | 7853.0B090116 | 7645.0B010116 |
| M 18 | 2,5 | 15,5 | 125 | 25 | - | 14 | 11 | | 7643.0B000118 | 7643.0B090118 | 7853.0B090118 | |
| M 20 | 2,5 | 17,5 | 140 | 25 | - | 16 | 12 | 7880.0B090120 | 7643.0B000120 | 7643.0B090120 | 7853.0B090120 | 7645.0B010120 |
| M 22 | 2,5 | 19,5 | 140 | 27 | - | 18 | 14,5 | | | | | 7645.0B010122 |
| M 24 | 3 | 21 | 160 | 30 | - | 18 | 14,5 | | | | | 7645.0B010124 |
| M 27 | 3 | 24 | 160 | 30 | - | 20 | 16 | | | | | |
| M 30 | 3,5 | 26,5 | 180 | 35 | - | 22 | 18 | | | | | 7645.0B010130 |
| M 33 | 3,5 | 29,5 | 180 | 35 | - | 25 | 20 | | | | | |
| M 36 | 4 | 32 | 200 | 40 | - | 28 | 22 | | | | | |
| M 39 | 4 | 35 | 200 | 40 | - | 32 | 24 | | | | | |
| M 42 | 4,5 | 37,5 | 200 | 45 | - | 32 | 24 | | | | | |
| M 45 | 4,5 | 40,5 | 220 | 45 | - | 36 | 29 | | | | | |
| M 48 | 5 | 43 | 250 | 50 | - | 36 | 29 | | | | | |
| M 52 | 5 | 47 | 250 | 50 | - | 40 | 32 | | | | | |

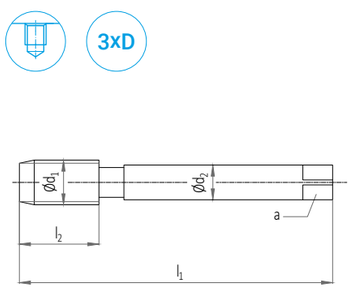





| | NORIS SALOREX VA | NORIS SALOREX VA MKB | NORIS SALOREX NW CNC | NORIS SALOREX SOFT | NORIS SALOREX SOFT |
|---|---|---|---|---|---|
| OBERFLÄCHE · SURFACE · SURFACE · SUPERFICIE | ALTINHD | ALTINHD | DLC | WAC | DLC |
| SCHNEIDSTOFF · MATERIAL · MATIÈRE · MATERIALE | HSSE | HSSE | HSSE | HSSE | HSSE |
| ANSCHNITTFORM · CHAMFER FORM · FORME D'ENTRÉE · FORMA D'IMBOCCO | C / 2-3 | E / 1,5-2 | C / 2-3 | C / 2-3 | C / 2-3 |
| TOLERANZ · TOLERANCE · TOLÉRANCE · TOLLERANZA | ISO2 | ISO2 | ISO2 | ISO2 | ISO2 |
| | RH | RH | RH | RH | RH |

DIN 371

| $d_1$ | P [mm] | | $l_1$ [mm] | $l_2$ [mm] | $l_3$ [mm] | Ø $d_2$ [mm] | a [mm] | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| M 1,6 | 0,35 | 1,25 | 40 | 4 | 11 | 2,5 | 2,1 | 6645.0B090016 | | | | |
| M 2 | 0,4 | 1,6 | 45 | 4 | 12 | 2,8 | 2,1 | 6645.0B090020 | | 6471.0B100020 | 664S.0B000020 | 664S.0B100020 |
| M 2,2 | 0,45 | 1,75 | 45 | 4,5 | 12 | 2,8 | 2,1 | | | | | |
| M 2,3 | 0,4 | 1,9 | 45 | 4,5 | 12 | 2,8 | 2,1 | | | | | |
| M 2,5 | 0,45 | 2,05 | 50 | 5 | 15 | 2,8 | 2,1 | | | | | |
| M 2,6 | 0,45 | 2,15 | 50 | 5 | 15 | 2,8 | 2,1 | | | | | |
| M 3 | 0,5 | 2,5 | 56 | 6 | 18 | 3,5 | 2,7 | 6645.0B090030 | | 6471.0B100030 | 664S.0B000030 | 664S.0B100030 |
| M 3,5 | 0,6 | 2,9 | 56 | 7 | 20 | 4 | 3 | | | | | |
| M 4 | 0,7 | 3,3 | 63 | 7 | 21 | 4,5 | 3,4 | 6645.0B090040 | | 6471.0B100040 | 664S.0B000040 | 664S.0B100040 |
| M 5 | 0,8 | 4,2 | 70 | 8 | 25 | 6 | 4,9 | 6645.0B090050 | 6855.0D090050 | 6471.0B100050 | 664S.0B000050 | 664S.0B100050 |
| M 6 | 1 | 5 | 80 | 10 | 30 | 6 | 4,9 | 6645.0B090060 | 6855.0D090060 | 6471.0B100060 | 664S.0B000060 | 664S.0B100060 |
| M 7 | 1 | 6 | 80 | 10 | 30 | 7 | 5,5 | | | | | |
| M 8 | 1,25 | 6,8 | 90 | 14 | 35 | 8 | 6,2 | 6645.0B090080 | 6855.0D090080 | 6471.0B100080 | 664S.0B000080 | 664S.0B100080 |
| M 9 | 1,25 | 7,8 | 90 | 14 | 35 | 9 | 7 | | | | | |
| M 10 | 1,5 | 8,5 | 100 | 16 | 39 | 10 | 8 | 6645.0B090100 | 6855.0D090100 | 6471.0B100100 | 664S.0B000100 | 664S.0B100100 |





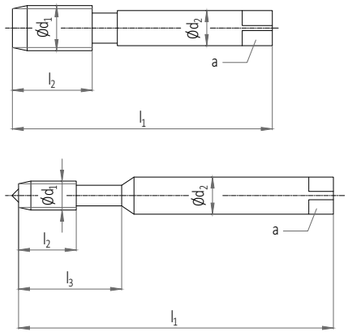

| | NORIS SALOREX VA | NORIS SALOREX VA MKB | NORIS SALOREX NW CNC | NORIS SALOREX SOFT |
|---|---|---|---|---|
| OBERFLÄCHE · SURFACE · SURFACE · SUPERFICIE | ALTINHD | ALTINHD | DLC | DLC |
| SCHNEIDSTOFF · MATERIAL · MATIÈRE · MATERIALE | HSSE | HSSE | HSSE | HSSE |
| ANSCHNITTFORM · CHAMFER FORM · FORME D'ENTRÉE · FORMA D'IMBOCCO | C / 2-3 | E / 1,5-2 | C / 2-3 | C / 2-3 |
| TOLERANZ · TOLERANCE · TOLÉRANCE · TOLLERANZA | ISO2 | ISO2 | ISO2 | ISO2 |
| | RH | RH | RH | RH |

DIN 376

| $d_1$ | P [mm] | | $l_1$ [mm] | $l_2$ [mm] | $l_3$ [mm] | Ø $d_2$ [mm] | a [mm] | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| M 3 | 0,5 | 2,5 | 56 | 6 | - | 2,2 | - | | | | |
| M 4 | 0,7 | 3,3 | 63 | 7 | - | 2,8 | 2,1 | | | | |
| M 5 | 0,8 | 4,2 | 70 | 8 | - | 3,5 | 2,7 | | | | |
| M 6 | 1 | 5 | 80 | 10 | - | 4,5 | 3,4 | | | | |
| M 7 | 1 | 6 | 80 | 10 | - | 5,5 | 4,3 | | | | |
| M 8 | 1,25 | 6,8 | 90 | 14 | - | 6 | 4,9 | | | | |
| M 9 | 1,25 | 7,8 | 90 | 14 | - | 7 | 5,5 | | | | |
| M 10 | 1,5 | 8,5 | 100 | 16 | - | 7 | 5,5 | | | | |
| M 11 | 1,5 | 9,5 | 100 | 18 | - | 8 | 6,2 | | | | |
| M 12 | 1,75 | 10,2 | 110 | 18 | - | 9 | 7 | 7645.0B090112 | 7855.0D090112 | 7471.0B100112 | 764S.0B100112 |
| M 14 | 2 | 12 | 110 | 20 | - | 11 | 9 | 7645.0B090114 | 7855.0D090114 | 7471.0B100114 | |
| M 16 | 2 | 14 | 110 | 22 | - | 12 | 9 | 7645.0B090116 | 7855.0D090116 | 7471.0B100116 | 764S.0B100116 |
| M 18 | 2,5 | 15,5 | 125 | 25 | - | 14 | 11 | | | | |
| M 20 | 2,5 | 17,5 | 140 | 25 | - | 16 | 12 | 7645.0B090120 | 7855.0D090120 | 7471.0B100120 | |
| M 22 | 2,5 | 19,5 | 140 | 27 | - | 18 | 14,5 | | | | |
| M 24 | 3 | 21 | 160 | 30 | - | 18 | 14,5 | | | | |
| M 27 | 3 | 24 | 160 | 30 | - | 20 | 16 | | | | |
| M 30 | 3,5 | 26,5 | 180 | 35 | - | 22 | 18 | | | | |
| M 33 | 3,5 | 29,5 | 180 | 35 | - | 25 | 20 | | | | |
| M 36 | 4 | 32 | 200 | 40 | - | 28 | 22 | | | | |
| M 39 | 4 | 35 | 200 | 40 | - | 32 | 24 | | | | |
| M 42 | 4,5 | 37,5 | 200 | 45 | - | 32 | 24 | | | | |
| M 45 | 4,5 | 40,5 | 220 | 45 | - | 36 | 29 | | | | |
| M 48 | 5 | 43 | 250 | 50 | - | 36 | 29 | | | | |
| M 52 | 5 | 47 | 250 | 50 | - | 40 | 32 | | | | |

M DIN 13

2xD




| | NORIS SL15 ST | NORIS SL15 ST TS | NORIS SL15 ST CNC | NORIS SL15 ST CNC MKB |
|---|---|---|---|---|
| |  |  |  |  |
| | | TS | CNC | CNC |
| OBERFLÄCHE · SURFACE · SURFACE · SUPERFICIE | WAC | TIN | TIN | TIN |
| SCHNEIDSTOFF · MATERIAL · MATIÈRE · MATERIALE | HSSE | HSSE-PM | HSSE | HSSE |
| ANSCHNITTFORM · CHAMFER FORM · FORME D'ENTRÉE · FORMA D'IMBOCCO | C / 2-3 | C / 2-3 | C / 2-3 | C / 2-3 |
| TOLERANZ · TOLERANCE · TOLÉRANCE · TOLLERANZA | ISO2 | ISO2 | ISO2X | ISO2X |
| | RH | RH | RH | RH |

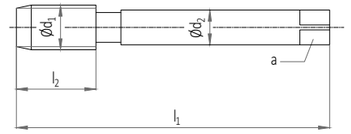
DIN 352

| $d_1$ | P [mm] | [mm] | $l_1$ [mm] | $l_2$ [mm] | $l_3$ [mm] | Ø $d_2$ [mm] | a [mm] | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| M 3 | 0,5 | 2,5 | 40 | 10 | 18 | 3,5 | 2,7 | 5600.0B000030 | | | |
| M 4 | 0,7 | 3,3 | 45 | 12 | 22 | 4,5 | 3,4 | 5600.0B000040 | | | |
| M 5 | 0,8 | 4,2 | 50 | 14 | 25 | 6 | 4,9 | 5600.0B000050 | | | |
| M 6 | 1 | 5 | 56 | 16 | 28 | 6 | 4,9 | 5600.0B000060 | | | |
| M 8 | 1,25 | 6,8 | 63 | 20 | - | 6 | 4,9 | 5600.0B000080 | | | |
| M 10 | 1,5 | 8,5 | 70 | 22 | - | 7 | 5,5 | 5600.0B000100 | | | |
| M 12 | 1,75 | 10,2 | 75 | 24 | - | 9 | 7 | 5600.0B000112 | | | |

DIN 371

| $d_1$ | P [mm] | [mm] | $l_1$ [mm] | $l_2$ [mm] | $l_3$ [mm] | Ø $d_2$ [mm] | a [mm] | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| M 2 | 0,4 | 1,6 | 45 | 7 | 12 | 2,8 | 2,1 | 6600.0B000020 | | | |
| M 2,5 | 0,45 | 2,05 | 50 | 9 | 14 | 2,8 | 2,1 | 6600.0B000025 | | | |
| M 3 | 0,5 | 2,5 | 56 | 6 | 18 | 3,5 | 2,7 | | | 660C.0B040030 | |
| M 3 | 0,5 | 2,5 | 56 | 11 | 18 | 3,5 | 2,7 | 6600.0B000030 | | | |
| M 4 | 0,7 | 3,3 | 63 | 7 | 21 | 4,5 | 3,4 | | | 660C.0B040040 | |
| M 4 | 0,7 | 3,3 | 63 | 13 | 21 | 4,5 | 3,4 | 6600.0B000040 | 6900.0B040040 | | |
| M 5 | 0,8 | 4,2 | 70 | 8 | 25 | 6 | 4,9 | | | 660C.0B040050 | 684C.0B040050 |
| M 5 | 0,8 | 4,2 | 70 | 15 | 25 | 6 | 4,9 | 6600.0B000050 | 6900.0B040050 | | |
| M 6 | 1 | 5 | 80 | 10 | 30 | 6 | 4,9 | | | 660C.0B040060 | 684C.0B040060 |
| M 6 | 1 | 5 | 80 | 17 | 30 | 6 | 4,9 | 6600.0B000060 | 6900.0B040060 | | |
| M 8 | 1,25 | 6,8 | 90 | 14 | 35 | 8 | 6,2 | | | 660C.0B040080 | 684C.0B040080 |
| M 8 | 1,25 | 6,8 | 90 | 20 | 35 | 8 | 6,2 | 6600.0B000080 | 6900.0B040080 | | |
| M 10 | 1,5 | 8,5 | 100 | 16 | 39 | 10 | 8 | | | 660C.0B040100 | 684C.0B040100 |
| M 10 | 1,5 | 8,5 | 100 | 22 | 39 | 10 | 8 | 6600.0B000100 | | | |

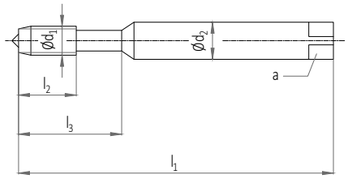
2xD




| | NORIS SL15 ST | NORIS SL15 ST TS | NORIS SL15 ST CNC | NORIS SL15 ST CNC MKB |
|---|---|---|---|---|
| |  |  |  |  |
| | | TS | CNC | CNC |
| OBERFLÄCHE · SURFACE · SURFACE · SUPERFICIE | WAC | TIN | TIN | TIN |
| SCHNEIDSTOFF · MATERIAL · MATIÈRE · MATERIALE | HSSE | HSSE-PM | HSSE | HSSE |
| ANSCHNITTFORM · CHAMFER FORM · FORME D'ENTRÉE · FORMA D'IMBOCCO | C / 2-3 | C / 2-3 | C / 2-3 | C / 2-3 |
| TOLERANZ · TOLERANCE · TOLÉRANCE · TOLLERANZA | ISO2 | ISO2 | ISO2X | ISO2X |
| | RH | RH | RH | RH |

DIN 376

| $d_1$ | P [mm] | [mm] | $l_1$ [mm] | $l_2$ [mm] | $l_3$ [mm] | Ø $d_2$ [mm] | a [mm] | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| M 6 | 1 | 5 | 80 | 17 | - | 4,5 | 3,4 | 7600.0B000060 | | | |
| M 8 | 1,25 | 6,8 | 90 | 20 | - | 6 | 4,9 | 7600.0B000080 | | | |
| M 10 | 1,5 | 8,5 | 100 | 22 | - | 7 | 5,5 | 7600.0B000100 | | | |
| M 12 | 1,75 | 10,2 | 110 | 18 | - | 9 | 7 | | | 760C.0B040112 | 784C.0B040112 |
| M 12 | 1,75 | 10,2 | 110 | 24 | - | 9 | 7 | 7600.0B000112 | 7900.0B040112 | | |
| M 14 | 2 | 12 | 110 | 26 | - | 11 | 9 | 7600.0B000114 | | | |
| M 16 | 2 | 14 | 110 | 22 | - | 12 | 9 | | | 760C.0B040116 | 784C.0B040116 |
| M 16 | 2 | 14 | 110 | 27 | - | 12 | 9 | 7600.0B000116 | | | |
| M 18 | 2,5 | 15,5 | 125 | 30 | - | 14 | 11 | | | | |
| M 20 | 2,5 | 17,5 | 140 | 25 | - | 16 | 12 | | | 760C.0B040120 | |
| M 20 | 2,5 | 17,5 | 140 | 32 | - | 16 | 12 | 7600.0B000120 | | | |
| M 24 | 3 | 21 | 160 | 34 | - | 18 | 14,5 | 7600.0B000124 | | | |
| M 27 | 3 | 24 | 160 | 36 | - | 20 | 16 | 7600.0B000127 | | | |
| M 30 | 3,5 | 26,5 | 180 | 40 | - | 22 | 18 | 7600.0B000130 | | | |

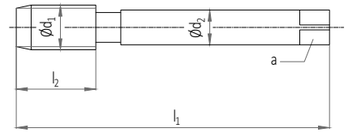



| | NORIS SL25 HR | NORIS SL25 HR | NORIS SL25 HR MKB |
|---|---|---|---|
| OBERFLÄCHE · SURFACE · SURFACE · SUPERFICIE | WAC | ALTINHD | ALTINHD |
| SCHNEIDSTOFF · MATERIAL · MATIÈRE · MATERIALE | HSSE-PM | HSSE-PM | HSSE-PM |
| ANSCHNITTFORM · CHAMFER FORM · FORME D'ENTRÉE · FORMA D'IMBOCCO | C / 2-3 | C / 2-3 | C / 2-3 |
| TOLERANZ · TOLERANCE · TOLÉRANCE · TOLLERANZA | ISO2 | ISO2 | ISO2 |
| | RH | RH | RH |

DIN 371

| $d_1$ | P | | $l_1$ | $l_2$ | $l_3$ | Ø $d_2$ | a | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| [mm] | [mm] | [mm] | [mm] | [mm] | [mm] | [mm] | [mm] | | | |
| M 2 | 0,4 | 1,6 | 45 | 7 | 12 | 2,8 | 2,1 | | | |
| M 2,5 | 0,45 | 2,05 | 50 | 9 | 14 | 2,8 | 2,1 | | | |
| M 3 | 0,5 | 2,5 | 56 | 6 | 18 | 3,5 | 2,7 | | | |
| M 3 | 0,5 | 2,5 | 56 | 11 | 18 | 3,5 | 2,7 | 6603.0B000030 | 6603.0B090030 | |
| M 4 | 0,7 | 3,3 | 63 | 7 | 21 | 4,5 | 3,4 | | | |
| M 4 | 0,7 | 3,3 | 63 | 13 | 21 | 4,5 | 3,4 | 6603.0B000040 | 6603.0B090040 | |
| M 5 | 0,8 | 4,2 | 70 | 8 | 25 | 6 | 4,9 | | | |
| M 5 | 0,8 | 4,2 | 70 | 15 | 25 | 6 | 4,9 | 6603.0B000050 | 6603.0B090050 | 6843.0B090050 |
| M 6 | 1 | 5 | 80 | 10 | 30 | 6 | 4,9 | | | |
| M 6 | 1 | 5 | 80 | 17 | 30 | 6 | 4,9 | 6603.0B000060 | 6603.0B090060 | 6843.0B090060 |
| M 8 | 1,25 | 6,8 | 90 | 14 | 35 | 8 | 6,2 | | | |
| M 8 | 1,25 | 6,8 | 90 | 20 | 35 | 8 | 6,2 | 6603.0B000080 | 6603.0B090080 | 6843.0B090080 |
| M 10 | 1,5 | 8,5 | 100 | 16 | 39 | 10 | 8 | | | |
| M 10 | 1,5 | 8,5 | 100 | 22 | 39 | 10 | 8 | 6603.0B000100 | 6603.0B090100 | 6843.0B090100 |
| M 12 | 1,75 | 10,2 | 110 | 18 | 44 | 12 | 9 | | | |
| M 12 | 1,75 | 10,2 | 110 | 24 | 44 | 12 | 9 | 6603.0B000112 | 6603.0B090112 | |





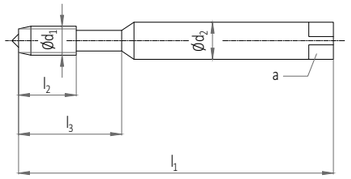

| | NORIS SL25 HR | NORIS SL25 HR | NORIS SL25 HR MKB |
|---|---|---|---|
| OBERFLÄCHE · SURFACE · SURFACE · SUPERFICIE | WAC | ALTINHD | ALTINHD |
| SCHNEIDSTOFF · MATERIAL · MATIÈRE · MATERIALE | HSSE-PM | HSSE-PM | HSSE-PM |
| ANSCHNITTFORM · CHAMFER FORM · FORME D'ENTRÉE · FORMA D'IMBOCCO | C / 2-3 | C / 2-3 | C / 2-3 |
| TOLERANZ · TOLERANCE · TOLÉRANCE · TOLLERANZA | ISO2 | ISO2 | ISO2 |
| | RH | RH | RH |

DIN 376

| $d_1$ | P | | $l_1$ | $l_2$ | $l_3$ | Ø $d_2$ | a | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| [mm] | [mm] | [mm] | [mm] | [mm] | [mm] | [mm] | [mm] | | | |
| M 6 | 1 | 5 | 80 | 17 | - | 4,5 | 3,4 | | | |
| M 8 | 1,25 | 6,8 | 90 | 20 | - | 6 | 4,9 | | | |
| M 10 | 1,5 | 8,5 | 100 | 22 | - | 7 | 5,5 | | | |
| M 12 | 1,75 | 10,2 | 110 | 24 | - | 9 | 7 | | | 7843.0B090112 |
| M 14 | 2 | 12 | 110 | 26 | - | 11 | 9 | | 7603.0B090114 | 7843.0B090114 |
| M 16 | 2 | 14 | 110 | 22 | - | 12 | 9 | | | |
| M 16 | 2 | 14 | 110 | 27 | - | 12 | 9 | 7603.0B000116 | 7603.0B090116 | 7843.0B090116 |
| M 18 | 2,5 | 15,5 | 125 | 30 | - | 14 | 11 | 7603.0B000118 | 7603.0B090118 | 7843.0B090118 |
| M 20 | 2,5 | 17,5 | 140 | 32 | - | 16 | 12 | 7603.0B000120 | 7603.0B090120 | 7843.0B090120 |
| M 24 | 3 | 21 | 160 | 34 | - | 18 | 14,5 | | | |
| M 27 | 3 | 24 | 160 | 36 | - | 20 | 16 | | | |
| M 30 | 3,5 | 26,5 | 180 | 40 | - | 22 | 18 | | | |

M DIN 13

2xD

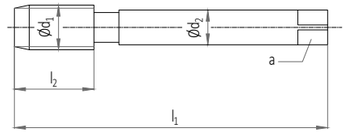



| | NORIS SL30 TI | NORIS SL30 TI | NORIS SL15 TI+ | NORIS SL15 NI |
|---|---|---|---|---|
| |  |  |  |  |
| OBERFLÄCHE · SURFACE · SURFACE · SUPERFICIE | VAP | TIN | TICN | TICN |
| SCHNEIDSTOFF · MATERIAL · MATIÈRE · MATERIALE | HSSE-PM | HSSE-PM | HSSE | HSSE-PM |
| ANSCHNITTFORM · CHAMFER FORM · FORME D'ENTRÉE · FORMA D'IMBOCCO | C / 2-3 | C / 2-3 | CS / 2-3 | C / 2-3 |
| TOLERANZ · TOLERANCE · TOLÉRANCE · TOLLERANZA | ISO2X | ISO2X | ISO2X | ISO2X |
| | RH | RH | RH | RH |

DIN 371

| $d_1$ | P | | $l_1$ | $l_2$ | $l_3$ | Ø $d_2$ | a | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| [mm] | [mm] | [mm] | [mm] | [mm] | [mm] | [mm] | [mm] | | | | |
| M 2 | 0,4 | 1,6 | 45 | 7 | 12 | 2,8 | 2,1 | | | | |
| M 2,5 | 0,45 | 2,05 | 50 | 9 | 14 | 2,8 | 2,1 | | | | |
| M 3 | 0,5 | 2,5 | 56 | 6 | 18 | 3,5 | 2,7 | 6614.0B010030 | 6614.0B040030 | | |
| M 3 | 0,5 | 2,5 | 56 | 11 | 18 | 3,5 | 2,7 | | | 66B4.0B050030 | 66A7.0B050030 |
| M 4 | 0,7 | 3,3 | 63 | 7 | 21 | 4,5 | 3,4 | 6614.0B010040 | 6614.0B040040 | | |
| M 4 | 0,7 | 3,3 | 63 | 13 | 21 | 4,5 | 3,4 | | | 66B4.0B050040 | 66A7.0B050040 |
| M 5 | 0,8 | 4,2 | 70 | 8 | 25 | 6 | 4,9 | 6614.0B010050 | 6614.0B040050 | | |
| M 5 | 0,8 | 4,2 | 70 | 15 | 25 | 6 | 4,9 | | | 66B4.0B050050 | 66A7.0B050050 |
| M 6 | 1 | 5 | 80 | 10 | 30 | 6 | 4,9 | 6614.0B010060 | 6614.0B040060 | | |
| M 6 | 1 | 5 | 80 | 17 | 30 | 6 | 4,9 | | | 66B4.0B050060 | 66A7.0B050060 |
| M 8 | 1,25 | 6,8 | 90 | 14 | 35 | 8 | 6,2 | 6614.0B010080 | 6614.0B040080 | | |
| M 8 | 1,25 | 6,8 | 90 | 20 | 35 | 8 | 6,2 | | | 66B4.0B050080 | 66A7.0B050080 |
| M 10 | 1,5 | 8,5 | 100 | 16 | 39 | 10 | 8 | 6614.0B010100 | 6614.0B040100 | | |
| M 10 | 1,5 | 8,5 | 100 | 22 | 39 | 10 | 8 | | | 66B4.0B050100 | 66A7.0B050100 |
| M 12 | 1,75 | 10,2 | 110 | 18 | 44 | 12 | 9 | 6614.0B010112 | 6614.0B040112 | | |
| M 12 | 1,75 | 10,2 | 110 | 24 | 44 | 12 | 9 | | | | |

2xD

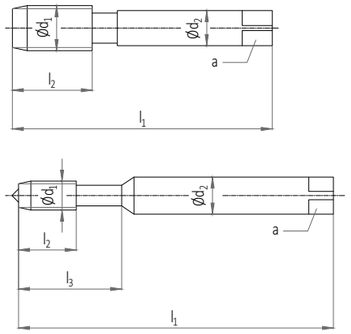



| | NORIS SL15 TI | NORIS SL15 NI |
|---|---|---|
| |  |  |
| OBERFLÄCHE · SURFACE · SURFACE · SUPERFICIE | TICN | TICN |
| SCHNEIDSTOFF · MATERIAL · MATIÈRE · MATERIALE | HSSE | HSSE-PM |
| ANSCHNITTFORM · CHAMFER FORM · FORME D'ENTRÉE · FORMA D'IMBOCCO | C / 2-3 | C / 2-3 |
| TOLERANZ · TOLERANCE · TOLÉRANCE · TOLLERANZA | ISO2X | ISO2X |
| | RH | RH |

DIN 376

| $d_1$ | P | | $l_1$ | $l_2$ | $l_3$ | Ø $d_2$ | a | | |
|---|---|---|---|---|---|---|---|---|---|
| [mm] | [mm] | [mm] | [mm] | [mm] | [mm] | [mm] | [mm] | | |
| M 6 | 1 | 5 | 80 | 17 | - | 4,5 | 3,4 | | |
| M 8 | 1,25 | 6,8 | 90 | 20 | - | 6 | 4,9 | | |
| M 10 | 1,5 | 8,5 | 100 | 22 | - | 7 | 5,5 | | |
| M 12 | 1,75 | 10,2 | 110 | 24 | - | 9 | 7 | 7604.0B050112 | 76A7.0B050112 |
| M 14 | 2 | 12 | 110 | 26 | - | 11 | 9 | | 76A7.0B050114 |
| M 16 | 2 | 14 | 110 | 27 | - | 12 | 9 | 7604.0B050116 | 76A7.0B050116 |
| M 18 | 2,5 | 15,5 | 125 | 30 | - | 14 | 11 | | |
| M 20 | 2,5 | 17,5 | 140 | 32 | - | 16 | 12 | 7604.0B050120 | 76A7.0B050120 |
| M 24 | 3 | 21 | 160 | 34 | - | 18 | 14,5 | 7604.0B050124 | |
| M 27 | 3 | 24 | 160 | 36 | - | 20 | 16 | | |
| M 30 | 3,5 | 26,5 | 180 | 40 | - | 22 | 18 | | |

4xD CNC



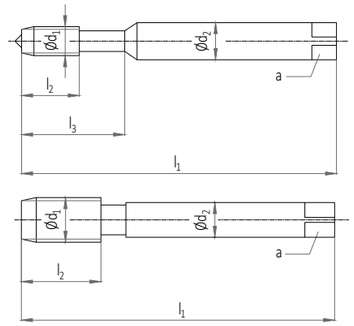



| | NORIS STABIL UNI CNC | NORIS STABIL UNI CNC | NORIS STABIL UNI CNC | NORIS STABIL UNI CNC | NORIS STABIL UNI CNC |
|---|---|---|---|---|---|
| OBERFLÄCHE · SURFACE · SURFACE · SUPERFICIE | WAC | WAC | WAC | WAC | WAC |
| SCHNEIDSTOFF · MATERIAL · MATIÈRE · MATERIALE | HSSE | HSSE | HSSE | HSSE | HSSE |
| ANSCHNITTFORM · CHAMFER FORM · FORME D'ENTRÉE · FORMA D'IMBOCCO | B / 4-5 | B / 4-5 | B / 4-5 | B / 4-5 | B / 4-5 |
| TOLERANZ · TOLERANCE · TOLÉRANCE · TOLLERANZA | ISO1 | ISO2 | ISO2 | ISO3 | 7G |
| | RH | RH | LH | RH | RH |

| | $d_1$ [mm] | P [mm] | [mm] | $l_1$ [mm] | $l_2$ [mm] | $l_3$ [mm] | Ø $d_2$ [mm] | a [mm] | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DIN 352 | M 3 | 0,5 | 2,5 | 40 | 10 | 18 | 3,5 | 2,7 | | 55C0.0A000030 | | | |
| DIN 352 | M 4 | 0,7 | 3,3 | 45 | 12 | 22 | 4,5 | 3,4 | | 55C0.0A000040 | | | |
| DIN 352 | M 5 | 0,8 | 4,2 | 50 | 14 | 25 | 6 | 4,9 | | 55C0.0A000050 | | | |
| DIN 352 | M 6 | 1 | 5 | 56 | 16 | 28 | 6 | 4,9 | | 55C0.0A000060 | | | |
| DIN 352 | M 8 | 1,25 | 6,8 | 63 | 20 | - | 6 | 4,9 | | 55C0.0A000080 | | | |
| DIN 352 | M 10 | 1,5 | 8,5 | 70 | 22 | - | 7 | 5,5 | | 55C0.0A000100 | | | |
| DIN 352 | M 12 | 1,75 | 10,2 | 75 | 24 | - | 9 | 7 | | 55C0.0A000112 | | | |
| DIN 371 | M 1 | 0,25 | 0,75 | 40 | 5 | 5 | 2,5 | 2,1 | 65C0.01000010 | | | | |
| DIN 371 | M 1,1 | 0,25 | 0,85 | 40 | 5 | 5 | 2,5 | 2,1 | 65C0.01000011 | | | | |
| DIN 371 | M 1,2 | 0,25 | 0,95 | 40 | 5 | 5 | 2,5 | 2,1 | 65C0.01000012 | | | | |
| DIN 371 | M 1,4 | 0,3 | 1,1 | 40 | 6 | 6 | 2,5 | 2,1 | 65C0.01000014 | | | | |
| DIN 371 | M 1,6 | 0,35 | 1,25 | 40 | 6 | 11 | 2,5 | 2,1 | | 65C0.0A000016 | | | |
| DIN 371 | M 1,7 | 0,35 | 1,35 | 40 | 6 | 11 | 2,5 | 2,1 | | 65C0.0A000017 | | | |
| DIN 371 | M 1,8 | 0,35 | 1,45 | 40 | 6 | 11 | 2,5 | 2,1 | | 65C0.0A000018 | | | |
| DIN 371 | M 2 | 0,4 | 1,6 | 45 | 7 | 12 | 2,8 | 2,1 | 65C0.01000020 | 65C0.0A000020 | 65C0.49000020 | 65C0.13000020 | 65C0.1C000020 |
| DIN 371 | M 2,2 | 0,45 | 1,75 | 45 | 7 | 12 | 2,8 | 2,1 | | 65C0.0A000022 | | | |
| DIN 371 | M 2,3 | 0,4 | 1,9 | 45 | 7 | 12 | 2,8 | 2,1 | | 65C0.0A000023 | | | |
| DIN 371 | M 2,5 | 0,45 | 2,05 | 50 | 9 | 14 | 2,8 | 2,1 | 65C0.01000025 | 65C0.0A000025 | 65C0.49000025 | 65C0.13000025 | 65C0.1C000025 |
| DIN 371 | M 2,6 | 0,45 | 2,15 | 50 | 9 | 14 | 2,8 | 2,1 | | 65C0.0A000026 | | | |
| DIN 371 | M 3 | 0,5 | 2,5 | 56 | 11 | 18 | 3,5 | 2,7 | 65C0.01000030 | 65C0.0A000030 | 65C0.49000030 | 65C0.13000030 | 65C0.1C000030 |
| DIN 371 | M 3,5 | 0,6 | 2,9 | 56 | 12 | 20 | 4 | 3 | | 65C0.0A000035 | | 65C0.13000035 | |
| DIN 371 | M 4 | 0,7 | 3,3 | 63 | 13 | 21 | 4,5 | 3,4 | 65C0.01000040 | 65C0.0A000040 | 65C0.49000040 | 65C0.13000040 | 65C0.1C000040 |
| DIN 371 | M 5 | 0,8 | 4,2 | 70 | 15 | 25 | 6 | 4,9 | 65C0.01000050 | 65C0.0A000050 | 65C0.49000050 | 65C0.13000050 | 65C0.1C000050 |
| DIN 371 | M 6 | 1 | 5 | 80 | 17 | 30 | 6 | 4,9 | 65C0.01000060 | 65C0.0A000060 | 65C0.49000060 | 65C0.13000060 | 65C0.1C000060 |



4xD CNC

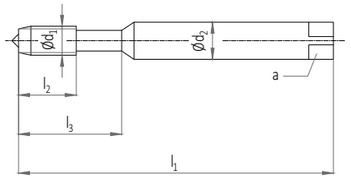





| | NORIS STABIL UNI CNC | NORIS STABIL UNI CNC | NORIS STABIL UNI CNC | NORIS STABIL UNI CNC | NORIS STABIL UNI CNC |
|---|---|---|---|---|---|
| OBERFLÄCHE · SURFACE · SURFACE · SUPERFICIE | WAC | WAC | WAC | WAC | WAC |
| SCHNEIDSTOFF · MATERIAL · MATIÈRE · MATERIALE | HSSE | HSSE | HSSE | HSSE | HSSE |
| ANSCHNITTFORM · CHAMFER FORM · FORME D'ENTRÉE · FORMA D'IMBOCCO | B / 4-5 | B / 4-5 | B / 4-5 | B / 4-5 | B / 4-5 |
| TOLERANZ · TOLERANCE · TOLÉRANCE · TOLLERANZA | ISO1 | ISO2 | ISO2 | ISO3 | 7G |
| | RH | RH | LH | RH | RH |

| | $d_1$ [mm] | P [mm] | [mm] | $l_1$ [mm] | $l_2$ [mm] | $l_3$ [mm] | Ø $d_2$ [mm] | a [mm] | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DIN 371 | M 7 | 1 | 6 | 80 | 17 | 30 | 7 | 5,5 | | 65C0.0A000070 | | | |
| DIN 371 | M 8 | 1,25 | 6,8 | 90 | 14 | 35 | 8 | 6,2 | | | | | |
| DIN 371 | M 8 | 1,25 | 6,8 | 90 | 20 | 35 | 8 | 6,2 | 65C0.01000080 | 65C0.0A000080 | 65C0.49000080 | 65C0.13000080 | 65C0.1C000080 |
| DIN 371 | M 10 | 1,5 | 8,5 | 100 | 16 | 39 | 10 | 8 | | | | | |
| DIN 371 | M 10 | 1,5 | 8,5 | 100 | 22 | 39 | 10 | 8 | 65C0.01000100 | 65C0.0A000100 | 65C0.49000100 | 65C0.13000100 | 65C0.1C000100 |
| DIN 371 | M 12 | 1,75 | 10,2 | 110 | 24 | 44 | 12 | 9 | | | | | |
| DIN 376 | M 3 | 0,5 | 2,5 | 56 | 11 | - | 2,2 | - | | | | | |
| DIN 376 | M 4 | 0,7 | 3,3 | 63 | 13 | - | 2,8 | 2,1 | | | | | |
| DIN 376 | M 5 | 0,8 | 4,2 | 70 | 15 | - | 3,5 | 2,7 | | 75C0.0A000050 | | | |
| DIN 376 | M 6 | 1 | 5 | 80 | 17 | - | 4,5 | 3,4 | | 75C0.0A000060 | | | |
| DIN 376 | M 8 | 1,25 | 6,8 | 90 | 20 | - | 6 | 4,9 | | 75C0.0A000080 | | | |
| DIN 376 | M 10 | 1,5 | 8,5 | 100 | 22 | - | 7 | 5,5 | | 75C0.0A000100 | | | |
| DIN 376 | M 11 | 1,5 | 9,5 | 100 | 22 | - | 8 | 6,2 | | 75C0.0A000111 | | | |
| DIN 376 | M 12 | 1,75 | 10,2 | 110 | 24 | - | 9 | 7 | 75C0.01000112 | 75C0.0A000112 | 75C0.49000112 | 75C0.13000112 | 75C0.1C000112 |
| DIN 376 | M 14 | 2 | 12 | 110 | 26 | - | 11 | 9 | | 75C0.0A000114 | | | |
| DIN 376 | M 16 | 2 | 14 | 110 | 27 | - | 12 | 9 | 75C0.01000116 | 75C0.0A000116 | 75C0.49000116 | 75C0.13000116 | 75C0.1C000116 |
| DIN 376 | M 18 | 2,5 | 15,5 | 125 | 30 | - | 14 | 11 | | 75C0.0A000118 | | | |
| DIN 376 | M 20 | 2,5 | 17,5 | 140 | 32 | - | 16 | 12 | 75C0.01000120 | 75C0.0A000120 | 75C0.49000120 | 75C0.13000120 | 75C0.1C000120 |
| DIN 376 | M 22 | 2,5 | 19,5 | 140 | 32 | - | 18 | 14,5 | | 75C0.0A000122 | | | |
| DIN 376 | M 24 | 3 | 21 | 160 | 34 | - | 18 | 14,5 | 75C0.01000124 | 75C0.0A000124 | 75C0.49000124 | 75C0.13000124 | 75C0.1C000124 |
| DIN 376 | M 27 | 3 | 24 | 160 | 36 | - | 20 | 16 | | 75C0.0A000127 | | | |
| DIN 376 | M 30 | 3,5 | 26,5 | 180 | 40 | - | 22 | 18 | | 75C0.0A000130 | | | |
| DIN 376 | M 33 | 3,5 | 29,5 | 180 | 40 | - | 25 | 20 | | 75C0.0A000133 | | | |
| DIN 376 | M 36 | 4 | 32 | 200 | 50 | - | 28 | 22 | | 75C0.0A000136 | | | |
| DIN 376 | M 39 | 4 | 35 | 200 | 50 | - | 32 | 24 | | 75C0.0A000139 | | | |
| DIN 376 | M 42 | 4,5 | 37,5 | 200 | 56 | - | 32 | 24 | | 75C0.0A000142 | | | |
| DIN 376 | M 45 | 4,5 | 40,5 | 220 | 58 | - | 36 | 29 | | 75C0.0A000145 | | | |
| DIN 376 | M 48 | 5 | 43 | 250 | 65 | - | 36 | 29 | | 75C0.0A000148 | | | |
| DIN 376 | M 52 | 5 | 47 | 250 | 65 | - | 40 | 32 | | 75C0.0A000152 | | | |

4xD CNC



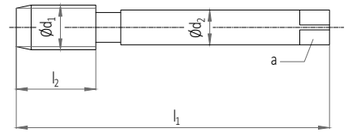



DIN 371

| | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| OBERFLÄCHE · SURFACE · SURFACE · SUPERFICIE | | | | | | | | NITVAP | NITVAP | NITVAP | NITVAP | ALTINHD | ALTINHD |
| SCHNEIDSTOFF · MATERIAL · MATIÈRE · MATERIALE | | | | | | | | HSSE | HSSE | HSSE | HSSE | HSSE | HSSE |
| ANSCHNITTFORM · CHAMFER FORM · FORME D'ENTRÉE · FORMA D'IMBOCCO | | | | | | | | B / 4-5 | B / 4-5 | B / 4-5 | B / 4-5 | B / 4-5 | B / 4-5 |
| TOLERANZ · TOLERANCE · TOLÉRANCE · TOLLERANZA | | | | | | | | ISO1 | ISO2 | ISO3 | 7G | ISO2 | ISO3 |
| | | | | | | | | RH | RH | RH | RH | RH | RH |
| $d_1$ | P | | $l_1$ | $l_2$ | $l_3$ | Ø $d_2$ | a | | | | | | |
| [mm] | [mm] | [mm] | [mm] | [mm] | [mm] | [mm] | [mm] | | | | | | |
| M 1 | 0,25 | 0,75 | 40 | 5 | 5 | 2,5 | 2,1 | 65C0.01030010 | | | | | |
| M 1,1 | 0,25 | 0,85 | 40 | 5 | 5 | 2,5 | 2,1 | | | | | | |
| M 1,2 | 0,25 | 0,95 | 40 | 5 | 5 | 2,5 | 2,1 | 65C0.01030012 | | | | | |
| M 1,4 | 0,3 | 1,1 | 40 | 6 | 6 | 2,5 | 2,1 | 65C0.01030014 | | | | | |
| M 1,6 | 0,35 | 1,25 | 40 | 8 | 11 | 2,5 | 2,1 | | 65C0.0A030016 | | | | |
| M 1,7 | 0,35 | 1,35 | 40 | 6 | 11 | 2,5 | 2,1 | | 65C0.0A030017 | | | | |
| M 1,8 | 0,35 | 1,45 | 40 | 6 | 11 | 2,5 | 2,1 | | 65C0.0A030018 | | | | |
| M 2 | 0,4 | 1,6 | 45 | 7 | 12 | 2,8 | 2,1 | | 65C0.0A030020 | 65C0.13030020 | 65C0.1C030020 | 65C0.0A090020 | 65C0.13090020 |
| M 2,2 | 0,45 | 1,75 | 45 | 7 | 12 | 2,8 | 2,1 | | 65C0.0A030022 | | | 65C0.0A090022 | |
| M 2,3 | 0,4 | 1,9 | 45 | 7 | 12 | 2,8 | 2,1 | | | | | | |
| M 2,5 | 0,45 | 2,05 | 50 | 9 | 14 | 2,8 | 2,1 | | 65C0.0A030025 | 65C0.13030025 | 65C0.1C030025 | 65C0.0A090025 | 65C0.13090025 |
| M 2,6 | 0,45 | 2,15 | 50 | 9 | 14 | 2,8 | 2,1 | | | | | | |
| M 3 | 0,5 | 2,5 | 56 | 11 | 18 | 3,5 | 2,7 | | 65C0.0A030030 | 65C0.13030030 | 65C0.1C030030 | 65C0.0A090030 | 65C0.13090030 |
| M 3,5 | 0,6 | 2,9 | 56 | 12 | 20 | 4 | 3 | | 65C0.0A030035 | 65C0.13030035 | | 65C0.0A090035 | 65C0.13090035 |
| M 4 | 0,7 | 3,3 | 63 | 13 | 21 | 4,5 | 3,4 | | 65C0.0A030040 | 65C0.13030040 | 65C0.1C030040 | 65C0.0A090040 | 65C0.13090040 |
| M 5 | 0,8 | 4,2 | 70 | 15 | 25 | 6 | 4,9 | | 65C0.0A030050 | 65C0.13030050 | 65C0.1C030050 | 65C0.0A090050 | 65C0.13090050 |
| M 6 | 1 | 5 | 80 | 17 | 30 | 6 | 4,9 | | 65C0.0A030060 | 65C0.13030060 | 65C0.1C030060 | 65C0.0A090060 | 65C0.13090060 |
| M 7 | 1 | 6 | 80 | 17 | 30 | 7 | 5,5 | | 65C0.0A030070 | | | | |
| M 8 | 1,25 | 6,8 | 90 | 20 | 35 | 8 | 6,2 | | 65C0.0A030080 | 65C0.13030080 | 65C0.1C030080 | 65C0.0A090080 | 65C0.13090080 |
| M 10 | 1,5 | 8,5 | 100 | 22 | 39 | 10 | 8 | | 65C0.0A030100 | 65C0.13030100 | 65C0.1C030100 | 65C0.0A090100 | 65C0.13090100 |
| M 12 | 1,75 | 10,2 | 110 | 24 | 44 | 12 | 9 | | 65C0.0A030112 | | | | |

M DIN 13

4xD CNC



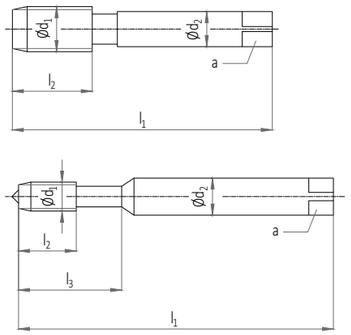



DIN 376

| | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| OBERFLÄCHE · SURFACE · SURFACE · SUPERFICIE | | | | | | | | NITVAP | NITVAP | NITVAP | ALTINHD | ALTINHD | |
| SCHNEIDSTOFF · MATERIAL · MATIÈRE · MATERIALE | | | | | | | | HSSE | HSSE | HSSE | HSSE | HSSE | |
| ANSCHNITTFORM · CHAMFER FORM · FORME D'ENTRÉE · FORMA D'IMBOCCO | | | | | | | | B / 4-5 | B / 4-5 | B / 4-5 | B / 4-5 | B / 4-5 | |
| TOLERANZ · TOLERANCE · TOLÉRANCE · TOLLERANZA | | | | | | | | ISO2 | ISO3 | 7G | ISO2 | ISO3 | |
| | | | | | | | | RH | RH | RH | RH | RH | |
| $d_1$ | P | | $l_1$ | $l_2$ | $l_3$ | Ø $d_2$ | a | | | | | | |
| [mm] | [mm] | [mm] | [mm] | [mm] | [mm] | [mm] | [mm] | | | | | | |
| M 3 | 0,5 | 2,5 | 56 | 11 | - | 2,2 | - | 75C0.0A030030 | | | | | |
| M 4 | 0,7 | 3,3 | 63 | 13 | - | 2,8 | 2,1 | 75C0.0A030040 | | | 75C0.0A090040 | | |
| M 5 | 0,8 | 4,2 | 70 | 15 | - | 3,5 | 2,7 | 75C0.0A030050 | | | 75C0.0A090050 | | |
| M 6 | 1 | 5 | 80 | 17 | - | 4,5 | 3,4 | 75C0.0A030060 | | | 75C0.0A090060 | | |
| M 8 | 1,25 | 6,8 | 90 | 20 | - | 6 | 4,9 | 75C0.0A030080 | | | 75C0.0A090080 | | |
| M 10 | 1,5 | 8,5 | 100 | 22 | - | 7 | 5,5 | 75C0.0A030100 | | | 75C0.0A090100 | | |
| M 11 | 1,5 | 9,5 | 100 | 22 | - | 8 | 6,2 | | | | | | |
| M 12 | 1,75 | 10,2 | 110 | 24 | - | 9 | 7 | 75C0.0A030112 | 75C0.13030112 | 75C0.1C030112 | 75C0.0A090112 | 75C0.13090112 | |
| M 14 | 2 | 12 | 110 | 26 | - | 11 | 9 | 75C0.0A030114 | | | 75C0.0A090114 | | |
| M 16 | 2 | 14 | 110 | 27 | - | 12 | 9 | 75C0.0A030116 | 75C0.13030116 | 75C0.1C030116 | 75C0.0A090116 | 75C0.13090116 | |
| M 18 | 2,5 | 15,5 | 125 | 30 | - | 14 | 11 | 75C0.0A030118 | | | 75C0.0A090118 | | |
| M 20 | 2,5 | 17,5 | 140 | 32 | - | 16 | 12 | 75C0.0A030120 | 75C0.13030120 | | 75C0.0A090120 | 75C0.13090120 | |
| M 22 | 2,5 | 19,5 | 140 | 32 | - | 18 | 14,5 | 75C0.0A030122 | | | 75C0.0A090122 | | |
| M 24 | 3 | 21 | 160 | 34 | - | 18 | 14,5 | 75C0.0A030124 | | | 75C0.0A090124 | | |
| M 27 | 3 | 24 | 160 | 36 | - | 20 | 16 | 75C0.0A030127 | | | | | |
| M 30 | 3,5 | 26,5 | 180 | 40 | - | 22 | 18 | 75C0.0A030130 | | | 75C0.0A090130 | | |
| M 33 | 3,5 | 29,5 | 180 | 40 | - | 25 | 20 | 75C0.0A030133 | | | 75C0.0A090133 | | |
| M 36 | 4 | 32 | 200 | 50 | - | 28 | 22 | 75C0.0A030136 | | | 75C0.0A090136 | | |
| M 39 | 4 | 35 | 200 | 50 | - | 32 | 24 | 75C0.0A030139 | | | 75C0.0A090139 | | |
| M 42 | 4,5 | 37,5 | 200 | 56 | - | 32 | 24 | 75C0.0A030142 | | | 75C0.0A090142 | | |
| M 45 | 4,5 | 40,5 | 220 | 58 | - | 36 | 29 | | | | 75C0.0A090145 | | |
| M 48 | 5 | 43 | 250 | 65 | - | 36 | 29 | 75C0.0A030148 | | | 75C0.0A090148 | | |
| M 52 | 5 | 47 | 250 | 65 | - | 40 | 32 | | | | | | |

M DIN 13

4xD




| | NORIS STABIL UNI HP | NORIS STABIL UNI HP | NORIS STABIL ST TS | NORIS STABIL HR | NORIS STABIL VA | NORIS STABIL VA |
|---|---|---|---|---|---|---|
| |  |  |  |  |  |  |
| | HP | HP | TS | | | |
| OBERFLÄCHE · SURFACE · SURFACE · SUPERFICIE | ALTINHD | ALTINHD | TIN | ALTINHD | NIT | ALTINHD |
| SCHNEIDSTOFF · MATERIAL · MATIÈRE · MATERIALE | HSSE | HSSE | HSSE-PM | HSSE-PM | HSSE | HSSE |
| ANSCHNITTFORM · CHAMFER FORM · FORME D'ENTRÉE · FORMA D'IMBOCCO | B / 4-5 | B / 4-5 | B / 4-5 | B / 4-5 | B / 4-5 | B / 4-5 |
| TOLERANZ · TOLERANCE · TOLÉRANCE · TOLLERANZA | ISO2X | ISO3X | ISO2X | ISO2X | ISO2 | ISO2 |
| | RH | RH | RH | RH | RH | RH |

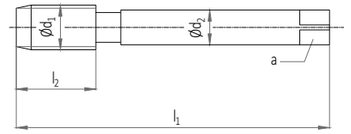
DIN 352

| | d1 [mm] | P [mm] | [mm] | l1 [mm] | l2 [mm] | l3 [mm] | Ø d2 [mm] | a [mm] | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| M | 3 | 0,5 | 2,5 | 40 | 10 | 18 | 3,5 | 2,7 | | | | | 5535.0A020030 | |
| M | 4 | 0,7 | 3,3 | 45 | 12 | 22 | 4,5 | 3,4 | | | | | 5535.0A020040 | |
| M | 5 | 0,8 | 4,2 | 50 | 14 | 25 | 6 | 4,9 | | | | | 5535.0A020050 | |
| M | 6 | 1 | 5 | 56 | 16 | 28 | 6 | 4,9 | | | | | 5535.0A020060 | |
| M | 8 | 1,25 | 6,8 | 63 | 20 | - | 6 | 4,9 | | | | | 5535.0A020080 | |
| M | 10 | 1,5 | 8,5 | 70 | 22 | - | 7 | 5,5 | | | | | 5535.0A020100 | |
| M | 12 | 1,75 | 10,2 | 75 | 24 | - | 9 | 7 | | | | | 5535.0A020112 | |

DIN 371

| | d1 [mm] | P [mm] | [mm] | l1 [mm] | l2 [mm] | l3 [mm] | Ø d2 [mm] | a [mm] | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| M | 1 | 0,25 | 0,75 | 40 | 5 | 5 | 2,5 | 2,1 | | | | | | |
| M | 1,1 | 0,25 | 0,85 | 40 | 5 | 5 | 2,5 | 2,1 | | | | | | |
| M | 1,2 | 0,25 | 0,95 | 40 | 5 | 5 | 2,5 | 2,1 | | | | | | |
| M | 1,4 | 0,3 | 1,1 | 40 | 6 | 6 | 2,5 | 2,1 | | | | | | |
| M | 1,6 | 0,35 | 1,25 | 40 | 6 | 11 | 2,5 | 2,1 | | | | | | 6535.0A090016 |
| M | 1,6 | 0,35 | 1,25 | 40 | 8 | 11 | 2,5 | 2,1 | | | | | | |
| M | 1,7 | 0,35 | 1,35 | 40 | 6 | 11 | 2,5 | 2,1 | | | | | | |
| M | 1,8 | 0,35 | 1,45 | 40 | 6 | 11 | 2,5 | 2,1 | | | | | | |
| M | 2 | 0,4 | 1,6 | 45 | 4 | 12 | 2,8 | 2,1 | 6410.0A090020 | | 6160.0A040020 | | | |
| M | 2 | 0,4 | 1,6 | 45 | 7 | 12 | 2,8 | 2,1 | | | | 6533.0A090020 | 6535.0A020020 | 6535.0A090020 |
| M | 2,2 | 0,45 | 1,75 | 45 | 7 | 12 | 2,8 | 2,1 | | | | | | |
| M | 2,3 | 0,4 | 1,9 | 45 | 7 | 12 | 2,8 | 2,1 | | | | | | |
| M | 2,5 | 0,45 | 2,05 | 50 | 5 | 14 | 2,8 | 2,1 | 6410.0A090025 | | 6160.0A040025 | | | |
| M | 2,5 | 0,45 | 2,05 | 50 | 9 | 14 | 2,8 | 2,1 | | | | 6533.0A090025 | 6535.0A020025 | 6535.0A090025 |
| M | 2,6 | 0,45 | 2,15 | 50 | 9 | 14 | 2,8 | 2,1 | | | | | | |
| M | 3 | 0,5 | 2,5 | 56 | 6 | 18 | 3,5 | 2,7 | 6410.0A090030 | | 6160.0A040030 | | | |
| M | 3 | 0,5 | 2,5 | 56 | 11 | 18 | 3,5 | 2,7 | | | | 6533.0A090030 | 6535.0A020030 | 6535.0A090030 |
| M | 3,5 | 0,6 | 2,9 | 56 | 7 | 20 | 4 | 3 | | | 6160.0A040035 | | | |
| M | 3,5 | 0,6 | 2,9 | 56 | 12 | 20 | 4 | 3 | | | | | 6535.0A020035 | |
| M | 4 | 0,7 | 3,3 | 63 | 7 | 21 | 4,5 | 3,4 | 6410.0A090040 | 6410.13090040 | 6160.0A040040 | | | |
| M | 4 | 0,7 | 3,3 | 63 | 13 | 21 | 4,5 | 3,4 | | | | 6533.0A090040 | 6535.0A020040 | 6535.0A090040 |
| M | 5 | 0,8 | 4,2 | 70 | 8 | 25 | 6 | 4,9 | 6410.0A090050 | 6410.13090050 | 6160.0A040050 | | | |
| M | 5 | 0,8 | 4,2 | 70 | 15 | 25 | 6 | 4,9 | | | | 6533.0A090050 | 6535.0A020050 | 6535.0A090050 |
| M | 6 | 1 | 5 | 80 | 10 | 30 | 6 | 4,9 | 6410.0A090060 | 6410.13090060 | 6160.0A040060 | | | |
| M | 6 | 1 | 5 | 80 | 17 | 30 | 6 | 4,9 | | | | 6533.0A090060 | 6535.0A020060 | 6535.0A090060 |
| M | 7 | 1 | 6 | 80 | 17 | 30 | 7 | 5,5 | | | | | | |
| M | 8 | 1,25 | 6,8 | 90 | 14 | 35 | 8 | 6,2 | 6410.0A090080 | 6410.13090080 | 6160.0A040080 | | | |
| M | 8 | 1,25 | 6,8 | 90 | 20 | 35 | 8 | 6,2 | | | | 6533.0A090080 | 6535.0A020080 | 6535.0A090080 |
| M | 10 | 1,5 | 8,5 | 100 | 16 | 39 | 10 | 8 | 6410.0A090100 | 6410.13090100 | 6160.0A040100 | | | |
| M | 10 | 1,5 | 8,5 | 100 | 22 | 39 | 10 | 8 | | | | 6533.0A090100 | 6535.0A020100 | 6535.0A090100 |
| M | 12 | 1,75 | 10,2 | 110 | 24 | 44 | 12 | 9 | | | | | | |

4xD



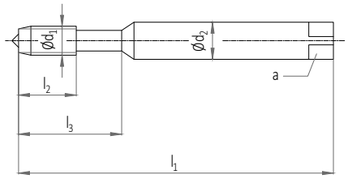

| | NORIS STABIL UNI HP | NORIS STABIL UNI HP | NORIS STABIL ST TS | NORIS STABIL HR | NORIS STABIL VA | NORIS STABIL VA |
|---|---|---|---|---|---|---|
| |  |  |  |  |  |  |
| | HP | HP | TS | | | |
| OBERFLÄCHE · SURFACE · SURFACE · SUPERFICIE | ALTINHD | ALTINHD | TIN | ALTINHD | NIT | ALTINHD |
| SCHNEIDSTOFF · MATERIAL · MATIÈRE · MATERIALE | HSSE-PM | HSSE-PM | HSSE-PM | HSSE-PM | HSSE | HSSE |
| ANSCHNITTFORM · CHAMFER FORM · FORME D'ENTRÉE · FORMA D'IMBOCCO | B / 4-5 | B / 4-5 | B / 4-5 | B / 4-5 | B / 4-5 | B / 4-5 |
| TOLERANZ · TOLERANCE · TOLÉRANCE · TOLLERANZA | ISO2X | ISO3X | ISO2X | ISO2X | ISO2 | ISO2 |
| | RH | RH | RH | RH | RH | RH |

DIN 376

| | d1 [mm] | P [mm] | [mm] | l1 [mm] | l2 [mm] | l3 [mm] | Ø d2 [mm] | a [mm] | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| M | 3 | 0,5 | 2,5 | 56 | 11 | - | 2,2 | - | | | | | | |
| M | 4 | 0,7 | 3,3 | 63 | 13 | - | 2,8 | 2,1 | | | | | | |
| M | 5 | 0,8 | 4,2 | 70 | 15 | - | 3,5 | 2,7 | | | | | | |
| M | 6 | 1 | 5 | 80 | 17 | - | 4,5 | 3,4 | | | | | | |
| M | 8 | 1,25 | 6,8 | 90 | 20 | - | 6 | 4,9 | | | | | | |
| M | 10 | 1,5 | 8,5 | 100 | 22 | - | 7 | 5,5 | | | | | | |
| M | 11 | 1,5 | 9,5 | 100 | 22 | - | 8 | 6,2 | | | | | | |
| M | 12 | 1,75 | 10,2 | 110 | 18 | - | 9 | 7 | 7410.0A090112 | 7410.13090112 | 7160.0A040112 | | | |
| M | 12 | 1,75 | 10,2 | 110 | 24 | - | 9 | 7 | | | | 7533.0A090112 | 7535.0A020112 | 7535.0A090112 |
| M | 14 | 2 | 12 | 110 | 20 | - | 11 | 9 | 7410.0A090114 | | | | | |
| M | 14 | 2 | 12 | 110 | 26 | - | 11 | 9 | | | | 7533.0A090114 | 7535.0A020114 | 7535.0A090114 |
| M | 16 | 2 | 14 | 110 | 22 | - | 12 | 9 | 7410.0A090116 | | 7160.0A040116 | | | |
| M | 16 | 2 | 14 | 110 | 27 | - | 12 | 9 | | | | 7533.0A090116 | 7535.0A020116 | 7535.0A090116 |
| M | 18 | 2,5 | 15,5 | 125 | 30 | - | 14 | 11 | | | | 7533.0A090118 | 7535.0A020118 | |
| M | 20 | 2,5 | 17,5 | 140 | 25 | - | 16 | 12 | 7410.0A090120 | | 7160.0A040120 | | | |
| M | 20 | 2,5 | 17,5 | 140 | 32 | - | 16 | 12 | | | | 7533.0A090120 | 7535.0A020120 | 7535.0A090120 |
| M | 22 | 2,5 | 19,5 | 140 | 32 | - | 18 | 14,5 | | | | | 7535.0A020122 | |
| M | 24 | 3 | 21 | 160 | 34 | - | 18 | 14,5 | | | | | 7535.0A020124 | |
| M | 27 | 3 | 24 | 160 | 36 | - | 20 | 16 | | | | | 7535.0A020127 | |
| M | 30 | 3,5 | 26,5 | 180 | 40 | - | 22 | 18 | | | | | 7535.0A020130 | |
| M | 33 | 3,5 | 29,5 | 180 | 40 | - | 25 | 20 | | | | | | |
| M | 36 | 4 | 32 | 200 | 50 | - | 28 | 22 | | | | | | |
| M | 39 | 4 | 35 | 200 | 50 | - | 32 | 24 | | | | | | |
| M | 42 | 4,5 | 37,5 | 200 | 56 | - | 32 | 24 | | | | | | |
| M | 45 | 4,5 | 40,5 | 220 | 58 | - | 36 | 29 | | | | | | |
| M | 48 | 5 | 43 | 250 | 65 | - | 36 | 29 | | | | | | |
| M | 52 | 5 | 47 | 250 | 65 | - | 40 | 32 | | | | | | |

M DIN 13

4xD





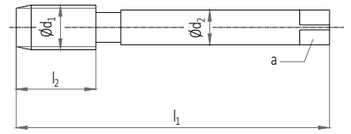

AZ

| | NORIS STABIL NW | NORIS STABIL SOFT | NORIS STABIL TI | NORIS STABIL TI | NORIS STABIL TI | NORIS STABIL TI AZ |
|---|---|---|---|---|---|---|
| OBERFLÄCHE · SURFACE · SURFACE · SUPERFICIE | DLC | DLC | VAP | TIN | TIN | VAP |
| SCHNEIDSTOFF · MATERIAL · MATIÈRE · MATERIALE | HSSE | HSSE | HSSE-PM | HSSE-PM | HSSE-PM | HSSE-PM |
| ANSCHNITTFORM · CHAMFER FORM · FORME D'ENTRÉE · FORMA D'IMBOCCO | B / 4-5 | B / 2-3 | B / 4-5 | B / 4-5 | B / 4-5 | B / 4-5 |
| TOLERANZ · TOLERANCE · TOLÉRANCE · TOLLERANZA | ISO2 | ISO2 | ISO2X | ISO1X | ISO2X | ISO2X |
| | RH | RH | RH | RH | RH | RH |

DIN 371

| $d_1$ | P | | $l_1$ | $l_2$ | $l_3$ | Ø $d_2$ | a | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| [mm] | [mm] | [mm] | [mm] | [mm] | [mm] | [mm] | [mm] | | | | | | |
| M 1 | 0,25 | 0,75 | 40 | 5 | 5 | 2,5 | 2,1 | | | | | | |
| M 1,1 | 0,25 | 0,85 | 40 | 5 | 5 | 2,5 | 2,1 | | | | | | |
| M 1,2 | 0,25 | 0,95 | 40 | 5 | 5 | 2,5 | 2,1 | | | | | | |
| M 1,4 | 0,3 | 1,1 | 40 | 6 | 6 | 2,5 | 2,1 | | | | | | |
| M 1,6 | 0,35 | 1,25 | 40 | 8 | 11 | 2,5 | 2,1 | | | 6084.0A010016 | | | |
| M 1,7 | 0,35 | 1,35 | 40 | 6 | 11 | 2,5 | 2,1 | | | | | | |
| M 1,8 | 0,35 | 1,45 | 40 | 6 | 11 | 2,5 | 2,1 | | | | | | |
| M 2 | 0,4 | 1,6 | 45 | 7 | 12 | 2,8 | 2,1 | 6571.0A100020 | 657S.0A100020 | 6084.0A010020 | 6084.01040020 | | |
| M 2,2 | 0,45 | 1,75 | 45 | 7 | 12 | 2,8 | 2,1 | | | | | | |
| M 2,3 | 0,4 | 1,9 | 45 | 7 | 12 | 2,8 | 2,1 | | | | | | |
| M 2,5 | 0,45 | 2,05 | 50 | 9 | 14 | 2,8 | 2,1 | 6571.0A100025 | 657S.0A100025 | 6084.0A010025 | | | |
| M 2,6 | 0,45 | 2,15 | 50 | 9 | 14 | 2,8 | 2,1 | | | | | | |
| M 3 | 0,5 | 2,5 | 56 | 11 | 18 | 3,5 | 2,7 | 6571.0A100030 | 657S.0A100030 | 6084.0A010030 | 6084.01040030 | 6084.0A040030 | 6094.0A010030 |
| M 3,5 | 0,6 | 2,9 | 56 | 12 | 20 | 4 | 3 | | | 6084.0A010035 | | | |
| M 4 | 0,7 | 3,3 | 63 | 13 | 21 | 4,5 | 3,4 | 6571.0A100040 | 657S.0A100040 | 6084.0A010040 | 6084.01040040 | 6084.0A040040 | 6094.0A010040 |
| M 5 | 0,8 | 4,2 | 70 | 15 | 25 | 6 | 4,9 | 6571.0A100050 | 657S.0A100050 | 6084.0A010050 | 6084.01040050 | 6084.0A040050 | 6094.0A010050 |
| M 6 | 1 | 5 | 80 | 17 | 30 | 6 | 4,9 | 6571.0A100060 | 657S.0A100060 | 6084.0A010060 | 6084.01040060 | 6084.0A040060 | 6094.0A010060 |
| M 7 | 1 | 6 | 80 | 17 | 30 | 7 | 5,5 | | | | | | |
| M 8 | 1,25 | 6,8 | 90 | 20 | 35 | 8 | 6,2 | 6571.0A100080 | 657S.0A100080 | 6084.0A010080 | 6084.01040080 | 6084.0A040080 | 6094.0A010080 |
| M 10 | 1,5 | 8,5 | 100 | 22 | 39 | 10 | 8 | 6571.0A100100 | 657S.0A100100 | 6084.0A010100 | | 6084.0A040100 | 6094.0A010100 |
| M 12 | 1,75 | 10,2 | 110 | 24 | 44 | 12 | 9 | | | | | | |

4xD



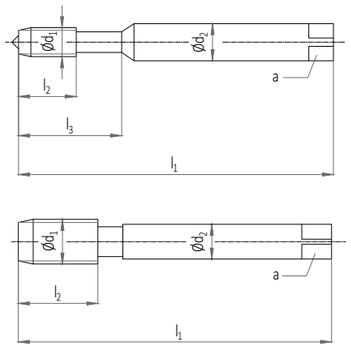



| | NORIS STABIL NW | NORIS STABIL SOFT | NORIS STABIL TI | NORIS STABIL TI |
|---|---|---|---|---|
| OBERFLÄCHE · SURFACE · SURFACE · SUPERFICIE | DLC | DLC | VAP | TIN |
| SCHNEIDSTOFF · MATERIAL · MATIÈRE · MATERIALE | HSSE | HSSE | HSSE-PM | HSSE-PM |
| ANSCHNITTFORM · CHAMFER FORM · FORME D'ENTRÉE · FORMA D'IMBOCCO | B / 4-5 | B / 2-3 | B / 4-5 | B / 4-5 |
| TOLERANZ · TOLERANCE · TOLÉRANCE · TOLLERANZA | ISO2 | ISO2 | ISO2X | ISO2X |
| | RH | RH | RH | RH |

DIN 376

| $d_1$ | P | | $l_1$ | $l_2$ | $l_3$ | Ø $d_2$ | a | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| [mm] | [mm] | [mm] | [mm] | [mm] | [mm] | [mm] | [mm] | | | | |
| M 3 | 0,5 | 2,5 | 56 | 11 | - | 2,2 | - | | | | |
| M 4 | 0,7 | 3,3 | 63 | 13 | - | 2,8 | 2,1 | | | | |
| M 5 | 0,8 | 4,2 | 70 | 15 | - | 3,5 | 2,7 | | | | |
| M 6 | 1 | 5 | 80 | 17 | - | 4,5 | 3,4 | | | | |
| M 8 | 1,25 | 6,8 | 90 | 20 | - | 6 | 4,9 | | | | |
| M 10 | 1,5 | 8,5 | 100 | 22 | - | 7 | 5,5 | | | | |
| M 11 | 1,5 | 9,5 | 100 | 22 | - | 8 | 6,2 | | | | |
| M 12 | 1,75 | 10,2 | 110 | 24 | - | 9 | 7 | 7571.0A100112 | 757S.0A100112 | 7084.0A010112 | 7084.0A040112 |
| M 14 | 2 | 12 | 110 | 26 | - | 11 | 9 | | | | |
| M 16 | 2 | 14 | 110 | 27 | - | 12 | 9 | 7571.0A100116 | 757S.0A100116 | | |
| M 18 | 2,5 | 15,5 | 125 | 30 | - | 14 | 11 | | | | |
| M 20 | 2,5 | 17,5 | 140 | 32 | - | 16 | 12 | 7571.0A100120 | | | |
| M 22 | 2,5 | 19,5 | 140 | 32 | - | 18 | 14,5 | | | | |
| M 24 | 3 | 21 | 160 | 34 | - | 18 | 14,5 | | | | |
| M 27 | 3 | 24 | 160 | 36 | - | 20 | 16 | | | | |
| M 30 | 3,5 | 26,5 | 180 | 40 | - | 22 | 18 | | | | |
| M 33 | 3,5 | 29,5 | 180 | 40 | - | 25 | 20 | | | | |
| M 36 | 4 | 32 | 200 | 50 | - | 28 | 22 | | | | |
| M 39 | 4 | 35 | 200 | 50 | - | 32 | 24 | | | | |
| M 42 | 4,5 | 37,5 | 200 | 56 | - | 32 | 24 | | | | |
| M 45 | 4,5 | 40,5 | 220 | 58 | - | 36 | 29 | | | | |
| M 48 | 5 | 43 | 250 | 65 | - | 36 | 29 | | | | |
| M 52 | 5 | 47 | 250 | 65 | - | 40 | 32 | | | | |

4xD




NORIS DL15

TI



NORIS DL15

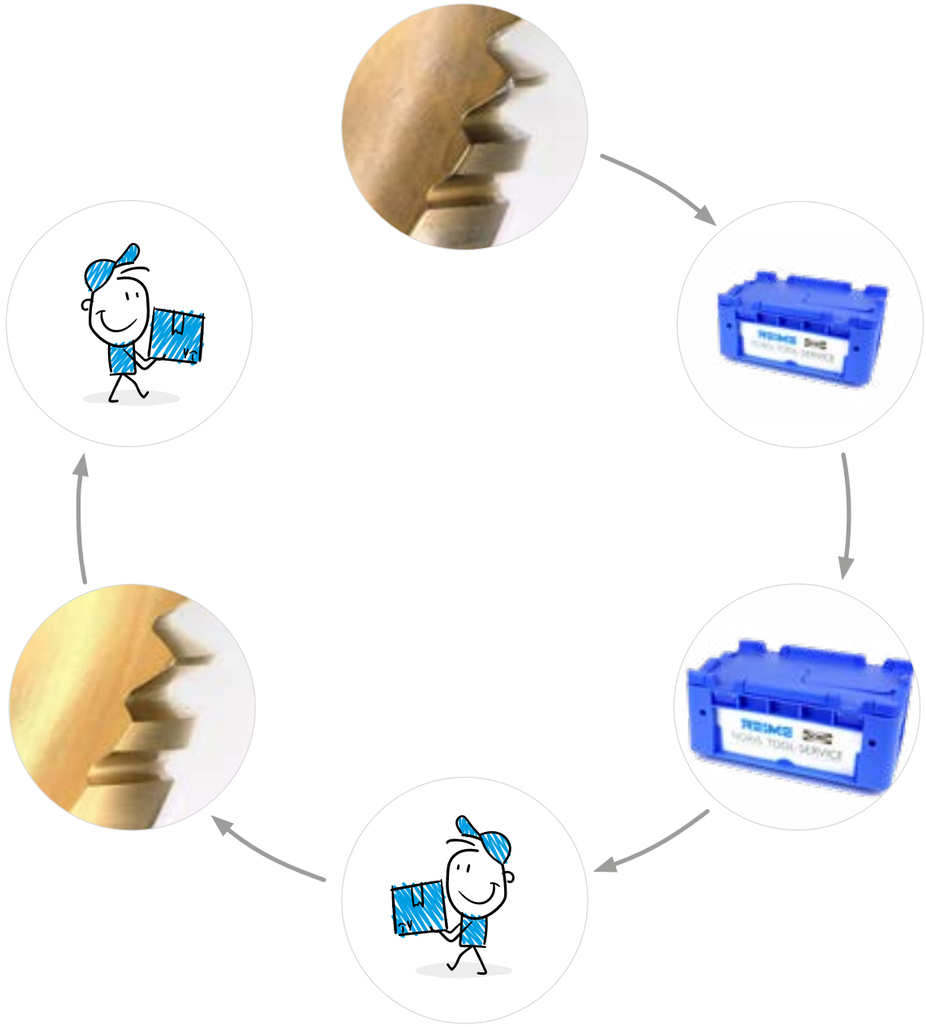
NI



| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | $d_1$ [mm] | P [mm] | | $l_1$ [mm] | $l_2$ [mm] | $l_3$ [mm] | Ø $d_2$ [mm] | a [mm] | | | |
| DIN 371 | OBERFLÄCHE · SURFACE · SURFACE · SUPERFICIE | | | | | | | | | TICN | TICN | |
| | SCHNEIDSTOFF · MATERIAL · MATIÈRE · MATERIALE | | | | | | | | | HSSE | HSSE-PM | |
| | ANSCHNITTFORM · CHAMFER FORM · FORME D'ENTRÉE · FORMA D'IMBOCCO | | | | | | | | | D / 4-5 | D / 4-5 | |
| | TOLERANZ · TOLERANCE · TOLÉRANCE · TOLLERANZA | | | | | | | | | ISO2X | ISO2X | |
| | | | | | | | | | | RH | RH | |
| | | M 3 | 0,5 | 2,5 | 56 | 11 | 18 | 3,5 | 2,7 | 6504.0C050030 | 6507.0C050030 | |
| | | M 4 | 0,7 | 3,3 | 63 | 13 | 21 | 4,5 | 3,4 | 6504.0C050040 | 6507.0C050040 | |
| | | M 5 | 0,8 | 4,2 | 70 | 15 | 25 | 6 | 4,9 | 6504.0C050050 | 6507.0C050050 | |
| | | M 6 | 1 | 5 | 80 | 17 | 30 | 6 | 4,9 | 6504.0C050060 | 6507.0C050060 | |
| | | M 8 | 1,25 | 6,8 | 90 | 20 | 35 | 8 | 6,2 | 6504.0C050080 | 6507.0C050080 | |
| | | M 10 | 1,5 | 8,5 | 100 | 22 | 39 | 10 | 8 | 6504.0C050100 | 6507.0C050100 | |
| | | $d_1$ [mm] | P [mm] | | $l_1$ [mm] | $l_2$ [mm] | $l_3$ [mm] | Ø $d_2$ [mm] | a [mm] | | | |
| DIN 376 | | M 12 | 1,75 | 10,2 | 110 | 24 | - | 9 | 7 | 7504.0C050112 | 7507.0C050112 | |
| | | M 16 | 2 | 14 | 110 | 27 | - | 12 | 9 | 7504.0C050116 | 7507.0C050116 | |
| | | M 20 | 2,5 | 17,5 | 140 | 32 | - | 16 | 12 | 7504.0C050120 | 7507.0C050120 | |
| | | M 24 | 3 | 21 | 160 | 34 | - | 18 | 14,5 | 7504.0C050124 | | |

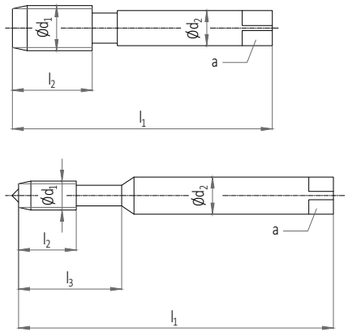
## NACHSCHLEIFSERVICE

REGRINDING SERVICE / SERVICE DE RÉAFFÛTAGE / SERVIZIO DI RIAFFILATURA



M DIN 13

2xD

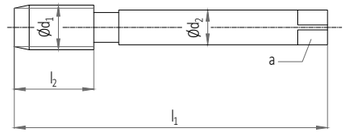









2xD






DIN 352

| d1 [mm] | P [mm] | [mm] | l1 [mm] | l2 [mm] | l3 [mm] | Ø d2 [mm] | a [mm] | NORIS TWIN ST WAC HSSE C / 2-3 ISO1X RH | NORIS TWIN ST WAC HSSE C / 2-3 ISO2X RH | NORIS TWIN ST WAC HSSE C / 2-3 ISO2X LH |
|---|---|---|---|---|---|---|---|---|---|---|
| M 3 | 0,5 | 2,5 | 40 | 10 | 18 | 3,5 | 2,7 | | 5100.0B000030 | 5100.4A000030 |
| M 4 | 0,7 | 3,3 | 45 | 12 | 22 | 4,5 | 3,4 | | 5100.0B000040 | 5100.4A000040 |
| M 5 | 0,8 | 4,2 | 50 | 14 | 25 | 6 | 4,9 | | 5100.0B000050 | 5100.4A000050 |
| M 6 | 1 | 5 | 56 | 16 | 28 | 6 | 4,9 | | 5100.0B000060 | 5100.4A000060 |
| M 8 | 1,25 | 6,8 | 63 | 20 | - | 6 | 4,9 | | 5100.0B000080 | 5100.4A000080 |
| M 10 | 1,5 | 8,5 | 70 | 22 | - | 7 | 5,5 | | 5100.0B000100 | 5100.4A000100 |
| M 12 | 1,75 | 10,2 | 75 | 24 | - | 9 | 7 | | 5100.0B000112 | 5100.4A000112 |

DIN 371

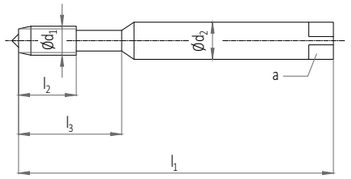
| d1 [mm] | P [mm] | [mm] | l1 [mm] | l2 [mm] | l3 [mm] | Ø d2 [mm] | a [mm] | | |
|---|---|---|---|---|---|---|---|---|---|
| M 1 | 0,25 | 0,75 | 40 | 5 | 5 | 2,5 | 2,1 | 6100.02000010 | |
| M 1,1 | 0,25 | 0,85 | 40 | 5 | 5 | 2,5 | 2,1 | 6100.02000011 | |
| M 1,2 | 0,25 | 0,95 | 40 | 5 | 5 | 2,5 | 2,1 | 6100.02000012 | |
| M 1,4 | 0,3 | 1,1 | 40 | 6 | 6 | 2,5 | 2,1 | 6100.02000014 | |
| M 1,6 | 0,35 | 1,25 | 40 | 6 | 11 | 2,5 | 2,1 | | 6100.0B000016 |
| M 1,7 | 0,35 | 1,35 | 40 | 6 | 11 | 2,5 | 2,1 | | 6100.0B000017 |
| M 1,8 | 0,35 | 1,45 | 40 | 6 | 11 | 2,5 | 2,1 | | 6100.0B000018 |
| M 2 | 0,4 | 1,6 | 45 | 7 | 12 | 2,8 | 2,1 | | 6100.0B000020 |
| M 2,2 | 0,45 | 1,75 | 45 | 7 | 12 | 2,8 | 2,1 | | 6100.0B000022 |
| M 2,3 | 0,4 | 1,9 | 45 | 7 | 12 | 2,8 | 2,1 | | 6100.0B000023 |
| M 2,5 | 0,45 | 2,05 | 50 | 9 | 14 | 2,8 | 2,1 | | 6100.0B000025 |
| M 2,6 | 0,45 | 2,15 | 50 | 9 | 14 | 2,8 | 2,1 | | 6100.0B000026 |
| M 3 | 0,5 | 2,5 | 56 | 11 | 18 | 3,5 | 2,7 | | 6100.0B000030 |
| M 3,5 | 0,6 | 2,9 | 56 | 12 | 20 | 4 | 3 | | 6100.0B000035 |
| M 4 | 0,7 | 3,3 | 63 | 13 | 21 | 4,5 | 3,4 | | 6100.0B000040 |
| M 5 | 0,8 | 4,2 | 70 | 15 | 25 | 6 | 4,9 | | 6100.0B000050 |
| M 6 | 1 | 5 | 80 | 17 | 30 | 6 | 4,9 | | 6100.0B000060 |
| M 7 | 1 | 6 | 80 | 17 | 30 | 7 | 5,5 | | 6100.0B000070 |
| M 8 | 1,25 | 6,8 | 90 | 20 | 35 | 8 | 6,2 | | 6100.0B000080 |
| M 9 | 1,25 | 7,8 | 90 | 20 | 35 | 9 | 7 | | 6100.0B000090 |
| M 10 | 1,5 | 8,5 | 100 | 22 | 39 | 10 | 8 | | 6100.0B000100 |

DIN 376

| d1 [mm] | P [mm] | [mm] | l1 [mm] | l2 [mm] | l3 [mm] | Ø d2 [mm] | a [mm] | NORIS TWIN ST WAC HSSE C / 2-3 ISO2X RH |
|---|---|---|---|---|---|---|---|---|
| M 4 | 0,7 | 3,3 | 63 | 13 | - | 2,8 | 2,1 | 7100.0B000040 |
| M 5 | 0,8 | 4,2 | 70 | 15 | - | 3,5 | 2,7 | 7100.0B000050 |
| M 6 | 1 | 5 | 80 | 17 | - | 4,5 | 3,4 | 7100.0B000060 |
| M 7 | 1 | 6 | 80 | 17 | - | 5,5 | 4,3 | 7100.0B000070 |
| M 8 | 1,25 | 6,8 | 90 | 20 | - | 6 | 4,9 | 7100.0B000080 |
| M 9 | 1,25 | 7,8 | 90 | 20 | - | 7 | 5,5 | 7100.0B000090 |
| M 10 | 1,5 | 8,5 | 100 | 22 | - | 7 | 5,5 | 7100.0B000100 |
| M 11 | 1,5 | 9,5 | 100 | 22 | - | 8 | 6,2 | 7100.0B000111 |
| M 12 | 1,75 | 10,2 | 110 | 24 | - | 9 | 7 | 7100.0B000112 |
| M 14 | 2 | 12 | 110 | 26 | - | 11 | 9 | 7100.0B000114 |
| M 16 | 2 | 14 | 110 | 27 | - | 12 | 9 | 7100.0B000116 |
| M 18 | 2,5 | 15,5 | 125 | 30 | - | 14 | 11 | 7100.0B000118 |
| M 20 | 2,5 | 17,5 | 140 | 32 | - | 16 | 12 | 7100.0B000120 |
| M 22 | 2,5 | 19,5 | 140 | 32 | - | 18 | 14,5 | 7100.0B000122 |
| M 24 | 3 | 21 | 160 | 34 | - | 18 | 14,5 | 7100.0B000124 |
| M 27 | 3 | 24 | 160 | 36 | - | 20 | 16 | 7100.0B000127 |
| M 30 | 3,5 | 26,5 | 180 | 40 | - | 22 | 18 | 7100.0B000130 |
| M 33 | 3,5 | 29,5 | 180 | 40 | - | 25 | 20 | 7100.0B000133 |
| M 36 | 4 | 32 | 200 | 50 | - | 28 | 22 | 7100.0B000136 |
| M 39 | 4 | 35 | 200 | 50 | - | 32 | 24 | 7100.0B000139 |
| M 42 | 4,5 | 37,5 | 200 | 56 | - | 32 | 24 | 7100.0B000142 |
| M 45 | 4,5 | 40,5 | 220 | 58 | - | 36 | 29 | 7100.0B000145 |
| M 48 | 5 | 43 | 250 | 65 | - | 36 | 29 | 7100.0B000148 |
| M 52 | 5 | 47 | 250 | 65 | - | 40 | 32 | 7100.0B000152 |

M DIN 13

2xD

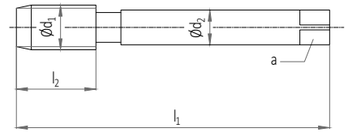



DIN 371

| | NORIS TWIN HR | NORIS TWIN HR | NORIS TWIN HR MKB | NORIS TWIN HR MKB | NORIS TWIN HR MKB |
|---|---|---|---|---|---|
| OBERFLÄCHE · SURFACE · SURFACE · SUPERFICIE | NIT | TICN | WAC | NIT | TICN |
| SCHNEIDSTOFF · MATERIAL · MATIÈRE · MATERIALE | HSSE | HSSE | HM | HSSE | HSSE |
| ANSCHNITTFORM · CHAMFER FORM · FORME D'ENTRÉE · FORMA D'IMBOCCO | C / 2-3 | C / 2-3 | C / 2-3 | C / 2-3 | C / 2-3 |
| TOLERANZ · TOLERANCE · TOLÉRANCE · TOLLERANZA | ISO2X | ISO2X | ISO2X | ISO2X | ISO2X |
| | RH | RH | RH | RH | RH |

| $d_1$ | P | | $l_1$ | $l_2$ | $l_3$ | Ø $d_2$ | a | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| [mm] | [mm] | [mm] | [mm] | [mm] | [mm] | [mm] | [mm] | | | | | |
| M 1 | 0,25 | 0,75 | 40 | 5 | 5 | 2,5 | 2,1 | | | | | |
| M 1,1 | 0,25 | 0,85 | 40 | 5 | 5 | 2,5 | 2,1 | | | | | |
| M 1,2 | 0,25 | 0,95 | 40 | 5 | 5 | 2,5 | 2,1 | | | | | |
| M 1,4 | 0,3 | 1,1 | 40 | 6 | 6 | 2,5 | 2,1 | | | | | |
| M 1,6 | 0,35 | 1,25 | 40 | 6 | 11 | 2,5 | 2,1 | | | | | |
| M 1,7 | 0,35 | 1,35 | 40 | 6 | 11 | 2,5 | 2,1 | | | | | |
| M 1,8 | 0,35 | 1,45 | 40 | 6 | 11 | 2,5 | 2,1 | | | | | |
| M 2 | 0,4 | 1,6 | 45 | 7 | 12 | 2,8 | 2,1 | 6103.0B020020 | 6103.0B050020 | | | |
| M 2,2 | 0,45 | 1,75 | 45 | 7 | 12 | 2,8 | 2,1 | | | | | |
| M 2,3 | 0,4 | 1,9 | 45 | 7 | 12 | 2,8 | 2,1 | | | | | |
| M 2,5 | 0,45 | 2,05 | 50 | 9 | 14 | 2,8 | 2,1 | 6103.0B020025 | 6103.0B050025 | | | |
| M 2,6 | 0,45 | 2,15 | 50 | 9 | 14 | 2,8 | 2,1 | | | | | |
| M 3 | 0,5 | 2,5 | 56 | 6 | 18 | 3,5 | 2,7 | | | 6300.0B000030 | | |
| M 3 | 0,5 | 2,5 | 56 | 11 | 18 | 3,5 | 2,7 | 6103.0B020030 | 6103.0B050030 | | | |
| M 3,5 | 0,6 | 2,9 | 56 | 12 | 20 | 4 | 3 | 6103.0B020035 | 6103.0B050035 | | | |
| M 4 | 0,7 | 3,3 | 63 | 7 | 21 | 4,5 | 3,4 | | | 6300.0B000040 | | |
| M 4 | 0,7 | 3,3 | 63 | 13 | 21 | 4,5 | 3,4 | 6103.0B020040 | 6103.0B050040 | | | |
| M 5 | 0,8 | 4,2 | 70 | 8 | 25 | 6 | 4,9 | | | 6300.0B000050 | | |
| M 5 | 0,8 | 4,2 | 70 | 15 | 25 | 6 | 4,9 | 6103.0B020050 | 6103.0B050050 | | 6813.0B020050 | 6813.0B050050 |
| M 6 | 1 | 5 | 80 | 10 | 30 | 6 | 4,9 | | | 6300.0B000060 | | |
| M 6 | 1 | 5 | 80 | 17 | 30 | 6 | 4,9 | 6103.0B020060 | 6103.0B050060 | | 6813.0B020060 | 6813.0B050060 |
| M 7 | 1 | 6 | 80 | 17 | 30 | 7 | 5,5 | 6103.0B020070 | 6103.0B050070 | | | |
| M 8 | 1,25 | 6,8 | 90 | 14 | 35 | 8 | 6,2 | | | 6300.0B000080 | | |
| M 8 | 1,25 | 6,8 | 90 | 20 | 35 | 8 | 6,2 | 6103.0B020080 | 6103.0B050080 | | 6813.0B020080 | 6813.0B050080 |
| M 9 | 1,25 | 7,8 | 90 | 20 | 35 | 9 | 7 | | | | | |
| M 10 | 1,5 | 8,5 | 100 | 16 | 39 | 10 | 8 | | | 6300.0B000100 | | |
| M 10 | 1,5 | 8,5 | 100 | 22 | 39 | 10 | 8 | 6103.0B020100 | 6103.0B050100 | | 6813.0B020100 | 6813.0B050100 |

2xD



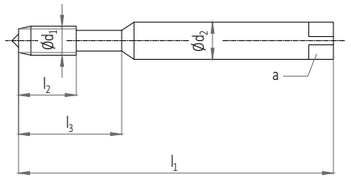

DIN 376

| | NORIS TWIN HR | NORIS TWIN HR | NORIS TWIN HR MKB | NORIS TWIN HR MKB | NORIS TWIN HR MKB |
|---|---|---|---|---|---|
| OBERFLÄCHE · SURFACE · SURFACE · SUPERFICIE | NIT | TICN | WAC | NIT | TICN |
| SCHNEIDSTOFF · MATERIAL · MATIÈRE · MATERIALE | HSSE | HSSE | HM | HSSE | HSSE |
| ANSCHNITTFORM · CHAMFER FORM · FORME D'ENTRÉE · FORMA D'IMBOCCO | C / 2-3 | C / 2-3 | C / 2-3 | C / 2-3 | C / 2-3 |
| TOLERANZ · TOLERANCE · TOLÉRANCE · TOLLERANZA | ISO2X | ISO2X | ISO2X | ISO2X | ISO2X |
| | RH | RH | RH | RH | RH |

| $d_1$ | P | | $l_1$ | $l_2$ | $l_3$ | Ø $d_2$ | a | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| [mm] | [mm] | [mm] | [mm] | [mm] | [mm] | [mm] | [mm] | | | | | |
| M 4 | 0,7 | 3,3 | 63 | 13 | - | 2,8 | 2,1 | | | | | |
| M 5 | 0,8 | 4,2 | 70 | 15 | - | 3,5 | 2,7 | | | | | |
| M 6 | 1 | 5 | 80 | 17 | - | 4,5 | 3,4 | | | | | |
| M 7 | 1 | 6 | 80 | 17 | - | 5,5 | 4,3 | | | | | |
| M 8 | 1,25 | 6,8 | 90 | 20 | - | 6 | 4,9 | | | | | |
| M 9 | 1,25 | 7,8 | 90 | 20 | - | 7 | 5,5 | | | | | |
| M 10 | 1,5 | 8,5 | 100 | 22 | - | 7 | 5,5 | | | | | |
| M 11 | 1,5 | 9,5 | 100 | 22 | - | 8 | 6,2 | | | | | |
| M 12 | 1,75 | 10,2 | 110 | 18 | - | 9 | 7 | | | 7300.0B000112 | | |
| M 12 | 1,75 | 10,2 | 110 | 24 | - | 9 | 7 | 7103.0B020112 | 7103.0B050112 | | 7813.0B020112 | 7813.0B050112 |
| M 14 | 2 | 12 | 110 | 26 | - | 11 | 9 | 7103.0B020114 | 7103.0B050114 | | 7813.0B020114 | 7813.0B050114 |
| M 16 | 2 | 14 | 110 | 22 | - | 12 | 9 | | | 7300.0B000116 | | |
| M 16 | 2 | 14 | 110 | 27 | - | 12 | 9 | 7103.0B020116 | 7103.0B050116 | | 7813.0B020116 | 7813.0B050116 |
| M 18 | 2,5 | 15,5 | 125 | 25 | - | 14 | 11 | | | 7300.0B000118 | | |
| M 18 | 2,5 | 15,5 | 125 | 30 | - | 14 | 11 | 7103.0B020118 | 7103.0B050118 | | | |
| M 20 | 2,5 | 17,5 | 140 | 25 | - | 16 | 12 | | | 7300.0B000120 | | |
| M 20 | 2,5 | 17,5 | 140 | 32 | - | 16 | 12 | 7103.0B020120 | 7103.0B050120 | | 7813.0B020120 | 7813.0B050120 |
| M 22 | 2,5 | 19,5 | 140 | 27 | - | 18 | 14,5 | | | 7300.0B000122 | | |
| M 22 | 2,5 | 19,5 | 140 | 32 | - | 18 | 14,5 | | | | | |
| M 24 | 3 | 21 | 160 | 30 | - | 18 | 14,5 | | | 7300.0B000124 | | |
| M 24 | 3 | 21 | 160 | 34 | - | 18 | 14,5 | 7103.0B020124 | 7103.0B050124 | | | |
| M 27 | 3 | 24 | 160 | 36 | - | 20 | 16 | | | | | |
| M 30 | 3,5 | 26,5 | 180 | 40 | - | 22 | 18 | | | | | |
| M 33 | 3,5 | 29,5 | 180 | 40 | - | 25 | 20 | | | | | |
| M 36 | 4 | 32 | 200 | 50 | - | 28 | 22 | | | | | |
| M 39 | 4 | 35 | 200 | 50 | - | 32 | 24 | | | | | |
| M 42 | 4,5 | 37,5 | 200 | 56 | - | 32 | 24 | | | | | |
| M 45 | 4,5 | 40,5 | 220 | 58 | - | 36 | 29 | | | | | |
| M 48 | 5 | 43 | 250 | 65 | - | 36 | 29 | | | | | |
| M 52 | 5 | 47 | 250 | 65 | - | 40 | 32 | | | | | |

M DIN 13

2xD

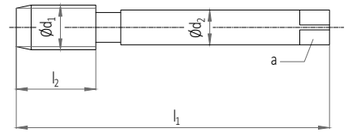



| | NORIS TWIN GG | NORIS TWIN GG | NORIS TWIN GG MKB |
|---|---|---|---|
| |  |  |  |
| OBERFLÄCHE · SURFACE · SURFACE · SUPERFICIE | NIT | TICN | NIT |
| SCHNEIDSTOFF · MATERIAL · MATIÈRE · MATERIALE | HSSE | HSSE | HSSE |
| ANSCHNITTFORM · CHAMFER FORM · FORME D'ENTRÉE · FORMA D'IMBOCCO | C / 2-3 | C / 2-3 | C / 2-3 |
| TOLERANZ · TOLERANCE · TOLÉRANCE · TOLLERANZA | ISO2X | ISO2X | ISO2X |
| | RH | RH | RH |

DIN 371

| d1 [mm] | P [mm] | | l1 [mm] | l2 [mm] | l3 [mm] | Ø d2 [mm] | a [mm] | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| M 1 | 0,25 | 0,75 | 40 | 5 | 5 | 2,5 | 2,1 | | | |
| M 1,1 | 0,25 | 0,85 | 40 | 5 | 5 | 2,5 | 2,1 | | | |
| M 1,2 | 0,25 | 0,95 | 40 | 5 | 5 | 2,5 | 2,1 | | | |
| M 1,4 | 0,3 | 1,1 | 40 | 6 | 6 | 2,5 | 2,1 | | | |
| M 1,6 | 0,35 | 1,25 | 40 | 6 | 11 | 2,5 | 2,1 | | | |
| M 1,7 | 0,35 | 1,35 | 40 | 6 | 11 | 2,5 | 2,1 | | | |
| M 1,8 | 0,35 | 1,45 | 40 | 6 | 11 | 2,5 | 2,1 | | | |
| M 2 | 0,4 | 1,6 | 45 | 7 | 12 | 2,8 | 2,1 | 6200.0B020020 | | |
| M 2,2 | 0,45 | 1,75 | 45 | 7 | 12 | 2,8 | 2,1 | | | |
| M 2,3 | 0,4 | 1,9 | 45 | 7 | 12 | 2,8 | 2,1 | | | |
| M 2,5 | 0,45 | 2,05 | 50 | 9 | 14 | 2,8 | 2,1 | 6200.0B020025 | | |
| M 2,6 | 0,45 | 2,15 | 50 | 9 | 14 | 2,8 | 2,1 | | | |
| M 3 | 0,5 | 2,5 | 56 | 11 | 18 | 3,5 | 2,7 | 6200.0B020030 | 6200.0B050030 | |
| M 3,5 | 0,6 | 2,9 | 56 | 12 | 20 | 4 | 3 | 6200.0B020035 | | |
| M 4 | 0,7 | 3,3 | 63 | 13 | 21 | 4,5 | 3,4 | 6200.0B020040 | 6200.0B050040 | |
| M 5 | 0,8 | 4,2 | 70 | 15 | 25 | 6 | 4,9 | 6200.0B020050 | 6200.0B050050 | 6820.0B020050 |
| M 6 | 1 | 5 | 80 | 17 | 30 | 6 | 4,9 | 6200.0B020060 | 6200.0B050060 | 6820.0B020060 |
| M 7 | 1 | 6 | 80 | 17 | 30 | 7 | 5,5 | 6200.0B020070 | 6200.0B050070 | |
| M 8 | 1,25 | 6,8 | 90 | 20 | 35 | 8 | 6,2 | 6200.0B020080 | 6200.0B050080 | 6820.0B020080 |
| M 9 | 1,25 | 7,8 | 90 | 20 | 35 | 9 | 7 | | | |
| M 10 | 1,5 | 8,5 | 100 | 22 | 39 | 10 | 8 | 6200.0B020100 | 6200.0B050100 | 6820.0B020100 |

2xD



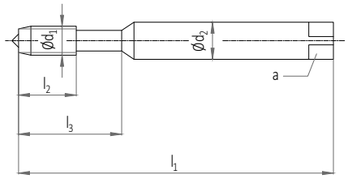

| | NORIS TWIN GG | NORIS TWIN GG | NORIS TWIN GG MKB |
|---|---|---|---|
| |  |  |  |
| OBERFLÄCHE · SURFACE · SURFACE · SUPERFICIE | NIT | TICN | NIT |
| SCHNEIDSTOFF · MATERIAL · MATIÈRE · MATERIALE | HSSE | HSSE | HSSE |
| ANSCHNITTFORM · CHAMFER FORM · FORME D'ENTRÉE · FORMA D'IMBOCCO | C / 2-3 | C / 2-3 | C / 2-3 |
| TOLERANZ · TOLERANCE · TOLÉRANCE · TOLLERANZA | ISO2X | ISO2X | ISO2X |
| | RH | RH | RH |

DIN 376

| d1 [mm] | P [mm] | | l1 [mm] | l2 [mm] | l3 [mm] | Ø d2 [mm] | a [mm] | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| M 4 | 0,7 | 3,3 | 63 | 13 | - | 2,8 | 2,1 | | | |
| M 5 | 0,8 | 4,2 | 70 | 15 | - | 3,5 | 2,7 | | | |
| M 6 | 1 | 5 | 80 | 17 | - | 4,5 | 3,4 | | | |
| M 7 | 1 | 6 | 80 | 17 | - | 5,5 | 4,3 | | | |
| M 8 | 1,25 | 6,8 | 90 | 20 | - | 6 | 4,9 | | | |
| M 9 | 1,25 | 7,8 | 90 | 20 | - | 7 | 5,5 | | | |
| M 10 | 1,5 | 8,5 | 100 | 22 | - | 7 | 5,5 | | | |
| M 11 | 1,5 | 9,5 | 100 | 22 | - | 8 | 6,2 | | | |
| M 12 | 1,75 | 10,2 | 110 | 18 | - | 9 | 7 | | | |
| M 12 | 1,75 | 10,2 | 110 | 24 | - | 9 | 7 | 7200.0B020112 | 7200.0B050112 | 7820.0B020112 |
| M 14 | 2 | 12 | 110 | 26 | - | 11 | 9 | 7200.0B020114 | 7200.0B050114 | 7820.0B020114 |
| M 16 | 2 | 14 | 110 | 22 | - | 12 | 9 | | | |
| M 16 | 2 | 14 | 110 | 27 | - | 12 | 9 | 7200.0B020116 | 7200.0B050116 | 7820.0B020116 |
| M 18 | 2,5 | 15,5 | 125 | 25 | - | 14 | 11 | | | |
| M 18 | 2,5 | 15,5 | 125 | 30 | - | 14 | 11 | 7200.0B020118 | 7200.0B050118 | |
| M 20 | 2,5 | 17,5 | 140 | 25 | - | 16 | 12 | | | |
| M 20 | 2,5 | 17,5 | 140 | 32 | - | 16 | 12 | 7200.0B020120 | 7200.0B050120 | 7820.0B020120 |
| M 22 | 2,5 | 19,5 | 140 | 27 | - | 18 | 14,5 | | | |
| M 22 | 2,5 | 19,5 | 140 | 32 | - | 18 | 14,5 | 7200.0B020122 | 7200.0B050122 | |
| M 24 | 3 | 21 | 160 | 30 | - | 18 | 14,5 | | | |
| M 24 | 3 | 21 | 160 | 34 | - | 18 | 14,5 | 7200.0B020124 | 7200.0B050124 | |
| M 27 | 3 | 24 | 160 | 36 | - | 20 | 16 | 7200.0B020127 | | |
| M 30 | 3,5 | 26,5 | 180 | 40 | - | 22 | 18 | 7200.0B020130 | | |
| M 33 | 3,5 | 29,5 | 180 | 40 | - | 25 | 20 | | | |
| M 36 | 4 | 32 | 200 | 50 | - | 28 | 22 | | | |
| M 39 | 4 | 35 | 200 | 50 | - | 32 | 24 | | | |
| M 42 | 4,5 | 37,5 | 200 | 56 | - | 32 | 24 | | | |
| M 45 | 4,5 | 40,5 | 220 | 58 | - | 36 | 29 | | | |
| M 48 | 5 | 43 | 250 | 65 | - | 36 | 29 | | | |

M DIN 13

2xD

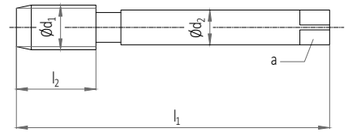



| | NORIS TWIN GGV | NORIS TWIN GGV | NORIS TWIN GGV MKB | NORIS TWIN GGV MKB | NORIS TWIN GGV MKB |
|---|---|---|---|---|---|
| OBERFLÄCHE · SURFACE · SURFACE · SUPERFICIE | TICN | TICN | TICN | TICN | TICN |
| SCHNEIDSTOFF · MATERIAL · MATIÈRE · MATERIALE | HSSE-PM | HSSE-PM | HSSE-PM | HSSE-PM | HM |
| ANSCHNITTFORM · CHAMFER FORM · FORME D'ENTRÉE · FORMA D'IMBOCCO | C / 2-3 | E / 1,5-2 | C / 2-3 | E / 1,5-2 | E / 1,5-2 |
| TOLERANZ · TOLERANCE · TOLÉRANCE · TOLLERANZA | ISO2X | ISO2X | ISO2X | ISO2X | ISO2X |
| | RH | RH | RH | RH | RH |

DIN 371

| $d_1$ | P | | $l_1$ | $l_2$ | $l_3$ | Ø $d_2$ | a | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| [mm] | [mm] | [mm] | [mm] | [mm] | [mm] | [mm] | [mm] | | | | | |
| M 4 | 0,7 | 3,3 | 63 | 7 | 21 | 4,5 | 3,4 | | | | | 630G.0D050040 |
| M 5 | 0,8 | 4,2 | 70 | 8 | 25 | 6 | 4,9 | | | | | 630G.0D050050 |
| M 5 | 0,8 | 4,2 | 70 | 15 | 25 | 6 | 4,9 | 620G.0B050050 | 620G.0D050050 | 682G.0B050050 | 682G.0D050050 | |
| M 6 | 1 | 5 | 80 | 10 | 30 | 6 | 4,9 | | | | | 630G.0D050060 |
| M 6 | 1 | 5 | 80 | 17 | 30 | 6 | 4,9 | 620G.0B050060 | 620G.0D050060 | 682G.0B050060 | 682G.0D050060 | |
| M 7 | 1 | 6 | 80 | 17 | 30 | 7 | 5,5 | 620G.0B050070 | 620G.0D050070 | 682G.0B050070 | 682G.0D050070 | |
| M 8 | 1,25 | 6,8 | 90 | 14 | 35 | 8 | 6,2 | | | | | 630G.0D050080 |
| M 8 | 1,25 | 6,8 | 90 | 20 | 35 | 8 | 6,2 | 620G.0B050080 | 620G.0D050080 | 682G.0B050080 | 682G.0D050080 | |
| M 9 | 1,25 | 7,8 | 90 | 20 | 35 | 9 | 7 | | | | | |
| M 10 | 1,5 | 8,5 | 100 | 16 | 39 | 10 | 8 | | | | | 630G.0D050100 |
| M 10 | 1,5 | 8,5 | 100 | 22 | 39 | 10 | 8 | 620G.0B050100 | 620G.0D050100 | 682G.0B050100 | 682G.0D050100 | |

2xD



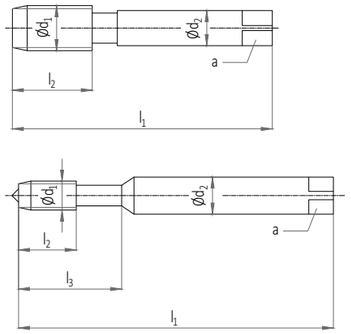

| | NORIS TWIN GGV | NORIS TWIN GGV | NORIS TWIN GGV MKB | NORIS TWIN GGV MKB | NORIS TWIN GGV MKB |
|---|---|---|---|---|---|
| OBERFLÄCHE · SURFACE · SURFACE · SUPERFICIE | TICN | TICN | TICN | TICN | TICN |
| SCHNEIDSTOFF · MATERIAL · MATIÈRE · MATERIALE | HSSE-PM | HSSE-PM | HSSE-PM | HSSE-PM | HM |
| ANSCHNITTFORM · CHAMFER FORM · FORME D'ENTRÉE · FORMA D'IMBOCCO | C / 2-3 | E / 1,5-2 | C / 2-3 | E / 1,5-2 | E / 1,5-2 |
| TOLERANZ · TOLERANCE · TOLÉRANCE · TOLLERANZA | ISO2X | ISO2X | ISO2X | ISO2X | ISO2X |
| | RH | RH | RH | RH | RH |

DIN 376

| $d_1$ | P | | $l_1$ | $l_2$ | $l_3$ | Ø $d_2$ | a | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| [mm] | [mm] | [mm] | [mm] | [mm] | [mm] | [mm] | [mm] | | | | | |
| M 4 | 0,7 | 3,3 | 63 | 13 | - | 2,8 | 2,1 | | | | | |
| M 5 | 0,8 | 4,2 | 70 | 15 | - | 3,5 | 2,7 | | | | | |
| M 6 | 1 | 5 | 80 | 17 | - | 4,5 | 3,4 | | | | | |
| M 7 | 1 | 6 | 80 | 17 | - | 5,5 | 4,3 | | | | | |
| M 8 | 1,25 | 6,8 | 90 | 20 | - | 6 | 4,9 | | | | | |
| M 9 | 1,25 | 7,8 | 90 | 20 | - | 7 | 5,5 | | | | | |
| M 10 | 1,5 | 8,5 | 100 | 22 | - | 7 | 5,5 | | | | | |
| M 11 | 1,5 | 9,5 | 100 | 22 | - | 8 | 6,2 | | | | | |
| M 12 | 1,75 | 10,2 | 110 | 18 | - | 9 | 7 | | | | | 730G.0D050112 |
| M 12 | 1,75 | 10,2 | 110 | 24 | - | 9 | 7 | 720G.0B050112 | 720G.0D050112 | 782G.0B050112 | 782G.0D050112 | |
| M 14 | 2 | 12 | 110 | 26 | - | 11 | 9 | | | | | |
| M 16 | 2 | 14 | 110 | 22 | - | 12 | 9 | | | | | 730G.0D050116 |
| M 16 | 2 | 14 | 110 | 27 | - | 12 | 9 | 720G.0B050116 | 720G.0D050116 | 782G.0B050116 | 782G.0D050116 | |
| M 18 | 2,5 | 15,5 | 125 | 30 | - | 14 | 11 | | | | | |
| M 20 | 2,5 | 17,5 | 140 | 32 | - | 16 | 12 | | | 782G.0B050120 | 782G.0D050120 | |
| M 22 | 2,5 | 19,5 | 140 | 32 | - | 18 | 14,5 | | | | | |
| M 24 | 3 | 21 | 160 | 34 | - | 18 | 14,5 | | | | | |
| M 27 | 3 | 24 | 160 | 36 | - | 20 | 16 | | | | | |
| M 30 | 3,5 | 26,5 | 180 | 40 | - | 22 | 18 | | | | | |
| M 33 | 3,5 | 29,5 | 180 | 40 | - | 25 | 20 | | | | | |
| M 36 | 4 | 32 | 200 | 50 | - | 28 | 22 | | | | | |
| M 39 | 4 | 35 | 200 | 50 | - | 32 | 24 | | | | | |
| M 42 | 4,5 | 37,5 | 200 | 56 | - | 32 | 24 | | | | | |
| M 45 | 4,5 | 40,5 | 220 | 58 | - | 36 | 29 | | | | | |
| M 48 | 5 | 43 | 250 | 65 | - | 36 | 29 | | | | | |
| M 52 | 5 | 47 | 250 | 65 | - | 40 | 32 | | | | | |

M DIN 13

2xD




| | NORIS TWIN MS | NORIS TWIN AMPCO | NORIS TWIN MG | NORIS TWIN HT | NORIS TWIN HT |
|---|---|---|---|---|---|
| | | | | 1,5xD | 1,5xD |
| OBERFLÄCHE · SURFACE · SURFACE · SUPERFICIE | WAC | WAC | OSM | TICN | ALTIN |
| SCHNEIDSTOFF · MATERIAL · MATIÈRE · MATERIALE | HSSE | HSSE-PM | HSSE | HSSE-PM | HM |
| ANSCHNITTFORM · CHAMFER FORM · FORME D'ENTRÉE · FORMA D'IMBOCCO | C / 2-3 | C / 2-3 | C / 2-3 | C / 2-3 | D / 4-5 |
| TOLERANZ · TOLERANCE · TOLÉRANCE · TOLLERANZA | ISO2X | ISO2X | ISO2X | ISO2X [1] | ISO2X [1] |
| | RH | RH | RH | RH | RH |

DIN 352

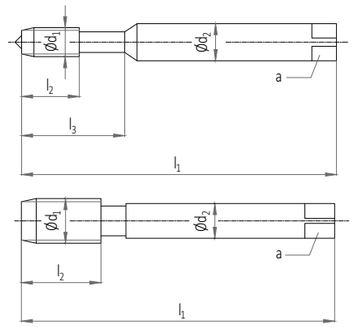
| $d_1$ | P | | $l_1$ | $l_2$ | $l_3$ | Ø $d_2$ | a | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| [mm] | [mm] | [mm] | [mm] | [mm] | [mm] | [mm] | [mm] | | | | | |
| M 3 | 0,5 | 2,5 | 40 | 10 | 18 | 3,5 | 2,7 | 5250.0B000030 | | | | |
| M 4 | 0,7 | 3,3 | 45 | 12 | 22 | 4,5 | 3,4 | 5250.0B000040 | | | | |
| M 5 | 0,8 | 4,2 | 50 | 14 | 25 | 6 | 4,9 | 5250.0B000050 | | | | |
| M 6 | 1 | 5 | 56 | 16 | 28 | 6 | 4,9 | 5250.0B000060 | | | | |
| M 8 | 1,25 | 6,8 | 63 | 20 | - | 6 | 4,9 | 5250.0B000080 | | | | |
| M 10 | 1,5 | 8,5 | 70 | 22 | - | 7 | 5,5 | 5250.0B000100 | | | | |
| M 12 | 1,75 | 10,2 | 75 | 24 | - | 9 | 7 | | | | | |

DIN 371

| $d_1$ | P | | $l_1$ | $l_2$ | $l_3$ | Ø $d_2$ | a | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| [mm] | [mm] | [mm] | [mm] | [mm] | [mm] | [mm] | [mm] | | | | | |
| M 2 | 0,4 | 1,6 | 45 | 7 | 12 | 2,8 | 2,1 | 6250.0B000020 | | | | |
| M 2,2 | 0,45 | 1,75 | 45 | 7 | 12 | 2,8 | 2,1 | | | | | |
| M 2,3 | 0,4 | 1,9 | 45 | 7 | 12 | 2,8 | 2,1 | | | | | |
| M 2,5 | 0,45 | 2,05 | 50 | 9 | 14 | 2,8 | 2,1 | 6250.0B000025 | | | | |
| M 2,6 | 0,45 | 2,15 | 50 | 9 | 14 | 2,8 | 2,1 | | | | | |
| M 3 | 0,5 | 2,5 | 56 | 6 | 18 | 3,5 | 2,7 | | | 610A.0B070030 | | |
| M 3 | 0,5 | 2,5 | 56 | 11 | 18 | 3,5 | 2,7 | 6250.0B000030 | 6106.0B000030 | | | |
| M 3 | 0,5 | 2,5 | 63 | 6 | 18 | 4,5 | 3,4 | | | | | 6260.0C080030 |
| M 3,5 | 0,6 | 2,9 | 56 | 12 | 20 | 4 | 3 | 6250.0B000035 | | | | |
| M 4 | 0,7 | 3,3 | 63 | 7 | 21 | 4,5 | 3,4 | | | 610A.0B070040 | | |
| M 4 | 0,7 | 3,3 | 63 | 8 | 21 | 4,5 | 3,4 | | | | | 6260.0C080040 |
| M 4 | 0,7 | 3,3 | 63 | 13 | 21 | 4,5 | 3,4 | 6250.0B000040 | 6106.0B000040 | | | |
| M 5 | 0,8 | 4,2 | 70 | 8 | 25 | 6 | 4,9 | | | 610A.0B070050 | | |
| M 5 | 0,8 | 4,2 | 70 | 10 | 25 | 6 | 4,9 | | | | | 6260.0C080050 |
| M 5 | 0,8 | 4,2 | 70 | 15 | 25 | 6 | 4,9 | 6250.0B000050 | 6106.0B000050 | | | |
| M 6 | 1 | 5 | 80 | 10 | 30 | 6 | 4,9 | | | 610A.0B070060 | 610H.0B050060 | |
| M 6 | 1 | 5 | 80 | 12 | 30 | 6 | 4,9 | | | | | 6260.0C080060 |
| M 6 | 1 | 5 | 80 | 17 | 30 | 6 | 4,9 | 6250.0B000060 | 6106.0B000060 | | | |
| M 7 | 1 | 6 | 80 | 17 | 30 | 7 | 5,5 | | | | | |
| M 8 | 1,25 | 6,8 | 90 | 14 | 35 | 8 | 6,2 | | | 610A.0B070080 | 610H.0B050080 | |
| M 8 | 1,25 | 6,8 | 90 | 15 | 35 | 8 | 6,2 | | | | | 6260.0C080080 |
| M 8 | 1,25 | 6,8 | 90 | 20 | 35 | 8 | 6,2 | 6250.0B000080 | 6106.0B000080 | | | |
| M 9 | 1,25 | 7,8 | 90 | 20 | 35 | 9 | 7 | | | | | |



2xD




| | NORIS TWIN MS | NORIS TWIN AMPCO | NORIS TWIN MG | NORIS TWIN HT | NORIS TWIN HT |
|---|---|---|---|---|---|
| | | | | 1,5xD | 1,5xD |
| OBERFLÄCHE · SURFACE · SURFACE · SUPERFICIE | WAC | WAC | OSM | TICN | ALTIN |
| SCHNEIDSTOFF · MATERIAL · MATIÈRE · MATERIALE | HSSE | HSSE-PM | HSSE | HSSE-PM | HM |
| ANSCHNITTFORM · CHAMFER FORM · FORME D'ENTRÉE · FORMA D'IMBOCCO | C / 2-3 | C / 2-3 | C / 2-3 | C / 2-3 | D / 4-5 |
| TOLERANZ · TOLERANCE · TOLÉRANCE · TOLLERANZA | ISO2X | ISO2X | ISO2X | ISO2X [1] | ISO2X [1] |
| | RH | RH | RH | RH | RH |

DIN 371

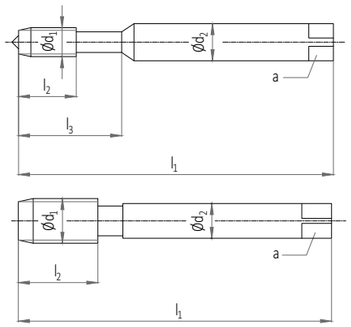
| $d_1$ | P | | $l_1$ | $l_2$ | $l_3$ | Ø $d_2$ | a | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| [mm] | [mm] | [mm] | [mm] | [mm] | [mm] | [mm] | [mm] | | | | | |
| M 10 | 1,5 | 8,5 | 100 | 16 | 39 | 10 | 8 | | | 610A.0B070100 | 610H.0B050100 | |
| M 10 | 1,5 | 8,5 | 100 | 18 | 38 | 10 | 8 | | | | | 6260.0C080100 |
| M 10 | 1,5 | 8,5 | 100 | 22 | 39 | 10 | 8 | 6250.0B000100 | 6106.0B000100 | | | |
| M 12 | 1,75 | 10,2 | 110 | 21 | 41 | 12 | 9 | | | | | 6260.0C080112 |
| M 14 | 2 | 12 | 110 | 24 | 44 | 14 | 11 | | | | | 6260.0C080114 |
| M 16 | 2 | 14 | 110 | 24 | 44 | 16 | 12 | | | | | 6260.0C080116 |

DIN 376

| $d_1$ | P | | $l_1$ | $l_2$ | $l_3$ | Ø $d_2$ | a | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| [mm] | [mm] | [mm] | [mm] | [mm] | [mm] | [mm] | [mm] | | | | | |
| M 4 | 0,7 | 3,3 | 63 | 13 | - | 2,8 | 2,1 | | | | | |
| M 5 | 0,8 | 4,2 | 70 | 15 | - | 3,5 | 2,7 | | | | | |
| M 6 | 1 | 5 | 80 | 17 | - | 4,5 | 3,4 | | | | | |
| M 7 | 1 | 6 | 80 | 17 | - | 5,5 | 4,3 | | | | | |
| M 8 | 1,25 | 6,8 | 90 | 20 | - | 6 | 4,9 | | | | | |
| M 9 | 1,25 | 7,8 | 90 | 20 | - | 7 | 5,5 | | | | | |
| M 10 | 1,5 | 8,5 | 100 | 22 | - | 7 | 5,5 | | | | | |
| M 11 | 1,5 | 9,5 | 100 | 22 | - | 8 | 6,2 | | | | | |
| M 12 | 1,75 | 10,2 | 110 | 18 | - | 9 | 7 | | | | 710H.0B050112 | |
| M 12 | 1,75 | 10,2 | 110 | 24 | - | 9 | 7 | | 7106.0B000112 | | | |
| M 14 | 2 | 12 | 110 | 26 | - | 11 | 9 | | | | | |
| M 16 | 2 | 14 | 110 | 22 | - | 12 | 9 | | | | 710H.0B050116 | |
| M 16 | 2 | 14 | 110 | 27 | - | 12 | 9 | | 7106.0B000116 | | | |
| M 18 | 2,5 | 15,5 | 125 | 25 | - | 14 | 11 | | | | | |
| M 18 | 2,5 | 15,5 | 125 | 30 | - | 14 | 11 | | | | | |
| M 20 | 2,5 | 17,5 | 140 | 25 | - | 16 | 12 | | | | | |
| M 20 | 2,5 | 17,5 | 140 | 32 | - | 16 | 12 | | 7106.0B000120 | | | |
| M 22 | 2,5 | 19,5 | 140 | 27 | - | 18 | 14,5 | | | | | |
| M 24 | 3 | 21 | 160 | 30 | - | 18 | 14,5 | | | | | |
| M 24 | 3 | 21 | 160 | 34 | - | 18 | 14,5 | | 7106.0B000124 | | | |

1) Vorbohrdurchmesser um 0,1 mm anheben
Increase drill diameter by 0.1 mm
Augmenter le diamètre du foret de 0,1 mm
Aumentare il diametro della punta di 0,1 mm

3xD CNC EL




| | NORIS SALOREX UNI CNC EL | NORIS SALOREX UNI CNC EL | NORIS SALOREX UNI CNC EL |
|---|---|---|---|
| |  |  |  |
| OBERFLÄCHE · SURFACE · SURFACE · SUPERFICIE | WAC | VAP | ALTINHD |
| SCHNEIDSTOFF · MATERIAL · MATIÈRE · MATERIALE | HSSE | HSSE | HSSE |
| ANSCHNITTFORM · CHAMFER FORM · FORME D'ENTRÉE · FORMA D'IMBOCCO | C / 2-3 | C / 2-3 | C / 2-3 |
| TOLERANZ · TOLERANCE · TOLÉRANCE · TOLLERANZA | ISO2 | ISO2 | ISO2 |
| | RH | RH | RH |

DIN 371 EL

| $d_1$ | P | | $l_1$ | $l_2$ | $l_3$ | Ø $d_2$ | a | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| [mm] | [mm] | [mm] | [mm] | [mm] | [mm] | [mm] | [mm] | | | |
| M 3 | 0,5 | 2,5 | 100 | 6 | 18 | 3,5 | 2,7 | 64X0.0B000030 | | 64X0.0B090030 |
| M 4 | 0,7 | 3,3 | 125 | 7 | 21 | 4,5 | 3,4 | 64X0.0B000040 | | 64X0.0B090040 |
| M 5 | 0,8 | 4,2 | 140 | 8 | 25 | 6 | 4,9 | 64X0.0B000050 | | 64X0.0B090050 |
| M 6 | 1 | 5 | 160 | 10 | 30 | 6 | 4,9 | 64X0.0B000060 | | 64X0.0B090060 |
| M 8 | 1,25 | 6,8 | 180 | 14 | 35 | 8 | 6,2 | 64X0.0B000080 | | 64X0.0B090080 |

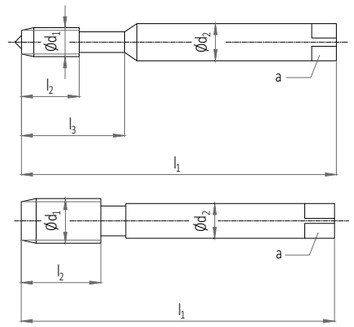
DIN 376 EL

| $d_1$ | P | | $l_1$ | $l_2$ | $l_3$ | Ø $d_2$ | a | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| [mm] | [mm] | [mm] | [mm] | [mm] | [mm] | [mm] | [mm] | | | |
| M 6 | 1 | 5 | 160 | 10 | - | 4,5 | 3,4 | 74X0.0B000060 | 74X0.0B010060 | |
| M 8 | 1,25 | 6,8 | 180 | 14 | - | 6 | 4,9 | 74X0.0B000080 | 74X0.0B010080 | |
| M 10 | 1,5 | 8,5 | 200 | 16 | - | 7 | 5,5 | 74X0.0B000100 | 74X0.0B010100 | |
| M 12 | 1,75 | 10,2 | 224 | 18 | - | 9 | 7 | 74X0.0B000112 | 74X0.0B010112 | |
| M 14 | 2 | 12 | 224 | 20 | - | 11 | 9 | 74X0.0B000114 | 74X0.0B010114 | |
| M 16 | 2 | 14 | 224 | 22 | - | 12 | 9 | 74X0.0B000116 | 74X0.0B010116 | |
| M 18 | 2,5 | 15,5 | 250 | 25 | - | 14 | 11 | 74X0.0B000118 | 74X0.0B010118 | |
| M 20 | 2,5 | 17,5 | 280 | 25 | - | 16 | 12 | 74X0.0B000120 | 74X0.0B010120 | |





EL




| | NORIS STABIL UNI CNC EL | NORIS STABIL UNI CNC EL | NORIS SL15 ST EL | NORIS TWIN HR EL |
|---|---|---|---|---|
| |  |  |  |  |
| | 4xD CNC | 4xD CNC | 2xD | 2xD |
| OBERFLÄCHE · SURFACE · SURFACE · SUPERFICIE | WAC | NITVAP | WAC | NIT |
| SCHNEIDSTOFF · MATERIAL · MATIÈRE · MATERIALE | HSSE | HSSE | HSSE | HSSE |
| ANSCHNITTFORM · CHAMFER FORM · FORME D'ENTRÉE · FORMA D'IMBOCCO | B / 4-5 | B / 4-5 | E / 1,5-2 | C / 2-3 |
| TOLERANZ · TOLERANCE · TOLÉRANCE · TOLLERANZA | ISO2 | ISO2 | ISO2 | ISO2X |
| | RH | RH | RH | RH |

DIN 371 EL

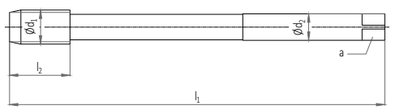
| $d_1$ | P | | $l_1$ | $l_2$ | $l_3$ | Ø $d_2$ | a | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| [mm] | [mm] | [mm] | [mm] | [mm] | [mm] | [mm] | [mm] | | | | |
| M 3 | 0,5 | 2,5 | 100 | 11 | 18 | 3,5 | 2,7 | 65D0.0A000030 | 65D0.0A030030 | 6710.0D000030 | 6183.0B020030 |
| M 4 | 0,7 | 3,3 | 125 | 13 | 21 | 4,5 | 3,4 | 65D0.0A000040 | 65D0.0A030040 | 6710.0D000040 | 6183.0B020040 |
| M 5 | 0,8 | 4,2 | 140 | 15 | 25 | 6 | 4,9 | 65D0.0A000050 | 65D0.0A030050 | 6710.0D000050 | 6183.0B020050 |
| M 6 | 1 | 5 | 160 | 17 | 30 | 6 | 4,9 | 65D0.0A000060 | 65D0.0A030060 | 6710.0D000060 | 6183.0B020060 |
| M 8 | 1,25 | 6,8 | 180 | 20 | 35 | 8 | 6,2 | 65D0.0A000080 | 65D0.0A030080 | 6710.0D000080 | 6183.0B020080 |

DIN 376 EL

| $d_1$ | P | | $l_1$ | $l_2$ | $l_3$ | Ø $d_2$ | a | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| [mm] | [mm] | [mm] | [mm] | [mm] | [mm] | [mm] | [mm] | | | | |
| M 6 | 1 | 5 | 160 | 17 | - | 4,5 | 3,4 | 75D0.0A000060 | 75D0.0A030060 | 7710.0D000060 | 7183.0B020060 |
| M 8 | 1,25 | 6,8 | 180 | 20 | - | 6 | 4,9 | 75D0.0A000080 | 75D0.0A030080 | 7710.0D000080 | 7183.0B020080 |
| M 10 | 1,5 | 8,5 | 200 | 22 | - | 7 | 5,5 | 75D0.0A000100 | 75D0.0A030100 | 7710.0D000100 | 7183.0B020100 |
| M 12 | 1,75 | 10,2 | 224 | 24 | - | 9 | 7 | 75D0.0A000112 | 75D0.0A030112 | 7710.0D000112 | 7183.0B020112 |
| M 14 | 2 | 12 | 224 | 26 | - | 11 | 9 | 75D0.0A000114 | 75D0.0A030114 | 7710.0D000114 | 7183.0B020114 |
| M 16 | 2 | 14 | 224 | 27 | - | 12 | 9 | 75D0.0A000116 | 75D0.0A030116 | 7710.0D000116 | 7183.0B020116 |
| M 18 | 2,5 | 15,5 | 250 | 30 | - | 14 | 11 | 75D0.0A000118 | 75D0.0A030118 | 7710.0D000118 | 7183.0B020118 |
| M 20 | 2,5 | 17,5 | 280 | 32 | - | 16 | 12 | 75D0.0A000120 | 75D0.0A030120 | 7710.0D000120 | 7183.0B020120 |

# M DIN 13

4xD · CNC · ELF




| | NORIS SL15<br>ST CNC ELF MKB | NORIS TWIN<br>ST CNC ELF MKB |
|---|---|---|
| |  |  |
| OBERFLÄCHE · SURFACE · SURFACE · SUPERFICIE | TIN | TICN |
| SCHNEIDSTOFF · MATERIAL · MATIÈRE · MATERIALE | HSSE | HSSE |
| ANSCHNITTFORM · CHAMFER FORM · FORME D'ENTRÉE · FORMA D'IMBOCCO | C / 2-3 | C / 2-3 |
| TOLERANZ · TOLERANCE · TOLÉRANCE · TOLLERANZA | ISO2X | ISO2X |
| | RH | RH |

DIN 376 ELF

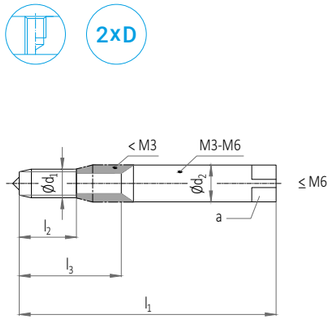
| | $d_1$ [mm] | P [mm] | [mm] | $l_1$ [mm] | $l_2$ [mm] | $l_3$ [mm] | Ø $d_2$ [mm] | a [mm] | | |
|---|---|---|---|---|---|---|---|---|---|---|
| M | 20 | 2,5 | 17,5 | 190 | 25 | - | 16 | 12 | 984C.0B040120 | 981C.0B050120 |
| M | 22 | 2,5 | 19,5 | 230 | 27 | - | 18 | 14,5 | 984C.0B040122 | 981C.0B050122 |
| M | 24 | 3 | 21 | 240 | 30 | - | 18 | 14,5 | 984C.0B040124 | 981C.0B050124 |
| M | 27 | 3 | 24 | 250 | 30 | - | 20 | 16 | 984C.0B040127 | 981C.0B050127 |
| M | 30 | 3,5 | 26,5 | 270 | 35 | - | 22 | 18 | 984C.0B040130 | 981C.0B050130 |
| M | 33 | 3,5 | 29,5 | 290 | 35 | - | 25 | 20 | 984C.0B040133 | 981C.0B050133 |
| M | 36 | 4 | 32 | 310 | 40 | - | 28 | 22 | 984C.0B040136 | 981C.0B050136 |
| M | 42 | 4,5 | 37,5 | 340 | 45 | - | 32 | 24 | 984C.0B040142 | 981C.0B050142 |
| M | 45 | 4,5 | 40,5 | 360 | 45 | - | 36 | 29 | 984C.0B040145 | 981C.0B050145 |


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for
Industry segments!

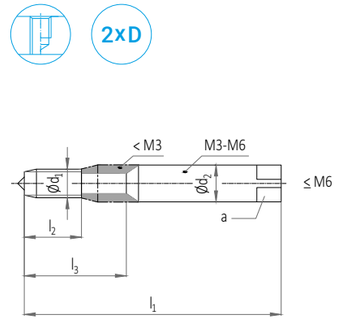



| | NORIS SATZ ST | NORIS SATZ ST | NORIS SATZ ST | NORIS SATZ ST |
|---|---|---|---|---|
| OBERFLÄCHE · SURFACE · SURFACE · SUPERFICIE | WAC | WAC | WAC | WAC |
| SCHNEIDSTOFF · MATERIAL · MATIÈRE · MATERIALE | HSSE | HSSE | HSSE | HSSE |
| ANSCHNITTFORM · CHAMFER FORM · FORME D'ENTRÉE · FORMA D'IMBOCCO | A / 5-6 | D / 3-4 | C / 2-3 | C / 2-3 |
| TOLERANZ · TOLERANCE · TOLÉRANCE · TOLLERANZA | V1 | M2 | ISO1X | ISO2X |
| | RH | RH | RH | RH |

DIN 352

| $d_1$ | P | | $l_1$ | $l_2$ | $l_3$ | Ø $d_2$ | a | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | [mm] | [mm] | [mm] | [mm] | [mm] | [mm] | [mm] | | | | |
| M 1 | 0,25 | 0,75 | 32 | 5 | 5 | 2,5 | 2,1 | 5000.11000010 | 5000.0F000010 | 5000.05000010 | |
| M 1,4 | 0,3 | 1,1 | 32 | 7 | 7 | 2,5 | 2,1 | 5000.11000014 | 5000.0F000014 | 5000.05000014 | |
| M 1,6 | 0,35 | 1,25 | 32 | 8 | 8 | 2,5 | 2,1 | 5000.11000016 | 5000.0F000016 | | 5000.0E000016 |
| M 2 | 0,4 | 1,6 | 36 | 8 | 8 | 2,8 | 2,1 | 5000.11000020 | 5000.0F000020 | | 5000.0E000020 |
| M 2,5 | 0,45 | 2,05 | 40 | 9 | 9 | 2,8 | 2,1 | 5000.11000025 | 5000.0F000025 | | 5000.0E000025 |
| M 3 | 0,5 | 2,5 | 40 | 10 | 18 | 3,5 | 2,7 | 5000.11000030 | 5000.0F000030 | | 5000.0E000030 |
| M 3,5 | 0,6 | 2,9 | 45 | 11 | 20 | 4 | 3 | 5000.11000035 | 5000.0F000035 | | 5000.0E000035 |
| M 4 | 0,7 | 3,3 | 45 | 12 | 22 | 4,5 | 3,4 | 5000.11000040 | 5000.0F000040 | | 5000.0E000040 |
| M 5 | 0,8 | 4,2 | 50 | 14 | 25 | 6 | 4,9 | 5000.11000050 | 5000.0F000050 | | 5000.0E000050 |
| M 6 | 1 | 5 | 56 | 16 | 28 | 6 | 4,9 | 5000.11000060 | 5000.0F000060 | | 5000.0E000060 |
| M 7 | 1 | 6 | 56 | 18 | - | 6 | 4,9 | 5000.11000070 | 5000.0F000070 | | 5000.0E000070 |
| M 8 | 1,25 | 6,8 | 63 | 20 | - | 6 | 4,9 | 5000.11000080 | 5000.0F000080 | | 5000.0E000080 |
| M 10 | 1,5 | 8,5 | 70 | 22 | - | 7 | 5,5 | 5000.11000100 | 5000.0F000100 | | 5000.0E000100 |
| M 11 | 1,5 | 9,5 | 70 | 22 | - | 8 | 6,2 | 5000.11000111 | 5000.0F000111 | | 5000.0E000111 |
| M 12 | 1,75 | 10,2 | 75 | 24 | - | 9 | 7 | 5000.11000112 | 5000.0F000112 | | 5000.0E000112 |
| M 14 | 2 | 12 | 80 | 26 | - | 11 | 9 | 5000.11000114 | 5000.0F000114 | | 5000.0E000114 |
| M 16 | 2 | 14 | 80 | 27 | - | 12 | 9 | 5000.11000116 | 5000.0F000116 | | 5000.0E000116 |
| M 20 | 2,5 | 17,5 | 95 | 32 | - | 16 | 12 | 5000.11000120 | 5000.0F000120 | | 5000.0E000120 |
| M 24 | 3 | 21 | 110 | 34 | - | 18 | 14,5 | 5000.11000124 | 5000.0F000124 | | 5000.0E000124 |
| M 27 | 3 | 24 | 110 | 36 | - | 20 | 16 | 5000.11000127 | 5000.0F000127 | | 5000.0E000127 |
| M 30 | 3,5 | 26,5 | 125 | 40 | - | 22 | 18 | 5000.11000130 | 5000.0F000130 | | 5000.0E000130 |
| M 33 | 3,5 | 29,5 | 125 | 40 | - | 25 | 20 | 5000.11000133 | 5000.0F000133 | | 5000.0E000133 |
| M 36 | 4 | 32 | 150 | 50 | - | 28 | 22 | 5000.11000136 | 5000.0F000136 | | 5000.0E000136 |





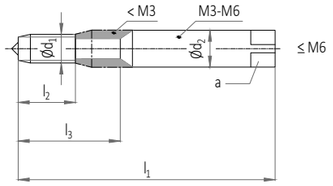

| | NORIS SATZ ST | NORIS SATZ ST |
|---|---|---|
| | | S3 |
| OBERFLÄCHE · SURFACE · SURFACE · SUPERFICIE | WAC | WAC |
| SCHNEIDSTOFF · MATERIAL · MATIÈRE · MATERIALE | HSSE | HSSE |
| ANSCHNITTFORM · CHAMFER FORM · FORME D'ENTRÉE · FORMA D'IMBOCCO | C / 2-3 | C / 2-3 |
| TOLERANZ · TOLERANCE · TOLÉRANCE · TOLLERANZA | ISO1X | ISO2X |
| | RH | RH |

DIN 352

| $d_1$ | P | | $l_1$ | $l_2$ | $l_3$ | Ø $d_2$ | a | | |
|---|---|---|---|---|---|---|---|---|---|
| | [mm] | [mm] | [mm] | [mm] | [mm] | [mm] | [mm] | | |
| M 1 | 0,25 | 0,75 | 32 | 5 | 5 | 2,5 | 2,1 | 5000.02000010 | |
| M 1,4 | 0,3 | 1,1 | 32 | 7 | 7 | 2,5 | 2,1 | 5000.02000014 | |
| M 1,6 | 0,35 | 1,25 | 32 | 8 | 8 | 2,5 | 2,1 | | 5000.0B000016 |
| M 2 | 0,4 | 1,6 | 36 | 8 | 8 | 2,8 | 2,1 | | 5000.0B000020 |
| M 2,5 | 0,45 | 2,05 | 40 | 9 | 9 | 2,8 | 2,1 | | 5000.0B000025 |
| M 3 | 0,5 | 2,5 | 40 | 10 | 18 | 3,5 | 2,7 | | 5000.0B000030 |
| M 3,5 | 0,6 | 2,9 | 45 | 11 | 20 | 4 | 3 | | 5000.0B000035 |
| M 4 | 0,7 | 3,3 | 45 | 12 | 22 | 4,5 | 3,4 | | 5000.0B000040 |
| M 5 | 0,8 | 4,2 | 50 | 14 | 25 | 6 | 4,9 | | 5000.0B000050 |
| M 6 | 1 | 5 | 56 | 16 | 28 | 6 | 4,9 | | 5000.0B000060 |
| M 7 | 1 | 6 | 56 | 18 | - | 6 | 4,9 | | 5000.0B000070 |
| M 8 | 1,25 | 6,8 | 63 | 20 | - | 6 | 4,9 | | 5000.0B000080 |
| M 10 | 1,5 | 8,5 | 70 | 22 | - | 7 | 5,5 | | 5000.0B000100 |
| M 11 | 1,5 | 9,5 | 70 | 22 | - | 8 | 6,2 | | 5000.0B000111 |
| M 12 | 1,75 | 10,2 | 75 | 24 | - | 9 | 7 | | 5000.0B000112 |
| M 14 | 2 | 12 | 80 | 26 | - | 11 | 9 | | 5000.0B000114 |
| M 16 | 2 | 14 | 80 | 27 | - | 12 | 9 | | 5000.0B000116 |
| M 20 | 2,5 | 17,5 | 95 | 32 | - | 16 | 12 | | 5000.0B000120 |
| M 24 | 3 | 21 | 110 | 34 | - | 18 | 14,5 | | 5000.0B000124 |
| M 27 | 3 | 24 | 110 | 36 | - | 20 | 16 | | 5000.0B000127 |
| M 30 | 3,5 | 26,5 | 125 | 40 | - | 22 | 18 | | 5000.0B000130 |
| M 33 | 3,5 | 29,5 | 125 | 40 | - | 25 | 20 | | 5000.0B000133 |
| M 36 | 4 | 32 | 150 | 50 | - | 28 | 22 | | 5000.0B000136 |

M DIN 13

2xD

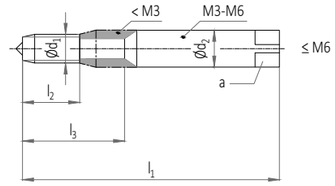



| | NORIS SATZ ERGO | NORIS SATZ ERGO | NORIS SATZ ERGO | NORIS SATZ ERGO |
|---|---|---|---|---|
| |  |  |  |  |
| | | | | S3 |
| OBERFLÄCHE · SURFACE · SURFACE · SUPERFICIE | WAC | WAC | WAC | WAC |
| SCHNEIDSTOFF · MATERIAL · MATIÈRE · MATERIALE | HSSE | HSSE | HSSE | HSSE |
| ANSCHNITTFORM · CHAMFER FORM · FORME D'ENTRÉE · FORMA D'IMBOCCO | C / 2-3 | C / 2-3 | C / 2-3 | C / 2-3 |
| TOLERANZ · TOLERANCE · TOLÉRANCE · TOLLERANZA | VZ1 [1] | M2 | ISO2X | ISO2X |
| | RH | RH | RH | RH |

DIN 352

| $d_1$ [mm] | P [mm] | [mm] | $l_1$ [mm] | $l_2$ [mm] | $l_3$ [mm] | Ø $d_2$ [mm] | a [mm] | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| M 1 | 0,25 | 0,75 | 32 | 5 | 5 | 2,5 | 2,1 | | | | |
| M 1,4 | 0,3 | 1,1 | 32 | 7 | 7 | 2,5 | 2,1 | | | | |
| M 1,6 | 0,35 | 1,25 | 32 | 8 | 8 | 2,5 | 2,1 | | | | |
| M 2 | 0,4 | 1,6 | 36 | 5,6 | 8 | 2,8 | 2,1 | 5020.11000020 | | | |
| M 2 | 0,4 | 1,6 | 36 | 8 | 8 | 2,8 | 2,1 | | 5020.0F000020 | 5020.0E000020 | 5020.0B000020 |
| M 2,5 | 0,45 | 2,05 | 40 | 6,1 | 9 | 2,8 | 2,1 | 5020.11000025 | | | |
| M 2,5 | 0,45 | 2,05 | 40 | 9 | 9 | 2,8 | 2,1 | | 5020.0F000025 | 5020.0E000025 | 5020.0B000025 |
| M 3 | 0,5 | 2,5 | 40 | 6,7 | 18 | 3,5 | 2,7 | 5020.11000030 | | | |
| M 3 | 0,5 | 2,5 | 40 | 10 | 18 | 3,5 | 2,7 | | 5020.0F000030 | 5020.0E000030 | 5020.0B000030 |
| M 3,5 | 0,6 | 2,9 | 45 | 7,5 | 20 | 4 | 3 | 5020.11000035 | | | |
| M 3,5 | 0,6 | 2,9 | 45 | 11 | 20 | 4 | 3 | | 5020.0F000035 | 5020.0E000035 | 5020.0B000035 |
| M 4 | 0,7 | 3,3 | 45 | 7,9 | 22 | 4,5 | 3,4 | 5020.11000040 | | | |
| M 4 | 0,7 | 3,3 | 45 | 12 | 22 | 4,5 | 3,4 | | 5020.0F000040 | 5020.0E000040 | 5020.0B000040 |
| M 5 | 0,8 | 4,2 | 50 | 9,5 | 25 | 6 | 4,9 | 5020.11000050 | | | |
| M 5 | 0,8 | 4,2 | 50 | 14 | 25 | 6 | 4,9 | | 5020.0F000050 | 5020.0E000050 | 5020.0B000050 |
| M 6 | 1 | 5 | 56 | 11 | 28 | 6 | 4,9 | 5020.11000060 | | | |
| M 6 | 1 | 5 | 56 | 16 | 28 | 6 | 4,9 | | 5020.0F000060 | 5020.0E000060 | 5020.0B000060 |
| M 7 | 1 | 6 | 56 | 18 | - | 6 | 4,9 | | | | |
| M 8 | 1,25 | 6,8 | 63 | 14,1 | - | 6 | 4,9 | 5020.11000080 | | | |
| M 8 | 1,25 | 6,8 | 63 | 20 | - | 6 | 4,9 | | 5020.0F000080 | 5020.0E000080 | 5020.0B000080 |
| M 10 | 1,5 | 8,5 | 70 | 16 | - | 7 | 5,5 | 5020.11000100 | | | |
| M 10 | 1,5 | 8,5 | 70 | 22 | - | 7 | 5,5 | | 5020.0F000100 | 5020.0E000100 | 5020.0B000100 |
| M 11 | 1,5 | 9,5 | 70 | 22 | - | 8 | 6,2 | | | | |
| M 12 | 1,75 | 10,2 | 75 | 16,8 | - | 9 | 7 | 5020.11000112 | | | |
| M 12 | 1,75 | 10,2 | 75 | 24 | - | 9 | 7 | | 5020.0F000112 | 5020.0E000112 | 5020.0B000112 |
| M 14 | 2 | 12 | 80 | 17,6 | - | 11 | 9 | 5020.11000114 | | | |
| M 14 | 2 | 12 | 80 | 26 | - | 11 | 9 | | 5020.0F000114 | 5020.0E000114 | 5020.0B000114 |
| M 16 | 2 | 14 | 80 | 17,6 | - | 12 | 9 | 5020.11000116 | | | |
| M 16 | 2 | 14 | 80 | 27 | - | 12 | 9 | | 5020.0F000116 | 5020.0E000116 | 5020.0B000116 |
| M 20 | 2,5 | 17,5 | 95 | 20,3 | - | 16 | 12 | 5020.11000120 | | | 5020.0B000120 |
| M 20 | 2,5 | 17,5 | 95 | 32 | - | 16 | 12 | | 5020.0F000120 | 5020.0E000120 | |
| M 24 | 3 | 21 | 110 | 21 | - | 18 | 14,5 | 5020.11000124 | | | |
| M 24 | 3 | 21 | 110 | 34 | - | 18 | 14,5 | | 5020.0F000124 | 5020.0E000124 | 5020.0B000124 |
| M 27 | 3 | 24 | 110 | 36 | - | 20 | 16 | | | | |
| M 30 | 3,5 | 26,5 | 125 | 40 | - | 22 | 18 | | | | |

2xD FT



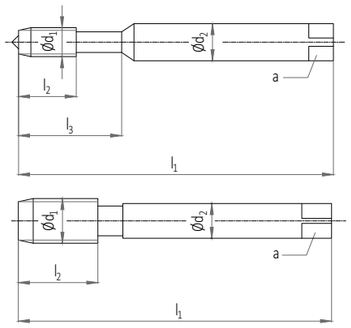

| | NORIS SATZ ERGO FT | NORIS SATZ ERGO FT | NORIS SATZ ERGO FT | NORIS SATZ ERGO FT |
|---|---|---|---|---|
| |  |  |  |  |
| | | | | S3 |
| OBERFLÄCHE · SURFACE · SURFACE · SUPERFICIE | NIT | NIT | NIT | NIT |
| SCHNEIDSTOFF · MATERIAL · MATIÈRE · MATERIALE | HSSE | HSSE | HSSE | HSSE |
| ANSCHNITTFORM · CHAMFER FORM · FORME D'ENTRÉE · FORMA D'IMBOCCO | C / 2-3 | C / 2-3 | C / 2-3 | C / 2-3 |
| TOLERANZ · TOLERANCE · TOLÉRANCE · TOLLERANZA | VZ1 [1] | M2 | ISO2X | ISO2X |
| | RH | RH | RH | RH |

DIN 352

| $d_1$ [mm] | P [mm] | [mm] | $l_1$ [mm] | $l_2$ [mm] | $l_3$ [mm] | Ø $d_2$ [mm] | a [mm] | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| M 1 | 0,25 | 0,75 | 32 | 5 | 5 | 2,5 | 2,1 | | | | |
| M 1,4 | 0,3 | 1,1 | 32 | 7 | 7 | 2,5 | 2,1 | | | | |
| M 1,6 | 0,35 | 1,25 | 32 | 8 | 8 | 2,5 | 2,1 | | | | |
| M 2 | 0,4 | 1,6 | 36 | 5,6 | 8 | 2,8 | 2,1 | | | | |
| M 2 | 0,4 | 1,6 | 36 | 8 | 8 | 2,8 | 2,1 | | | | |
| M 2,5 | 0,45 | 2,05 | 40 | 6,1 | 9 | 2,8 | 2,1 | | | | |
| M 2,5 | 0,45 | 2,05 | 40 | 9 | 9 | 2,8 | 2,1 | | | | |
| M 3 | 0,5 | 2,5 | 40 | 6,7 | 18 | 3,5 | 2,7 | 5030.11020030 | | | 5030.0B020030 |
| M 3 | 0,5 | 2,5 | 40 | 10 | 18 | 3,5 | 2,7 | | 5030.0F020030 | 5030.0E020030 | |
| M 3,5 | 0,6 | 2,9 | 45 | 7,5 | 20 | 4 | 3 | | | | |
| M 3,5 | 0,6 | 2,9 | 45 | 11 | 20 | 4 | 3 | | | | |
| M 4 | 0,7 | 3,3 | 45 | 7,9 | 22 | 4,5 | 3,4 | 5030.11020040 | | | |
| M 4 | 0,7 | 3,3 | 45 | 12 | 22 | 4,5 | 3,4 | | 5030.0F020040 | 5030.0E020040 | 5030.0B020040 |
| M 5 | 0,8 | 4,2 | 50 | 9,5 | 25 | 6 | 4,9 | 5030.11020050 | | | |
| M 5 | 0,8 | 4,2 | 50 | 14 | 25 | 6 | 4,9 | | 5030.0F020050 | 5030.0E020050 | 5030.0B020050 |
| M 6 | 1 | 5 | 56 | 11 | 28 | 6 | 4,9 | 5030.11020060 | | | |
| M 6 | 1 | 5 | 56 | 16 | 28 | 6 | 4,9 | | 5030.0F020060 | 5030.0E020060 | 5030.0B020060 |
| M 7 | 1 | 6 | 56 | 18 | - | 6 | 4,9 | | | | |
| M 8 | 1,25 | 6,8 | 63 | 14,1 | - | 6 | 4,9 | 5030.11020080 | | | |
| M 8 | 1,25 | 6,8 | 63 | 20 | - | 6 | 4,9 | | 5030.0F020080 | 5030.0E020080 | 5030.0B020080 |
| M 10 | 1,5 | 8,5 | 70 | 16 | - | 7 | 5,5 | 5030.11020100 | | | |
| M 10 | 1,5 | 8,5 | 70 | 22 | - | 7 | 5,5 | | 5030.0F020100 | 5030.0E020100 | 5030.0B020100 |
| M 11 | 1,5 | 9,5 | 70 | 22 | - | 8 | 6,2 | | | | |
| M 12 | 1,75 | 10,2 | 75 | 16,8 | - | 9 | 7 | 5030.11020112 | | | |
| M 12 | 1,75 | 10,2 | 75 | 24 | - | 9 | 7 | | 5030.0F020112 | 5030.0E020112 | 5030.0B020112 |
| M 14 | 2 | 12 | 80 | 17,6 | - | 11 | 9 | | | | |
| M 16 | 2 | 14 | 80 | 17,6 | - | 12 | 9 | 5030.11020116 | | | 5030.0B020116 |
| M 16 | 2 | 14 | 80 | 27 | - | 12 | 9 | | 5030.0F020116 | 5030.0E020116 | |
| M 20 | 2,5 | 17,5 | 95 | 20,3 | - | 16 | 12 | 5030.11020120 | | | |
| M 20 | 2,5 | 17,5 | 95 | 32 | - | 16 | 12 | | 5030.0F020120 | 5030.0E020120 | 5030.0B020120 |

1) Der Führungszapfen des Vz1 gewährleistet ein fluchtendes Anschneiden.
The guide journal of Vz1 ensures a flush lead.
La partie pilote de l'ébaucher assure un parfait centrage.
Il primo maschio della serie è munito di guida che assicura la centricità della filettatura con il preforo.

3xD CNC




| | NORIS SALOREX UNI CNC | NORIS SALOREX UNI CNC | NORIS SALOREX UNI CNC | NORIS SALOREX UNI CNC | NORIS SALOREX UNI CNC | NORIS SALOREX UNI CNC |
|---|---|---|---|---|---|---|
| |  |  |  |  |  |  |
| OBERFLÄCHE · SURFACE · SURFACE · SUPERFICIE | WAC | WAC | VAP | VAP | VAP | ALTINHD |
| SCHNEIDSTOFF · MATERIAL · MATIÈRE · MATERIALE | HSSE | HSSE | HSSE | HSSE | HSSE | HSSE |
| ANSCHNITTFORM · CHAMFER FORM · FORME D'ENTRÉE · FORMA D'IMBOCCO | C / 2-3 | C / 2-3 | C / 2-3 | E / 1,5-2 | E / 1,5-2 | C / 2-3 |
| TOLERANZ · TOLERANCE · TOLÉRANCE · TOLLERANZA | ISO1 | ISO2 | ISO2 | ISO2 | ISO3 | ISO2 |
| | RH | RH | RH | RH | RH | RH |

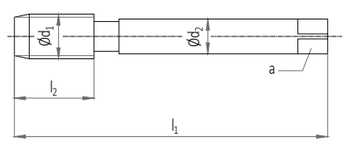
| | d1 | x | P | | l1 | l2 | l3 | Ø d2 | a | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | [mm] | | [mm] | [mm] | [mm] | [mm] | [mm] | [mm] | [mm] | | | | | |
| DIN 371 | M | 2,5 | x | 0,35 | 2,15 | 50 | 5 | 15 | 2,8 | 2,1 | | 6470.0B000196 | | | | |
| | M | 3 | x | 0,35 | 2,65 | 56 | 4,5 | 18 | 3,5 | 2,7 | | 6470.0B000202 | | | | |
| | M | 3,5 | x | 0,35 | 3,15 | 56 | 5 | 20 | 4 | 3 | | 6470.0B000205 | | | | |
| | M | 4 | x | 0,5 | 3,5 | 63 | 5 | 21 | 4,5 | 3,4 | 6470.02000210 | 6470.0B000210 | 6470.0B010210 | | 6470.16010210 | 6470.0B090210 |
| | M | 5 | x | 0,5 | 4,5 | 70 | 5 | 25 | 6 | 4,9 | 6470.02000218 | 6470.0B000218 | 6470.0B010218 | | 6470.16010218 | 6470.0B090218 |
| | M | 6 | x | 0,5 | 5,5 | 80 | 5 | 30 | 6 | 4,9 | | 6470.0B000228 | 6470.0B010228 | | | 6470.0B090228 |
| | M | 6 | x | 0,75 | 5,2 | 80 | 8 | 30 | 6 | 4,9 | 6470.02000229 | 6470.0B000229 | 6470.0B010229 | | 6470.16010229 | 6470.0B090229 |
| | M | 7 | x | 0,75 | 6,2 | 80 | 10 | 30 | 7 | 5,5 | | 6470.0B000239 | | | | |
| | M | 8 | x | 0,75 | 7,2 | 80 | 8 | 30 | 8 | 6,2 | | 6470.0B000250 | | | | |
| | M | 8 | x | 1 | 7 | 90 | 10 | 35 | 8 | 6,2 | | 6470.0B000251 | | | | 6470.0B090251 |
| | M | 9 | x | 1 | 8 | 90 | 10 | 35 | 9 | 7 | | 6470.0B000263 | | | | |
| | M | 10 | x | 0,75 | 9,2 | 90 | 10 | 35 | 10 | 8 | | 6470.0B000275 | | | | |
| | M | 10 | x | 1 | 9 | 90 | 10 | 35 | 10 | 8 | | 6470.0B000276 | | | | 6470.0B090276 |
| | M | 10 | x | 1,25 | 8,8 | 100 | 16 | 39 | 10 | 8 | | 6470.0B000277 | | | | 6470.0B090277 |

| | d1 | x | P | | l1 | l2 | l3 | Ø d2 | a | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | [mm] | | [mm] | [mm] | [mm] | [mm] | [mm] | [mm] | [mm] | | | | | |
| DIN 374 | M | 6 | x | 0,75 | 5,2 | 80 | 8 | - | 4,5 | 3,4 | | 7470.0B000229 | 7470.0B010229 | | | 7470.0B090229 |
| | M | 8 | x | 0,75 | 7,2 | 80 | 8 | - | 6 | 4,9 | | 7470.0B000250 | 7470.0B010250 | | | 7470.0B090250 |
| | M | 8 | x | 1 | 7 | 90 | 10 | - | 6 | 4,9 | 7470.02000251 | 7470.0B000251 | 7470.0B010251 | 7470.0D010251 | 7470.16010251 | 7470.0B090251 |
| | M | 9 | x | 1 | 8 | 90 | 10 | - | 7 | 5,5 | | 7470.0B000263 | | | | |
| | M | 10 | x | 0,75 | 9,2 | 90 | 10 | - | 7 | 5,5 | | 7470.0B000275 | 7470.0B010275 | | | 7470.0B090275 |
| | M | 10 | x | 1 | 9 | 90 | 10 | - | 7 | 5,5 | 7470.02000276 | 7470.0B000276 | 7470.0B010276 | 7470.0D010276 | 7470.16010276 | 7470.0B090276 |
| | M | 10 | x | 1,25 | 8,8 | 100 | 16 | - | 7 | 5,5 | | 7470.0B000277 | 7470.0B010277 | | | 7470.0B090277 |
| | M | 11 | x | 1 | 10 | 90 | 11 | - | 8 | 6,2 | | 7470.0B000288 | | | | |
| | M | 12 | x | 1 | 11 | 100 | 11 | - | 9 | 7 | 7470.02000301 | 7470.0B000301 | 7470.0B010301 | | 7470.16010301 | 7470.0B090301 |
| | M | 12 | x | 1,25 | 10,8 | 100 | 15 | - | 9 | 7 | | 7470.0B000302 | 7470.0B010302 | | | 7470.0B090302 |
| | M | 12 | x | 1,5 | 10,5 | 100 | 15 | - | 9 | 7 | 7470.02000303 | 7470.0B000303 | 7470.0B010303 | 7470.0D010303 | 7470.16010303 | 7470.0B090303 |
| | M | 14 | x | 1 | 13 | 100 | 11 | - | 11 | 9 | | 7470.0B000329 | | | | 7470.0B090329 |
| | M | 14 | x | 1,25 | 12,8 | 100 | 15 | - | 11 | 9 | | 7470.0B000330 | | | | 7470.0B090330 |
| | M | 14 | x | 1,5 | 12,5 | 100 | 15 | - | 11 | 9 | 7470.02000331 | 7470.0B000331 | 7470.0B010331 | 7470.0D010331 | 7470.16010331 | 7470.0B090331 |
| | M | 16 | x | 1 | 15 | 100 | 12 | - | 12 | 9 | | 7470.0B000357 | | | | 7470.0B090357 |
| | M | 16 | x | 1,5 | 14,5 | 100 | 15 | - | 12 | 9 | 7470.02000359 | 7470.0B000359 | 7470.0B010359 | 7470.0D010359 | 7470.16010359 | 7470.0B090359 |





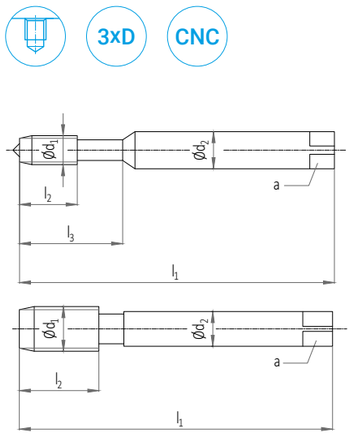
3xD CNC




| | NORIS SALOREX UNI CNC | NORIS SALOREX UNI CNC | NORIS SALOREX UNI CNC | NORIS SALOREX UNI CNC | NORIS SALOREX UNI CNC |
|---|---|---|---|---|---|
| |  |  |  |  |  |
| OBERFLÄCHE · SURFACE · SURFACE · SUPERFICIE | WAC | WAC | VAP | VAP | ALTINHD |
| SCHNEIDSTOFF · MATERIAL · MATIÈRE · MATERIALE | HSSE | HSSE | HSSE | HSSE | HSSE |
| ANSCHNITTFORM · CHAMFER FORM · FORME D'ENTRÉE · FORMA D'IMBOCCO | C / 2-3 | C / 2-3 | C / 2-3 | E / 1,5-2 | C / 2-3 |
| TOLERANZ · TOLERANCE · TOLÉRANCE · TOLLERANZA | ISO1 | ISO2 | ISO2 | ISO3 | ISO2 |
| | RH | RH | RH | RH | RH |

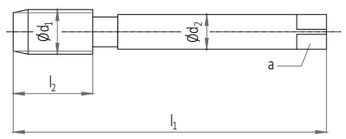
| | d1 | x | P | | l1 | l2 | l3 | Ø d2 | a | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | [mm] | | [mm] | [mm] | [mm] | [mm] | [mm] | [mm] | [mm] | | | | | |
| DIN 374 | M | 18 | x | 1 | 17 | 110 | 13 | - | 14 | 11 | | 7470.0B000388 | | | | |
| | M | 18 | x | 1,5 | 16,5 | 110 | 17 | - | 14 | 11 | 7470.02000390 | 7470.0B000390 | 7470.0B010390 | 7470.16010390 | 7470.0B090390 | |
| | M | 18 | x | 2 | 16 | 125 | 20 | - | 14 | 11 | | 7470.0B000391 | | | | |
| | M | 20 | x | 1 | 19 | 125 | 14 | - | 16 | 12 | | 7470.0B000420 | | | | 7470.0B090420 |
| | M | 20 | x | 1,5 | 18,5 | 125 | 17 | - | 16 | 12 | 7470.02000422 | 7470.0B000422 | 7470.0B010422 | 7470.16010422 | 7470.0B090422 | |
| | M | 20 | x | 2 | 18 | 140 | 20 | - | 16 | 12 | | 7470.0B000423 | | | | 7470.0B090423 |
| | M | 22 | x | 1 | 21 | 125 | 14 | - | 18 | 14,5 | | 7470.0B000436 | | | | |
| | M | 22 | x | 1,5 | 20,5 | 125 | 17 | - | 18 | 14,5 | | 7470.0B000438 | 7470.0B010438 | | | 7470.0B090438 |
| | M | 22 | x | 2 | 20 | 140 | 20 | - | 18 | 14,5 | | 7470.0B000439 | | | | 7470.0B090439 |
| | M | 24 | x | 1 | 23 | 140 | 15 | - | 18 | 14,5 | | 7470.0B000450 | | | | |
| | M | 24 | x | 1,5 | 22,5 | 140 | 20 | - | 18 | 14,5 | | 7470.0B000452 | 7470.0B010452 | | | 7470.0B090452 |
| | M | 24 | x | 2 | 22 | 140 | 20 | - | 18 | 14,5 | | 7470.0B000453 | | | | 7470.0B090453 |
| | M | 25 | x | 1,5 | 23,5 | 140 | 20 | - | 18 | 14,5 | | 7470.0B000458 | | | | |
| | M | 26 | x | 1,5 | 24,5 | 140 | 20 | - | 18 | 14,5 | | 7470.0B000464 | 7470.0B010464 | | | 7470.0B090464 |
| | M | 27 | x | 1,5 | 25,5 | 140 | 20 | - | 20 | 16 | | 7470.0B000470 | | | | |
| | M | 27 | x | 2 | 25 | 140 | 20 | - | 20 | 16 | | 7470.0B000471 | | | | 7470.0B090471 |
| | M | 28 | x | 1,5 | 26,5 | 140 | 20 | - | 20 | 16 | | | 7470.0B010476 | | | |
| | M | 30 | x | 1,5 | 28,5 | 150 | 22 | - | 22 | 18 | | | 7470.0B010490 | | | |

MF DIN 13




| | NORIS SALOREX UNI CNC | NORIS SALOREX UNI CNC | NORIS SALOREX UNI CNC | NORIS SALOREX UNI CNC | NORIS SALOREX UNI CNC MKB |
|---|---|---|---|---|---|
| OBERFLÄCHE · SURFACE · SURFACE · SUPERFICIE | ALTINHD | ALTINHD | ALTINHD | ALTINHD | VAP |
| SCHNEIDSTOFF · MATERIAL · MATIÈRE · MATERIALE | HSSE | HSSE | HSSE | HSSE | HSSE |
| ANSCHNITTFORM · CHAMFER FORM · FORME D'ENTRÉE · FORMA D'IMBOCCO | C / 2-3 | E / 1,5-2 | E / 1,5-2 | E / 1,5-2 | E / 1,5-2 |
| TOLERANZ · TOLERANCE · TOLÉRANCE · TOLLERANZA | ISO2 | ISO2 | ISO3 | 7G | ISO2 |
| | LH | RH | RH | RH | RH |

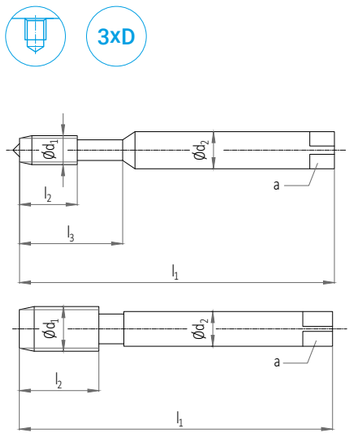
| | $d_1$ x P [mm] | $l_1$ [mm] | $l_2$ [mm] | $l_3$ [mm] | Ø $d_2$ [mm] | a [mm] | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DIN 371 | M 2,5 x 0,35 | 2,15 | 50 | 5 | 15 | 2,8 | 2,1 | | | | | |
| DIN 371 | M 3 x 0,35 | 2,65 | 56 | 4,5 | 18 | 3,5 | 2,7 | | | | | |
| DIN 371 | M 3,5 x 0,35 | 3,15 | 56 | 5 | 20 | 4 | 3 | | | | | |
| DIN 371 | M 4 x 0,5 | 3,5 | 63 | 5 | 21 | 4,5 | 3,4 | | | | | |
| DIN 371 | M 5 x 0,5 | 4,5 | 70 | 5 | 25 | 6 | 4,9 | | 6470.0D090218 | | | |
| DIN 371 | M 6 x 0,5 | 5,5 | 80 | 5 | 30 | 6 | 4,9 | | 6470.0D090228 | | | |
| DIN 371 | M 6 x 0,75 | 5,2 | 80 | 8 | 30 | 6 | 4,9 | | 6470.0D090229 | | | |
| DIN 371 | M 7 x 0,75 | 6,2 | 80 | 10 | 30 | 7 | 5,5 | | | | | |
| DIN 371 | M 8 x 1 | 7 | 90 | 10 | 35 | 8 | 6,2 | | | | | |
| DIN 371 | M 9 x 1 | 8 | 90 | 10 | 35 | 9 | 7 | | | | | |
| DIN 371 | M 10 x 1,25 | 8,8 | 100 | 16 | 39 | 10 | 8 | | | | | |
| DIN 374 | M 6 x 0,75 | 5,2 | 80 | 8 | - | 4,5 | 3,4 | | | | | |
| DIN 374 | M 8 x 0,75 | 7,2 | 80 | 8 | - | 6 | 4,9 | | 7470.0D090250 | 7470.16090250 | | |
| DIN 374 | M 8 x 1 | 7 | 90 | 10 | - | 6 | 4,9 | 7470.4A090251 | 7470.0D090251 | 7470.16090251 | 7470.1F090251 | |
| DIN 374 | M 9 x 1 | 8 | 90 | 10 | - | 7 | 5,5 | | | | | |
| DIN 374 | M 10 x 1 | 9 | 90 | 10 | - | 7 | 5,5 | 7470.4A090276 | 7470.0D090276 | 7470.16090276 | 7470.1F090276 | |
| DIN 374 | M 12 x 1 | 11 | 100 | 11 | - | 9 | 7 | 7470.4A090301 | 7470.0D090301 | 7470.16090301 | | |
| DIN 374 | M 12 x 1,5 | 10,5 | 100 | 15 | - | 9 | 7 | 7470.4A090303 | 7470.0D090303 | 7470.16090303 | 7470.1F090303 | 7480.0D010303 |
| DIN 374 | M 14 x 1,5 | 12,5 | 100 | 15 | - | 11 | 9 | 7470.4A090331 | 7470.0D090331 | 7470.16090331 | 7470.1F090331 | 7480.0D010331 |
| DIN 374 | M 16 x 1,5 | 14,5 | 100 | 15 | - | 12 | 9 | 7470.4A090359 | 7470.0D090359 | 7470.16090359 | 7470.1F090359 | 7480.0D010359 |
| DIN 374 | M 18 x 1,5 | 16,5 | 110 | 17 | - | 14 | 11 | 7470.4A090390 | 7470.0D090390 | | | |
| DIN 374 | M 20 x 1,5 | 18,5 | 125 | 17 | - | 16 | 12 | 7470.4A090422 | 7470.0D090422 | | 7470.1F090422 | 7480.0D010422 |




| | NORIS SALOREX UNI HP | NORIS SALOREX UNI HP | NORIS SALOREX UNI HP MKB | NORIS SALOREX ST TS |
|---|---|---|---|---|
| OBERFLÄCHE · SURFACE · SURFACE · SUPERFICIE | ALTINHD | ALTINHD | ALTINHD | ALTINHD |
| SCHNEIDSTOFF · MATERIAL · MATIÈRE · MATERIALE | HSSE-PM | HSSE-PM | HSSE-PM | HSSE-PM |
| ANSCHNITTFORM · CHAMFER FORM · FORME D'ENTRÉE · FORMA D'IMBOCCO | C / 2-3 | E / 1,5-2 | C / 2-3 | C / 2-3 |
| TOLERANZ · TOLERANCE · TOLÉRANCE · TOLLERANZA | ISO2X | ISO2X | ISO2X | ISO2 |
| | RH | RH | RH | RH |

| | $d_1$ x P [mm] | $l_1$ [mm] | $l_2$ [mm] | $l_3$ [mm] | Ø $d_2$ [mm] | a [mm] | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| DIN 374 | M 6 x 0,75 | 5,2 | 80 | 8 | - | 4,5 | 3,4 | 7490.0B090229 | 7490.0D090229 | 7460.0B090229 | |
| DIN 374 | M 8 x 1 | 7 | 90 | 10 | - | 6 | 4,9 | 7490.0B090251 | 7490.0D090251 | 7460.0B090251 | 7880.0B090251 |
| DIN 374 | M 10 x 1 | 9 | 90 | 10 | - | 7 | 5,5 | 7490.0B090276 | 7490.0D090276 | 7460.0B090276 | 7880.0B090276 |
| DIN 374 | M 10 x 1,25 | 8,8 | 100 | 16 | - | 7 | 5,5 | 7490.0B090277 | 7490.0D090277 | 7460.0B090277 | 7880.0B090277 |
| DIN 374 | M 11 x 1 | 10 | 90 | 11 | - | 8 | 6,2 | | | | |
| DIN 374 | M 12 x 1 | 11 | 100 | 11 | - | 9 | 7 | 7490.0B090301 | 7490.0D090301 | 7460.0B090301 | |
| DIN 374 | M 12 x 1,25 | 10,8 | 100 | 15 | - | 9 | 7 | 7490.0B090302 | 7490.0D090302 | 7460.0B090302 | 7880.0B090302 |
| DIN 374 | M 12 x 1,5 | 10,5 | 100 | 15 | - | 9 | 7 | 7490.0B090303 | 7490.0D090303 | 7460.0B090303 | 7880.0B090303 |
| DIN 374 | M 14 x 1,5 | 12,5 | 100 | 15 | - | 11 | 9 | 7490.0B090331 | 7490.0D090331 | 7460.0B090331 | 7880.0B090331 |
| DIN 374 | M 16 x 1,5 | 14,5 | 100 | 15 | - | 12 | 9 | 7490.0B090359 | 7490.0D090359 | 7460.0B090359 | 7880.0B090359 |
| DIN 374 | M 18 x 1,5 | 16,5 | 110 | 17 | - | 14 | 11 | 7490.0B090390 | 7490.0D090390 | 7460.0B090390 | 7880.0B090390 |
| DIN 374 | M 20 x 1,5 | 18,5 | 125 | 17 | - | 16 | 12 | 7490.0B090422 | 7490.0D090422 | 7460.0B090422 | 7880.0B090422 |
| DIN 374 | M 22 x 1,5 | 20,5 | 125 | 17 | - | 18 | 14,5 | 7490.0B090438 | 7490.0D090438 | 7460.0B090438 | |
| DIN 374 | M 24 x 1,5 | 22,5 | 140 | 20 | - | 18 | 14,5 | 7490.0B090452 | 7490.0D090452 | 7460.0B090452 | |

MF DIN 13

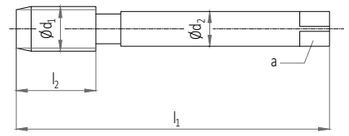





| | NORIS SALOREX HR | NORIS SALOREX HR | NORIS SALOREX HR MKB | NORIS SALOREX VA | NORIS SALOREX VA | NORIS SALOREX NW CNC |
|---|---|---|---|---|---|---|
| OBERFLÄCHE · SURFACE · SURFACE · SUPERFICIE | WAC | ALTINHD | ALTINHD | VAP | ALTINHD | DLC |
| SCHNEIDSTOFF · MATERIAL · MATIÈRE · MATERIALE | HSSE-PM | HSSE-PM | HSSE-PM | HSSE | HSSE | HSSE |
| ANSCHNITTFORM · CHAMFER FORM · FORME D'ENTRÉE · FORMA D'IMBOCCO | C / 2-3 | C / 2-3 | C / 2-3 | E / 1,5-2 | E / 1,5-2 | C / 2-3 |
| TOLERANZ · TOLERANCE · TOLÉRANCE · TOLLERANZA | ISO2 | ISO2 | ISO2 | ISO2 | ISO2 | ISO2 |
| | RH | RH | RH | RH | RH | RH |

| | d1 x P [mm] | | l1 [mm] | l2 [mm] | l3 [mm] | Ø d2 [mm] | a [mm] | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DIN 371 | M 2,5 x 0,35 | 2,15 | 50 | 5 | 15 | 2,8 | 2,1 | | | | | | |
| | M 3 x 0,35 | 2,65 | 56 | 4,5 | 18 | 3,5 | 2,7 | | | | | | |
| | M 3,5 x 0,35 | 3,15 | 56 | 5 | 20 | 4 | 3 | | | | | | |
| | M 4 x 0,5 | 3,5 | 63 | 5 | 21 | 4,5 | 3,4 | | | | | 6645.0D090210 | |
| | M 5 x 0,5 | 4,5 | 70 | 5 | 25 | 6 | 4,9 | | | | | 6645.0D090218 | |
| | M 6 x 0,5 | 5,5 | 80 | 5 | 30 | 6 | 4,9 | | | | | 6645.0D090228 | |
| | M 6 x 0,75 | 5,2 | 80 | 8 | 30 | 6 | 4,9 | | | | | 6645.0D090229 | |
| | M 7 x 0,75 | 6,2 | 80 | 10 | 30 | 7 | 5,5 | | | | | | |
| | M 8 x 0,75 | 7,2 | 80 | 8 | 30 | 8 | 6,2 | | | | | | |
| | M 8 x 1 | 7 | 90 | 10 | 35 | 8 | 6,2 | | | | | | |
| | M 9 x 1 | 8 | 90 | 10 | 35 | 9 | 7 | | | | | | |
| | M 10 x 0,75 | 9,2 | 90 | 10 | 35 | 10 | 8 | | | | | | |
| | M 10 x 1 | 9 | 90 | 10 | 35 | 10 | 8 | | | | | | |
| | M 10 x 1,25 | 8,8 | 100 | 16 | 39 | 10 | 8 | | | | | | |

| | d1 x P [mm] | | l1 [mm] | l2 [mm] | l3 [mm] | Ø d2 [mm] | a [mm] | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DIN 374 | M 6 x 0,75 | 5,2 | 80 | 8 | - | 4,5 | 3,4 | | | | | | |
| | M 8 x 0,75 | 7,2 | 80 | 8 | - | 6 | 4,9 | | | | | 7645.0D090250 | |
| | M 8 x 1 | 7 | 90 | 10 | - | 6 | 4,9 | 7643.0B000251 | 7643.0B090251 | 7853.0B090251 | 7645.0D010251 | 7645.0D090251 | 7471.0B100251 |
| | M 10 x 1 | 9 | 90 | 10 | - | 7 | 5,5 | 7643.0B000276 | 7643.0B090276 | 7853.0B090276 | 7645.0D010276 | 7645.0D090276 | 7471.0B100276 |
| | M 10 x 1,25 | 8,8 | 100 | 16 | - | 7 | 5,5 | 7643.0B000277 | 7643.0B090277 | 7853.0B090277 | | | 7471.0B100277 |
| | M 11 x 1 | 10 | 90 | 11 | - | 8 | 6,2 | | | | | | |
| | M 12 x 1 | 11 | 100 | 11 | - | 9 | 7 | | | | 7645.0D010301 | 7645.0D090301 | 7471.0B100301 |
| | M 12 x 1,25 | 10,8 | 100 | 15 | - | 9 | 7 | 7643.0B000302 | 7643.0B090302 | 7853.0B090302 | | | 7471.0B100302 |
| | M 12 x 1,5 | 10,5 | 100 | 15 | - | 9 | 7 | 7643.0B000303 | 7643.0B090303 | 7853.0B090303 | 7645.0D010303 | 7645.0D090303 | 7471.0B100303 |
| | M 14 x 1 | 13 | 100 | 11 | - | 11 | 9 | | | | | | 7471.0B100329 |
| | M 14 x 1,25 | 12,8 | 100 | 15 | - | 11 | 9 | | | | | | 7471.0B100330 |
| | M 14 x 1,5 | 12,5 | 100 | 15 | - | 11 | 9 | 7643.0B000331 | 7643.0B090331 | 7853.0B090331 | 7645.0D010331 | 7645.0D090331 | 7471.0B100331 |
| | M 16 x 1 | 15 | 100 | 12 | - | 12 | 9 | | | | | | 7471.0B100357 |
| | M 16 x 1,5 | 14,5 | 100 | 15 | - | 12 | 9 | 7643.0B000359 | 7643.0B090359 | 7853.0B090359 | 7645.0D010359 | 7645.0D090359 | 7471.0B100359 |

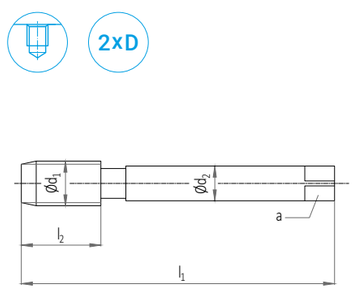







| | NORIS SALOREX VA | NORIS SALOREX VA |
|---|---|---|
| OBERFLÄCHE · SURFACE · SURFACE · SUPERFICIE | VAP | ALTINHD |
| SCHNEIDSTOFF · MATERIAL · MATIÈRE · MATERIALE | HSSE | HSSE |
| ANSCHNITTFORM · CHAMFER FORM · FORME D'ENTRÉE · FORMA D'IMBOCCO | E / 1,5-2 | E / 1,5-2 |
| TOLERANZ · TOLERANCE · TOLÉRANCE · TOLLERANZA | ISO2 | ISO2 |
| | RH | RH |

| | d1 x P [mm] | | l1 [mm] | l2 [mm] | l3 [mm] | Ø d2 [mm] | a [mm] | | |
|---|---|---|---|---|---|---|---|---|---|
| DIN 374 | M 18 x 1,5 | 16,5 | 110 | 17 | - | 14 | 11 | | 7645.0D090390 |
| | M 20 x 1,5 | 18,5 | 125 | 17 | - | 16 | 12 | 7645.0D010422 | 7645.0D090422 |
| | M 22 x 1,5 | 20,5 | 125 | 17 | - | 18 | 14,5 | | 7645.0D090438 |
| | M 24 x 1,5 | 22,5 | 140 | 20 | - | 18 | 14,5 | | 7645.0D090452 |
| | M 25 x 1,5 | 23,5 | 140 | 20 | - | 18 | 14,5 | | |
| | M 26 x 1,5 | 24,5 | 140 | 20 | - | 18 | 14,5 | 7645.0D010464 | |
| | M 27 x 2 | 25 | 140 | 20 | - | 20 | 16 | | |
| | M 28 x 1,5 | 26,5 | 140 | 20 | - | 20 | 16 | 7645.0D010476 | |
| | M 30 x 1,5 | 28,5 | 150 | 22 | - | 22 | 18 | 7645.0D010490 | |

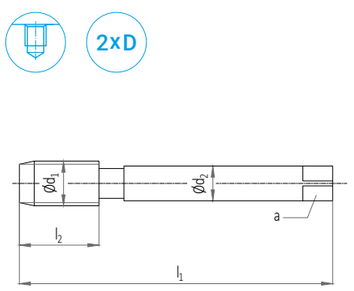



| | NORIS SL15 ST | NORIS SL15 ST CNC | NORIS SL15 ST CNC MKB | NORIS SL25 HR | NORIS SL25 HR MKB |
|---|---|---|---|---|---|
| |  |  |  |  |  |
| | | CNC | CNC | | |
| OBERFLÄCHE · SURFACE · SURFACE · SUPERFICIE | WAC | TIN | TIN | ALTINHD | ALTINHD |
| SCHNEIDSTOFF · MATERIAL · MATIÈRE · MATERIALE | HSSE | HSSE | HSSE | HSSE-PM | HSSE-PM |
| ANSCHNITTFORM · CHAMFER FORM · FORME D'ENTRÉE · FORMA D'IMBOCCO | C / 2-3 | C / 2-3 | C / 2-3 | C / 2-3 | C / 2-3 |
| TOLERANZ · TOLERANCE · TOLÉRANCE · TOLLERANZA | ISO2 | ISO2X | ISO2X | ISO2 | ISO2 |
| | RH | RH | RH | RH | RH |

DIN 374

| $d_1$ x P [mm] | $l_1$ [mm] | $l_2$ [mm] | $l_3$ [mm] | Ø $d_2$ [mm] | a [mm] | | | | |
|---|---|---|---|---|---|---|---|---|---|
| M 6 x 0,75 | 5,2 | 80 | 13 | - | 4,5 | 3,4 | 7600.0B000229 | | | | |
| M 8 x 0,75 | 7,2 | 80 | 14 | - | 6 | 4,9 | 7600.0B000250 | | | | |
| M 8 x 1 | 7 | 90 | 10 | - | 6 | 4,9 | | 760C.0B040251 | 784C.0B040251 | | |
| M 8 x 1 | 7 | 90 | 17 | - | 6 | 4,9 | 7600.0B000251 | | | 7603.0B090251 | 7843.0B090251 |
| M 9 x 1 | 8 | 90 | 17 | - | 7 | 5,5 | 7600.0B000263 | | | | |
| M 10 x 0,75 | 9,2 | 90 | 18 | - | 7 | 5,5 | 7600.0B000275 | | | | |
| M 10 x 1 | 9 | 90 | 10 | - | 7 | 5,5 | | 760C.0B040276 | 784C.0B040276 | | |
| M 10 x 1 | 9 | 90 | 18 | - | 7 | 5,5 | 7600.0B000276 | | | 7603.0B090276 | 7843.0B090276 |
| M 10 x 1,25 | 8,8 | 100 | 16 | - | 7 | 5,5 | | 760C.0B040277 | 784C.0B040277 | | |
| M 10 x 1,25 | 8,8 | 100 | 22 | - | 7 | 5,5 | 7600.0B000277 | | | 7603.0B090277 | 7843.0B090277 |
| M 11 x 1 | 10 | 90 | 18 | - | 8 | 6,2 | 7600.0B000288 | | | | |
| M 12 x 1 | 11 | 100 | 18 | - | 9 | 7 | 7600.0B000301 | | | | |
| M 12 x 1,25 | 10,8 | 100 | 22 | - | 9 | 7 | 7600.0B000302 | | | 7603.0B090302 | 7843.0B090302 |
| M 12 x 1,5 | 10,5 | 100 | 15 | - | 9 | 7 | | 760C.0B040303 | 784C.0B040303 | | |
| M 12 x 1,5 | 10,5 | 100 | 22 | - | 9 | 7 | 7600.0B000303 | | | 7603.0B090303 | 7843.0B090303 |
| M 14 x 1 | 13 | 100 | 18 | - | 11 | 9 | 7600.0B000329 | | | | |
| M 14 x 1,5 | 12,5 | 100 | 22 | - | 11 | 9 | 7600.0B000331 | | | 7603.0B090331 | 7843.0B090331 |
| M 15 x 1 | 14 | 100 | 18 | - | 12 | 9 | 7600.0B000343 | | | | |
| M 16 x 1 | 15 | 100 | 18 | - | 12 | 9 | 7600.0B000357 | | | | |
| M 16 x 1,5 | 14,5 | 100 | 22 | - | 12 | 9 | 7600.0B000359 | | | 7603.0B090359 | 7843.0B090359 |
| M 18 x 1 | 17 | 110 | 20 | - | 14 | 11 | 7600.0B000388 | | | | |
| M 18 x 1,5 | 16,5 | 110 | 25 | - | 14 | 11 | 7600.0B000390 | | | | |
| M 18 x 2 | 16 | 125 | 26 | - | 14 | 11 | 7600.0B000391 | | | | |
| M 20 x 1 | 19 | 125 | 20 | - | 16 | 12 | 7600.0B000420 | | | | |
| M 20 x 1,5 | 18,5 | 125 | 25 | - | 16 | 12 | 7600.0B000422 | | | | |

MF DIN 13

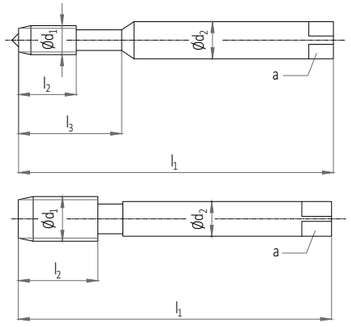



| | NORIS SL15 ST |
|---|---|
| |  |
| OBERFLÄCHE · SURFACE · SURFACE · SUPERFICIE | WAC |
| SCHNEIDSTOFF · MATERIAL · MATIÈRE · MATERIALE | HSSE |
| ANSCHNITTFORM · CHAMFER FORM · FORME D'ENTRÉE · FORMA D'IMBOCCO | C / 2-3 |
| TOLERANZ · TOLERANCE · TOLÉRANCE · TOLLERANZA | ISO2 |
| | RH |

DIN 374

| $d_1$ x P [mm] | $l_1$ [mm] | $l_2$ [mm] | $l_3$ [mm] | Ø $d_2$ [mm] | a [mm] | |
|---|---|---|---|---|---|---|
| M 20 x 2 | 18 | 140 | 27 | - | 16 | 12 | 7600.0B000423 |
| M 22 x 1 | 21 | 125 | 20 | - | 18 | 14,5 | 7600.0B000436 |
| M 22 x 1,5 | 20,5 | 125 | 25 | - | 18 | 14,5 | 7600.0B000438 |
| M 22 x 2 | 20 | 140 | 27 | - | 18 | 14,5 | 7600.0B000439 |
| M 24 x 1 | 23 | 140 | 20 | - | 18 | 14,5 | 7600.0B000450 |
| M 24 x 1,5 | 22,5 | 140 | 27 | - | 18 | 14,5 | 7600.0B000452 |
| M 24 x 2 | 22 | 140 | 27 | - | 18 | 14,5 | 7600.0B000453 |
| M 25 x 1,5 | 23,5 | 140 | 28 | - | 18 | 14,5 | 7600.0B000458 |
| M 26 x 1,5 | 24,5 | 140 | 28 | - | 18 | 14,5 | 7600.0B000464 |
| M 27 x 1,5 | 25,5 | 140 | 28 | - | 20 | 16 | 7600.0B000470 |
| M 27 x 2 | 25 | 140 | 28 | - | 20 | 16 | 7600.0B000471 |
| M 28 x 1,5 | 26,5 | 140 | 28 | - | 20 | 16 | 7600.0B000476 |
| M 28 x 2 | 26 | 140 | 28 | - | 20 | 16 | 7600.0B000477 |
| M 30 x 1,5 | 28,5 | 150 | 28 | - | 22 | 18 | 7600.0B000490 |
| M 30 x 2 | 28 | 150 | 28 | - | 22 | 18 | 7600.0B000491 |

4xD CNC




| | NORIS STABIL UNI CNC | NORIS STABIL UNI CNC | NORIS STABIL UNI CNC | NORIS STABIL UNI CNC |
|---|---|---|---|---|
| |  |  |  |  |
| OBERFLÄCHE · SURFACE · SURFACE · SUPERFICIE | WAC | WAC | WAC | WAC |
| SCHNEIDSTOFF · MATERIAL · MATIÈRE · MATERIALE | HSSE | HSSE | HSSE | HSSE |
| ANSCHNITTFORM · CHAMFER FORM · FORME D'ENTRÉE · FORMA D'IMBOCCO | B / 4-5 | B / 4-5 | B / 4-5 | B / 4-5 |
| TOLERANZ · TOLERANCE · TOLÉRANCE · TOLLERANZA | ISO1 | ISO2 | ISO2 | ISO3 |
| | RH | RH | LH | RH |

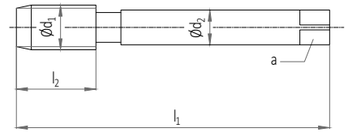
DIN 371

| $d_1$ x P [mm] | $l_1$ [mm] | $l_2$ [mm] | $l_3$ [mm] | Ø $d_2$ [mm] | a [mm] | | | | |
|---|---|---|---|---|---|---|---|---|---|
| M 3,5 x 0,35 | 3,15 | 56 | 9 | 20 | 4 | 3 | | 65C0.0A000205 | | |
| M 4 x 0,5 | 3,5 | 63 | 10 | 21 | 4,5 | 3,4 | | 65C0.0A000210 | | |
| M 5 x 0,5 | 4,5 | 70 | 11 | 25 | 6 | 4,9 | | 65C0.0A000218 | | |
| M 6 x 0,5 | 5,5 | 80 | 13 | 30 | 6 | 4,9 | | 65C0.0A000228 | | |
| M 6 x 0,75 | 5,2 | 80 | 13 | 30 | 6 | 4,9 | | 65C0.0A000229 | | |
| M 7 x 0,75 | 6,2 | 80 | 13 | 30 | 7 | 5,5 | | 65C0.0A000239 | | |
| M 8 x 0,75 | 7,2 | 80 | 14 | 30 | 8 | 6,2 | | 65C0.0A000250 | | |
| M 8 x 1 | 7 | 90 | 17 | 35 | 8 | 6,2 | | 65C0.0A000251 | | |
| M 9 x 1 | 8 | 90 | 17 | 35 | 9 | 7 | | 65C0.0A000263 | | |
| M 10 x 0,75 | 9,2 | 90 | 15 | 35 | 10 | 8 | | 65C0.0A000275 | | |
| M 10 x 1 | 9 | 90 | 18 | 35 | 10 | 8 | | 65C0.0A000276 | | |
| M 10 x 1,25 | 8,8 | 100 | 18 | 39 | 10 | 8 | | 65C0.0A000277 | | |

DIN 374

| $d_1$ x P [mm] | $l_1$ [mm] | $l_2$ [mm] | $l_3$ [mm] | Ø $d_2$ [mm] | a [mm] | | | | |
|---|---|---|---|---|---|---|---|---|---|
| M 4 x 0,35 | 3,65 | 63 | 10 | - | 2,8 | 2,1 | | 75C0.0A000209 | | |
| M 4 x 0,5 | 3,5 | 63 | 10 | - | 2,8 | 2,1 | | 75C0.0A000210 | | |
| M 5 x 0,5 | 4,5 | 70 | 11 | - | 3,5 | 2,7 | | 75C0.0A000218 | | |
| M 6 x 0,5 | 5,5 | 80 | 13 | - | 4,5 | 3,4 | | 75C0.0A000228 | | |
| M 6 x 0,75 | 5,2 | 80 | 13 | - | 4,5 | 3,4 | | 75C0.0A000229 | | |
| M 8 x 0,75 | 7,2 | 80 | 14 | - | 6 | 4,9 | | 75C0.0A000250 | | |
| M 8 x 1 | 7 | 90 | 17 | - | 6 | 4,9 | 75C0.01000251 | 75C0.0A000251 | 75C0.49000251 | 75C0.13000251 |
| M 10 x 0,75 | 9,2 | 90 | 18 | - | 7 | 5,5 | | 75C0.0A000275 | | |
| M 10 x 1 | 9 | 90 | 18 | - | 7 | 5,5 | 75C0.01000276 | 75C0.0A000276 | 75C0.49000276 | 75C0.13000276 |
| M 10 x 1,25 | 8,8 | 100 | 22 | - | 7 | 5,5 | | 75C0.0A000277 | | |
| M 12 x 1 | 11 | 100 | 18 | - | 9 | 7 | 75C0.01000301 | 75C0.0A000301 | 75C0.49000301 | 75C0.13000301 |
| M 12 x 1,25 | 10,8 | 100 | 22 | - | 9 | 7 | | 75C0.0A000302 | | |
| M 12 x 1,5 | 10,5 | 100 | 22 | - | 9 | 7 | 75C0.01000303 | 75C0.0A000303 | 75C0.49000303 | 75C0.13000303 |
| M 14 x 1 | 13 | 100 | 18 | - | 11 | 9 | | 75C0.0A000329 | | |
| M 14 x 1,25 | 12,8 | 100 | 22 | - | 11 | 9 | | 75C0.0A000330 | | |
| M 14 x 1,5 | 12,5 | 100 | 22 | - | 11 | 9 | 75C0.01000331 | 75C0.0A000331 | 75C0.49000331 | 75C0.13000331 |
| M 15 x 1 | 14 | 100 | 18 | - | 12 | 9 | | 75C0.0A000343 | | |
| M 16 x 1 | 15 | 100 | 18 | - | 12 | 9 | | 75C0.0A000357 | | |
| M 16 x 1,5 | 14,5 | 100 | 22 | - | 12 | 9 | 75C0.01000359 | 75C0.0A000359 | 75C0.49000359 | 75C0.13000359 |
| M 18 x 1 | 17 | 110 | 20 | - | 14 | 11 | | 75C0.0A000388 | | |
| M 18 x 1,5 | 16,5 | 110 | 25 | - | 14 | 11 | 75C0.01000390 | 75C0.0A000390 | 75C0.49000390 | 75C0.13000390 |
| M 18 x 2 | 16 | 125 | 26 | - | 14 | 11 | | 75C0.0A000391 | | |
| M 20 x 1 | 19 | 125 | 20 | - | 16 | 12 | | 75C0.0A000420 | | |
| M 20 x 1,5 | 18,5 | 125 | 25 | - | 16 | 12 | 75C0.01000422 | 75C0.0A000422 | 75C0.49000422 | 75C0.13000422 |
| M 20 x 2 | 18 | 140 | 27 | - | 16 | 12 | | 75C0.0A000423 | | |
| M 22 x 1 | 21 | 125 | 20 | - | 18 | 14,5 | | 75C0.0A000436 | | |
| M 22 x 1,5 | 20,5 | 125 | 25 | - | 18 | 14,5 | | 75C0.0A000438 | | |
| M 22 x 2 | 20 | 140 | 27 | - | 18 | 14,5 | | 75C0.0A000439 | | |

4xD CNC



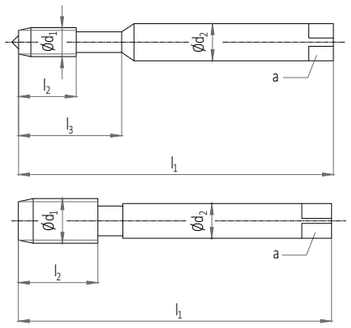

| | NORIS STABIL UNI CNC |
|---|---|
| |  |
| OBERFLÄCHE · SURFACE · SURFACE · SUPERFICIE | WAC |
| SCHNEIDSTOFF · MATERIAL · MATIÈRE · MATERIALE | HSSE |
| ANSCHNITTFORM · CHAMFER FORM · FORME D'ENTRÉE · FORMA D'IMBOCCO | B / 4-5 |
| TOLERANZ · TOLERANCE · TOLÉRANCE · TOLLERANZA | ISO2 |
| | RH |

DIN 374

| $d_1$ x P [mm] | $l_1$ [mm] | $l_2$ [mm] | $l_3$ [mm] | Ø $d_2$ [mm] | a [mm] | |
|---|---|---|---|---|---|---|
| M 24 x 1 | 23 | 140 | 20 | - | 18 | 14,5 | 75C0.0A000450 |
| M 24 x 1,5 | 22,5 | 140 | 27 | - | 18 | 14,5 | 75C0.0A000452 |
| M 24 x 2 | 22 | 140 | 27 | - | 18 | 14,5 | 75C0.0A000453 |
| M 25 x 1,5 | 23,5 | 140 | 28 | - | 18 | 14,5 | 75C0.0A000458 |
| M 26 x 1,5 | 24,5 | 140 | 28 | - | 18 | 14,5 | 75C0.0A000464 |
| M 27 x 1,5 | 25,5 | 140 | 28 | - | 20 | 16 | 75C0.0A000470 |
| M 27 x 2 | 25 | 140 | 28 | - | 20 | 16 | 75C0.0A000471 |
| M 28 x 1,5 | 26,5 | 140 | 28 | - | 20 | 16 | 75C0.0A000476 |
| M 28 x 2 | 26 | 140 | 28 | - | 20 | 16 | 75C0.0A000477 |
| M 30 x 1,5 | 28,5 | 150 | 28 | - | 22 | 18 | 75C0.0A000490 |
| M 30 x 2 | 28 | 150 | 28 | - | 22 | 18 | 75C0.0A000491 |
| M 32 x 1,5 | 30,5 | 150 | 28 | - | 22 | 18 | 75C0.0A000504 |
| M 32 x 2 | 30 | 150 | 28 | - | 22 | 18 | 75C0.0A000505 |
| M 33 x 1,5 | 31,5 | 160 | 30 | - | 25 | 20 | 75C0.0A000511 |
| M 33 x 2 | 31 | 160 | 30 | - | 25 | 20 | 75C0.0A000512 |
| M 34 x 1,5 | 32,5 | 170 | 30 | - | 28 | 22 | 75C0.0A000518 |
| M 35 x 1,5 | 33,5 | 170 | 30 | - | 28 | 22 | 75C0.0A000525 |
| M 36 x 1,5 | 34,5 | 170 | 30 | - | 28 | 22 | 75C0.0A000532 |
| M 36 x 2 | 34 | 170 | 30 | - | 28 | 22 | 75C0.0A000533 |
| M 36 x 3 | 33 | 200 | 42 | - | 28 | 22 | 75C0.0A000534 |
| M 38 x 1,5 | 36,5 | 170 | 30 | - | 28 | 22 | 75C0.0A000546 |
| M 39 x 1,5 | 37,5 | 170 | 30 | - | 32 | 24 | 75C0.0A000553 |
| M 39 x 2 | 37 | 170 | 30 | - | 32 | 24 | 75C0.0A000554 |
| M 40 x 1,5 | 38,5 | 170 | 30 | - | 32 | 24 | 75C0.0A000560 |
| M 40 x 2 | 38 | 170 | 30 | - | 32 | 24 | 75C0.0A000561 |
| M 42 x 1,5 | 40,5 | 170 | 30 | - | 32 | 24 | 75C0.0A000574 |
| M 42 x 2 | 40 | 170 | 30 | - | 32 | 24 | 75C0.0A000575 |
| M 42 x 3 | 39 | 200 | 45 | - | 32 | 24 | 75C0.0A000576 |
| M 45 x 1,5 | 43,5 | 180 | 32 | - | 36 | 29 | 75C0.0A000595 |
| M 45 x 2 | 43 | 180 | 32 | - | 36 | 29 | 75C0.0A000596 |
| M 45 x 3 | 42 | 200 | 45 | - | 36 | 29 | 75C0.0A000597 |
| M 48 x 1,5 | 46,5 | 190 | 32 | - | 36 | 29 | 75C0.0A000616 |
| M 48 x 2 | 46 | 190 | 32 | - | 36 | 29 | 75C0.0A000617 |
| M 48 x 3 | 45 | 225 | 50 | - | 36 | 29 | 75C0.0A000618 |
| M 50 x 1,5 | 48,5 | 190 | 32 | - | 36 | 29 | 75C0.0A000630 |
| M 50 x 2 | 48 | 190 | 32 | - | 36 | 29 | 75C0.0A000631 |
| M 52 x 1,5 | 50,5 | 190 | 32 | - | 40 | 32 | 75C0.0A000644 |
| M 52 x 2 | 50 | 190 | 32 | - | 40 | 32 | 75C0.0A000645 |
| M 52 x 3 | 49 | 225 | 50 | - | 40 | 32 | 75C0.0A000646 |

MF DIN 13

4xD CNC



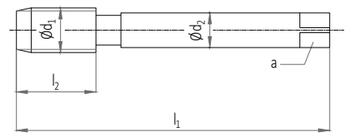

| | NORIS STABIL UNI CNC | NORIS STABIL UNI CNC | NORIS STABIL UNI CNC | NORIS STABIL UNI CNC |
|---|---|---|---|---|
| |  |  |  |  |
| OBERFLÄCHE · SURFACE · SURFACE · SUPERFICIE | NITVAP | NITVAP | ALTINHD | ALTINHD |
| SCHNEIDSTOFF · MATERIAL · MATIÈRE · MATERIALE | HSSE | HSSE | HSSE | HSSE |
| ANSCHNITTFORM · CHAMFER FORM · FORME D'ENTRÉE · FORMA D'IMBOCCO | B / 4-5 | B / 4-5 | B / 4-5 | B / 4-5 |
| TOLERANZ · TOLERANCE · TOLÉRANCE · TOLLERANZA | ISO2 | ISO3 | ISO2 | ISO3 |
| | RH | RH | RH | RH |

| | $d_1$ | x | P | | $l_1$ | $l_2$ | $l_3$ | Ø $d_2$ | a | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | [mm] | | [mm] | [mm] | [mm] | [mm] | [mm] | [mm] | [mm] | | | | |
| DIN 371 | M | 3,5 | x 0,35 | 3,15 | 56 | 9 | 20 | 4 | 3 | | | | |
| | M | 4 | x 0,5 | 3,5 | 63 | 5 | 21 | 4,5 | 3,4 | | | | |
| | M | 4 | x 0,5 | 3,5 | 63 | 10 | 21 | 4,5 | 3,4 | 65C0.0A030210 | | 65C0.0A090210 | |
| | M | 5 | x 0,5 | 4,5 | 70 | 11 | 25 | 6 | 4,9 | 65C0.0A030218 | | 65C0.0A090218 | |
| | M | 6 | x 0,5 | 5,5 | 80 | 13 | 30 | 6 | 4,9 | 65C0.0A030228 | | 65C0.0A090228 | |
| | M | 6 | x 0,75 | 5,2 | 80 | 13 | 30 | 6 | 4,9 | 65C0.0A030229 | | 65C0.0A090229 | |
| | M | 7 | x 0,75 | 6,2 | 80 | 13 | 30 | 7 | 5,5 | | | | |
| | M | 8 | x 1 | 7 | 90 | 17 | 35 | 8 | 6,2 | 65C0.0A030251 | | 65C0.0A090251 | |
| | M | 9 | x 1 | 8 | 90 | 17 | 35 | 9 | 7 | | | | |
| | M | 10 | x 1 | 9 | 90 | 18 | 35 | 10 | 8 | 65C0.0A030276 | | 65C0.0A090276 | |

| | $d_1$ | x | P | | $l_1$ | $l_2$ | $l_3$ | Ø $d_2$ | a | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | [mm] | | [mm] | [mm] | [mm] | [mm] | [mm] | [mm] | [mm] | | | | |
| DIN 374 | M | 4 | x 0,35 | 3,65 | 63 | 10 | - | 2,8 | 2,1 | | | 75C0.0A090209 | |
| | M | 4 | x 0,5 | 3,5 | 63 | 10 | - | 2,8 | 2,1 | | | 75C0.0A090210 | |
| | M | 5 | x 0,5 | 4,5 | 70 | 11 | - | 3,5 | 2,7 | | | 75C0.0A090218 | |
| | M | 6 | x 0,5 | 5,5 | 80 | 13 | - | 4,5 | 3,4 | 75C0.0A030228 | | 75C0.0A090228 | |
| | M | 6 | x 0,75 | 5,2 | 80 | 13 | - | 4,5 | 3,4 | 75C0.0A030229 | | 75C0.0A090229 | |
| | M | 8 | x 0,75 | 7,2 | 80 | 14 | - | 6 | 4,9 | 75C0.0A030250 | | 75C0.0A090250 | |
| | M | 8 | x 1 | 7 | 90 | 17 | - | 6 | 4,9 | 75C0.0A030251 | 75C0.13030251 | 75C0.0A090251 | 75C0.13090251 |
| | M | 10 | x 0,75 | 9,2 | 90 | 18 | - | 7 | 5,5 | 75C0.0A030275 | | 75C0.0A090275 | |
| | M | 10 | x 1 | 9 | 90 | 18 | - | 7 | 5,5 | 75C0.0A030276 | 75C0.13030276 | 75C0.0A090276 | 75C0.13090276 |
| | M | 10 | x 1,25 | 8,8 | 100 | 22 | - | 7 | 5,5 | 75C0.0A030277 | | 75C0.0A090277 | |
| | M | 12 | x 1 | 11 | 100 | 18 | - | 9 | 7 | 75C0.0A030301 | 75C0.13030301 | 75C0.0A090301 | 75C0.13090301 |
| | M | 12 | x 1,25 | 10,8 | 100 | 22 | - | 9 | 7 | 75C0.0A030302 | | 75C0.0A090302 | |
| | M | 12 | x 1,5 | 10,5 | 100 | 22 | - | 9 | 7 | 75C0.0A030303 | 75C0.13030303 | 75C0.0A090303 | 75C0.13090303 |
| | M | 14 | x 1 | 13 | 100 | 18 | - | 11 | 9 | 75C0.0A030329 | | 75C0.0A090329 | |
| | M | 14 | x 1,25 | 12,8 | 100 | 22 | - | 11 | 9 | | | 75C0.0A090330 | |
| | M | 14 | x 1,5 | 12,5 | 100 | 22 | - | 11 | 9 | 75C0.0A030331 | 75C0.13030331 | 75C0.0A090331 | 75C0.13090331 |
| | M | 16 | x 1 | 15 | 100 | 18 | - | 12 | 9 | | | 75C0.0A090357 | |
| | M | 16 | x 1,5 | 14,5 | 100 | 22 | - | 12 | 9 | 75C0.0A030359 | 75C0.13030359 | 75C0.0A090359 | 75C0.13090359 |
| | M | 18 | x 1 | 17 | 110 | 20 | - | 14 | 11 | 75C0.0A030388 | | | |
| | M | 18 | x 1,5 | 16,5 | 110 | 25 | - | 14 | 11 | 75C0.0A030390 | 75C0.13030390 | 75C0.0A090390 | 75C0.13090390 |
| | M | 18 | x 2 | 16 | 125 | 26 | - | 14 | 11 | 75C0.0A030391 | | | |
| | M | 20 | x 1 | 19 | 125 | 20 | - | 16 | 12 | 75C0.0A030420 | | 75C0.0A090420 | |
| | M | 20 | x 1,5 | 18,5 | 125 | 25 | - | 16 | 12 | 75C0.0A030422 | 75C0.13030422 | 75C0.0A090422 | 75C0.13090422 |
| | M | 20 | x 2 | 18 | 140 | 27 | - | 16 | 12 | | | 75C0.0A090423 | |
| | M | 22 | x 1,5 | 20,5 | 125 | 25 | - | 18 | 14,5 | 75C0.0A030438 | | 75C0.0A090438 | |
| | M | 22 | x 2 | 20 | 140 | 27 | - | 18 | 14,5 | | | 75C0.0A090439 | |



4xD CNC

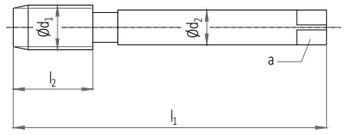



| | NORIS STABIL UNI CNC | NORIS STABIL UNI CNC |
|---|---|---|
| |  |  |
| OBERFLÄCHE · SURFACE · SURFACE · SUPERFICIE | NITVAP | ALTINHD |
| SCHNEIDSTOFF · MATERIAL · MATIÈRE · MATERIALE | HSSE | HSSE |
| ANSCHNITTFORM · CHAMFER FORM · FORME D'ENTRÉE · FORMA D'IMBOCCO | B / 4-5 | B / 4-5 |
| TOLERANZ · TOLERANCE · TOLÉRANCE · TOLLERANZA | ISO2 | ISO2 |
| | RH | RH |

| | $d_1$ | x | P | | $l_1$ | $l_2$ | $l_3$ | Ø $d_2$ | a | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | [mm] | | [mm] | [mm] | [mm] | [mm] | [mm] | [mm] | [mm] | | |
| DIN 374 | M | 24 | x 1,5 | 22,5 | 140 | 27 | - | 18 | 14,5 | 75C0.0A030452 | 75C0.0A090452 |
| | M | 24 | x 2 | 22 | 140 | 27 | - | 18 | 14,5 | 75C0.0A030453 | 75C0.0A090453 |
| | M | 25 | x 1,5 | 23,5 | 140 | 28 | - | 18 | 14,5 | 75C0.0A030458 | |
| | M | 26 | x 1,5 | 24,5 | 140 | 28 | - | 18 | 14,5 | 75C0.0A030464 | 75C0.0A090464 |
| | M | 27 | x 2 | 25 | 140 | 28 | - | 20 | 16 | 75C0.0A030471 | 75C0.0A090471 |
| | M | 28 | x 1,5 | 26,5 | 140 | 28 | - | 20 | 16 | 75C0.0A030476 | |
| | M | 30 | x 1,5 | 28,5 | 150 | 28 | - | 22 | 18 | 75C0.0A030490 | 75C0.0A090490 |
| | M | 30 | x 2 | 28 | 150 | 28 | - | 22 | 18 | | 75C0.0A090491 |
| | M | 32 | x 1,5 | 30,5 | 150 | 28 | - | 22 | 18 | | |
| | M | 33 | x 2 | 31 | 160 | 30 | - | 25 | 20 | | 75C0.0A090512 |
| | M | 34 | x 1,5 | 32,5 | 170 | 30 | - | 28 | 22 | | |
| | M | 35 | x 1,5 | 33,5 | 170 | 30 | - | 28 | 22 | | |
| | M | 36 | x 1,5 | 34,5 | 170 | 30 | - | 28 | 22 | | 75C0.0A090532 |
| | M | 36 | x 2 | 34 | 170 | 30 | - | 28 | 22 | | 75C0.0A090533 |
| | M | 36 | x 3 | 33 | 200 | 42 | - | 28 | 22 | | 75C0.0A090534 |
| | M | 38 | x 1,5 | 36,5 | 170 | 30 | - | 28 | 22 | | |
| | M | 39 | x 2 | 37 | 170 | 30 | - | 32 | 24 | | |
| | M | 40 | x 1,5 | 38,5 | 170 | 30 | - | 32 | 24 | | 75C0.0A090560 |
| | M | 40 | x 2 | 38 | 170 | 30 | - | 32 | 24 | | 75C0.0A090561 |
| | M | 42 | x 1,5 | 40,5 | 170 | 30 | - | 32 | 24 | | 75C0.0A090574 |
| | M | 42 | x 2 | 40 | 170 | 30 | - | 32 | 24 | | 75C0.0A090575 |
| | M | 42 | x 3 | 39 | 200 | 45 | - | 32 | 24 | | 75C0.0A090576 |
| | M | 45 | x 1,5 | 43,5 | 180 | 32 | - | 36 | 29 | | 75C0.0A090595 |
| | M | 45 | x 2 | 43 | 180 | 32 | - | 36 | 29 | | 75C0.0A090596 |
| | M | 45 | x 3 | 42 | 200 | 45 | - | 36 | 29 | | 75C0.0A090597 |
| | M | 48 | x 1,5 | 46,5 | 190 | 32 | - | 36 | 29 | | 75C0.0A090616 |
| | M | 48 | x 2 | 46 | 190 | 32 | - | 36 | 29 | | 75C0.0A090617 |
| | M | 48 | x 3 | 45 | 225 | 50 | - | 36 | 29 | | 75C0.0A090618 |
| | M | 50 | x 2 | 48 | 190 | 32 | - | 36 | 29 | | |
| | M | 52 | x 1,5 | 50,5 | 190 | 32 | - | 40 | 32 | | |

MF DIN 13

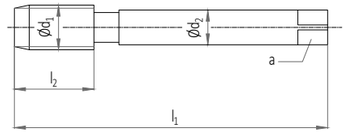
4xD




| | NORIS NORIS UNI HP | NORIS STABIL ST TS | NORIS STABIL HR | NORIS STABIL VA | NORIS STABIL NW |
|---|---|---|---|---|---|
| |  |  |  |  |  |
| | HP | TS | | | |
| OBERFLÄCHE · SURFACE · SURFACE · SUPERFICIE | ALTINHD | TIN | ALTINHD | NIT | DLC |
| SCHNEIDSTOFF · MATERIAL · MATIÈRE · MATERIALE | HSSE-PM | HSSE-PM | HSSE-PM | HSSE | HSSE |
| ANSCHNITTFORM · CHAMFER FORM · FORME D'ENTRÉE · FORMA D'IMBOCCO | B / 4-5 | B / 4-5 | B / 4-5 | B / 4-5 | B / 4-5 |
| TOLERANZ · TOLERANCE · TOLÉRANCE · TOLLERANZA | ISO2X | ISO2X | ISO2X | ISO2 | ISO2 |
| | RH | RH | RH | RH | RH |

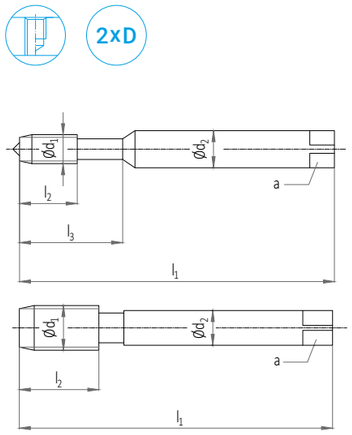
| | $d_1$ | x | P | | $l_1$ | $l_2$ | $l_3$ | Ø $d_2$ | a | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | [mm] | | [mm] | [mm] | [mm] | [mm] | [mm] | [mm] | [mm] | | | | | |
| DIN 374 | M | 4 | x | 0,35 | 3,65 | 63 | 10 | - | 2,8 | 2,1 | | | | | |
| | M | 5 | x | 0,5 | 4,5 | 70 | 11 | - | 3,5 | 2,7 | | | | | |
| | M | 6 | x | 0,75 | 5,2 | 80 | 13 | - | 4,5 | 3,4 | | | | 7535.0A020229 | |
| | M | 8 | x | 0,75 | 7,2 | 80 | 14 | - | 6 | 4,9 | | | | 7535.0A020250 | |
| | M | 8 | x | 1 | 7 | 90 | 10 | - | 6 | 4,9 | 7410.0A090251 | 7160.0A040251 | | | |
| | M | 8 | x | 1 | 7 | 90 | 17 | - | 6 | 4,9 | | | 7533.0A090251 | 7535.0A020251 | 7571.0A100251 |
| | M | 10 | x | 1 | 9 | 90 | 10 | - | 7 | 5,5 | 7410.0A090276 | 7160.0A040276 | | | |
| | M | 10 | x | 1 | 9 | 90 | 18 | - | 7 | 5,5 | | | 7533.0A090276 | 7535.0A020276 | 7571.0A100276 |
| | M | 10 | x | 1,25 | 8,8 | 100 | 16 | - | 7 | 5,5 | 7410.0A090277 | 7160.0A040277 | | | |
| | M | 10 | x | 1,25 | 8,8 | 100 | 22 | - | 7 | 5,5 | | | 7533.0A090277 | | 7571.0A100277 |
| | M | 12 | x | 1 | 11 | 100 | 18 | - | 9 | 7 | 7410.0A090301 | | | 7535.0A020301 | 7571.0A100301 |
| | M | 12 | x | 1,25 | 10,8 | 100 | 22 | - | 9 | 7 | 7410.0A090302 | | 7533.0A090302 | | 7571.0A100302 |
| | M | 12 | x | 1,5 | 10,5 | 100 | 15 | - | 9 | 7 | 7410.0A090303 | 7160.0A040303 | | | |
| | M | 12 | x | 1,5 | 10,5 | 100 | 22 | - | 9 | 7 | | | 7533.0A090303 | 7535.0A020303 | 7571.0A100303 |
| | M | 14 | x | 1 | 13 | 100 | 18 | - | 11 | 9 | | | | | 7571.0A100329 |
| | M | 14 | x | 1,25 | 12,8 | 100 | 22 | - | 11 | 9 | | | | | 7571.0A100330 |
| | M | 14 | x | 1,5 | 12,5 | 100 | 15 | - | 11 | 9 | 7410.0A090331 | 7160.0A040331 | | | |
| | M | 14 | x | 1,5 | 12,5 | 100 | 22 | - | 11 | 9 | | | 7533.0A090331 | 7535.0A020331 | 7571.0A100331 |
| | M | 15 | x | 1 | 14 | 100 | 18 | - | 12 | 9 | | | | | |
| | M | 16 | x | 1 | 15 | 100 | 18 | - | 12 | 9 | | | | | 7571.0A100357 |
| | M | 16 | x | 1,5 | 14,5 | 100 | 15 | - | 12 | 9 | 7410.0A090359 | 7160.0A040359 | | | |
| | M | 16 | x | 1,5 | 14,5 | 100 | 22 | - | 12 | 9 | | | 7533.0A090359 | 7535.0A020359 | 7571.0A100359 |
| | M | 18 | x | 1,5 | 16,5 | 110 | 17 | - | 14 | 11 | 7410.0A090390 | 7160.0A040390 | | | |
| | M | 18 | x | 1,5 | 16,5 | 110 | 25 | - | 14 | 11 | | | | 7535.0A020390 | |

4xD




| | NORIS STABIL UNI HP | NORIS STABIL ST TS | NORIS STABIL VA |
|---|---|---|---|
| |  |  |  |
| | HP | TS | |
| OBERFLÄCHE · SURFACE · SURFACE · SUPERFICIE | ALTINHD | TIN | NIT |
| SCHNEIDSTOFF · MATERIAL · MATIÈRE · MATERIALE | HSSE-PM | HSSE-PM | HSSE |
| ANSCHNITTFORM · CHAMFER FORM · FORME D'ENTRÉE · FORMA D'IMBOCCO | B / 4-5 | B / 4-5 | B / 4-5 |
| TOLERANZ · TOLERANCE · TOLÉRANCE · TOLLERANZA | ISO2X | ISO2X | ISO2 |
| | RH | RH | RH |

| | $d_1$ | x | P | | $l_1$ | $l_2$ | $l_3$ | Ø $d_2$ | a | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | [mm] | | [mm] | [mm] | [mm] | [mm] | [mm] | [mm] | [mm] | | | |
| DIN 374 | M | 20 | x | 1,5 | 18,5 | 125 | 17 | - | 16 | 12 | 7410.0A090422 | 7160.0A040422 | |
| | M | 20 | x | 1,5 | 18,5 | 125 | 25 | - | 16 | 12 | | | 7535.0A020422 |
| | M | 22 | x | 1,5 | 20,5 | 125 | 25 | - | 18 | 14,5 | | | 7535.0A020438 |
| | M | 24 | x | 1,5 | 22,5 | 140 | 27 | - | 18 | 14,5 | | | 7535.0A020452 |
| | M | 25 | x | 1,5 | 23,5 | 140 | 28 | - | 18 | 14,5 | | | |
| | M | 26 | x | 1,5 | 24,5 | 140 | 28 | - | 18 | 14,5 | | | |
| | M | 28 | x | 1,5 | 26,5 | 140 | 28 | - | 20 | 16 | | | 7535.0A020476 |
| | M | 30 | x | 2 | 28 | 150 | 28 | - | 22 | 18 | | | |



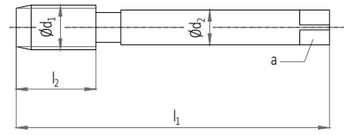

| | NORIS TWIN ST | NORIS TWIN ST | NORIS TWIN HR | NORIS TWIN HR | NORIS TWIN HR MKB | NORIS TWIN HR MKB |
|---|---|---|---|---|---|---|
| OBERFLÄCHE · SURFACE · SURFACE · SUPERFICIE | WAC | WAC | NIT | TICN | WAC | NIT |
| SCHNEIDSTOFF · MATERIAL · MATIÈRE · MATERIALE | HSSE | HSSE | HSSE | HSSE | HM | HSSE |
| ANSCHNITTFORM · CHAMFER FORM · FORME D'ENTRÉE · FORMA D'IMBOCCO | C / 2-3 | C / 2-3 | C / 2-3 | C / 2-3 | C / 2-3 | C / 2-3 |
| TOLERANZ · TOLERANCE · TOLÉRANCE · TOLLERANZA | ISO2X | ISO2X | ISO2X | ISO2X | ISO2X | ISO2X |
| | RH | LH | RH | RH | RH | RH |

| | d1 | x | P | l1 | l2 | l3 | Ø d2 | a | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | [mm] | | [mm] | [mm] | [mm] | [mm] | [mm] | [mm] | | | | | | |
| DIN 371 | M | 2,5 | x 0,35 | 2,15 | 50 | 7 | 12 | 2,8 | 2,1 | | | 6103.0B020196 | | | | |
| | M | 3 | x 0,35 | 2,65 | 56 | 8 | 18 | 3,5 | 2,7 | | | 6103.0B020202 | | | | |
| | M | 3,5 | x 0,35 | 3,15 | 56 | 9 | 20 | 4 | 3 | | | 6103.0B020205 | | | | |
| | M | 4 | x 0,5 | 3,5 | 63 | 10 | 21 | 4,5 | 3,4 | 6100.0B000210 | 6100.4A000210 | 6103.0B020210 | | | | |
| | M | 5 | x 0,5 | 4,5 | 70 | 11 | 25 | 6 | 4,9 | 6100.0B000218 | 6100.4A000218 | 6103.0B020218 | | | | |
| | M | 6 | x 0,5 | 5,5 | 80 | 13 | 30 | 6 | 4,9 | 6100.0B000228 | 6100.4A000228 | 6103.0B020228 | | | | |
| | M | 6 | x 0,75 | 5,2 | 80 | 13 | 30 | 6 | 4,9 | 6100.0B000229 | 6100.4A000229 | 6103.0B020229 | | | | |
| | M | 8 | x 0,75 | 7,2 | 80 | 14 | 30 | 8 | 6,2 | 6100.0B000250 | | | | | | |
| | M | 8 | x 1 | 7 | 90 | 10 | 34 | 8 | 6,2 | | | | | 6300.0B000251 | | |
| | M | 8 | x 1 | 7 | 90 | 10 | 35 | 8 | 6,2 | | | | | | | |
| | M | 8 | x 1 | 7 | 90 | 15 | 35 | 8 | 6,2 | | | | | | | |
| | M | 8 | x 1 | 7 | 90 | 17 | 35 | 8 | 6,2 | 6100.0B000251 | 6100.4A000251 | | | | | |
| | M | 10 | x 1 | 9 | 90 | 10 | 33 | 10 | 8 | | | | | 6300.0B000276 | | |
| | M | 10 | x 1 | 9 | 90 | 10 | 35 | 10 | 8 | | | | | | | |
| | M | 10 | x 1 | 9 | 90 | 18 | 35 | 10 | 8 | 6100.0B000276 | 6100.4A000276 | | | | | |
| | M | 10 | x 1 | 9 | 100 | 18 | 38 | 10 | 8 | | | | | | | |
| | M | 10 | x 1,25 | 8,8 | 100 | 16 | 39 | 10 | 8 | | | | | 6300.0B000277 | | |
| | M | 12 | x 1,5 | 10,5 | 110 | 21 | 41 | 12 | 9 | | | | | | | |

| | d1 | x | P | l1 | l2 | l3 | Ø d2 | a | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | [mm] | | [mm] | [mm] | [mm] | [mm] | [mm] | [mm] | | | | | | |
| DIN 374 | M | 4 | x 0,35 | 3,65 | 63 | 10 | - | 2,8 | 2,1 | 7100.0B000209 | | | | | | |
| | M | 4 | x 0,5 | 3,5 | 63 | 10 | - | 2,8 | 2,1 | 7100.0B000210 | | | | | | |
| | M | 5 | x 0,5 | 4,5 | 70 | 11 | - | 3,5 | 2,7 | 7100.0B000218 | | | | | | |
| | M | 6 | x 0,5 | 5,5 | 80 | 13 | - | 4,5 | 3,4 | 7100.0B000228 | | | | | | |
| | M | 6 | x 0,75 | 5,2 | 80 | 13 | - | 4,5 | 3,4 | 7100.0B000229 | | | | | | |
| | M | 8 | x 0,75 | 7,2 | 80 | 14 | - | 6 | 4,9 | 7100.0B000250 | | | | | | |
| | M | 8 | x 1 | 7 | 90 | 17 | - | 6 | 4,9 | 7100.0B000251 | | 7103.0B020251 | 7103.0B050251 | | | |
| | M | 10 | x 0,75 | 9,2 | 90 | 18 | - | 7 | 5,5 | 7100.0B000275 | | | | | | |
| | M | 10 | x 1 | 9 | 90 | 18 | - | 7 | 5,5 | 7100.0B000276 | | 7103.0B020276 | 7103.0B050276 | | | |
| | M | 10 | x 1,25 | 8,8 | 100 | 22 | - | 7 | 5,5 | 7100.0B000277 | | | 7103.0B050277 | | | |
| | M | 11 | x 1 | 10 | 90 | 18 | - | 8 | 6,2 | 7100.0B000288 | | | | | | |
| | M | 12 | x 1 | 11 | 100 | 18 | - | 9 | 7 | 7100.0B000301 | | 7103.0B020301 | 7103.0B050301 | | | |
| | M | 12 | x 1,25 | 10,8 | 100 | 22 | - | 9 | 7 | 7100.0B000302 | | | | | | |
| | M | 12 | x 1,5 | 10,5 | 100 | 15 | - | 9 | 7 | | | | | 7300.0B000303 | | |
| | M | 12 | x 1,5 | 10,5 | 100 | 22 | - | 9 | 7 | 7100.0B000303 | | 7103.0B020303 | 7103.0B050303 | | | 7813.0B020303 |
| | M | 14 | x 1 | 13 | 100 | 18 | - | 11 | 9 | 7100.0B000329 | | | | | | |
| | M | 14 | x 1,25 | 12,8 | 100 | 22 | - | 11 | 9 | 7100.0B000330 | | | | | | |
| | M | 14 | x 1,5 | 12,5 | 100 | 15 | - | 11 | 9 | | | | | 7300.0B000331 | | |
| | M | 14 | x 1,5 | 12,5 | 100 | 22 | - | 11 | 9 | 7100.0B000331 | | 7103.0B020331 | 7103.0B050331 | | | 7813.0B020331 |
| | M | 16 | x 1 | 15 | 100 | 18 | - | 12 | 9 | 7100.0B000357 | | | | | | |
| | M | 16 | x 1,5 | 14,5 | 100 | 15 | - | 12 | 9 | | | | | 7300.0B000359 | | |
| | M | 16 | x 1,5 | 14,5 | 100 | 22 | - | 12 | 9 | 7100.0B000359 | | 7103.0B020359 | 7103.0B050359 | | | 7813.0B020359 |
| | M | 18 | x 1 | 17 | 110 | 20 | - | 14 | 11 | 7100.0B000388 | | | | | | |
| | M | 18 | x 1,5 | 16,5 | 110 | 25 | - | 14 | 11 | 7100.0B000390 | | 7103.0B020390 | 7103.0B050390 | | | |
| | M | 18 | x 2 | 16 | 125 | 26 | - | 14 | 11 | 7100.0B000391 | | | | | | |

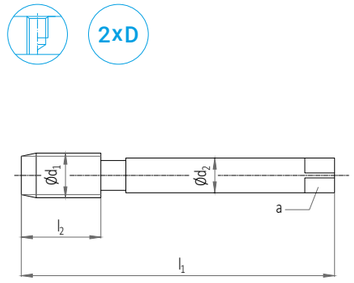







| | NORIS TWIN ST | NORIS TWIN HR | NORIS TWIN HR | NORIS TWIN HR MKB | NORIS TWIN HR MKB |
|---|---|---|---|---|---|
| OBERFLÄCHE · SURFACE · SURFACE · SUPERFICIE | WAC | NIT | TICN | WAC | NIT |
| SCHNEIDSTOFF · MATERIAL · MATIÈRE · MATERIALE | HSSE | HSSE | HSSE | HM | HSSE |
| ANSCHNITTFORM · CHAMFER FORM · FORME D'ENTRÉE · FORMA D'IMBOCCO | C / 2-3 | C / 2-3 | C / 2-3 | C / 2-3 | C / 2-3 |
| TOLERANZ · TOLERANCE · TOLÉRANCE · TOLLERANZA | ISO2X | ISO2X | ISO2X | ISO2X | ISO2X |
| | RH | RH | RH | RH | RH |

| | d1 | x | P | l1 | l2 | l3 | Ø d2 | a | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | [mm] | | [mm] | [mm] | [mm] | [mm] | [mm] | [mm] | | | | | |
| DIN 374 | M | 20 | x 1 | 19 | 125 | 20 | - | 16 | 12 | 7100.0B000420 | | | | |
| | M | 20 | x 1,5 | 18,5 | 125 | 17 | - | 16 | 12 | | | | 7300.0B000422 | |
| | M | 20 | x 1,5 | 18,5 | 125 | 25 | - | 16 | 12 | 7100.0B000422 | 7103.0B020422 | 7103.0B050422 | | 7813.0B020422 |
| | M | 20 | x 2 | 18 | 140 | 27 | - | 16 | 12 | 7100.0B000423 | | | | |
| | M | 22 | x 1 | 21 | 125 | 20 | - | 18 | 14,5 | 7100.0B000436 | | | | |
| | M | 22 | x 1,5 | 20,5 | 125 | 25 | - | 18 | 14,5 | 7100.0B000438 | 7103.0B020438 | 7103.0B050438 | | |
| | M | 22 | x 2 | 20 | 140 | 27 | - | 18 | 14,5 | 7100.0B000439 | | | | |
| | M | 24 | x 1 | 23 | 140 | 20 | - | 18 | 14,5 | 7100.0B000450 | | | | |
| | M | 24 | x 1,5 | 22,5 | 140 | 27 | - | 18 | 14,5 | 7100.0B000452 | 7103.0B020452 | 7103.0B050452 | | |
| | M | 24 | x 2 | 22 | 140 | 27 | - | 18 | 14,5 | 7100.0B000453 | | | | |
| | M | 25 | x 1,5 | 23,5 | 140 | 28 | - | 18 | 14,5 | 7100.0B000458 | | | | |
| | M | 26 | x 1,5 | 24,5 | 140 | 28 | - | 18 | 14,5 | 7100.0B000464 | | | | |
| | M | 27 | x 1,5 | 25,5 | 140 | 28 | - | 20 | 16 | 7100.0B000470 | | | | |
| | M | 27 | x 2 | 25 | 140 | 28 | - | 20 | 16 | 7100.0B000471 | | | | |
| | M | 28 | x 1,5 | 26,5 | 140 | 28 | - | 20 | 16 | 7100.0B000476 | | | | |
| | M | 28 | x 2 | 26 | 140 | 28 | - | 20 | 16 | 7100.0B000477 | | | | |
| | M | 30 | x 1,5 | 28,5 | 150 | 28 | - | 22 | 18 | 7100.0B000490 | | | | |
| | M | 30 | x 2 | 28 | 150 | 28 | - | 22 | 18 | 7100.0B000491 | | | | |
| | M | 32 | x 1,5 | 30,5 | 150 | 28 | - | 22 | 18 | 7100.0B000504 | | | | |
| | M | 32 | x 2 | 30 | 150 | 28 | - | 22 | 18 | 7100.0B000505 | | | | |
| | M | 33 | x 1,5 | 31,5 | 160 | 30 | - | 25 | 20 | 7100.0B000511 | | | | |
| | M | 33 | x 2 | 31 | 160 | 30 | - | 25 | 20 | 7100.0B000512 | | | | |
| | M | 34 | x 1,5 | 32,5 | 170 | 30 | - | 28 | 22 | 7100.0B000518 | | | | |
| | M | 35 | x 1,5 | 33,5 | 170 | 30 | - | 28 | 22 | 7100.0B000525 | | | | |
| | M | 36 | x 1,5 | 34,5 | 170 | 30 | - | 28 | 22 | 7100.0B000532 | | | | |
| | M | 36 | x 2 | 34 | 170 | 30 | - | 28 | 22 | 7100.0B000533 | | | | |
| | M | 36 | x 3 | 33 | 200 | 42 | - | 28 | 22 | 7100.0B000534 | | | | |
| | M | 38 | x 1,5 | 36,5 | 170 | 30 | - | 28 | 22 | 7100.0B000546 | | | | |
| | M | 39 | x 1,5 | 37,5 | 170 | 30 | - | 32 | 24 | 7100.0B000553 | | | | |
| | M | 39 | x 2 | 37 | 170 | 30 | - | 32 | 24 | 7100.0B000554 | | | | |
| | M | 40 | x 1,5 | 38,5 | 170 | 30 | - | 32 | 24 | 7100.0B000560 | | | | |
| | M | 40 | x 2 | 38 | 170 | 30 | - | 32 | 24 | 7100.0B000561 | | | | |
| | M | 42 | x 1,5 | 40,5 | 170 | 30 | - | 32 | 24 | 7100.0B000574 | | | | |
| | M | 42 | x 2 | 40 | 170 | 30 | - | 32 | 24 | 7100.0B000575 | | | | |
| | M | 42 | x 3 | 39 | 200 | 45 | - | 32 | 24 | 7100.0B000576 | | | | |
| | M | 45 | x 1,5 | 43,5 | 180 | 32 | - | 36 | 29 | 7100.0B000595 | | | | |
| | M | 45 | x 2 | 43 | 180 | 32 | - | 36 | 29 | 7100.0B000596 | | | | |
| | M | 45 | x 3 | 42 | 200 | 45 | - | 36 | 29 | 7100.0B000597 | | | | |
| | M | 48 | x 1,5 | 46,5 | 190 | 32 | - | 36 | 29 | 7100.0B000616 | | | | |
| | M | 48 | x 2 | 46 | 190 | 32 | - | 36 | 29 | 7100.0B000617 | | | | |
| | M | 48 | x 3 | 45 | 225 | 50 | - | 36 | 29 | 7100.0B000618 | | | | |
| | M | 50 | x 1,5 | 48,5 | 190 | 32 | - | 36 | 29 | 7100.0B000630 | | | | |
| | M | 50 | x 2 | 48 | 190 | 32 | - | 36 | 29 | 7100.0B000631 | | | | |
| | M | 52 | x 1,5 | 50,5 | 190 | 32 | - | 40 | 32 | 7100.0B000644 | | | | |
| | M | 52 | x 2 | 50 | 190 | 32 | - | 40 | 32 | 7100.0B000645 | | | | |
| | M | 52 | x 3 | 49 | 225 | 50 | - | 40 | 32 | 7100.0B000646 | | | | |



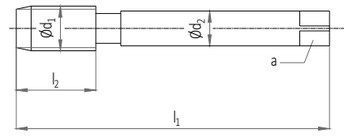



| | NORIS TWIN GG | NORIS TWIN GG | NORIS TWIN GG MKB | NORIS TWIN GGV | NORIS TWIN GGV | NORIS TWIN GGV MKB | NORIS TWIN GGV MKB |
|---|---|---|---|---|---|---|---|
| OBERFLÄCHE · SURFACE · SURFACE · SUPERFICIE | NIT | TICN | NIT | TICN | TICN | TICN | TICN |
| SCHNEIDSTOFF · MATERIAL · MATIÈRE · MATERIALE | HSSE | HSSE | HSSE | HSSE-PM | HSSE-PM | HSSE-PM | HM |
| ANSCHNITTFORM · CHAMFER FORM · FORME D'ENTRÉE · FORMA D'IMBOCCO | C / 2-3 | C / 2-3 | C / 2-3 | C / 2-3 | E / 1,5-2 | C / 2-3 | E / 1,5-2 |
| TOLERANZ · TOLERANCE · TOLÉRANCE · TOLLERANZA | ISO2X | ISO2X | ISO2X | ISO2X | ISO2X | ISO2X | ISO2X |
| | RH | RH | RH | RH | RH | RH | RH |

| | $d_1$ | x | P | [mm] | [mm] | $l_1$ [mm] | $l_2$ [mm] | $l_3$ [mm] | Ø $d_2$ [mm] | a [mm] | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DIN 374 | M | 4 | x | 0,35 | 3,65 | 63 | 10 | - | 2,8 | 2,1 | | | | | | | |
| | M | 4 | x | 0,5 | 3,5 | 63 | 10 | - | 2,8 | 2,1 | | | | | | | |
| | M | 5 | x | 0,5 | 4,5 | 70 | 11 | - | 3,5 | 2,7 | 7200.0B020218 | | | | | | |
| | M | 6 | x | 0,5 | 5,5 | 80 | 13 | - | 4,5 | 3,4 | 7200.0B020228 | | | | | | |
| | M | 6 | x | 0,75 | 5,2 | 80 | 13 | - | 4,5 | 3,4 | 7200.0B020229 | | | | | | |
| | M | 8 | x | 0,75 | 7,2 | 80 | 14 | - | 6 | 4,9 | 7200.0B020250 | | | | | | |
| | M | 8 | x | 1 | 7 | 90 | 17 | - | 6 | 4,9 | 7200.0B020251 | 7200.0B050251 | | | | | |
| | M | 10 | x | 0,75 | 9,2 | 90 | 18 | - | 7 | 5,5 | | | | | | | |
| | M | 10 | x | 1 | 9 | 90 | 18 | - | 7 | 5,5 | 7200.0B020276 | 7200.0B050276 | | | | | |
| | M | 10 | x | 1,25 | 8,8 | 100 | 22 | - | 7 | 5,5 | | | | | | | |
| | M | 11 | x | 1 | 10 | 90 | 18 | - | 8 | 6,2 | | | | | | | |
| | M | 12 | x | 1 | 11 | 100 | 18 | - | 9 | 7 | 7200.0B020301 | 7200.0B050301 | | | | | |
| | M | 12 | x | 1,25 | 10,8 | 100 | 22 | - | 9 | 7 | | | | | | | |
| | M | 12 | x | 1,5 | 10,5 | 100 | 15 | - | 9 | 7 | | | | | | | 730G.0D050303 |
| | M | 12 | x | 1,5 | 10,5 | 100 | 22 | - | 9 | 7 | 7200.0B020303 | 7200.0B050303 | 7820.0B020303 | 720G.0B050303 | 720G.0D050303 | 782G.0B050303 | |
| | M | 14 | x | 1 | 13 | 100 | 18 | - | 11 | 9 | 7200.0B020329 | | | | | | |
| | M | 14 | x | 1,25 | 12,8 | 100 | 22 | - | 11 | 9 | | | | | | | |
| | M | 14 | x | 1,5 | 12,5 | 100 | 15 | - | 11 | 9 | | | | | | | 730G.0D050331 |
| | M | 14 | x | 1,5 | 12,5 | 100 | 22 | - | 11 | 9 | 7200.0B020331 | 7200.0B050331 | 7820.0B020331 | 720G.0B050331 | 720G.0D050331 | 782G.0B050331 | |
| | M | 16 | x | 1 | 15 | 100 | 18 | - | 12 | 9 | | | | | | | |
| | M | 16 | x | 1,5 | 14,5 | 100 | 15 | - | 12 | 9 | | | | | | | 730G.0D050359 |
| | M | 16 | x | 1,5 | 14,5 | 100 | 22 | - | 12 | 9 | 7200.0B020359 | 7200.0B050359 | 7820.0B020359 | 720G.0B050359 | 720G.0D050359 | 782G.0B050359 | |
| | M | 18 | x | 1 | 17 | 110 | 20 | - | 14 | 11 | | | | | | | |
| | M | 18 | x | 1,5 | 16,5 | 110 | 25 | - | 14 | 11 | 7200.0B020390 | | | 720G.0B050390 | 720G.0D050390 | 782G.0B050390 | |
| | M | 18 | x | 2 | 16 | 125 | 26 | - | 14 | 11 | | | | | | | |
| | M | 20 | x | 1 | 19 | 125 | 20 | - | 16 | 12 | | | | | | | |
| | M | 20 | x | 1,5 | 18,5 | 125 | 17 | - | 16 | 12 | | | | | | | 730G.0D050422 |
| | M | 20 | x | 1,5 | 18,5 | 125 | 25 | - | 16 | 12 | 7200.0B020422 | | 7820.0B020422 | 720G.0B050422 | 720G.0D050422 | | |
| | M | 20 | x | 2 | 18 | 140 | 27 | - | 16 | 12 | | | | | | | |
| | M | 22 | x | 1 | 21 | 125 | 20 | - | 18 | 14,5 | | | | | | | |
| | M | 22 | x | 1,5 | 20,5 | 125 | 25 | - | 18 | 14,5 | 7200.0B020438 | | | | | | |
| | M | 22 | x | 2 | 20 | 140 | 27 | - | 18 | 14,5 | | | | | | | |







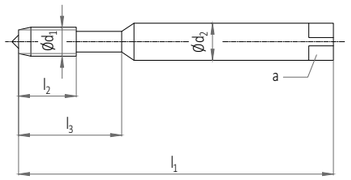



| | NORIS TWIN GG |
|---|---|
| OBERFLÄCHE · SURFACE · SURFACE · SUPERFICIE | NIT |
| SCHNEIDSTOFF · MATERIAL · MATIÈRE · MATERIALE | HSSE |
| ANSCHNITTFORM · CHAMFER FORM · FORME D'ENTRÉE · FORMA D'IMBOCCO | C / 2-3 |
| TOLERANZ · TOLERANCE · TOLÉRANCE · TOLLERANZA | ISO2X |
| | RH |

| | $d_1$ | x | P | [mm] | [mm] | $l_1$ [mm] | $l_2$ [mm] | $l_3$ [mm] | Ø $d_2$ [mm] | a [mm] | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| DIN 374 | M | 24 | x | 1 | 23 | 140 | 20 | - | 18 | 14,5 | |
| | M | 24 | x | 1,5 | 22,5 | 140 | 27 | - | 18 | 14,5 | 7200.0B020452 |
| | M | 24 | x | 2 | 22 | 140 | 27 | - | 18 | 14,5 | |
| | M | 25 | x | 1,5 | 23,5 | 140 | 28 | - | 18 | 14,5 | |
| | M | 26 | x | 1,5 | 24,5 | 140 | 28 | - | 18 | 14,5 | 7200.0B020464 |
| | M | 27 | x | 1,5 | 25,5 | 140 | 28 | - | 20 | 16 | |
| | M | 27 | x | 2 | 25 | 140 | 28 | - | 20 | 16 | |
| | M | 28 | x | 1,5 | 26,5 | 140 | 28 | - | 20 | 16 | 7200.0B020476 |
| | M | 28 | x | 2 | 26 | 140 | 28 | - | 20 | 16 | |
| | M | 30 | x | 1,5 | 28,5 | 150 | 28 | - | 22 | 18 | 7200.0B020490 |
| | M | 30 | x | 2 | 28 | 150 | 28 | - | 22 | 18 | |

MF DIN 13

1,5xD




NORIS TWIN

HT



NORIS TWIN

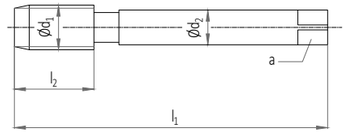
HT



DIN 371

| OBERFLÄCHE · SURFACE · SURFACE · SUPERFICIE | | TICN | ALTIN |
|---|---|---|---|
| SCHNEIDSTOFF · MATERIAL · MATIÈRE · MATERIALE | | HSSE-PM | HM |
| ANSCHNITTFORM · CHAMFER FORM · FORME D'ENTRÉE · FORMA D'IMBOCCO | | C / 2-3 | D / 4-5 |
| TOLERANZ · TOLERANCE · TOLÉRANCE · TOLLERANZA | | ISO2X | ISO2X |
| | | RH | RH |
| $d_1$ | x P | $l_1$ | $l_2$ | $l_3$ | Ø $d_2$ | a | | |
| [mm] | [mm] | [mm] | [mm] | [mm] | [mm] | [mm] | | |
| M 2,5 | x 0,35 | 2,15 | 50 | 7 | 12 | 2,8 | 2,1 | |
| M 3 | x 0,35 | 2,65 | 56 | 8 | 18 | 3,5 | 2,7 | |
| M 3,5 | x 0,35 | 3,15 | 56 | 9 | 20 | 4 | 3 | |
| M 4 | x 0,5 | 3,5 | 63 | 10 | 21 | 4,5 | 3,4 | |
| M 5 | x 0,5 | 4,5 | 70 | 11 | 25 | 6 | 4,9 | |
| M 6 | x 0,5 | 5,5 | 80 | 13 | 30 | 6 | 4,9 | |
| M 6 | x 0,75 | 5,2 | 80 | 13 | 30 | 6 | 4,9 | |
| M 8 | x 0,75 | 7,2 | 80 | 14 | 30 | 8 | 6,2 | |
| M 8 | x 1 | 7,1 | 90 | 10 | 35 | 8 | 6,2 | 610H.0B050251 | |
| M 8 | x 1 | 7,1 | 90 | 15 | 35 | 8 | 6,2 | | 6260.0C080251 |
| M 10 | x 1 | 9,1 | 90 | 10 | 35 | 10 | 8 | 610H.0B050276 | |
| M 10 | x 1 | 9,1 | 100 | 18 | 38 | 10 | 8 | | 6260.0C080276 |
| M 10 | x 1,25 | 8,9 | 100 | 16 | 39 | 10 | 8 | | |
| M 12 | x 1,5 | 10,7 | 110 | 21 | 41 | 12 | 9 | | 6260.0C080303 |
| M 14 | x 1,5 | 12,7 | 110 | 24 | 44 | 14 | 11 | | 6260.0C080331 |
| M 16 | x 1,5 | 14,7 | 110 | 24 | 44 | 16 | 12 | | 6260.0C080359 |

1,5xD




NORIS TWIN

HT

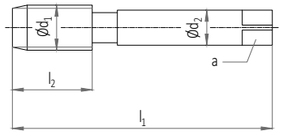


DIN 374

| OBERFLÄCHE · SURFACE · SURFACE · SUPERFICIE | | TICN |
|---|---|---|
| SCHNEIDSTOFF · MATERIAL · MATIÈRE · MATERIALE | | HSSE-PM |
| ANSCHNITTFORM · CHAMFER FORM · FORME D'ENTRÉE · FORMA D'IMBOCCO | | C / 2-3 |
| TOLERANZ · TOLERANCE · TOLÉRANCE · TOLLERANZA | | ISO2X |
| | | RH |
| $d_1$ | x P | $l_1$ | $l_2$ | $l_3$ | Ø $d_2$ | a | |
| [mm] | [mm] | [mm] | [mm] | [mm] | [mm] | [mm] | |
| M 4 | x 0,5 | 3,5 | 63 | 10 | - | 2,8 | 2,1 | |
| M 5 | x 0,5 | 4,5 | 70 | 11 | - | 3,5 | 2,7 | |
| M 6 | x 0,75 | 5,2 | 80 | 13 | - | 4,5 | 3,4 | |
| M 8 | x 1 | 7 | 90 | 17 | - | 6 | 4,9 | |
| M 10 | x 1 | 9 | 90 | 18 | - | 7 | 5,5 | |
| M 11 | x 1 | 10 | 90 | 18 | - | 8 | 6,2 | |
| M 12 | x 1,25 | 10,8 | 100 | 22 | - | 9 | 7 | |
| M 12 | x 1,5 | 10,7 | 100 | 15 | - | 9 | 7 | 710H.0B050303 |
| M 14 | x 1,5 | 12,7 | 100 | 15 | - | 11 | 9 | 710H.0B050331 |
| M 16 | x 1,5 | 14,7 | 100 | 15 | - | 12 | 9 | 710H.0B050359 |
| M 18 | x 1,5 | 16,7 | 110 | 25 | - | 14 | 11 | |
| M 20 | x 2 | 18,2 | 140 | 27 | - | 16 | 12 | |

MF DIN 13

2xD

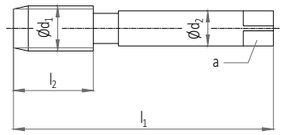



| | NORIS TWIN ST | NORIS TWIN ST |
|---|---|---|
| OBERFLÄCHE · SURFACE · SURFACE · SUPERFICIE | WAC | WAC |
| SCHNEIDSTOFF · MATERIAL · MATIÈRE · MATERIALE | HSSE | HSSE |
| ANSCHNITTFORM · CHAMFER FORM · FORME D'ENTRÉE · FORMA D'IMBOCCO | C / 2-3 | C / 2-3 |
| TOLERANZ · TOLERANCE · TOLÉRANCE · TOLLERANZA | ISO2X | ISO2X |
| | RH | LH |

DIN 2181

| $d_1$ x P [mm] | [mm] | $l_1$ [mm] | $l_2$ [mm] | $l_3$ [mm] | Ø $d_2$ [mm] | a [mm] | | |
|---|---|---|---|---|---|---|---|---|
| M 3 x 0,35 | 2,65 | 40 | 8 | 18 | 3,5 | 2,7 | 5100.0B000202 | |
| M 4 x 0,35 | 3,65 | 45 | 9 | 22 | 4,5 | 3,4 | 5100.0B000209 | |
| M 4 x 0,5 | 3,5 | 45 | 9 | 22 | 4,5 | 3,4 | 5100.0B000210 | |
| M 4,5 x 0,5 | 4 | 50 | 10 | 24 | 6 | 4,9 | 5100.0B000214 | |
| M 5 x 0,5 | 4,5 | 50 | 11 | 25 | 6 | 4,9 | 5100.0B000218 | |
| M 6 x 0,5 | 5,5 | 56 | 12 | 27 | 6 | 4,9 | 5100.0B000228 | |
| M 6 x 0,75 | 5,2 | 56 | 12 | 27 | 6 | 4,9 | 5100.0B000229 | 5100.4A000229 |
| M 7 x 0,75 | 6,2 | 56 | 14 | - | 6 | 4,9 | 5100.0B000239 | |
| M 8 x 0,5 | 7,5 | 56 | 14 | - | 6 | 4,9 | 5100.0B000249 | |
| M 8 x 0,75 | 7,2 | 56 | 14 | - | 6 | 4,9 | 5100.0B000250 | |
| M 8 x 1 | 7 | 63 | 17 | - | 6 | 4,9 | 5100.0B000251 | 5100.4A000251 |
| M 9 x 1 | 8 | 63 | 17 | - | 7 | 5,5 | 5100.0B000263 | |
| M 10 x 0,75 | 9,2 | 63 | 18 | - | 7 | 5,5 | 5100.0B000275 | |
| M 10 x 1 | 9 | 63 | 18 | - | 7 | 5,5 | 5100.0B000276 | 5100.4A000276 |
| M 10 x 1,25 | 8,8 | 70 | 22 | - | 7 | 5,5 | 5100.0B000277 | |
| M 11 x 1 | 10 | 63 | 18 | - | 8 | 6,2 | 5100.0B000288 | |
| M 12 x 1 | 11 | 70 | 18 | - | 9 | 7 | 5100.0B000301 | 5100.4A000301 |
| M 12 x 1,25 | 10,8 | 70 | 20 | - | 9 | 7 | 5100.0B000302 | |
| M 12 x 1,5 | 10,5 | 70 | 20 | - | 9 | 7 | 5100.0B000303 | 5100.4A000303 |
| M 13 x 1 | 12 | 70 | 18 | - | 11 | 9 | 5100.0B000315 | |
| M 14 x 1 | 13 | 70 | 18 | - | 11 | 9 | 5100.0B000329 | |
| M 14 x 1,25 | 12,8 | 70 | 20 | - | 11 | 9 | 5100.0B000330 | |
| M 14 x 1,5 | 12,5 | 70 | 20 | - | 11 | 9 | 5100.0B000331 | 5100.4A000331 |
| M 15 x 1 | 14 | 70 | 18 | - | 12 | 9 | 5100.0B000343 | |
| M 16 x 1 | 15 | 70 | 18 | - | 12 | 9 | 5100.0B000357 | |
| M 16 x 1,5 | 14,5 | 70 | 20 | - | 12 | 9 | 5100.0B000359 | 5100.4A000359 |
| M 18 x 1 | 17 | 80 | 18 | - | 14 | 11 | 5100.0B000388 | |
| M 18 x 1,5 | 16,5 | 80 | 22 | - | 14 | 11 | 5100.0B000390 | 5100.4A000390 |
| M 18 x 2 | 16 | 80 | 22 | - | 14 | 11 | 5100.0B000391 | |
| M 20 x 1,5 | 18,5 | 80 | 22 | - | 16 | 12 | 5100.0B000422 | 5100.4A000422 |
| M 20 x 2 | 18 | 80 | 22 | - | 16 | 12 | 5100.0B000423 | |
| M 22 x 1,5 | 20,5 | 80 | 22 | - | 18 | 14,5 | 5100.0B000438 | |
| M 22 x 2 | 20 | 80 | 22 | - | 18 | 14,5 | 5100.0B000439 | |
| M 24 x 1,5 | 22,5 | 90 | 22 | - | 18 | 14,5 | 5100.0B000452 | |
| M 24 x 2 | 22 | 90 | 22 | - | 18 | 14,5 | 5100.0B000453 | |

2xD AUT




| | NORIS TWIN MS AUT | NORIS TWIN MS AUT | NORIS TWIN MS AUT |
|---|---|---|---|
| OBERFLÄCHE · SURFACE · SURFACE · SUPERFICIE | WAC | WAC | WAC |
| SCHNEIDSTOFF · MATERIAL · MATIÈRE · MATERIALE | HSSE | HSSE | HSSE |
| ANSCHNITTFORM · CHAMFER FORM · FORME D'ENTRÉE · FORMA D'IMBOCCO | EKA / 0,75-1 | EKA / 0,75-1 | EKA / 0,75-1 |
| TOLERANZ · TOLERANCE · TOLÉRANCE · TOLLERANZA | ISO2X | ISO2X +0,1 [1)] | ISO3X |
| | RH | RH | RH |

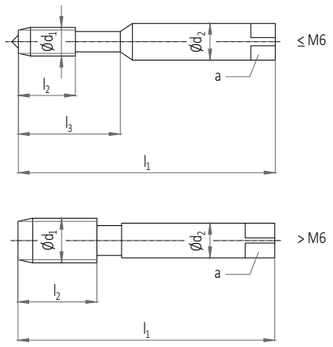
R NORM

| $d_1$ x P [mm] | [mm] | $l_1$ [mm] | $l_2$ [mm] | $l_3$ [mm] | Ø $d_2$ [mm] | a [mm] | | | |
|---|---|---|---|---|---|---|---|---|---|
| M 8 x 1 | 7 | 63 | 17 | - | 6 | 4,9 | 5250.0E000251 | | 5250.17000251 |
| M 10 x 1 | 9 | 63 | 18 | - | 7 | 5,5 | 5250.0E000276 | | 5250.17000276 |
| M 12 x 1 | 11 | 70 | 18 | - | 9 | 7 | 5250.0E000301 | 5250.32000301 | 5250.17000301 |
| M 12 x 1,5 | 10,5 | 70 | 18 | - | 9 | 7 | 5250.0E000303 | | 5250.17000303 |
| M 14 x 1 | 13 | 70 | 18 | - | 10 | 8 | | | 5250.17000329 |
| M 14 x 1,5 | 12,5 | 70 | 18 | - | 10 | 8 | | 5250.32000331 | 5250.17000331 |
| M 14 x 1,5 | 12,5 | 70 | 20 | - | 10 | 8 | 5250.0E000331 | | |
| M 15 x 1 | 14 | 70 | 18 | - | 12 | 9 | | | 5250.17000343 |
| M 16 x 1,5 | 14,5 | 70 | 20 | - | 12 | 9 | 5250.0E000359 | 5250.32000359 | 5250.17000359 |
| M 17 x 1 | 16 | 70 | 18 | - | 12 | 9 | | | 5250.17000372 |
| M 18 x 1,5 | 16,5 | 80 | 22 | - | 12 | 9 | 5250.0E000390 | | 5250.17000390 |
| M 20 x 1,5 | 18,5 | 80 | 22 | - | 15 | 12 | 5250.0E000422 | | 5250.17000422 |
| M 22 x 1,5 | 20,5 | 80 | 22 | - | 15 | 12 | 5250.0E000438 | | 5250.17000438 |
| M 24 x 1,5 | 22,5 | 90 | 22 | - | 18 | 14,5 | 5250.0E000452 | | 5250.17000452 |

1) Vorbohrdurchmesser um 0,1 mm anheben
Increase drill diameter by 0.1 mm
Augmenter le diamètre du foret de 0,1 mm
Aumentare il diametro della punta di 0,1 mm

MF DIN 13

2xD

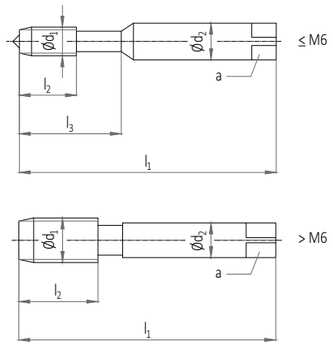



| | NORIS SATZ ST | NORIS SATZ ST | NORIS SATZ ST |
|---|---|---|---|
| |  |  |  |
| | | | S2 |
| OBERFLÄCHE · SURFACE · SURFACE · SUPERFICIE | WAC | WAC | WAC |
| SCHNEIDSTOFF · MATERIAL · MATIÈRE · MATERIALE | HSSE | HSSE | HSSE |
| ANSCHNITTFORM · CHAMFER FORM · FORME D'ENTRÉE · FORMA D'IMBOCCO | D / 4-5 | C / 2-3 | C / 2-3 |
| TOLERANZ · TOLERANCE · TOLÉRANCE · TOLLERANZA | V1 | ISO2X | ISO2X |
| | RH | RH | RH |

DIN 2181

| d1 | x | P | [mm] | [mm] | l1 [mm] | l2 [mm] | l3 [mm] | Ø d2 [mm] | a [mm] | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| M | 4 | x | 0,35 | 3,65 | 45 | 9 | 22 | 4,5 | 3,4 | 5000.11000209 | 5000.0E000209 | 5000.0B000209 |
| M | 4 | x | 0,5 | 3,5 | 45 | 9 | 22 | 4,5 | 3,4 | 5000.11000210 | 5000.0E000210 | 5000.0B000210 |
| M | 5 | x | 0,5 | 4,5 | 50 | 11 | 25 | 6 | 4,9 | 5000.11000218 | 5000.0E000218 | 5000.0B000218 |
| M | 6 | x | 0,5 | 5,5 | 56 | 12 | 27 | 6 | 4,9 | 5000.11000228 | 5000.0E000228 | 5000.0B000228 |
| M | 6 | x | 0,75 | 5,2 | 56 | 12 | 27 | 6 | 4,9 | 5000.11000229 | 5000.0E000229 | 5000.0B000229 |
| M | 8 | x | 0,5 | 7,5 | 56 | 14 | - | 6 | 4,9 | 5000.11000249 | 5000.0E000249 | 5000.0B000249 |
| M | 8 | x | 0,75 | 7,2 | 56 | 14 | - | 6 | 4,9 | 5000.11000250 | 5000.0E000250 | 5000.0B000250 |
| M | 8 | x | 1 | 7 | 63 | 17 | - | 6 | 4,9 | 5000.11000251 | 5000.0E000251 | 5000.0B000251 |
| M | 10 | x | 0,75 | 9,2 | 63 | 18 | - | 7 | 5,5 | 5000.11000275 | 5000.0E000275 | 5000.0B000275 |
| M | 10 | x | 1 | 9 | 63 | 18 | - | 7 | 5,5 | 5000.11000276 | 5000.0E000276 | 5000.0B000276 |
| M | 10 | x | 1,25 | 8,8 | 70 | 22 | - | 7 | 5,5 | 5000.11000277 | 5000.0E000277 | 5000.0B000277 |
| M | 12 | x | 1 | 11 | 70 | 18 | - | 9 | 7 | 5000.11000301 | 5000.0E000301 | 5000.0B000301 |
| M | 12 | x | 1,25 | 10,8 | 70 | 20 | - | 9 | 7 | 5000.11000302 | 5000.0E000302 | 5000.0B000302 |
| M | 12 | x | 1,5 | 10,5 | 70 | 20 | - | 9 | 7 | 5000.11000303 | 5000.0E000303 | 5000.0B000303 |
| M | 14 | x | 1 | 13 | 70 | 18 | - | 11 | 9 | 5000.11000329 | 5000.0E000329 | 5000.0B000329 |
| M | 14 | x | 1,25 | 12,8 | 70 | 20 | - | 11 | 9 | 5000.11000330 | 5000.0E000330 | 5000.0B000330 |
| M | 14 | x | 1,5 | 12,5 | 70 | 20 | - | 11 | 9 | 5000.11000331 | 5000.0E000331 | 5000.0B000331 |
| M | 16 | x | 1 | 15 | 70 | 18 | - | 12 | 9 | 5000.11000357 | 5000.0E000357 | 5000.0B000357 |
| M | 16 | x | 1,5 | 14,5 | 70 | 20 | - | 12 | 9 | 5000.11000359 | 5000.0E000359 | 5000.0B000359 |
| M | 18 | x | 1 | 17 | 80 | 18 | - | 14 | 11 | 5000.11000388 | 5000.0E000388 | 5000.0B000388 |
| M | 18 | x | 1,5 | 16,5 | 80 | 22 | - | 14 | 11 | 5000.11000390 | 5000.4D000390 | 5000.0B000390 |
| M | 18 | x | 2 | 16 | 80 | 22 | - | 14 | 11 | 5000.11000391 | 5000.0E000391 | 5000.0B000391 |
| M | 20 | x | 1 | 19 | 80 | 18 | - | 16 | 12 | 5000.11000420 | 5000.0E000420 | 5000.0B000420 |
| M | 20 | x | 1,5 | 18,5 | 80 | 22 | - | 16 | 12 | 5000.11000422 | 5000.0E000422 | 5000.0B000422 |
| M | 20 | x | 2 | 18 | 80 | 22 | - | 16 | 12 | 5000.11000423 | 5000.0E000423 | 5000.0B000423 |
| M | 22 | x | 1 | 21 | 80 | 18 | - | 18 | 14,5 | 5000.11000436 | 5000.0E000436 | 5000.0B000436 |
| M | 22 | x | 1,5 | 20,5 | 80 | 22 | - | 18 | 14,5 | 5000.11000438 | 5000.0E000438 | 5000.0B000438 |
| M | 22 | x | 2 | 20 | 80 | 22 | - | 18 | 14,5 | 5000.11000439 | 5000.0E000439 | 5000.0B000439 |
| M | 24 | x | 1 | 23 | 90 | 18 | - | 18 | 14,5 | 5000.11000450 | 5000.0E000450 | 5000.0B000450 |

2xD




| | NORIS SATZ ERGO | NORIS SATZ ERGO | NORIS SATZ ERGO | NORIS SATZ ERGO |
|---|---|---|---|---|
| |  |  |  |  |
| | | | | S3 |
| OBERFLÄCHE · SURFACE · SURFACE · SUPERFICIE | WAC | WAC | WAC | WAC |
| SCHNEIDSTOFF · MATERIAL · MATIÈRE · MATERIALE | HSSE | HSSE | HSSE | HSSE |
| ANSCHNITTFORM · CHAMFER FORM · FORME D'ENTRÉE · FORMA D'IMBOCCO | C / 2-3 | C / 2-3 | C / 2-3 | C / 2-3 |
| TOLERANZ · TOLERANCE · TOLÉRANCE · TOLLERANZA | VZ1 1) | V1 | ISO2X | ISO2X |
| | RH | RH | RH | RH |

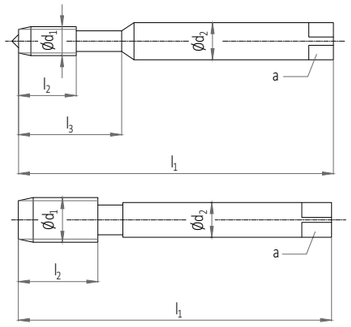
DIN 2181

| d1 | x | P | [mm] | [mm] | l1 [mm] | l2 [mm] | l3 [mm] | Ø d2 [mm] | a [mm] | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| M | 4 | x | 0,5 | 3,5 | 45 | 9 | 22 | 4,5 | 3,4 | | | | |
| M | 5 | x | 0,5 | 4,5 | 50 | 11 | 25 | 6 | 4,9 | | | | |
| M | 6 | x | 0,75 | 5,2 | 56 | 12 | 27 | 6 | 4,9 | | | | |
| M | 8 | x | 1 | 7 | 63 | 11,2 | - | 6 | 4,9 | 5020.11000251 | | | |
| M | 8 | x | 1 | 7 | 63 | 17 | - | 6 | 4,9 | | 5020.0F000251 | 5020.0E000251 | 5020.0B000251 |
| M | 10 | x | 1 | 9 | 63 | 12,2 | - | 7 | 5,5 | 5020.11000276 | | | |
| M | 10 | x | 1 | 9 | 63 | 18 | - | 7 | 5,5 | | 5020.0F000276 | 5020.0E000276 | 5020.0B000276 |
| M | 12 | x | 1,5 | 10,5 | 70 | 13 | - | 9 | 7 | 5020.11000303 | | | |
| M | 12 | x | 1,5 | 10,5 | 70 | 20 | - | 9 | 7 | | 5020.0F000303 | 5020.0E000303 | 5020.0B000303 |
| M | 14 | x | 1,5 | 12,5 | 70 | 12,5 | - | 11 | 9 | 5020.11000331 | | | |
| M | 14 | x | 1,5 | 12,5 | 70 | 20 | - | 11 | 9 | | 5020.0F000331 | 5020.0E000331 | 5020.0B000331 |
| M | 16 | x | 1 | 15 | 70 | 18 | - | 12 | 9 | | | | |
| M | 16 | x | 1,5 | 14,5 | 70 | 12,5 | - | 12 | 9 | 5020.11000359 | | | |
| M | 16 | x | 1,5 | 14,5 | 70 | 20 | - | 12 | 9 | | 5020.0F000359 | 5020.0E000359 | 5020.0B000359 |
| M | 18 | x | 2 | 16 | 80 | 22 | - | 14 | 11 | | | | |
| M | 20 | x | 1 | 19 | 80 | 18 | - | 16 | 12 | | | | |
| M | 22 | x | 2 | 20 | 80 | 22 | - | 18 | 14,5 | | | | |
| M | 24 | x | 1 | 23 | 90 | 18 | - | 18 | 14,5 | | | | |

1) Der Führungszapfen des Vz1 gewährleistet ein fluchtendes Anschneiden.
The guide journal of Vz1 ensures a flush lead.
La partie pilote de l'ébaucher assure un parfait centrage.
Il primo maschio della serie è munito di guida che assicura la centricità della filettatura con il preforo.

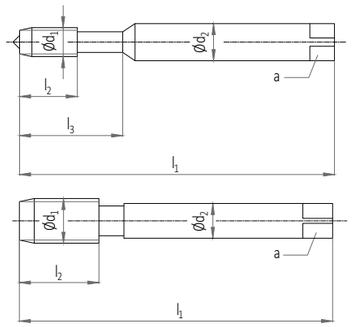
UNC ASME B1.1

3xD CNC




| | NORIS SALOREX UNI CNC | NORIS SALOREX UNI CNC | NORIS SALOREX UNI CNC |
|---|---|---|---|
| |  |  |  |
| OBERFLÄCHE · SURFACE · SURFACE · SUPERFICIE | WAC | WAC | VAP |
| SCHNEIDSTOFF · MATERIAL · MATIÈRE · MATERIALE | HSSE | HSSE | HSSE |
| ANSCHNITTFORM · CHAMFER FORM · FORME D'ENTRÉE · FORMA D'IMBOCCO | C / 2-3 | C / 2-3 | C / 2-3 |
| TOLERANZ · TOLERANCE · TOLÉRANCE · TOLLERANZA | 3B | 2B | 2B |
| | RH | RH | RH |
| d1 - P [inch] Gg/1" [tpi] | l1 [mm] | l2 [mm] | l3 [mm] | Ø d2 [mm] | a [mm] | | | |
| ≈ DIN 371 UNC Nr. 2 - 56 | 1,8 | 45 | 4,5 | 12 | 2,8 | 2,1 | | 6470.0B005001 | 6470.0B015001 |
| UNC Nr. 4 - 40 | 2,3 | 56 | 6 | 18 | 3,5 | 2,7 | 6470.02005003 | 6470.0B005003 | 6470.0B015003 |
| UNC Nr. 6 - 32 | 2,85 | 56 | 7 | 20 | 4 | 3 | 6470.02005005 | 6470.0B005005 | 6470.0B015005 |
| UNC Nr. 8 - 32 | 3,5 | 63 | 8 | 21 | 4,5 | 3,4 | 6470.02005006 | 6470.0B005006 | 6470.0B015006 |
| UNC Nr. 10 - 24 | 3,9 | 70 | 10 | 25 | 6 | 4,9 | 6470.02005007 | 6470.0B005007 | 6470.0B015007 |
| UNC 1/4 - 20 | 5,1 | 80 | 13 | 30 | 7 | 5,5 | 6470.02005009 | 6470.0B005009 | 6470.0B015009 |
| UNC 5/16 - 18 | 6,6 | 90 | 14 | 35 | 8 | 6,2 | 6470.02005010 | 6470.0B005010 | 6470.0B015010 |
| UNC 3/8 - 16 | 8 | 100 | 16 | 39 | 10 | 8 | 6470.02005011 | 6470.0B005011 | 6470.0B015011 |
| d1 - P [inch] Gg/1" [tpi] | l1 [mm] | l2 [mm] | l3 [mm] | Ø d2 [mm] | a [mm] | | | |
| ≈ DIN 376 UNC 3/8 - 16 | 8 | 100 | 16 | - | 7 | 5,5 | | 7470.0B005011 | |
| UNC 7/16 - 14 | 9,4 | 100 | 18 | - | 8 | 6,2 | 7470.02005012 | 7470.0B005012 | 7470.0B015012 |
| UNC 1/2 - 13 | 10,8 | 110 | 20 | - | 9 | 7 | 7470.02005013 | 7470.0B005013 | 7470.0B015013 |
| UNC 9/16 - 12 | 12,2 | 110 | 20 | - | 11 | 9 | | | 7470.0B015014 |
| UNC 5/8 - 11 | 13,5 | 110 | 22 | - | 12 | 9 | 7470.02005015 | 7470.0B005015 | 7470.0B015015 |
| UNC 3/4 - 10 | 16,5 | 125 | 25 | - | 14 | 11 | 7470.02005016 | 7470.0B005016 | 7470.0B015016 |
| UNC 7/8 - 9 | 19,5 | 140 | 27 | - | 18 | 14,5 | | 7470.0B005017 | 7470.0B015017 |
| UNC 1" - 8 | 22,2 | 160 | 30 | - | 18 | 14,5 | | 7470.0B005018 | 7470.0B015018 |
| UNC 1 1/4 - 7 | 28,25 | 180 | 35 | - | 22 | 18 | | 7470.0B005020 | |
| UNC 1 1/2 - 6 | 34 | 200 | 40 | - | 28 | 22 | | 7470.0B005022 | |
| UNC 1 3/4 - 5 | 39,5 | 220 | 45 | - | 36 | 29 | | 7470.0B005023 | |
| UNC 2" - 4 1/2 | 45,25 | 250 | 50 | - | 40 | 32 | | 7470.0B005024 | |

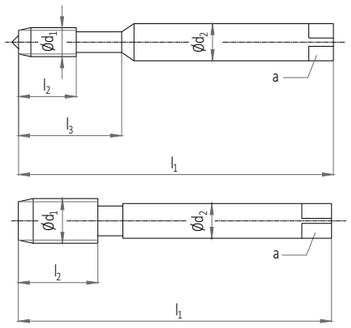
3xD CNC




| | NORIS SALOREX UNI CNC | NORIS SALOREX UNI CNC | NORIS SALOREX UNI CNC |
|---|---|---|---|
| |  |  |  |
| OBERFLÄCHE · SURFACE · SURFACE · SUPERFICIE | VAP | ALTINHD | ALTINHD |
| SCHNEIDSTOFF · MATERIAL · MATIÈRE · MATERIALE | HSSE | HSSE | HSSE |
| ANSCHNITTFORM · CHAMFER FORM · FORME D'ENTRÉE · FORMA D'IMBOCCO | C / 2-3 | C / 2-3 | C / 2-3 |
| TOLERANZ · TOLERANCE · TOLÉRANCE · TOLLERANZA | 2B +0,05 [1] | 2B | 2B +0,05 [1] |
| | RH | RH | RH |
| d1 - P [inch] Gg/1" [tpi] | l1 [mm] | l2 [mm] | l3 [mm] | Ø d2 [mm] | a [mm] | | | |
| ≈ DIN 371 UNC Nr. 2 - 56 | 1,8 | 45 | 4,5 | 12 | 2,8 | 2,1 | | 6470.0B095001 | |
| UNC Nr. 4 - 40 | 2,3 | 56 | 6 | 18 | 3,5 | 2,7 | | 6470.0B095003 | |
| UNC Nr. 6 - 32 | 2,85 | 56 | 7 | 20 | 4 | 3 | 6470.26015005 | 6470.0B095005 | 6470.26095005 |
| UNC Nr. 8 - 32 | 3,5 | 63 | 8 | 21 | 4,5 | 3,4 | 6470.26015006 | 6470.0B095006 | 6470.26095006 |
| UNC Nr. 10 - 24 | 3,9 | 70 | 10 | 25 | 6 | 4,9 | 6470.26015007 | 6470.0B095007 | 6470.26095007 |
| UNC 1/4 - 20 | 5,1 | 80 | 13 | 30 | 7 | 5,5 | 6470.26015009 | 6470.0B095009 | 6470.26095009 |
| UNC 5/16 - 18 | 6,6 | 90 | 14 | 35 | 8 | 6,2 | 6470.26015010 | 6470.0B095010 | 6470.26095010 |
| UNC 3/8 - 16 | 8 | 100 | 16 | 39 | 10 | 8 | 6470.26015011 | 6470.0B095011 | 6470.26095011 |
| d1 - P [inch] Gg/1" [tpi] | l1 [mm] | l2 [mm] | l3 [mm] | Ø d2 [mm] | a [mm] | | | |
| ≈ DIN 376 UNC 3/8 - 16 | 8 | 100 | 16 | - | 7 | 5,5 | | 7470.0B095011 | |
| UNC 7/16 - 14 | 9,4 | 100 | 18 | - | 8 | 6,2 | 7470.26015012 | 7470.0B095012 | 7470.26095012 |
| UNC 1/2 - 13 | 10,8 | 110 | 20 | - | 9 | 7 | 7470.26015013 | 7470.0B095013 | 7470.26095013 |
| UNC 9/16 - 12 | 12,2 | 110 | 20 | - | 11 | 9 | | | |
| UNC 5/8 - 11 | 13,5 | 110 | 22 | - | 12 | 9 | 7470.26015015 | 7470.0B095015 | 7470.26095015 |
| UNC 3/4 - 10 | 16,5 | 125 | 25 | - | 14 | 11 | 7470.26015016 | 7470.0B095016 | 7470.26095016 |
| UNC 7/8 - 9 | 19,5 | 140 | 27 | - | 18 | 14,5 | | | |
| UNC 1" - 8 | 22,2 | 160 | 30 | - | 18 | 14,5 | 7470.26015018 | 7470.0B095018 | 7470.26095018 |
| UNC 1 1/4 - 7 | 28,25 | 180 | 35 | - | 22 | 18 | | | |
| UNC 1 1/2 - 6 | 34 | 200 | 40 | - | 28 | 22 | | | |
| UNC 1 3/4 - 5 | 39,5 | 220 | 45 | - | 36 | 29 | | | |
| UNC 2" - 4 1/2 | 45,25 | 250 | 50 | - | 40 | 32 | | | |

1) Vorbohrdurchmesser um 0,05 mm anheben
Increase drill diameter by 0.05 mm
Augmenter le diamètre du foret de 0,05 mm
Aumentare il diametro della punta di 0,05 mm

3xD HP




NORIS SALOREX

UNI HP



| OBERFLÄCHE · SURFACE · SURFACE · SUPERFICIE | ALTINHD |
|---|---|
| SCHNEIDSTOFF · MATERIAL · MATIÈRE · MATERIALE | HSSE-PM |
| ANSCHNITTFORM · CHAMFER FORM · FORME D'ENTRÉE · FORMA D'IMBOCCO | C / 2-3 |
| TOLERANZ · TOLERANCE · TOLÉRANCE · TOLLERANZA | 2BX |
| | RH |

≈ DIN 371

| $d_1$ [inch] | - | P Gg/1" [tpi] | $l_1$ [mm] | $l_2$ [mm] | $l_3$ [mm] | Ø $d_2$ [mm] | a [mm] | |
|---|---|---|---|---|---|---|---|---|
| UNC Nr. 2 | - | 56 | 1,8 | 45 | 4,5 | 12 | 2,8 | 2,1 | |
| UNC Nr. 4 | - | 40 | 2,3 | 56 | 6 | 18 | 3,5 | 2,7 | 6490.0B095003 |
| UNC Nr. 6 | - | 32 | 2,85 | 56 | 7 | 20 | 4 | 3 | 6490.0B095005 |
| UNC Nr. 8 | - | 32 | 3,5 | 63 | 8 | 21 | 4,5 | 3,4 | 6490.0B095006 |
| UNC Nr. 10 | - | 24 | 3,9 | 70 | 10 | 25 | 6 | 4,9 | 6490.0B095007 |
| UNC 1/4 | - | 20 | 5,1 | 80 | 13 | 30 | 7 | 5,5 | 6490.0B095009 |
| UNC 5/16 | - | 18 | 6,6 | 90 | 14 | 35 | 8 | 6,2 | 6490.0B095010 |
| UNC 3/8 | - | 16 | 8 | 100 | 16 | 39 | 10 | 8 | 6490.0B095011 |

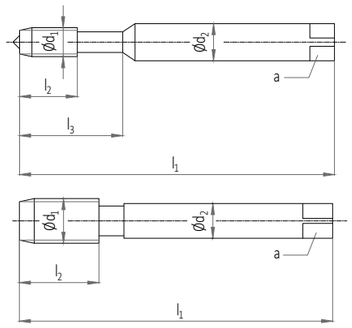
≈ DIN 376

| $d_1$ [inch] | - | P Gg/1" [tpi] | $l_1$ [mm] | $l_2$ [mm] | $l_3$ [mm] | Ø $d_2$ [mm] | a [mm] | |
|---|---|---|---|---|---|---|---|---|
| UNC 3/8 | - | 16 | 8 | 100 | 16 | - | 7 | 5,5 | |
| UNC 7/16 | - | 14 | 9,4 | 100 | 18 | - | 8 | 6,2 | 7490.0B095012 |
| UNC 1/2 | - | 13 | 10,8 | 110 | 20 | - | 9 | 7 | 7490.0B095013 |
| UNC 9/16 | - | 12 | 12,2 | 110 | 20 | - | 11 | 9 | |
| UNC 5/8 | - | 11 | 13,5 | 110 | 22 | - | 12 | 9 | 7490.0B095015 |
| UNC 3/4 | - | 10 | 16,5 | 125 | 25 | - | 14 | 11 | 7490.0B095016 |
| UNC 7/8 | - | 9 | 19,5 | 140 | 27 | - | 18 | 14,5 | |
| UNC 1" | - | 8 | 22,2 | 160 | 30 | - | 18 | 14,5 | 7490.0B095018 |
| UNC 1 1/4 | - | 7 | 28,25 | 180 | 35 | - | 22 | 18 | |
| UNC 1 1/2 | - | 6 | 34 | 200 | 40 | - | 28 | 22 | |
| UNC 1 3/4 | - | 5 | 39,5 | 220 | 45 | - | 36 | 29 | |
| UNC 2" | - | 4 1/2 | 45,25 | 250 | 50 | - | 40 | 32 | |





3xD




NORIS SALOREX

VA



NORIS SALOREX

VA



| OBERFLÄCHE · SURFACE · SURFACE · SUPERFICIE | VAP | ALTINHD |
|---|---|---|
| SCHNEIDSTOFF · MATERIAL · MATIÈRE · MATERIALE | HSSE | HSSE |
| ANSCHNITTFORM · CHAMFER FORM · FORME D'ENTRÉE · FORMA D'IMBOCCO | C / 2-3 | E / 1,5-2 |
| TOLERANZ · TOLERANCE · TOLÉRANCE · TOLLERANZA | 2B | 2B |
| | RH | RH |

≈ DIN 371

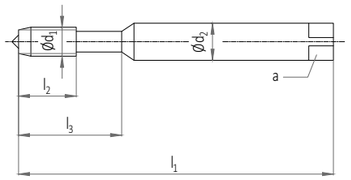
| $d_1$ [inch] | - | P Gg/1" [tpi] | $l_1$ [mm] | $l_2$ [mm] | $l_3$ [mm] | Ø $d_2$ [mm] | a [mm] | | |
|---|---|---|---|---|---|---|---|---|---|
| UNC Nr. 2 | - | 56 | 1,8 | 45 | 4,5 | 12 | 2,8 | 2,1 | | 6645.0D095001 |
| UNC Nr. 4 | - | 40 | 2,3 | 56 | 6 | 18 | 3,5 | 2,7 | | 6645.0D095003 |
| UNC Nr. 6 | - | 32 | 2,85 | 56 | 7 | 20 | 4 | 3 | 6645.0B015005 | 6645.0D095005 |
| UNC Nr. 8 | - | 32 | 3,5 | 63 | 8 | 21 | 4,5 | 3,4 | 6645.0B015006 | 6645.0D095006 |
| UNC Nr. 10 | - | 24 | 3,9 | 70 | 10 | 25 | 6 | 4,9 | 6645.0B015007 | 6645.0D095007 |
| UNC 1/4 | - | 20 | 5,1 | 80 | 13 | 30 | 7 | 5,5 | 6645.0B015009 | 6645.0D095009 |
| UNC 5/16 | - | 18 | 6,6 | 90 | 14 | 35 | 8 | 6,2 | 6645.0B015010 | 6645.0D095010 |
| UNC 3/8 | - | 16 | 8 | 100 | 16 | 39 | 10 | 8 | 6645.0B015011 | 6645.0D095011 |

≈ DIN 376

| $d_1$ [inch] | - | P Gg/1" [tpi] | $l_1$ [mm] | $l_2$ [mm] | $l_3$ [mm] | Ø $d_2$ [mm] | a [mm] | | |
|---|---|---|---|---|---|---|---|---|---|
| UNC 3/8 | - | 16 | 8 | 100 | 16 | - | 7 | 5,5 | | 7645.0D095011 |
| UNC 7/16 | - | 14 | 9,4 | 100 | 18 | - | 8 | 6,2 | 7645.0B015012 | 7645.0D095012 |
| UNC 1/2 | - | 13 | 10,8 | 110 | 20 | - | 9 | 7 | 7645.0B015013 | 7645.0D095013 |
| UNC 9/16 | - | 12 | 12,2 | 110 | 20 | - | 11 | 9 | | |
| UNC 5/8 | - | 11 | 13,5 | 110 | 22 | - | 12 | 9 | 7645.0B015015 | 7645.0D095015 |
| UNC 3/4 | - | 10 | 16,5 | 125 | 25 | - | 14 | 11 | 7645.0B015016 | 7645.0D095016 |
| UNC 7/8 | - | 9 | 19,5 | 140 | 27 | - | 18 | 14,5 | | |
| UNC 1" | - | 8 | 22,2 | 160 | 30 | - | 18 | 14,5 | 7645.0B015018 | 7645.0D095018 |
| UNC 1 1/4 | - | 7 | 28,25 | 180 | 35 | - | 22 | 18 | | |
| UNC 1 1/2 | - | 6 | 34 | 200 | 40 | - | 28 | 22 | | |
| UNC 1 3/4 | - | 5 | 39,5 | 220 | 45 | - | 36 | 29 | | |
| UNC 2" | - | 4 1/2 | 45,25 | 250 | 50 | - | 40 | 32 | | |

# UNC ASME B1.1

2xD




NORIS SL30

TI

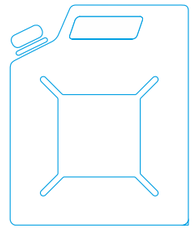


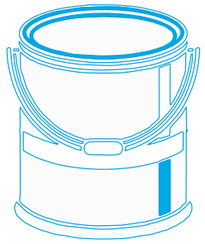
| | |
|---|---|
| OBERFLÄCHE · SURFACE · SURFACE · SUPERFICIE | VAP |
| SCHNEIDSTOFF · MATERIAL · MATIÈRE · MATERIALE | HSSE-PM |
| ANSCHNITTFORM · CHAMFER FORM · FORME D'ENTRÉE · FORMA D'IMBOCCO | C / 2-3 |
| TOLERANZ · TOLERANCE · TOLÉRANCE · TOLLERANZA | 2BX |
| | RH |

| | $d_1$ | - | P | | $l_1$ | $l_2$ | $l_3$ | Ø $d_2$ | a | |
|---|---|---|---|---|---|---|---|---|---|---|
| | [inch] | | Gg/1" [tpi] | [mm] | [mm] | [mm] | [mm] | [mm] | [mm] | |
| ≈ DIN 371 | UNC | Nr. 4 - | 40 | 2,3 | 56 | 6 | 18 | 3,5 | 2,7 | 6614.0B015003 |
| | UNC | Nr. 6 - | 32 | 2,85 | 56 | 7 | 20 | 4 | 3 | 6614.0B015005 |
| | UNC | Nr. 8 - | 32 | 3,5 | 63 | 8 | 21 | 4,5 | 3,4 | 6614.0B015006 |
| | UNC | Nr. 10 - | 24 | 3,9 | 70 | 10 | 25 | 6 | 4,9 | 6614.0B015007 |
| | UNC | 1/4 - | 20 | 5,1 | 80 | 13 | 30 | 7 | 5,5 | 6614.0B015009 |
| | UNC | 5/16 - | 18 | 6,6 | 90 | 14 | 35 | 8 | 6,2 | 6614.0B015010 |

## KÜHLSCHMIERSTOFFE

COOLANT-LUBRICANTS / FLUIDES DE COUPE / LUBROREFRIGERANTI





| NORIS SCHNEIDÖL HR [kg] | | NORIS SCHNEIDPASTE HT [kg] | |
|---|---|---|---|
| 1 kg | ZOELBC3E0010 | 0,45 kg | ZOELBP4E0004 |
| 10 kg | ZOELBC3E0100 | 4,5 kg | ZOELBP4E0045 |

| | | |
|---|---|---|
| P | STAHLWERKSTOFFE · STEEL MATERIALS · ACIERS · ACCIAI | |
| | • | • |
| M | ROSTFREIE STÄHLE · CORROSION AND ACID PROOF STEELS · ACIERS INOX/RESIST. ACIDES · ACCIAI INOX E RESISTENTI AGLI ACIDI | |
| | • | • |
| K | GUSSWERKSTOFFE · CAST MATERIALS · FONTES · GHISE | |
| | | |
| N | NICHTEISEN-WERKSTOFFE · NON FERROUS MATERIALS · MATÉRIAUX NON FERREUX · MATERIALI NON FERROSI | |
| | ○ | ○ |
| S | SPEZIALWERKSTOFFE · SPECIAL MATERIALS · MATÉRIAUX SPÉCIAUX · MATERIALI SPECIALI | |
| | • | • |
| H | GEHÄRTETE WERKSTOFFE · HARDENED STEELS · ACIERS TRAITÉS · ACCIAI TEMPRATI | |
| | • | • |

### GEWINDESCHNEIDÖL UND -PASTE

Chlorfreie Gewindeschneidöle und-pasten erbringen einen weiteren Beitrag zum Thema Umweltschutz.
Die Kühlschmierstoffe sind überwiegend kennzeichnungsfrei und erfüllen alle Anforderungen der aktuellen EU-Verordnung zur Registrierung, Bewertung, Zulassung und Beschränkung chemischer Stoffe (REACH).
• Speziell für schwer zerspanbare und gehärtete Werkstoffe
• Zum Gewindeformen hervorragend geeignet
• Gewindeschneidöl kann für Pinsel- und Umlaufschmierung verwendet werden
• Gewindeschneidpaste besonders bei waagrechter Bearbeitung und großen Gewinden vorteilhaft
• Für die Bearbeitung von Buntmetallen nicht geeignet

### THREAD CUTTING OIL AND PASTE

Chlorine-free thread cutting oils and pastes make a further contribution to environmental protection.
The cooling lubricants are mostly label-free and meet all the requirements of the current EU Regulation on the Registration, Evaluation, Authorization and Restriction of Chemicals (REACH).
• Especially for difficult-to-machine and hardened materials
• Excellent for thread forming
• Thread cutting oil can be used for brush and circulation lubrication
• Thread cutting paste is particularly advantageous for horizontal machining and large threads
• Not suitable for machining non-ferrous metals

### HUILES ET PÂTES DE COUPE POUR FILETAGE

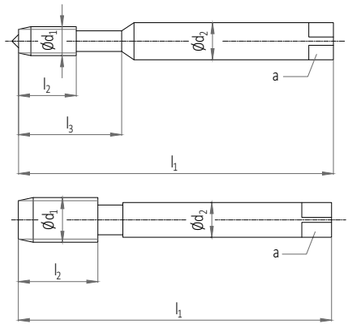
Les huiles et pâtes de coupe sans chlore contribuent à la protection de l'environnement.
Les lubrifiants réfrigérants sont pour la plupart exempts d'étiquette et répondent à toutes les exigences du règlement européen actuel sur l'enregistrement, l'évaluation et l'autorisation des substances chimiques (REACH).
• Particulièrement pour les matériaux difficiles à usiner et durcis
• Excellente pour le formage des filets
• L'huile de coupe peut être utilisée pour la lubrification par brossage et par circulation
• La pâte à fileter est particulièrement avantageuse pour l'usinage horizontal et les filets de grande taille
• Ne convient pas à l'usinage des métaux non ferreux

### OLIO E PASTA PER FILETTARE

Gli oli e le paste per filettatura privi di cloro danno un ulteriore contributo alla tutela dell'ambiente.
I lubrificanti refrigeranti sono per lo più privi di etichetta e soddisfano tutti i requisiti dell'attuale regolamento UE sulla registrazione, valutazione, autorizzazione e restrizione delle sostanze chimiche (REACH).
• Specialmente per materiali difficili da lavorare e temprati
• Eccellente per la filettatura
• L'olio per filettatura può essere utilizzato per la lubrificazione a spazzola e a circolazione
• La pasta per filettare è particolarmente vantaggiosa per la lavorazione orizzontale e per filettature di grandi dimensioni
• Non adatto alla lavorazione di metalli non ferrosi

UNC ASME B1.1

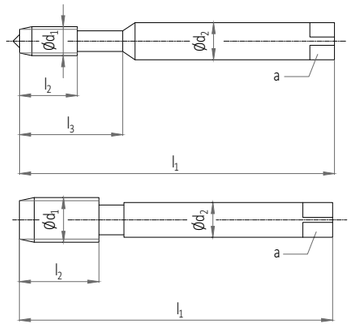
4xD CNC




| | NORIS STABIL UNI CNC | NORIS STABIL UNI CNC | NORIS STABIL UNI CNC | NORIS STABIL UNI CNC |
|---|---|---|---|---|
| |  |  |  |  |
| OBERFLÄCHE · SURFACE · SURFACE · SUPERFICIE | WAC | WAC | NITVAP | NITVAP |
| SCHNEIDSTOFF · MATERIAL · MATIÈRE · MATERIALE | HSSE | HSSE | HSSE | HSSE |
| ANSCHNITTFORM · CHAMFER FORM · FORME D'ENTRÉE · FORMA D'IMBOCCO | B / 4-5 | B / 4-5 | B / 4-5 | B / 4-5 |
| TOLERANZ · TOLERANCE · TOLÉRANCE · TOLLERANZA | 3B | 2B | 3B | 2B |
| | RH | RH | RH | RH |

| | $d_1$ [inch] | - | P Gg/1" [tpi] | $l_1$ [mm] | $l_2$ [mm] | $l_3$ [mm] | Ø $d_2$ [mm] | a [mm] | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ≈ DIN 371 | UNC Nr. 2 | - | 56 | 1,8 | 45 | 7 | 12 | 2,8 | 2,1 | | 65C0.0A005001 | | 65C0.0A035001 |
| | UNC Nr. 4 | - | 40 | 2,3 | 56 | 11 | 18 | 3,5 | 2,7 | | 65C0.0A005003 | | 65C0.0A035003 |
| | UNC Nr. 6 | - | 32 | 2,85 | 56 | 12 | 20 | 4 | 3 | 65C0.01005005 | 65C0.0A005005 | 65C0.01035005 | 65C0.0A035005 |
| | UNC Nr. 8 | - | 32 | 3,5 | 63 | 13 | 21 | 4,5 | 3,4 | 65C0.01005006 | 65C0.0A005006 | 65C0.01035006 | 65C0.0A035006 |
| | UNC Nr. 10 | - | 24 | 3,9 | 70 | 15 | 25 | 6 | 4,9 | 65C0.01005007 | 65C0.0A005007 | | 65C0.0A035007 |
| | UNC 1/4 | - | 20 | 5,1 | 80 | 17 | 30 | 7 | 5,5 | 65C0.01005009 | 65C0.0A005009 | 65C0.01035009 | 65C0.0A035009 |
| | UNC 5/16 | - | 18 | 6,6 | 90 | 20 | 35 | 8 | 6,2 | 65C0.01005010 | 65C0.0A005010 | | 65C0.0A035010 |
| | UNC 3/8 | - | 16 | 8 | 100 | 22 | 39 | 10 | 8 | 65C0.01005011 | 65C0.0A005011 | | 65C0.0A035011 |
| | $d_1$ [inch] | - | P Gg/1" [tpi] | $l_1$ [mm] | $l_2$ [mm] | $l_3$ [mm] | Ø $d_2$ [mm] | a [mm] | | | | |
| ≈ DIN 376 | UNC 3/8 | - | 16 | 8 | 100 | 22 | - | 7 | 5,5 | | 75C0.0A005011 | | |
| | UNC 7/16 | - | 14 | 9,4 | 100 | 22 | - | 8 | 6,2 | 75C0.01005012 | 75C0.0A005012 | | 75C0.0A035012 |
| | UNC 1/2 | - | 13 | 10,8 | 110 | 25 | - | 9 | 7 | 75C0.01005013 | 75C0.0A005013 | | 75C0.0A035013 |
| | UNC 5/8 | - | 11 | 13,5 | 110 | 27 | - | 12 | 9 | 75C0.01005015 | 75C0.0A005015 | | 75C0.0A035015 |
| | UNC 3/4 | - | 10 | 16,5 | 125 | 30 | - | 14 | 11 | 75C0.01005016 | 75C0.0A005016 | | 75C0.0A035016 |
| | UNC 7/8 | - | 9 | 19,5 | 140 | 32 | - | 18 | 14,5 | | 75C0.0A005017 | | 75C0.0A035017 |
| | UNC 1" | - | 8 | 22,2 | 160 | 36 | - | 18 | 14,5 | | 75C0.0A005018 | | 75C0.0A035018 |
| | UNC 1 1/4 | - | 7 | 28,25 | 180 | 40 | - | 22 | 18 | | 75C0.0A005020 | | |
| | UNC 1 1/2 | - | 6 | 34 | 200 | 50 | - | 28 | 22 | | 75C0.0A005022 | | |
| | UNC 1 3/4 | - | 5 | 39,5 | 220 | 58 | - | 36 | 29 | | 75C0.0A005023 | | |
| | UNC 2" | - | 4 1/2 | 45,25 | 250 | 65 | - | 40 | 32 | | 75C0.0A005024 | | |

4xD CNC

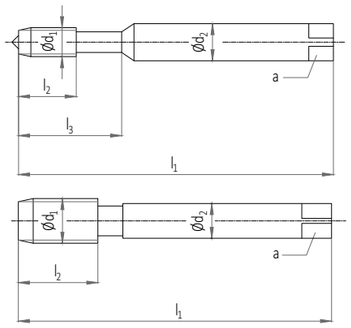



| | NORIS STABIL VA | NORIS STABIL TI | NORIS STABIL TI |
|---|---|---|---|
| |  |  |  |
| OBERFLÄCHE · SURFACE · SURFACE · SUPERFICIE | NIT | VAP | TIN |
| SCHNEIDSTOFF · MATERIAL · MATIÈRE · MATERIALE | HSSE | HSSE-PM | HSSE-PM |
| ANSCHNITTFORM · CHAMFER FORM · FORME D'ENTRÉE · FORMA D'IMBOCCO | B / 4-5 | B / 4-5 | B / 4-5 |
| TOLERANZ · TOLERANCE · TOLÉRANCE · TOLLERANZA | 2B | 2BX | 2BX |
| | RH | RH | RH |

| | $d_1$ [inch] | - | P Gg/1" [tpi] | $l_1$ [mm] | $l_2$ [mm] | $l_3$ [mm] | Ø $d_2$ [mm] | a [mm] | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| ≈ DIN 371 | UNC Nr. 2 | - | 56 | 1,8 | 45 | 7 | 12 | 2,8 | 2,1 | | | |
| | UNC Nr. 4 | - | 40 | 2,3 | 56 | 11 | 18 | 3,5 | 2,7 | | 6084.0A015003 | 6084.0A045003 |
| | UNC Nr. 6 | - | 32 | 2,85 | 56 | 12 | 20 | 4 | 3 | 6535.0A025005 | 6084.0A015005 | 6084.0A045005 |
| | UNC Nr. 8 | - | 32 | 3,5 | 63 | 13 | 21 | 4,5 | 3,4 | 6535.0A025006 | 6084.0A015006 | 6084.0A045006 |
| | UNC Nr. 10 | - | 24 | 3,9 | 70 | 15 | 25 | 6 | 4,9 | 6535.0A025007 | 6084.0A015007 | 6084.0A045007 |
| | UNC 1/4 | - | 20 | 5,1 | 80 | 17 | 30 | 7 | 5,5 | 6535.0A025009 | 6084.0A015009 | 6084.0A045009 |
| | UNC 5/16 | - | 18 | 6,6 | 90 | 20 | 35 | 8 | 6,2 | 6535.0A025010 | 6084.0A015010 | 6084.0A045010 |
| | UNC 3/8 | - | 16 | 8 | 100 | 22 | 39 | 10 | 8 | 6535.0A025011 | 6084.0A015011 | 6084.0A045011 |
| | $d_1$ [inch] | - | P Gg/1" [tpi] | $l_1$ [mm] | $l_2$ [mm] | $l_3$ [mm] | Ø $d_2$ [mm] | a [mm] | | | |
| ≈ DIN 376 | UNC 3/8 | - | 16 | 8 | 100 | 22 | - | 7 | 5,5 | | | |
| | UNC 7/16 | - | 14 | 9,4 | 100 | 22 | - | 8 | 6,2 | 7535.0A025012 | | |
| | UNC 1/2 | - | 13 | 10,8 | 110 | 25 | - | 9 | 7 | 7535.0A025013 | 7084.0A015013 | 7084.0A045013 |
| | UNC 5/8 | - | 11 | 13,5 | 110 | 27 | - | 12 | 9 | 7535.0A025015 | | |
| | UNC 3/4 | - | 10 | 16,5 | 125 | 30 | - | 14 | 11 | 7535.0A025016 | | |
| | UNC 7/8 | - | 9 | 19,5 | 140 | 32 | - | 18 | 14,5 | 7535.0A025017 | | |
| | UNC 1" | - | 8 | 22,2 | 160 | 36 | - | 18 | 14,5 | 7535.0A025018 | | |
| | UNC 1 1/4 | - | 7 | 28,25 | 180 | 40 | - | 22 | 18 | | | |
| | UNC 1 1/2 | - | 6 | 34 | 200 | 50 | - | 28 | 22 | | | |
| | UNC 1 3/4 | - | 5 | 39,5 | 220 | 58 | - | 36 | 29 | | | |
| | UNC 2" | - | 4 1/2 | 45,25 | 250 | 65 | - | 40 | 32 | | | |

# UNC ASME B1.1

2xD




| | NORIS TWIN HR | NORIS TWIN GG |
|---|---|---|
| |  |  |
| OBERFLÄCHE · SURFACE · SURFACE · SUPERFICIE | NIT | NIT |
| SCHNEIDSTOFF · MATERIAL · MATIÈRE · MATERIALE | HSSE | HSSE |
| ANSCHNITTFORM · CHAMFER FORM · FORME D'ENTRÉE · FORMA D'IMBOCCO | C / 2-3 | C / 2-3 |
| TOLERANZ · TOLERANCE · TOLÉRANCE · TOLLERANZA | 2BX | 2BX |
| | RH | RH |

| | $d_1$ | - | P | | $l_1$ | $l_2$ | $l_3$ | Ø $d_2$ | a | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | [inch] | | Gg/1" [tpi] | [mm] | [mm] | [mm] | [mm] | [mm] | [mm] | | |
| ≈ DIN 371 | UNC | Nr. 4 | - 40 | 2,3 | 56 | 11 | 18 | 3,5 | 2,7 | 6103.0B025003 | 6200.0B025003 |
| | UNC | Nr. 6 | - 32 | 2,85 | 56 | 12 | 20 | 4 | 3 | 6103.0B025005 | 6200.0B025005 |
| | UNC | Nr. 8 | - 32 | 3,5 | 63 | 13 | 21 | 4,5 | 3,4 | 6103.0B025006 | 6200.0B025006 |
| | UNC | Nr. 10 | - 24 | 3,9 | 70 | 15 | 25 | 6 | 4,9 | 6103.0B025007 | 6200.0B025007 |
| | UNC | 1/4 | - 20 | 5,1 | 80 | 17 | 30 | 7 | 5,5 | 6103.0B025009 | 6200.0B025009 |
| | UNC | 5/16 | - 18 | 6,6 | 90 | 20 | 35 | 8 | 6,2 | 6103.0B025010 | 6200.0B025010 |
| | UNC | 3/8 | - 16 | 8 | 100 | 22 | 39 | 10 | 8 | 6103.0B025011 | 6200.0B025011 |

| | $d_1$ | - | P | | $l_1$ | $l_2$ | $l_3$ | Ø $d_2$ | a | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | [inch] | | Gg/1" [tpi] | [mm] | [mm] | [mm] | [mm] | [mm] | [mm] | | |
| ≈ DIN 376 | UNC | 7/16 | - 14 | 9,4 | 100 | 22 | - | 8 | 6,2 | 7103.0B025012 | |
| | UNC | 1/2 | - 13 | 10,8 | 110 | 25 | - | 9 | 7 | 7103.0B025013 | 7200.0B025013 |
| | UNC | 9/16 | - 12 | 12,2 | 110 | 26 | - | 11 | 9 | 7103.0B025014 | 7200.0B025014 |
| | UNC | 5/8 | - 11 | 13,5 | 110 | 27 | - | 12 | 9 | 7103.0B025015 | 7200.0B025015 |
| | UNC | 3/4 | - 10 | 16,5 | 125 | 30 | - | 14 | 11 | 7103.0B025016 | 7200.0B025016 |
| | UNC | 7/8 | - 9 | 19,5 | 140 | 32 | - | 18 | 14,5 | 7103.0B025017 | 7200.0B025017 |
| | UNC | 1" | - 8 | 22,2 | 160 | 36 | - | 18 | 14,5 | 7103.0B025018 | 7200.0B025018 |

# GLOBALER VERTRIEB

GLOBAL SALES / DISTRIBUTION GLOBALE / DISTRIBUZIONE GLOBALE



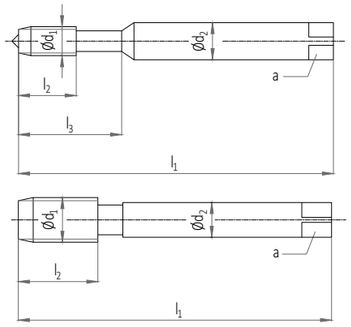
Quality
Made in Germany
ISO 9001 CERTIFIED

## Zertifiziert nach ISO 9001

Certified to ISO 9001
Certifié selon ISO 9001
Certificato secondo ISO 9001

UNF ASME B1.1

3xD CNC




| | NORIS SALOREX UNI CNC | NORIS SALOREX UNI CNC | NORIS SALOREX UNI CNC | NORIS SALOREX UNI CNC |
|---|---|---|---|---|
| |  |  |  |  |
| OBERFLÄCHE · SURFACE · SURFACE · SUPERFICIE | WAC | WAC | VAP | VAP |
| SCHNEIDSTOFF · MATERIAL · MATIÈRE · MATERIALE | HSSE | HSSE | HSSE | HSSE |
| ANSCHNITTFORM · CHAMFER FORM · FORME D'ENTRÉE · FORMA D'IMBOCCO | C / 2-3 | C / 2-3 | C / 2-3 | E / 1,5-2 |
| TOLERANZ · TOLERANCE · TOLÉRANCE · TOLLERANZA | 3B | 2B | 2B | 2B +0,05 [1] |
| | RH | RH | RH | RH |

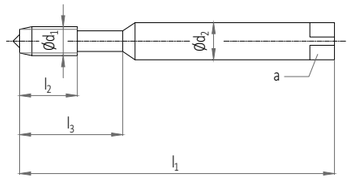
≈ DIN 371

| $d_1$ [inch] | - | P Gg/1" [tpi] | $l_1$ [mm] | $l_2$ [mm] | $l_3$ [mm] | Ø $d_2$ [mm] | a [mm] | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| UNF Nr. 2 | - | 64 | 1,85 | 45 | 4,5 | 12 | 2,8 | 2,1 | | 6470.0B005035 | | |
| UNF Nr. 4 | - | 48 | 2,4 | 56 | 6 | 18 | 3,5 | 2,7 | | 6470.0B005037 | 6470.0B015037 | |
| UNF Nr. 6 | - | 40 | 2,95 | 56 | 7 | 20 | 4 | 3 | 6470.02005039 | 6470.0B005039 | 6470.0B015039 | 6470.28015039 |
| UNF Nr. 8 | - | 36 | 3,5 | 63 | 8 | 21 | 4,5 | 3,4 | 6470.02005040 | 6470.0B005040 | 6470.0B015040 | 6470.28015040 |
| UNF Nr. 10 | - | 32 | 4,1 | 70 | 10 | 25 | 6 | 4,9 | 6470.02005041 | 6470.0B005041 | 6470.0B015041 | 6470.28015041 |
| UNF 1/4 | - | 28 | 5,5 | 80 | 10 | 30 | 7 | 5,5 | 6470.02005043 | 6470.0B005043 | 6470.0B015043 | 6470.28015043 |
| UNF 5/16 | - | 24 | 6,9 | 90 | 10 | 35 | 8 | 6,2 | 6470.02005044 | 6470.0B005044 | 6470.0B015044 | 6470.28015044 |
| UNF 3/8 | - | 24 | 8,5 | 90 | 10 | 35 | 10 | 8 | 6470.02005045 | 6470.0B005045 | 6470.0B015045 | 6470.28015045 |

≈ DIN 374

| $d_1$ [inch] | - | P Gg/1" [tpi] | $l_1$ [mm] | $l_2$ [mm] | $l_3$ [mm] | Ø $d_2$ [mm] | a [mm] | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| UNF 1/4 | - | 28 | 5,5 | 80 | 10 | - | 4,5 | 3,4 | | 7470.0B005043 | | |
| UNF 5/16 | - | 24 | 6,9 | 90 | 10 | - | 6 | 4,9 | | 7470.0B005044 | | |
| UNF 3/8 | - | 24 | 8,5 | 90 | 10 | - | 7 | 5,5 | 7470.02005045 | 7470.0B005045 | | |
| UNF 7/16 | - | 20 | 9,9 | 100 | 13 | - | 8 | 6,2 | 7470.02005046 | 7470.0B005046 | 7470.0B015046 | 7470.28015046 |
| UNF 1/2 | - | 20 | 11,5 | 100 | 13 | - | 9 | 7 | 7470.02005047 | 7470.0B005047 | 7470.0B015047 | 7470.28015047 |
| UNF 9/16 | - | 18 | 12,9 | 100 | 15 | - | 11 | 9 | 7470.02005048 | 7470.0B005048 | 7470.0B015048 | 7470.28015048 |
| UNF 5/8 | - | 18 | 14,5 | 100 | 15 | - | 12 | 9 | 7470.02005049 | 7470.0B005049 | 7470.0B015049 | 7470.28015049 |
| UNF 3/4 | - | 16 | 17,5 | 110 | 17 | - | 14 | 11 | 7470.02005050 | 7470.0B005050 | 7470.0B015050 | 7470.28015050 |
| UNF 7/8 | - | 14 | 20,4 | 125 | 17 | - | 18 | 14,5 | | 7470.0B005051 | 7470.0B015051 | |
| UNF 1" | - | 12 | 23,25 | 140 | 20 | - | 18 | 14,5 | | 7470.0B005052 | 7470.0B015052 | 7470.28015052 |
| UNF 1 1/8 | - | 12 | 26,5 | 150 | 22 | - | 22 | 18 | | | 7470.0B015053 | |
| UNF 1 1/4 | - | 12 | 29,75 | 150 | 22 | - | 22 | 18 | | | 7470.0B015054 | |
| UNF 1 3/8 | - | 12 | 33 | 170 | 24 | - | 28 | 22 | | | 7470.0B015055 | |
| UNF 1 1/2 | - | 12 | 36 | 170 | 24 | - | 28 | 22 | | | 7470.0B015056 | |

3xD



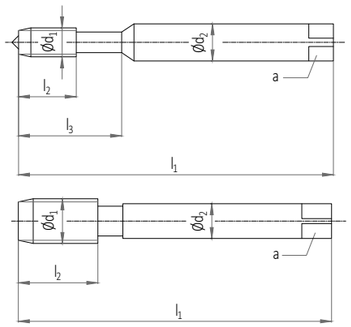

| | NORIS SALOREX UNI HP | NORIS SALOREX VA |
|---|---|---|
| |  HP |  |
| OBERFLÄCHE · SURFACE · SURFACE · SUPERFICIE | ALTINHD | VAP |
| SCHNEIDSTOFF · MATERIAL · MATIÈRE · MATERIALE | HSSE-PM | HSSE |
| ANSCHNITTFORM · CHAMFER FORM · FORME D'ENTRÉE · FORMA D'IMBOCCO | C / 2-3 | E / 1,5-2 |
| TOLERANZ · TOLERANCE · TOLÉRANCE · TOLLERANZA | 2BX | 2B |
| | RH | RH |

≈ DIN 371

| $d_1$ [inch] | - | P Gg/1" [tpi] | $l_1$ [mm] | $l_2$ [mm] | $l_3$ [mm] | Ø $d_2$ [mm] | a [mm] | | |
|---|---|---|---|---|---|---|---|---|---|
| UNF Nr. 2 | - | 64 | 1,85 | 45 | 4,5 | 12 | 2,8 | 2,1 | | 6645.0D015035 |
| UNF Nr. 4 | - | 48 | 2,4 | 56 | 6 | 18 | 3,5 | 2,7 | | 6645.0D015037 |
| UNF Nr. 6 | - | 40 | 2,95 | 56 | 7 | 20 | 4 | 3 | | 6645.0D015039 |
| UNF Nr. 8 | - | 36 | 3,5 | 63 | 8 | 21 | 4,5 | 3,4 | | 6645.0D015040 |
| UNF Nr. 10 | - | 32 | 4,1 | 70 | 10 | 25 | 6 | 4,9 | 6490.0B095041 | 6645.0D015041 |
| UNF 1/4 | - | 28 | 5,5 | 80 | 10 | 30 | 7 | 5,5 | 6490.0B095043 | 6645.0D015043 |
| UNF 5/16 | - | 24 | 6,9 | 90 | 10 | 35 | 8 | 6,2 | 6490.0B095044 | 6645.0D015044 |
| UNF 3/8 | - | 24 | 8,5 | 90 | 10 | 35 | 10 | 8 | 6490.0B095045 | 6645.0D015045 |

1) Vorbohrdurchmesser um 0,05 mm anheben
Increase drill diameter by 0.05 mm
Augmenter le diamètre du foret de 0,05 mm
Aumentare il diametro della punta di 0,05 mm

# UNF ASME B1.1



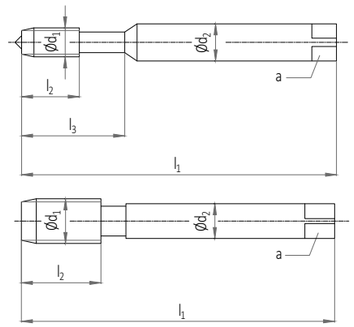

| | NORIS SL30 TI | NORIS SL30 TI | NORIS STABIL UNI CNC | NORIS STABIL UNI CNC | NORIS STABIL UNI CNC |
|---|---|---|---|---|---|
| |  |  |  |  |  |
| | 2xD | 2xD | 4xD | 4xD | 4xD |
| OBERFLÄCHE · SURFACE · SURFACE · SUPERFICIE | VAP | VAP | WAC | WAC | NITVAP |
| SCHNEIDSTOFF · MATERIAL · MATIÈRE · MATERIALE | HSSE-PM | HSSE-PM | HSSE | HSSE | HSSE |
| ANSCHNITTFORM · CHAMFER FORM · FORME D'ENTRÉE · FORMA D'IMBOCCO | C / 2-3 | C / 2-3 | B / 4-5 | B / 4-5 | B / 4-5 |
| TOLERANZ · TOLERANCE · TOLÉRANCE · TOLLERANZA | 3BX | 2BX | 3B | 2B | 2B |
| | RH | RH | RH | RH | RH |

| | d1 [inch] | - | P Gg/1" [tpi] | l1 [mm] | l2 [mm] | l3 [mm] | Ø d2 [mm] | a [mm] | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ≈ DIN 371 | UNF | Nr. 2 | - 64 | 1,85 | 45 | 7 | 12 | 2,8 | 2,1 | | | | 65C0.0A005035 | |
| | UNF | Nr. 4 | - 48 | 2,4 | 56 | 11 | 18 | 3,5 | 2,7 | | | | 65C0.0A005037 | 65C0.0A035037 |
| | UNF | Nr. 5 | - 44 | 2,7 | 56 | 11 | 18 | 3,5 | 2,7 | | | | | |
| | UNF | Nr. 6 | - 40 | 2,95 | 56 | 12 | 20 | 4 | 3 | | | 65C0.01005039 | 65C0.0A005039 | 65C0.0A035039 |
| | UNF | Nr. 8 | - 36 | 3,5 | 63 | 13 | 21 | 4,5 | 3,4 | | | 65C0.01005040 | 65C0.0A005040 | 65C0.0A035040 |
| | UNF | Nr. 10 | - 32 | 4,1 | 70 | 15 | 25 | 6 | 4,9 | 6614.02015041 | 6614.0B015041 | 65C0.01005041 | 65C0.0A005041 | 65C0.0A035041 |
| | UNF | 1/4 | - 28 | 5,5 | 80 | 17 | 30 | 7 | 4,9 | 6614.02015043 | 6614.0B015043 | 65C0.01005043 | 65C0.0A005043 | 65C0.0A035043 |
| | UNF | 5/16 | - 24 | 6,9 | 90 | 17 | 35 | 8 | 6,2 | 6614.02015044 | 6614.0B015044 | 65C0.01005044 | 65C0.0A005044 | 65C0.0A035044 |
| | UNF | 3/8 | - 24 | 8,5 | 90 | 18 | 35 | 10 | 8 | 6614.02015045 | 6614.0B015045 | 65C0.01005045 | 65C0.0A005045 | 65C0.0A035045 |

| | d1 [inch] | - | P Gg/1" [tpi] | l1 [mm] | l2 [mm] | l3 [mm] | Ø d2 [mm] | a [mm] | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ≈ DIN 374 | UNF | 1/4 | - 28 | 5,5 | 80 | 17 | - | 4,5 | 3,4 | | | | 75C0.0A005043 | |
| | UNF | 5/16 | - 24 | 6,9 | 90 | 17 | - | 6 | 4,9 | | | | 75C0.0A005044 | |
| | UNF | 3/8 | - 24 | 8,5 | 90 | 18 | - | 7 | 5,5 | | | | 75C0.0A005045 | |
| | UNF | 7/16 | - 20 | 9,9 | 100 | 22 | - | 8 | 6,2 | | | 75C0.01005046 | 75C0.0A005046 | 75C0.0A035046 |
| | UNF | 1/2 | - 20 | 11,5 | 100 | 22 | - | 9 | 7 | | | 75C0.01005047 | 75C0.0A005047 | 75C0.0A035047 |
| | UNF | 9/16 | - 18 | 12,9 | 100 | 22 | - | 11 | 9 | | | | | 75C0.0A035048 |
| | UNF | 5/8 | - 18 | 14,5 | 100 | 22 | - | 12 | 9 | | | 75C0.01005049 | 75C0.0A005049 | 75C0.0A035049 |
| | UNF | 3/4 | - 16 | 17,5 | 110 | 25 | - | 14 | 11 | | | 75C0.01005050 | 75C0.0A005050 | 75C0.0A035050 |
| | UNF | 7/8 | - 14 | 20,4 | 125 | 25 | - | 18 | 14,5 | | | | 75C0.0A005051 | 75C0.0A035051 |
| | UNF | 1" | - 12 | 23,25 | 140 | 28 | - | 18 | 14,5 | | | | 75C0.0A005052 | 75C0.0A035052 |
| | UNF | 1 1/8 | - 12 | 26,5 | 150 | 28 | - | 22 | 18 | | | | 75C0.0A005053 | 75C0.0A035053 |
| | UNF | 1 1/4 | - 12 | 29,5 | 150 | 28 | - | 22 | 18 | | | | 75C0.0A005054 | 75C0.0A035054 |
| | UNF | 1 3/8 | - 12 | 32,75 | 170 | 30 | - | 28 | 22 | | | | 75C0.0A005055 | 75C0.0A035055 |
| | UNF | 1 1/2 | - 12 | 36 | 170 | 30 | - | 28 | 22 | | | | 75C0.0A005056 | |





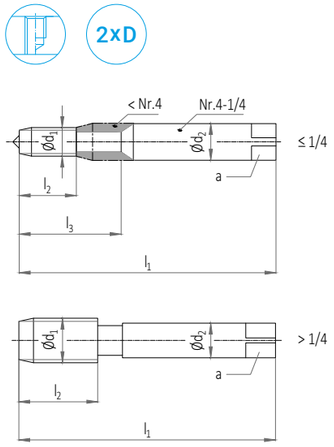



| | NORIS STABIL TI | NORIS STABIL TI | NORIS TWIN HR | NORIS TWIN GG |
|---|---|---|---|---|
| |  |  |  |  |
| | 4xD | 4xD | 2xD | 2xD |
| OBERFLÄCHE · SURFACE · SURFACE · SUPERFICIE | VAP | TIN | NIT | NIT |
| SCHNEIDSTOFF · MATERIAL · MATIÈRE · MATERIALE | HSSE-PM | HSSE-PM | HSSE | HSSE |
| ANSCHNITTFORM · CHAMFER FORM · FORME D'ENTRÉE · FORMA D'IMBOCCO | B / 4-5 | B / 4-5 | C / 2-3 | C / 2-3 |
| TOLERANZ · TOLERANCE · TOLÉRANCE · TOLLERANZA | 2BX | 2BX | 2BX | 2BX |
| | RH | RH | RH | RH |

| | d1 [inch] | - | P Gg/1" [tpi] | l1 [mm] | l2 [mm] | l3 [mm] | Ø d2 [mm] | a [mm] | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ≈ DIN 371 | UNF | Nr. 2 | - 64 | 1,85 | 45 | 7 | 12 | 2,8 | 2,1 | | | |
| | UNF | Nr. 4 | - 48 | 2,4 | 56 | 11 | 18 | 3,5 | 2,7 | 6084.0A015037 | 6084.0A045037 | 6103.0B025037 | |
| | UNF | Nr. 5 | - 44 | 2,7 | 56 | 11 | 18 | 3,5 | 2,7 | 6084.0A015038 | 6084.0A045038 | | |
| | UNF | Nr. 6 | - 40 | 2,95 | 56 | 12 | 20 | 4 | 3 | 6084.0A015039 | 6084.0A045039 | 6103.0B025039 | 6200.0B025039 |
| | UNF | Nr. 8 | - 36 | 3,5 | 63 | 13 | 21 | 4,5 | 3,4 | 6084.0A015040 | 6084.0A045040 | 6103.0B025040 | 6200.0B025040 |
| | UNF | Nr. 10 | - 32 | 4,1 | 70 | 15 | 25 | 6 | 4,9 | 6084.0A015041 | 6084.0A045041 | 6103.0B025041 | 6200.0B025041 |
| | UNF | 1/4 | - 28 | 5,5 | 80 | 17 | 30 | 7 | 4,9 | 6084.0A015043 | 6084.0A045043 | 6103.0B025043 | 6200.0B025043 |
| | UNF | 5/16 | - 24 | 6,9 | 90 | 17 | 35 | 8 | 6,2 | 6084.0A015044 | 6084.0A045044 | 6103.0B025044 | 6200.0B025044 |
| | UNF | 3/8 | - 24 | 8,5 | 90 | 18 | 35 | 10 | 8 | 6084.0A015045 | 6084.0A045045 | 6103.0B025045 | 6200.0B025045 |

| | d1 [inch] | - | P Gg/1" [tpi] | l1 [mm] | l2 [mm] | l3 [mm] | Ø d2 [mm] | a [mm] | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ≈ DIN 374 | UNF | 7/16 | - 20 | 9,9 | 100 | 22 | - | 8 | 6,2 | 7084.0A015046 | 7084.0A045046 | 7103.0B025046 | 7200.0B025046 |
| | UNF | 1/2 | - 20 | 11,5 | 100 | 22 | - | 9 | 7 | 7084.0A015047 | 7084.0A045047 | 7103.0B025047 | 7200.0B025047 |
| | UNF | 9/16 | - 18 | 12,9 | 100 | 22 | - | 11 | 9 | | | 7103.0B025048 | 7200.0B025048 |
| | UNF | 5/8 | - 18 | 14,5 | 100 | 22 | - | 12 | 9 | | | 7103.0B025049 | 7200.0B025049 |
| | UNF | 3/4 | - 16 | 17,5 | 110 | 25 | - | 14 | 11 | | | 7103.0B025050 | 7200.0B025050 |
| | UNF | 7/8 | - 14 | 20,4 | 125 | 25 | - | 18 | 14,5 | | | 7103.0B025051 | 7200.0B025051 |
| | UNF | 1" | - 12 | 23,25 | 140 | 28 | - | 18 | 14,5 | | | 7103.0B025052 | 7200.0B025052 |

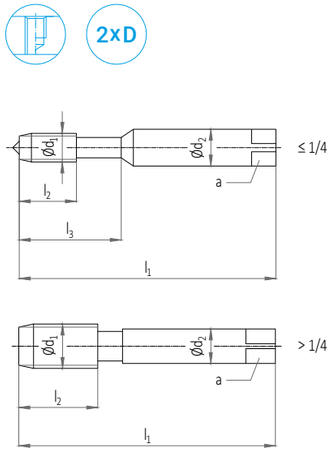
# UNC ASME B1.1




| | NORIS SATZ ST | NORIS SATZ ST | NORIS SATZ ST | NORIS SATZ ST |
|---|---|---|---|---|
| OBERFLÄCHE · SURFACE · SURFACE · SUPERFICIE | WAC | WAC | WAC | WAC |
| SCHNEIDSTOFF · MATERIAL · MATIÈRE · MATERIALE | HSSE | HSSE | HSSE | HSSE |
| ANSCHNITTFORM · CHAMFER FORM · FORME D'ENTRÉE · FORMA D'IMBOCCO | A / 5-6 | D / 4-5 | C / 2-3 | C / 2-3 |
| TOLERANZ · TOLERANCE · TOLÉRANCE · TOLLERANZA | V1 | M2 | 2BX | 2BX |
| | RH | RH | RH | RH |
| | S3 | | | |

| ≈ DIN 352 | $d_1$ | - | P | $l_1$ | $l_2$ | $l_3$ | Ø $d_2$ | a | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | [inch] | | Gg/1" [tpi] | [mm] | [mm] | [mm] | [mm] | [mm] | [mm] | | | | |
| | UNC | Nr. 4 | - 40 | 2,35 | 40 | 10 | 18 | 3,5 | 2,7 | 5000.11005003 | 5000.0F005003 | 5000.0E005003 | 5000.0B005003 |
| | UNC | Nr. 6 | - 32 | 2,85 | 40 | 11 | 20 | 4 | 3 | 5000.11005005 | 5000.0F005005 | 5000.0E005005 | 5000.0B005005 |
| | UNC | Nr. 8 | - 32 | 3,5 | 45 | 12 | 22 | 4,5 | 3,4 | 5000.11005006 | 5000.0F005006 | 5000.0E005006 | 5000.0B005006 |
| | UNC | Nr. 10 | - 24 | 3,9 | 50 | 14 | 25 | 6 | 4,9 | 5000.11005007 | 5000.0F005007 | 5000.0E005007 | 5000.0B005007 |
| | UNC | 1/4 | - 20 | 5,1 | 56 | 12 | 28 | 6 | 4,9 | | | | |
| | UNC | 1/4 | - 20 | 5,1 | 56 | 16 | 28 | 6 | 4,9 | 5000.11005009 | 5000.0F005009 | 5000.0E005009 | 5000.0B005009 |
| | UNC | 5/16 | - 18 | 6,6 | 63 | 15 | - | 6 | 4,9 | | | | |
| | UNC | 5/16 | - 18 | 6,6 | 63 | 20 | - | 6 | 4,9 | | | | |
| | UNC | 3/8 | - 16 | 8 | 70 | 17 | - | 7 | 5,5 | | | | |
| | UNC | 3/8 | - 16 | 8 | 70 | 22 | - | 7 | 5,5 | 5000.11005011 | 5000.0F005011 | 5000.0E005011 | 5000.0B005011 |
| | UNC | 1/2 | - 13 | 10,8 | 75 | 20 | - | 9 | 7 | | | | |
| | UNC | 1/2 | - 13 | 10,8 | 75 | 25 | - | 9 | 7 | 5000.11005013 | 5000.0F005013 | 5000.0E005013 | 5000.0B005013 |

# UNC ASME B1.1 | UNF ASME B1.1



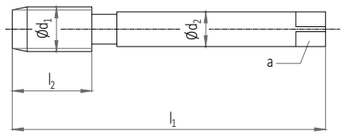

| | NORIS SATZ ERGO | NORIS SATZ ERGO | NORIS SATZ ERGO | NORIS SATZ ERGO |
|---|---|---|---|---|
| OBERFLÄCHE · SURFACE · SURFACE · SUPERFICIE | WAC | WAC | WAC | WAC |
| SCHNEIDSTOFF · MATERIAL · MATIÈRE · MATERIALE | HSSE | HSSE | HSSE | HSSE |
| ANSCHNITTFORM · CHAMFER FORM · FORME D'ENTRÉE · FORMA D'IMBOCCO | C / 2-3 | C / 2-3 | C / 2-3 | C / 2-3 |
| TOLERANZ · TOLERANCE · TOLÉRANCE · TOLLERANZA | VZ1 [1] | M2 | 2BX | 2BX |
| | RH | RH | RH | RH |
| | S3 | | | |

| ≈ DIN 352 | $d_1$ | - | P | $l_1$ | $l_2$ | $l_3$ | Ø $d_2$ | a | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | [inch] | | Gg/1" [tpi] | [mm] | [mm] | [mm] | [mm] | [mm] | [mm] | | | | |
| | UNC | Nr. 4 | - 40 | 2,35 | 40 | 10 | 18 | 3,5 | 2,7 | | | | |
| | UNC | Nr. 6 | - 32 | 2,85 | 40 | 11 | 20 | 4 | 3 | | | | |
| | UNC | Nr. 8 | - 32 | 3,5 | 45 | 12 | 22 | 4,5 | 3,4 | | | | |
| | UNC | Nr. 10 | - 24 | 3,9 | 50 | 14 | 25 | 6 | 4,9 | | | | |
| | UNC | 1/4 | - 20 | 5,1 | 56 | 12 | 28 | 6 | 4,9 | 5020.11005009 | | | |
| | UNC | 1/4 | - 20 | 5,1 | 56 | 16 | 28 | 6 | 4,9 | | 5020.0F005009 | 5020.0E005009 | 5020.0B005009 |
| | UNC | 5/16 | - 18 | 6,6 | 63 | 15 | - | 6 | 4,9 | 5020.11005010 | | | |
| | UNC | 5/16 | - 18 | 6,6 | 63 | 20 | - | 6 | 4,9 | | 5020.0F005010 | 5020.0E005010 | 5020.0B005010 |
| | UNC | 3/8 | - 16 | 8 | 70 | 17 | - | 7 | 5,5 | 5020.11005011 | | | |
| | UNC | 3/8 | - 16 | 8 | 70 | 22 | - | 7 | 5,5 | | 5020.0F005011 | 5020.0E005011 | 5020.0B005011 |
| | UNC | 1/2 | - 13 | 10,8 | 75 | 20 | - | 9 | 7 | 5020.11005013 | | | |
| | UNC | 1/2 | - 13 | 10,8 | 75 | 25 | - | 9 | 7 | | 5020.0F005013 | 5020.0E005013 | 5020.0B005013 |

| ≈ DIN 2181 | $d_1$ | - | P | $l_1$ | $l_2$ | $l_3$ | Ø $d_2$ | a | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | [inch] | | Gg/1" [tpi] | [mm] | [mm] | [mm] | [mm] | [mm] | [mm] | | | | |
| | UNF | 1/4 | - 28 | 5,5 | 5,6 | 12 | 28 | 6 | 4,9 | 5020.11005043 | | | |
| | UNF | 1/4 | - 28 | 5,5 | 56 | 16 | 28 | 6 | 4,9 | | 5020.0F005043 | 5020.0E005043 | 5020.0B005043 |
| | UNF | 5/16 | - 24 | 6,9 | 63 | 13 | - | 6 | 4,9 | 5020.11005044 | | | |
| | UNF | 5/16 | - 24 | 6,9 | 63 | 17 | - | 6 | 4,9 | | 5020.0F005044 | 5020.0E005044 | 5020.0B005044 |
| | UNF | 3/8 | - 24 | 8,5 | 63 | 13 | - | 7 | 5,5 | 5020.11005045 | | | |
| | UNF | 3/8 | - 24 | 8,5 | 63 | 18 | - | 7 | 5,5 | | 5020.0F005045 | 5020.0E005045 | 5020.0B005045 |
| | UNF | 7/16 | - 20 | 9,9 | 70 | 17 | - | 8 | 6,2 | 5020.11005046 | | | |
| | UNF | 7/16 | - 20 | 9,9 | 70 | 22 | - | 8 | 6,2 | | 5020.0F005046 | 5020.0E005046 | 5020.0B005046 |
| | UNF | 1/2 | - 20 | 11,5 | 70 | 15 | - | 9 | 7 | 5020.11005047 | | | |
| | UNF | 1/2 | - 20 | 11,5 | 70 | 20 | - | 9 | 7 | | 5020.0F005047 | 5020.0E005047 | 5020.0B005047 |

1) Der Führungszapfen des Vz1 gewährleistet ein fluchtendes Anschneiden.
The guide journal of Vz1 ensures a flush lead.
La partie pilote de l'ébaucher assure un parfait centrage.
Il primo maschio della serie è munito di guida che assicura la centricità della filettatura con il preforo.

3xD CNC




NORIS SALOREX

UNI CNC



NORIS SALOREX

UNI CNC

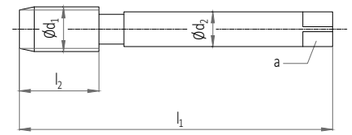


| OBERFLÄCHE · SURFACE · SURFACE · SUPERFICIE | WAC | VAP |
|---|---|---|
| SCHNEIDSTOFF · MATERIAL · MATIÈRE · MATERIALE | HSSE | HSSE |
| ANSCHNITTFORM · CHAMFER FORM · FORME D'ENTRÉE · FORMA D'IMBOCCO | C / 2-3 | C / 2-3 |
| TOLERANZ · TOLERANCE · TOLÉRANCE · TOLLERANZA | 2B | 2B |
| | RH | RH |

| | $d_1$ | - | P | $l_1$ | $l_2$ | $l_3$ | Ø $d_2$ | a | |
|---|---|---|---|---|---|---|---|---|---|
| | [inch] | | Gg/1" [tpi] | [mm] | [mm] | [mm] | [mm] | [mm] | |
| ≈ DIN 374 | UNEF | 1/4 - | 32 | 5,55 | 80 | 10 | - | 4,5 | 3,4 | 7470.0B005058 | |
| | UNEF | 5/16 - | 32 | 7,15 | 80 | 8 | - | 6 | 4,9 | 7470.0B005059 | |
| | UNEF | 3/8 - | 32 | 8,7 | 90 | 10 | - | 7 | 5,5 | 7470.0B005060 | |
| | UNEF | 7/16 - | 28 | 10,2 | 90 | 11 | - | 8 | 6,2 | 7470.0B005061 | |
| | UNEF | 1/2 - | 28 | 11,8 | 100 | 13 | - | 9 | 7 | 7470.0B005062 | |
| | UNEF | 9/16 - | 24 | 13,2 | 100 | 11 | - | 11 | 9 | 7470.0B005063 | |
| | UNEF | 5/8 - | 24 | 14,8 | 100 | 12 | - | 12 | 9 | 7470.0B005064 | |
| | UNEF | 3/4 - | 20 | 17,8 | 110 | 17 | - | 14 | 11 | 7470.0B005066 | |
| | UNEF | 7/8 - | 20 | 21 | 125 | 17 | - | 18 | 14,5 | 7470.0B005068 | |
| | UNEF | 1" - | 20 | 24,15 | 140 | 20 | - | 18 | 14,5 | 7470.0B005070 | |

| | $d_1$ | - | P | $l_1$ | $l_2$ | $l_3$ | Ø $d_2$ | a | |
|---|---|---|---|---|---|---|---|---|---|
| | [inch] | | Gg/1" [tpi] | [mm] | [mm] | [mm] | [mm] | [mm] | |
| ≈ DIN 374 | UN | 1 1/8 - | 8 | 25,4 | 180 | 30 | - | 22 | 18 | 7470.0B015247 | |
| | UN | 1 1/4 - | 8 | 28,6 | 180 | 30 | - | 22 | 18 | 7470.0B015249 | |
| | UN | 1 1/2 - | 8 | 35 | 200 | 30 | - | 28 | 22 | 7470.0B015253 | |
| | UN | 1 3/4 - | 8 | 41,3 | 200 | 30 | - | 36 | 29 | 7470.0B015257 | |
| | UN | 2" - | 8 | 47,7 | 225 | 33 | - | 40 | 32 | 7470.0B015261 | |

4xD CNC




NORIS STABIL

UNI CNC

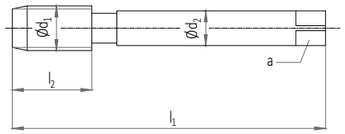


| OBERFLÄCHE · SURFACE · SURFACE · SUPERFICIE | WAC |
|---|---|
| SCHNEIDSTOFF · MATERIAL · MATIÈRE · MATERIALE | HSSE |
| ANSCHNITTFORM · CHAMFER FORM · FORME D'ENTRÉE · FORMA D'IMBOCCO | B / 4-5 |
| TOLERANZ · TOLERANCE · TOLÉRANCE · TOLLERANZA | 2B |
| | RH |

| | $d_1$ | - | P | $l_1$ | $l_2$ | $l_3$ | Ø $d_2$ | a | |
|---|---|---|---|---|---|---|---|---|---|
| | [inch] | | Gg/1" [tpi] | [mm] | [mm] | [mm] | [mm] | [mm] | |
| | UNEF | 1/4 - | 32 | 5,55 | 80 | 14 | - | 4,5 | 3,4 | 75C0.0A005058 | |
| | UNEF | 5/16 - | 32 | 7,15 | 80 | 14 | - | 6 | 4,9 | 75C0.0A005059 | |
| | UNEF | 3/8 - | 32 | 8,7 | 90 | 18 | - | 7 | 5,5 | 75C0.0A005060 | |
| | UNEF | 7/16 - | 28 | 10,2 | 90 | 18 | - | 8 | 6,2 | 75C0.0A005061 | |
| | UNEF | 1/2 - | 28 | 11,8 | 100 | 18 | - | 9 | 7 | 75C0.0A005062 | |
| | UNEF | 9/16 - | 24 | 13,2 | 100 | 18 | - | 11 | 9 | 75C0.0A005063 | |
| | UNEF | 5/8 - | 24 | 14,75 | 100 | 18 | - | 12 | 9 | 75C0.0A005064 | |
| | UNEF | 3/4 - | 20 | 17,75 | 110 | 25 | - | 14 | 11 | 75C0.0A005066 | |
| | UNEF | 7/8 - | 20 | 21 | 125 | 25 | - | 18 | 14,5 | 75C0.0A005068 | |
| | UNEF | 1" - | 20 | 24,15 | 140 | 28 | - | 18 | 14,5 | 75C0.0A005070 | |

# G (BSP) DIN EN ISO 228

3xD CNC



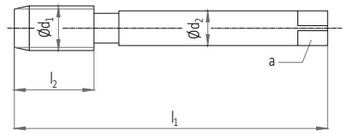

| | NORIS SALOREX UNI CNC | NORIS SALOREX UNI CNC | NORIS SALOREX UNI CNC |
|---|---|---|---|
| |  |  |  |
| OBERFLÄCHE · SURFACE · SURFACE · SUPERFICIE | WAC | VAP | VAP |
| SCHNEIDSTOFF · MATERIAL · MATIÈRE · MATERIALE | HSSE | HSSE | HSSE |
| ANSCHNITTFORM · CHAMFER FORM · FORME D'ENTRÉE · FORMA D'IMBOCCO | C / 2-3 | C / 2-3 | E / 1,5-2 |
| TOLERANZ · TOLERANCE · TOLÉRANCE · TOLLERANZA | X | X | X |
| | RH | RH | RH |

DIN 5156

| $d_1$ | - | P Gg/1" [tpi] | $l_1$ [mm] | $l_2$ [mm] | $l_3$ [mm] | Ø $d_2$ [mm] | a [mm] | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| G | 1/16 | - 28 | 6,8 | 90 | 10 | - | 6 | 4,9 | | 7470.0B014034 | |
| G | 1/8 | - 28 | 8,8 | 90 | 10 | - | 7 | 5,5 | 7470.0B004035 | 7470.0B014035 | 7470.0D014035 |
| G | 1/4 | - 19 | 11,8 | 100 | 15 | - | 11 | 9 | 7470.0B004036 | 7470.0B014036 | 7470.0D014036 |
| G | 3/8 | - 19 | 15,25 | 100 | 15 | - | 12 | 9 | 7470.0B004037 | 7470.0B014037 | 7470.0D014037 |
| G | 1/2 | - 14 | 19 | 125 | 17 | - | 16 | 12 | 7470.0B004038 | 7470.0B014038 | 7470.0D014038 |
| G | 5/8 | - 14 | 21 | 125 | 17 | - | 18 | 14,5 | | 7470.0B014039 | |
| G | 3/4 | - 14 | 24,5 | 140 | 20 | - | 20 | 16 | 7470.0B004040 | 7470.0B014040 | |
| G | 7/8 | - 14 | 28,25 | 150 | 22 | - | 22 | 18 | | 7470.0B014041 | |
| G | 1" | - 11 | 30,75 | 160 | 24 | - | 25 | 20 | 7470.0B004042 | 7470.0B014042 | |
| G | 1 1/8 | - 11 | 35,5 | 170 | 24 | - | 28 | 22 | 7470.0B004043 | 7470.0B014043 | |
| G | 1 1/4 | - 11 | 39,5 | 170 | 25 | - | 32 | 24 | 7470.0B004044 | 7470.0B014044 | |
| G | 1 3/8 | - 11 | 41,75 | 180 | 27 | - | 36 | 29 | 7470.0B004045 | 7470.0B014045 | |
| G | 1 1/2 | - 11 | 45,25 | 190 | 27 | - | 36 | 29 | 7470.0B004046 | 7470.0B014046 | |
| G | 1 3/4 | - 11 | 51 | 190 | 27 | - | 40 | 32 | 7470.0B004048 | | |

# G (BSP) DIN EN ISO 228

3xD CNC




| | NORIS SALOREX UNI CNC | NORIS SALOREX UNI CNC | NORIS SALOREX UNI CNC |
|---|---|---|---|
| |  |  |  |
| OBERFLÄCHE · SURFACE · SURFACE · SUPERFICIE | VAP | ALTINHD | ALTINHD |
| SCHNEIDSTOFF · MATERIAL · MATIÈRE · MATERIALE | HSSE | HSSE | HSSE |
| ANSCHNITTFORM · CHAMFER FORM · FORME D'ENTRÉE · FORMA D'IMBOCCO | E / 1,5-2 | C / 2-3 | E / 1,5-2 |
| TOLERANZ · TOLERANCE · TOLÉRANCE · TOLLERANZA | X +0,05 [1] | X | X |
| | RH | RH | RH |

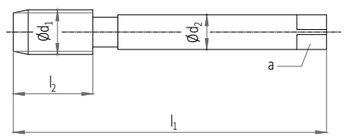
DIN 5156

| $d_1$ | - | P Gg/1" [tpi] | $l_1$ [mm] | $l_2$ [mm] | $l_3$ [mm] | Ø $d_2$ [mm] | a [mm] | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| G | 1/16 | - 28 | 6,8 | 90 | 10 | - | 6 | 4,9 | | | |
| G | 1/8 | - 28 | 8,8 | 90 | 10 | - | 7 | 5,5 | 7470.28014035 | 7470.0B094035 | 7470.0D094035 |
| G | 1/4 | - 19 | 11,8 | 100 | 15 | - | 11 | 9 | 7470.28014036 | 7470.0B094036 | 7470.0D094036 |
| G | 3/8 | - 19 | 15,25 | 100 | 15 | - | 12 | 9 | 7470.28014037 | 7470.0B094037 | 7470.0D094037 |
| G | 1/2 | - 14 | 19 | 125 | 17 | - | 16 | 12 | 7470.28014038 | 7470.0B094038 | 7470.0D094038 |
| G | 5/8 | - 14 | 21 | 125 | 17 | - | 18 | 14,5 | | | |
| G | 3/4 | - 14 | 24,5 | 140 | 20 | - | 20 | 16 | 7470.28014040 | | |
| G | 7/8 | - 14 | 28,25 | 150 | 22 | - | 22 | 18 | | | |
| G | 1" | - 11 | 30,75 | 160 | 24 | - | 25 | 20 | 7470.28014042 | | |
| G | 1 1/8 | - 11 | 35,5 | 170 | 24 | - | 28 | 22 | | | |
| G | 1 1/4 | - 11 | 39,5 | 170 | 25 | - | 32 | 24 | | | |
| G | 1 3/8 | - 11 | 41,75 | 180 | 27 | - | 36 | 29 | | | |
| G | 1 1/2 | - 11 | 45,25 | 190 | 27 | - | 36 | 29 | | | |
| G | 1 3/4 | - 11 | 51 | 190 | 27 | - | 40 | 32 | | | |

1) Vorbohrdurchmesser um 0,05 mm anheben
Increase drill diameter by 0.05 mm
Augmenter le diamètre du foret de 0,05 mm
Aumentare il diametro della punta di 0,05 mm

# G (BSP) DIN EN ISO 228

3xD HP




| | NORIS SALOREX UNI HP | NORIS SALOREX UNI HP | NORIS SALOREX UNI HP MKB |
|---|---|---|---|
| |  |  |  |
| OBERFLÄCHE · SURFACE · SURFACE · SUPERFICIE | ALTINHD | ALTINHD | ALTINHD |
| SCHNEIDSTOFF · MATERIAL · MATIÈRE · MATERIALE | HSSE-PM | HSSE-PM | HSSE-PM |
| ANSCHNITTFORM · CHAMFER FORM · FORME D'ENTRÉE · FORMA D'IMBOCCO | C / 2-3 | E / 1,5-2 | E / 1,5-2 |
| TOLERANZ · TOLERANCE · TOLÉRANCE · TOLLERANZA | X | X | X |
| | RH | RH | RH |

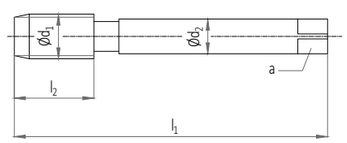
DIN 5156

| $d_1$ | - | P Gg/1" [tpi] | $l_1$ [mm] | $l_2$ [mm] | $l_3$ [mm] | Ø $d_2$ [mm] | a [mm] | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| G | 1/16 | - 28 | 6,8 | 90 | 10 | - | 6 | 4,9 | | | |
| G | 1/8 | - 28 | 8,8 | 90 | 10 | - | 7 | 5,5 | 7490.0B094035 | 7490.0D094035 | 7460.0D094035 |
| G | 1/4 | - 19 | 11,8 | 100 | 15 | - | 11 | 9 | 7490.0B094036 | 7490.0D094036 | 7460.0D094036 |
| G | 3/8 | - 19 | 15,25 | 100 | 15 | - | 12 | 9 | 7490.0B094037 | 7490.0D094037 | 7460.0D094037 |
| G | 1/2 | - 14 | 19 | 125 | 17 | - | 16 | 12 | 7490.0B094038 | 7490.0D094038 | 7460.0D094038 |
| G | 5/8 | - 14 | 21 | 125 | 17 | - | 18 | 14,5 | | | |
| G | 3/4 | - 14 | 24,5 | 140 | 20 | - | 20 | 16 | 7490.0B094040 | 7490.0D094040 | 7460.0D094040 |
| G | 7/8 | - 14 | 28,25 | 150 | 22 | - | 22 | 18 | | | |
| G | 1" | - 11 | 30,75 | 160 | 24 | - | 25 | 20 | 7490.0B094042 | 7490.0D094042 | 7460.0D094042 |
| G | 1 1/8 | - 11 | 35,5 | 170 | 24 | - | 28 | 22 | | | |
| G | 1 1/4 | - 11 | 39,5 | 170 | 25 | - | 32 | 24 | | | |
| G | 1 3/8 | - 11 | 41,75 | 180 | 27 | - | 36 | 29 | | | |
| G | 1 1/2 | - 11 | 45,25 | 190 | 27 | - | 36 | 29 | | | |
| G | 1 3/4 | - 11 | 51 | 190 | 27 | - | 40 | 32 | | | |



# G (BSP) DIN EN ISO 228

3xD



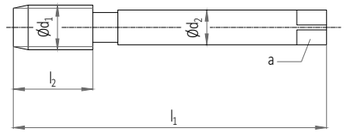

| | NORIS SALOREX VA | NORIS SALOREX VA | NORIS SALOREX NW CNC |
|---|---|---|---|
| |  |  |  |
| | | | CNC |
| OBERFLÄCHE · SURFACE · SURFACE · SUPERFICIE | VAP | ALTINHD | DLC |
| SCHNEIDSTOFF · MATERIAL · MATIÈRE · MATERIALE | HSSE | HSSE | HSSE |
| ANSCHNITTFORM · CHAMFER FORM · FORME D'ENTRÉE · FORMA D'IMBOCCO | E / 1,5-2 | E / 1,5-2 | C / 2-3 |
| TOLERANZ · TOLERANCE · TOLÉRANCE · TOLLERANZA | X | X | X |
| | RH | RH | RH |

DIN 5156

| $d_1$ | - | P Gg/1" [tpi] | $l_1$ [mm] | $l_2$ [mm] | $l_3$ [mm] | Ø $d_2$ [mm] | a [mm] | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| G | 1/16 | - 28 | 6,8 | 90 | 10 | - | 6 | 4,9 | | | |
| G | 1/8 | - 28 | 8,8 | 90 | 10 | - | 7 | 5,5 | 7645.0D014035 | 7645.0D094035 | 7471.0B104035 |
| G | 1/4 | - 19 | 11,8 | 100 | 15 | - | 11 | 9 | 7645.0D014036 | 7645.0D094036 | 7471.0B104036 |
| G | 3/8 | - 19 | 15,25 | 100 | 15 | - | 12 | 9 | 7645.0D014037 | 7645.0D094037 | 7471.0B104037 |
| G | 1/2 | - 14 | 19 | 125 | 17 | - | 16 | 12 | 7645.0D014038 | 7645.0D094038 | 7471.0B104038 |
| G | 5/8 | - 14 | 21 | 125 | 17 | - | 18 | 14,5 | 7645.0D014039 | | |
| G | 3/4 | - 14 | 24,5 | 140 | 20 | - | 20 | 16 | 7645.0D014040 | | 7471.0B104040 |
| G | 7/8 | - 14 | 28,25 | 150 | 22 | - | 22 | 18 | | | |
| G | 1" | - 11 | 30,75 | 160 | 24 | - | 25 | 20 | 7645.0D014042 | | 7471.0B104042 |
| G | 1 1/8 | - 11 | 35,5 | 170 | 24 | - | 28 | 22 | | | |
| G | 1 1/4 | - 11 | 39,5 | 170 | 25 | - | 32 | 24 | | | |
| G | 1 3/8 | - 11 | 41,75 | 180 | 27 | - | 36 | 29 | | | |
| G | 1 1/2 | - 11 | 45,25 | 190 | 27 | - | 36 | 29 | | | |
| G | 1 3/4 | - 11 | 51 | 190 | 27 | - | 40 | 32 | | | |

# G (BSP) DIN EN ISO 228

2xD




NORIS SL15

ST



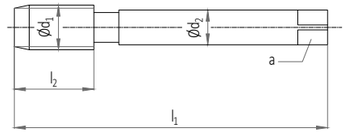
| OBERFLÄCHE · SURFACE · SURFACE · SUPERFICIE | WAC |
|---|---|
| SCHNEIDSTOFF · MATERIAL · MATIÈRE · MATERIALE | HSSE |
| ANSCHNITTFORM · CHAMFER FORM · FORME D'ENTRÉE · FORMA D'IMBOCCO | C / 2-3 |
| TOLERANZ · TOLERANCE · TOLÉRANCE · TOLLERANZA | X |
| | RH |

| | $d_1$ | - | P | | $l_1$ | $l_2$ | $l_3$ | Ø $d_2$ | a | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Gg/1" [tpi] | | | [mm] | [mm] | [mm] | [mm] | [mm] | [mm] | |
| DIN 5156 | G | 1/8 | - | 28 | 8,8 | 90 | 18 | - | 7 | 5,5 | 7600.0B004035 |
| | G | 1/4 | - | 19 | 11,8 | 100 | 22 | - | 11 | 9 | 7600.0B004036 |
| | G | 3/8 | - | 19 | 15,25 | 100 | 22 | - | 12 | 9 | 7600.0B004037 |
| | G | 1/2 | - | 14 | 19 | 125 | 25 | - | 16 | 12 | 7600.0B004038 |
| | G | 3/4 | - | 14 | 24,5 | 140 | 28 | - | 20 | 16 | 7600.0B004040 |
| | G | 1" | - | 11 | 30,75 | 160 | 30 | - | 25 | 20 | 7600.0B004042 |
| | G | 1 1/4 | - | 11 | 39,5 | 170 | 30 | - | 32 | 24 | 7600.0B004044 |
| | G | 1 1/2 | - | 11 | 45,25 | 190 | 32 | - | 36 | 29 | 7600.0B004046 |





4xD

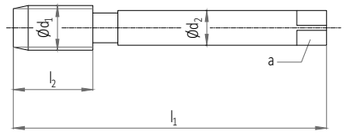



| | NORIS STABIL UNI CNC | NORIS STABIL UNI CNC | NORIS STABIL UNI CNC | NORIS STABIL VA | NORIS STABIL NW |
|---|---|---|---|---|---|
| |  |  |  |  |  |
| | CNC | CNC | CNC | | |
| OBERFLÄCHE · SURFACE · SURFACE · SUPERFICIE | WAC | NITVAP | ALTINHD | NIT | DLC |
| SCHNEIDSTOFF · MATERIAL · MATIÈRE · MATERIALE | HSSE | HSSE | HSSE | HSSE | HSSE |
| ANSCHNITTFORM · CHAMFER FORM · FORME D'ENTRÉE · FORMA D'IMBOCCO | B / 4-5 | B / 4-5 | B / 4-5 | B / 4-5 | B / 4-5 |
| TOLERANZ · TOLERANCE · TOLÉRANCE · TOLLERANZA | X | X | X | X | X |
| | RH | RH | RH | RH | RH |

| | $d_1$ | - | P | $l_1$ | $l_2$ | $l_3$ | Ø $d_2$ | a | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Gg/1" [tpi] | | | [mm] | [mm] | [mm] | [mm] | [mm] | | | | | |
| DIN 5156 | G | 1/8 | - | 28 | 8,8 | 90 | 18 | - | 7 | 5,5 | 75C0.0A004035 | 75C0.0A034035 | 75C0.0A094035 | 7535.0A024035 | 7571.0A104035 |
| | G | 1/4 | - | 19 | 11,8 | 100 | 22 | - | 11 | 9 | 75C0.0A004036 | 75C0.0A034036 | 75C0.0A094036 | 7535.0A024036 | 7571.0A104036 |
| | G | 3/8 | - | 19 | 15,25 | 100 | 22 | - | 12 | 9 | 75C0.0A004037 | 75C0.0A034037 | 75C0.0A094037 | 7535.0A024037 | 7571.0A104037 |
| | G | 1/2 | - | 14 | 19 | 125 | 25 | - | 16 | 12 | 75C0.0A004038 | 75C0.0A034038 | 75C0.0A094038 | 7535.0A024038 | 7571.0A104038 |
| | G | 3/4 | - | 14 | 24,5 | 140 | 28 | - | 20 | 16 | 75C0.0A004040 | 75C0.0A034040 | | 7535.0A024040 | 7571.0A104040 |
| | G | 1" | - | 11 | 30,75 | 160 | 30 | - | 25 | 20 | 75C0.0A004042 | 75C0.0A034042 | | 7535.0A024042 | 7571.0A104042 |
| | G | 1 1/8 | - | 11 | 35,5 | 170 | 30 | - | 28 | 22 | 75C0.0A004043 | | | | |
| | G | 1 1/4 | - | 11 | 39,5 | 170 | 30 | - | 32 | 24 | 75C0.0A004044 | | | | |
| | G | 1 3/8 | - | 11 | 41,75 | 180 | 32 | - | 36 | 29 | 75C0.0A004045 | | | | |
| | G | 1 1/2 | - | 11 | 45,25 | 190 | 32 | - | 36 | 29 | 75C0.0A004046 | | | | |
| | G | 1 5/8 | - | 11 | 49,5 | 190 | 32 | - | 40 | 32 | 75C0.0A004047 | | | | |
| | G | 1 3/4 | - | 11 | 51 | 190 | 32 | - | 40 | 32 | 75C0.0A004048 | | | | |

# G (BSP) DIN EN ISO 228

2xD

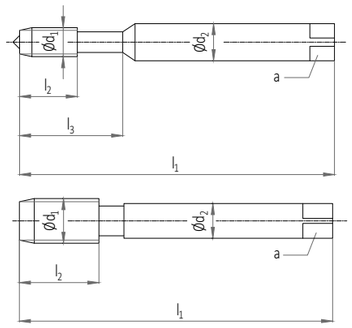



| | NORIS TWIN ST | NORIS TWIN HR | NORIS TWIN HR | NORIS TWIN HR MKB |
|---|---|---|---|---|
| |  |  |  |  |
| OBERFLÄCHE · SURFACE · SURFACE · SUPERFICIE | WAC | NIT | TICN | WAC |
| SCHNEIDSTOFF · MATERIAL · MATIÈRE · MATERIALE | HSSE | HSSE | HSSE | HM |
| ANSCHNITTFORM · CHAMFER FORM · FORME D'ENTRÉE · FORMA D'IMBOCCO | C / 2-3 | C / 2-3 | C / 2-3 | E / 1,5-2 |
| TOLERANZ · TOLERANCE · TOLÉRANCE · TOLLERANZA | X | X | X | X |
| | RH | RH | RH | RH |

| | d1 | - | P | l1 | l2 | l3 | Ø d2 | a | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Gg/1" | | [tpi] | [mm] | [mm] | [mm] | [mm] | [mm] | [mm] | | | |
| DIN 5156 | G | 1/16 | - 28 | 6,8 | 90 | 17 | - | 6 | 4,9 | 7100.0B004034 | | |
| | G | 1/8 | - 28 | 8,8 | 90 | 10 | - | 7 | 5,5 | | | 7300.0D004035 |
| | G | 1/8 | - 28 | 8,8 | 90 | 18 | - | 7 | 5,5 | 7100.0B004035 | 7103.0B024035 | 7103.0B054035 |
| | G | 1/4 | - 19 | 11,8 | 100 | 15 | - | 11 | 9 | | | 7300.0D004036 |
| | G | 1/4 | - 19 | 11,8 | 100 | 22 | - | 11 | 9 | 7100.0B004036 | 7103.0B024036 | 7103.0B054036 |
| | G | 3/8 | - 19 | 15,25 | 100 | 15 | - | 12 | 9 | | | 7300.0D004037 |
| | G | 3/8 | - 19 | 15,25 | 100 | 22 | - | 12 | 9 | 7100.0B004037 | 7103.0B024037 | 7103.0B054037 |
| | G | 3/8 | - 19 | 15,25 | 125 | 17 | - | 16 | 12 | | | |
| | G | 1/2 | - 14 | 19 | 125 | 18 | - | 16 | 12 | | | 7300.0D004038 |
| | G | 1/2 | - 14 | 19 | 125 | 25 | - | 16 | 12 | 7100.0B004038 | 7103.0B024038 | 7103.0B054038 |
| | G | 3/4 | - 14 | 24,5 | 140 | 28 | - | 20 | 16 | 7100.0B004040 | 7103.0B024040 | 7103.0B054040 |
| | G | 1" | 11 | 30,75 | 160 | 30 | - | 25 | 20 | 7100.0B004042 | 7103.0B024042 | 7103.0B054042 |
| | G | 1 1/8 | 11 | 35,5 | 170 | 30 | - | 28 | 22 | 7100.0B004043 | 7103.0B024043 | |
| | G | 1 1/4 | 11 | 39,5 | 170 | 30 | - | 32 | 24 | 7100.0B004044 | 7103.0B024044 | |
| | G | 1 3/8 | 11 | 41,75 | 180 | 32 | - | 36 | 29 | 7100.0B004045 | 7103.0B024045 | |
| | G | 1 1/2 | 11 | 45,25 | 190 | 32 | - | 36 | 29 | 7100.0B004046 | 7103.0B024046 | |
| | G | 1 5/8 | 11 | 49,5 | 190 | 32 | - | 40 | 32 | 7100.0B004047 | | |
| | G | 1 3/4 | 11 | 51 | 190 | 32 | - | 40 | 32 | | 7103.0B024048 | |
| | G | 2" | 11 | 57 | 220 | 40 | - | 45 | 35 | | 7103.0B024050 | |

# G (BSP) DIN EN ISO 228

2xD



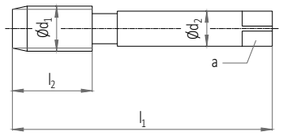

| | NORIS TWIN GG | NORIS TWIN GG | NORIS TWIN HT | NORIS TWIN HT |
|---|---|---|---|---|
| |  |  |  |  |
| | | | 1,5xD | 1,5xD |
| OBERFLÄCHE · SURFACE · SURFACE · SUPERFICIE | NIT | TICN | TICN | ALTIN |
| SCHNEIDSTOFF · MATERIAL · MATIÈRE · MATERIALE | HSSE | HSSE | HSSE-PM | HM |
| ANSCHNITTFORM · CHAMFER FORM · FORME D'ENTRÉE · FORMA D'IMBOCCO | C / 2-3 | C / 2-3 | C / 2-3 | D / 4-5 |
| TOLERANZ · TOLERANCE · TOLÉRANCE · TOLLERANZA | X | X | X 1) | X 1) |
| | RH | RH | RH | RH |

| | d1 | - | P | l1 | l2 | l3 | Ø d2 | a | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Gg/1" | | [tpi] | [mm] | [mm] | [mm] | [mm] | [mm] | [mm] | | | |
| ≈ DIN 3771 | G | 1/8 | - 28 | 8,8 | 100 | 18 | 38 | 10 | 8 | | | 6260.0C084035 |
| | G | 1/4 | - 19 | 11,8 | 110 | 24 | 44 | 14 | 11 | | | 6260.0C084036 |
| | G | 1/16 | - 28 | 6,8 | 90 | 17 | - | 6 | 4,9 | | | |
| | G | 1/8 | - 28 | 8,8 | 90 | 10 | - | 7 | 5,5 | | | 710H.0B054035 |
| | G | 1/8 | - 28 | 8,8 | 90 | 18 | - | 7 | 5,5 | 7200.0B024035 | 7200.0B054035 | |
| | G | 1/4 | - 19 | 11,8 | 100 | 15 | - | 11 | 9 | | | 710H.0B054036 |
| | G | 1/4 | - 19 | 11,8 | 100 | 22 | - | 11 | 9 | 7200.0B024036 | 7200.0B054036 | |
| | G | 3/8 | - 19 | 15,25 | 100 | 15 | - | 12 | 9 | | | |
| | G | 3/8 | - 19 | 15,25 | 100 | 22 | - | 12 | 9 | 7200.0B024037 | 7200.0B054037 | |
| | G | 3/8 | - 19 | 15,25 | 125 | 17 | - | 16 | 12 | | | 710H.0B054037 |
| DIN 5156 | G | 1/2 | - 14 | 19 | 125 | 18 | - | 16 | 12 | | | 710H.0B054038 |
| | G | 1/2 | - 14 | 19 | 125 | 25 | - | 16 | 12 | 7200.0B024038 | 7200.0B054038 | |
| | G | 3/4 | - 14 | 24,5 | 140 | 28 | - | 20 | 16 | 7200.0B024040 | | |
| | G | 1" | - 11 | 30,75 | 150 | 30 | - | 25 | 20 | | | |
| | G | 1" | 11 | 30,75 | 160 | 30 | - | 25 | 20 | 7200.0B024042 | | |
| | G | 1 1/8 | 11 | 35,5 | 170 | 30 | - | 28 | 22 | 7200.0B024043 | | |
| | G | 1 1/4 | 11 | 39,5 | 170 | 30 | - | 32 | 24 | 7200.0B024044 | | |
| | G | 1 3/8 | 11 | 41,75 | 180 | 32 | - | 36 | 29 | 7200.0B024045 | | |
| | G | 1 1/2 | 11 | 45,25 | 190 | 32 | - | 36 | 29 | 7200.0B024046 | | |
| | G | 1 5/8 | 11 | 49,5 | 190 | 32 | - | 40 | 32 | | | |
| | G | 1 3/4 | 11 | 51 | 190 | 32 | - | 40 | 32 | | | |
| | G | 2" | 11 | 57 | 220 | 40 | - | 45 | 35 | | | |

1) Vorbohrdurchmesser ab G1/4 um 0,1 mm anheben
Increase drill diameter from G1/4 by 0.1 mm
Augmenter le diamètre du foret de G1/4 de 0,1 mm
Aumentare il diametro del trapano da G1/4 di 0,1 mm

# G (BSP) DIN EN ISO 228

2xD AUT




| | | | | | | | | | | NORIS TWIN MS AUT | NORIS TWIN MS AUT | NORIS TWIN MS AUT |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | |  |  |  |
| OBERFLÄCHE · SURFACE · SURFACE · SUPERFICIE | | | | | | | | | | WAC | WAC | WAC |
| SCHNEIDSTOFF · MATERIAL · MATIÈRE · MATERIALE | | | | | | | | | | HSSE | HSSE | HSSE |
| ANSCHNITTFORM · CHAMFER FORM · FORME D'ENTRÉE · FORMA D'IMBOCCO | | | | | | | | | | EKA / 0,75-1 | EKA / 0,75-1 | EKA / 0,75-1 |
| TOLERANZ · TOLERANCE · TOLÉRANCE · TOLLERANZA | | | | | | | | | | X | X +0,05 [1] | X +0,1 [2] |
| | | | | | | | | | | RH | RH | RH |
| | $d_1$ | - | P | | $l_1$ | $l_2$ | $l_3$ | Ø $d_2$ | a | | | |
| | | | Gg/1" [tpi] | [mm] | [mm] | [mm] | [mm] | [mm] | [mm] | | | |
| R NORM | G | 1/8 | - 28 | 8,8 | 63 | 18 | - | 7 | 5,5 | 5250.0E004035 | 5250.29004035 | 5250.32004035 |
| | G | 1/4 | - 19 | 11,8 | 70 | 20 | - | 10 | 8 | 5250.0E004036 | 5250.29004036 | 5250.32004036 |
| | G | 3/8 | - 19 | 15,25 | 70 | 20 | - | 12 | 9 | 5250.0E004037 | 5250.29004037 | 5250.32004037 |
| | G | 1/2 | - 14 | 19 | 80 | 22 | - | 15 | 12 | 5250.0E004038 | 5250.29004038 | 5250.32004038 |
| | G | 3/4 | - 14 | 24,5 | 90 | 22 | - | 18 | 14,5 | 5250.0E004040 | 5250.29004040 | 5250.32004040 |
| | G | 1 | - 11 | 30,75 | 100 | 25 | - | 18 | 14,5 | 5250.0E004042 | 5250.29004042 | 5250.32004042 |
| | G | 1 1/4 | - 11 | 39,5 | 125 | 30 | - | 18 | 14,5 | 5250.0E004044 | | |
| | G | 1 1/2 | - 11 | 45,25 | 140 | 30 | - | 18 | 14,5 | 5250.0E004046 | | |

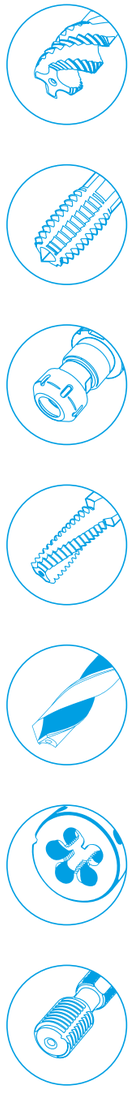
1) Vorbohrdurchmesser um 0,05 mm anheben
Increase drill diameter by 0.05 mm
Augmenter le diamètre du foret de 0,05 mm
Aumentare il diametro della punta di 0,05 mm

2) Vorbohrdurchmesser um 0,1 mm anheben
Increase drill diameter by 0.1 mm
Augmenter le diamètre du foret de 0,1 mm
Aumentare il diametro della punta di 0,1 mm



# PERFEKTE PERFORMANCE

# PERFECT PERFORMANCE

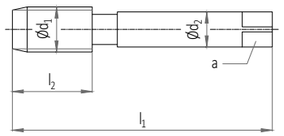


ALLES AUS EINER HAND!

EVERYTHING FROM ONE SOURCE!

# G (BSP) DIN EN ISO 228

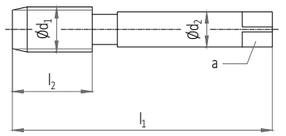
2xD




| | NORIS SATZ ST | NORIS SATZ ST | NORIS SATZ ST |
|---|---|---|---|
| |  |  |  |
| | | | S3 |
| OBERFLÄCHE · SURFACE · SURFACE · SUPERFICIE | WAC | WAC | WAC |
| SCHNEIDSTOFF · MATERIAL · MATIÈRE · MATERIALE | HSSE | HSSE | HSSE |
| ANSCHNITTFORM · CHAMFER FORM · FORME D'ENTRÉE · FORMA D'IMBOCCO | D / 4-5 | C / 2-3 | C / 2-3 |
| TOLERANZ · TOLERANCE · TOLÉRANCE · TOLLERANZA | V1 | X | X |
| | RH | RH | RH |
| $d_1$ - P Gg/1" [tpi] | $l_1$ [mm] | $l_2$ [mm] | $l_3$ [mm] | Ø $d_2$ [mm] | a [mm] | | | |
| G 1/8 - 28 | 8,8 | 63 | 18 | - | 7 | 5,5 | 5000.11004035 | 5000.0E004035 | 5000.0B004035 |
| G 1/4 - 19 | 11,8 | 70 | 20 | - | 11 | 9 | 5000.11004036 | 5000.0E004036 | 5000.0B004036 |
| G 3/8 - 19 | 15,25 | 70 | 20 | - | 12 | 9 | 5000.11004037 | 5000.0E004037 | 5000.0B004037 |
| G 1/2 - 14 | 19 | 80 | 22 | - | 16 | 12 | 5000.11004038 | 5000.0E004038 | 5000.0B004038 |
| G 3/4 - 14 | 24,5 | 90 | 22 | - | 20 | 16 | 5000.11004040 | 5000.0E004040 | 5000.0B004040 |

# G (BSP) DIN EN ISO 228

2xD

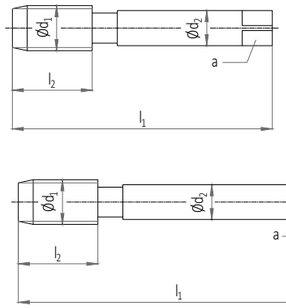



| | NORIS SATZ ERGO | NORIS SATZ ERGO | NORIS SATZ ERGO | NORIS SATZ ERGO |
|---|---|---|---|---|
| |  |  |  |  |
| | | | | S3 |
| OBERFLÄCHE · SURFACE · SURFACE · SUPERFICIE | WAC | WAC | WAC | WAC |
| SCHNEIDSTOFF · MATERIAL · MATIÈRE · MATERIALE | HSSE | HSSE | HSSE | HSSE |
| ANSCHNITTFORM · CHAMFER FORM · FORME D'ENTRÉE · FORMA D'IMBOCCO | C / 2-3 | C / 2-3 | C / 2-3 | C / 2-3 |
| TOLERANZ · TOLERANCE · TOLÉRANCE · TOLLERANZA | VZ1 [1] | M2 | X | X |
| | RH | RH | RH | RH |
| DIN 5157 | $d_1$ - P Gg/1" [tpi] | $l_1$ [mm] | $l_2$ [mm] | $l_3$ [mm] | Ø $d_2$ [mm] | a [mm] | | | | |
| | G 1/8 - 28 | 8,8 | 63 | 12,2 | - | 7 | 5,5 | 5020.11004035 | | | |
| | G 1/8 - 28 | 8,8 | 63 | 18 | - | 7 | 5,5 | | 5020.0F004035 | 5020.0E004035 | 5020.0B004035 |
| | G 1/4 - 19 | 11,8 | 70 | 12,6 | - | 11 | 9 | 5020.11004036 | | | |
| | G 1/4 - 19 | 11,8 | 70 | 20 | - | 11 | 9 | | 5020.0F004036 | 5020.0E004036 | 5020.0B004036 |
| | G 3/8 - 19 | 15,25 | 70 | 12,6 | - | 12 | 9 | 5020.11004037 | | | |
| | G 3/8 - 19 | 15,25 | 70 | 20 | - | 12 | 9 | | 5020.0F004037 | 5020.0E004037 | 5020.0B004037 |
| | G 1/2 - 14 | 19 | 80 | 13,8 | - | 16 | 12 | 5020.11004038 | | | |
| | G 1/2 - 14 | 19 | 80 | 22 | - | 16 | 12 | | 5020.0F004038 | 5020.0E004038 | 5020.0B004038 |
| | G 3/4 - 14 | 24,5 | 90 | 13,5 | - | 20 | 16 | 5020.11004040 | | | |
| | G 3/4 - 14 | 24,5 | 90 | 22 | - | 20 | 16 | | 5020.0F004040 | 5020.0E004040 | 5020.0B004040 |

1) Der Führungszapfen des Vz1 gewährleistet ein fluchtendes Anschneiden.
The guide journal of Vz1 ensures a flush lead.
La partie pilote de l'ébaucher assure un parfait centrage.
Il primo maschio della serie è munito di guida che assicura la centricità della filettatura con il preforo.

# Rp (BSPP) DIN EN 10226-1, ISO 7-1

2xD




| | NORIS SALOREX UNI CNC | NORIS TWIN ST | NORIS TWIN MS AUT | NORIS TWIN MS AUT |
|---|---|---|---|---|
| |  |  |  |  |
| | CNC 3xD | | AUT | AUT |
| OBERFLÄCHE · SURFACE · SURFACE · SUPERFICIE | VAP | WAC | WAC | WAC |
| SCHNEIDSTOFF · MATERIAL · MATIÈRE · MATERIALE | HSSE | HSSE | HSSE | HSSE |
| ANSCHNITTFORM · CHAMFER FORM · FORME D'ENTRÉE · FORMA D'IMBOCCO | E / 1,5-2 | C / 2-3 | EKA / 0,75-1 | EKA / 0,75-1 |
| TOLERANZ · TOLERANCE · TOLÉRANCE · TOLLERANZA | - | X | X | X +0,05 [1] |
| | RH | RH | RH | RH |

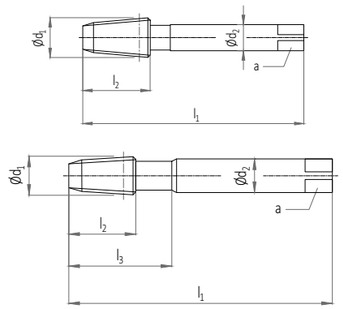
≈ DIN 352

| d1 | - | P Gg/1" [tpi] | l1 [mm] | l2 [mm] | l3 [mm] | Ø d2 [mm] | a [mm] | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Rp | 1/4 | - 19 | 11,5 | 70 | 20 | - | 10 | 8 | | | 5250.0E004070 | 5250.29004070 |
| Rp | 3/8 | - 19 | 15 | 70 | 20 | - | 12 | 9 | | | 5250.0E004071 | 5250.29004071 |
| Rp | 1/2 | - 14 | 18,5 | 80 | 22 | - | 15 | 12 | | | 5250.0E004072 | 5250.29004072 |
| Rp | 3/4 | - 14 | 24 | 90 | 22 | - | 18 | 14,5 | | | 5250.0E004073 | 5250.29004073 |
| Rp | 1 | - 11 | 30,25 | 100 | 25 | - | 18 | 14,5 | | | 5250.0E004074 | 5250.29004074 |

DIN 5156

| d1 | - | P Gg/1" [tpi] | l1 [mm] | l2 [mm] | l3 [mm] | Ø d2 [mm] | a [mm] | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Rp | 1/8 | - 28 | 8,6 | 90 | 10 | - | 7 | 5,5 | 7470.0D014092 | | | |
| Rp | 1/8 | - 28 | 8,6 | 90 | 18 | - | 7 | 5,5 | | 7100.0B004092 | | |
| Rp | 1/4 | - 19 | 11,5 | 100 | 15 | - | 11 | 9 | 7470.0D014093 | | | |
| Rp | 1/4 | - 19 | 11,5 | 100 | 22 | - | 11 | 9 | | 7100.0B004093 | | |
| Rp | 3/8 | - 19 | 15 | 100 | 15 | - | 12 | 9 | 7470.0D014094 | | | |
| Rp | 3/8 | - 19 | 15 | 100 | 22 | - | 12 | 9 | | 7100.0B004094 | | |
| Rp | 1/2 | - 14 | 18,5 | 125 | 17 | - | 16 | 12 | 7470.0D014095 | | | |
| Rp | 1/2 | - 14 | 18,5 | 125 | 25 | - | 16 | 12 | | 7100.0B004095 | | |
| Rp | 3/4 | - 14 | 24 | 140 | 20 | - | 20 | 16 | 7470.0D014096 | | | |
| Rp | 3/4 | - 14 | 24 | 140 | 28 | - | 20 | 16 | | 7100.0B004096 | | |
| Rp | 1" | - 11 | 30,25 | 160 | 24 | - | 25 | 20 | 7470.0D014097 | | | |
| Rp | 1" | - 11 | 30,25 | 160 | 30 | - | 25 | 20 | | 7100.0B004097 | | |

# Rc (BSPT) DIN EN 10226-2, ISO 7-1




| | NORIS TWIN ST | NORIS TWIN VG | NORIS TWIN HR |
|---|---|---|---|
| |  |  |  |
| OBERFLÄCHE · SURFACE · SURFACE · SUPERFICIE | WAC | WAC | TICN |
| SCHNEIDSTOFF · MATERIAL · MATIÈRE · MATERIALE | HSSE | HSSE | HSSE |
| ANSCHNITTFORM · CHAMFER FORM · FORME D'ENTRÉE · FORMA D'IMBOCCO | C / 2-3 | C / 2-3 | C / 2-3 |
| TOLERANZ · TOLERANCE · TOLÉRANCE · TOLLERANZA | - | - | - |
| | RH | RH | RH |

≈ DIN 2181

| d1 | - | P Gg/1" [tpi] | [mm]² | l1 [mm] | l2 [mm] | l3 [mm] | Ø d2 [mm] | a [mm] | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Rc | 1/8 | - 28 | - | 63 | 13 | - | 7 | 5,5 | 5100.0B004115 | | |
| Rc | 1/4 | - 19 | - | 63 | 19,5 | - | 11 | 9 | 5100.0B004116 | | |
| Rc | 3/8 | - 19 | - | 70 | 19,5 | - | 12 | 9 | 5100.0B004117 | | |
| Rc | 1/2 | - 14 | - | 80 | 25 | - | 16 | 12 | 5100.0B004118 | | |
| Rc | 3/4 | - 14 | - | 100 | 26 | - | 20 | 16 | 5100.0B004119 | | |
| Rc | 1" | - 11 | - | 110 | 32 | - | 25 | 20 | 5100.0B004120 | | |

≈ DIN 371

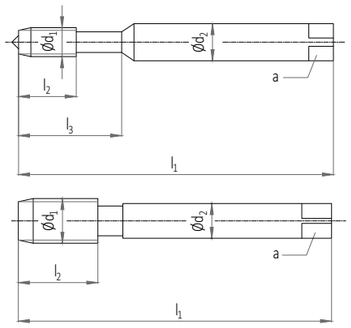
| d1 | - | P Gg/1" [tpi] | [mm]² | l1 [mm] | l2 [mm] | l3 [mm] | Ø d2 [mm] | a [mm] | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Rc | 1/8 | - 28 | - | 90 | 12 | 26 | 10 | 8 | | 6102.0B004115 | 6103.0B054115 |
| Rc | 1/4 | - 19 | - | 100 | 18 | 34,5 | 14 | 11 | | 6102.0B004116 | 6103.0B054116 |
| Rc | 1/4 | - 19 | - | 100 | 18 | - | 11 | 9 | | 7102.0B004116 | 7103.0B054116 |
| Rc | 3/8 | - 19 | - | 110 | 18 | - | 14 | 11 | | 7102.0B004117 | 7103.0B054117 |
| Rc | 1/2 | - 14 | - | 140 | 23 | - | 16 | 12 | | 7102.0B004118 | 7103.0B054118 |
| Rc | 3/4 | - 14 | - | 150 | 24 | - | 20 | 16 | | | 7103.0B054119 |
| Rc | 1" | - 11 | - | 170 | 30 | - | 25 | 20 | | | 7103.0B054120 |

1) Vorbohrdurchmesser um 0,05 mm anheben
Increase drill diameter by 0.05 mm
Augmenter le diamètre du foret de 0,05 mm
Aumentare il diametro della punta di 0,05 mm

2) Gewinde-Kernlochdurchmesser-Tabelle => Seite 285
Threaded Core Hole Diameter Table => Page 285
Tableau des diamètres des trous de filetage => Page 285
Tabella dei diametri dei fori filettati => Pagina 285

# BSW BS 84

CNC




NORIS SALOREX

UNI CNC



3xD

NORIS STABIL

UNI CNC



4xD

| OBERFLÄCHE · SURFACE · SURFACE · SUPERFICIE | VAP | ALTINHD |
|---|---|---|
| SCHNEIDSTOFF · MATERIAL · MATIÈRE · MATERIALE | HSSE | HSSE |
| ANSCHNITTFORM · CHAMFER FORM · FORME D'ENTRÉE · FORMA D'IMBOCCO | C / 2-3 | B / 4-5 |
| TOLERANZ · TOLERANCE · TOLÉRANCE · TOLLERANZA | MED | MED |
| | RH | RH |

≈ DIN 371

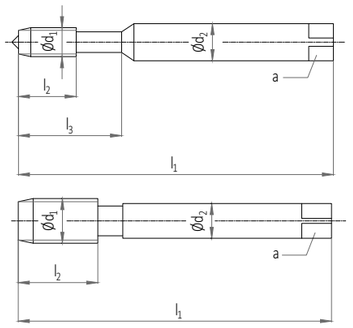
| $d_1$ | - | P | | $l_1$ | $l_2$ | $l_3$ | Ø $d_2$ | a | | |
|---|---|---|---|---|---|---|---|---|---|---|
| [inch] | | Gg/1" [tpi] | | [mm] | [mm] | [mm] | [mm] | [mm] | | |
| BSW 1/8 | - | 40 | 2,55 | 56 | 7 | 18 | 3,5 | 2,7 | 6470.0B013046 | |
| BSW 1/8 | - | 40 | 2,55 | 56 | 11 | 18 | 3,5 | 2,7 | | 65C0.0A093046 |
| BSW 3/16 | - | 24 | 3,7 | 70 | 10 | 25 | 6 | 4,9 | 6470.0B013048 | |
| BSW 3/16 | - | 24 | 3,7 | 70 | 15 | 25 | 6 | 4,9 | | 65C0.0A093048 |
| BSW 1/4 | - | 20 | 5,1 | 80 | 13 | 30 | 7 | 5,5 | 6470.0B013050 | |
| BSW 1/4 | - | 20 | 5,1 | 80 | 17 | 30 | 7 | 5,5 | | 65C0.0A093050 |
| BSW 5/16 | - | 18 | 6,5 | 90 | 14 | 35 | 8 | 6,2 | 6470.0B013051 | |
| BSW 5/16 | - | 18 | 6,5 | 90 | 20 | 35 | 8 | 6,2 | | 65C0.0A093051 |
| BSW 3/8 | - | 16 | 7,9 | 100 | 16 | 39 | 10 | 8 | 6470.0B013052 | |
| BSW 3/8 | - | 16 | 7,9 | 100 | 22 | 39 | 10 | 8 | | 65C0.0A093052 |

≈ DIN 376

| $d_1$ | - | P | | $l_1$ | $l_2$ | $l_3$ | Ø $d_2$ | a | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | Gg/1" [tpi] | | [mm] | [mm] | [mm] | [mm] | [mm] | | |
| BSW 7/16 | - | 14 | 9,25 | 100 | 18 | - | 8 | 6,2 | 7470.0B013053 | |
| BSW 7/16 | - | 14 | 9,25 | 100 | 22 | - | 8 | 6,2 | | 75C0.0A093053 |
| BSW 1/2 | - | 12 | 10,5 | 110 | 20 | - | 9 | 7 | 7470.0B013054 | |
| BSW 1/2 | - | 12 | 10,5 | 110 | 25 | - | 9 | 7 | | 75C0.0A093054 |
| BSW 5/8 | - | 11 | 13,5 | 110 | 22 | - | 12 | 9 | 7470.0B013056 | |
| BSW 5/8 | - | 11 | 13,5 | 110 | 27 | - | 12 | 9 | | 75C0.0A093056 |
| BSW 3/4 | - | 10 | 16,4 | 125 | 25 | - | 14 | 11 | 7470.0B013058 | |
| BSW 3/4 | - | 10 | 16,4 | 125 | 30 | - | 14 | 11 | | 75C0.0A093058 |
| BSW 1" | - | 8 | 22 | 160 | 30 | - | 18 | 14,5 | 7470.0B013062 | |
| BSW 1" | - | 8 | 22 | 160 | 36 | - | 18 | 14,5 | | 75C0.0A093062 |

# BSF BS 84

2xD




NORIS TWIN

ST



| OBERFLÄCHE · SURFACE · SURFACE · SUPERFICIE | WAC |
|---|---|
| SCHNEIDSTOFF · MATERIAL · MATIÈRE · MATERIALE | HSSE |
| ANSCHNITTFORM · CHAMFER FORM · FORME D'ENTRÉE · FORMA D'IMBOCCO | C / 2-3 |
| TOLERANZ · TOLERANCE · TOLÉRANCE · TOLLERANZA | MED-X |
| | RH |

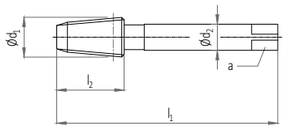
≈ DIN 371

| $d_1$ | - | P | $l_1$ | $l_2$ | $l_3$ | Ø $d_2$ | a | |
|---|---|---|---|---|---|---|---|---|
| | | Gg/1" [tpi] | [mm] | [mm] | [mm] | [mm] | [mm] | |
| BSF 1/4 | - | 26 | 5,3 | 80 | 17 | 30 | 7 | 5,5 | 6100.0B003090 |
| BSF 5/16 | - | 22 | 6,8 | 90 | 17 | 35 | 8 | 6,2 | 6100.0B003092 |
| BSF 3/8 | - | 20 | 8,3 | 100 | 18 | 39 | 10 | 8 | 6100.0B003093 |

≈ DIN 376

| $d_1$ | - | P | $l_1$ | $l_2$ | $l_3$ | Ø $d_2$ | a | |
|---|---|---|---|---|---|---|---|---|
| | | Gg/1" [tpi] | [mm] | [mm] | [mm] | [mm] | [mm] | |
| BSF 7/16 | - | 18 | 9,7 | 100 | 22 | - | 8 | 6,2 | 7100.0B003094 |
| BSF 1/2 | - | 16 | 11,1 | 100 | 22 | - | 9 | 7 | 7100.0B003095 |
| BSF 5/8 | - | 14 | 14 | 110 | 27 | - | 12 | 9 | 7100.0B003097 |
| BSF 3/4 | - | 12 | 16,75 | 125 | 27 | - | 14 | 11 | 7100.0B003099 |
| BSF 1" | - | 10 | 22,75 | 160 | 36 | - | 18 | 14,5 | 7100.0B003102 |

# W keg DIN EN ISO 11363, DIN 477

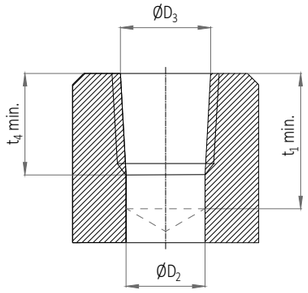



NORIS TWIN

ST



| | | d1 | - | P | | l1 | l2 | l3 | Ø d2 | a |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Gg/1“ [tpi] | [mm] | [mm] | [mm] | [mm] | [mm] | [mm] |
| OBERFLÄCHE · SURFACE · SURFACE · SUPERFICIE | | | | | | | | | | WAC |
| SCHNEIDSTOFF · MATERIAL · MATIÈRE · MATERIALE | | | | | | | | | | HSSE |
| ANSCHNITTFORM · CHAMFER FORM · FORME D’ENTRÉE · FORMA D’IMBOCCO | | | | | | | | | | C / 2-3 |
| TOLERANZ · TOLERANCE · TOLÉRANCE · TOLLERANZA | | | | | | | | | | - |
| | | | | | | | | | | RH |
| R NORM | 17E | W | 19,8 | - | 14 | -1) | 95 | 32 | - | 16 | 12 | 5100.0B003286 |
| R NORM | 25E | W | 28,8 | - | 14 | -1) | 100 | 37 | - | 22 | 18 | 5100.0B003287 |

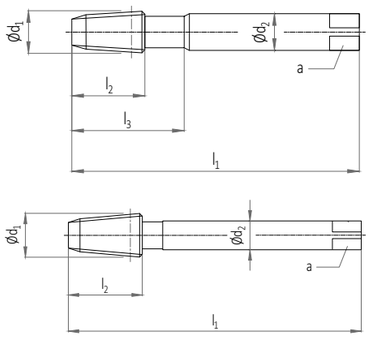



1)

| d1 | | | Ø D2 | Ø D3 ± 0,06 | t1 min. | t4 min. |
|---|---|---|---|---|---|---|
| | | | [mm] | [mm] | [mm] | [mm] |
| 17E | W | 19,8 | 14,6 | 16,82 | 24,5 | 22,5 |
| 25E | W | 28,8 | 22,6 | 25,42 | 29,5 | 27,5 |



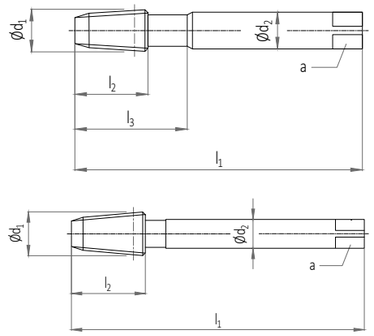

PROFESSIONELLE TECHNISCHE BERATUNG DURCH UNSERE ERFAHRENE ANWENDUNGSTECHNIK
PROFESSIONAL TECHNICAL ADVICE FROM OUR EXPERIENCED APPLICATION ENGINEERS
Conseils techniques professionnels par nos techniciens d’application expérimentés
Consulenza tecnica professionale da parte dei nostri esperti ingegneri applicativi




| | NORIS SALOREX VA | NORIS SALOREX VA |
|---|---|---|
| |  |  |
| OBERFLÄCHE · SURFACE · SURFACE · SUPERFICIE | VAP | TIN |
| SCHNEIDSTOFF · MATERIAL · MATIÈRE · MATERIALE | HSSE | HSSE |
| ANSCHNITTFORM · CHAMFER FORM · FORME D'ENTRÉE · FORMA D'IMBOCCO | C / 2-3 | E / 1,5-2 |
| TOLERANZ · TOLERANCE · TOLÉRANCE · TOLLERANZA | - | - |
| | RH | RH |

| | $d_1$ | - | P Gg/1" [tpi] | $l_1$ [mm] | $l_2$ [mm] | $l_3$ [mm] | Ø $d_2$ [mm] | a [mm] | | |
|---|---|---|---|---|---|---|---|---|---|---|
| ≈ DIN 371 | NPT | 1/16 | 27 | - | 90 | 13 | 26 | 8 | 6,2 | 6605.0B015763 | |
| | NPT | 1/8 | 27 | - | 90 | 13 | 26 | 10 | 8 | 6605.0B015764 | 6645.0D045764 |
| | NPT | 1/4 | 18 | - | 100 | 19,5 | 34,5 | 14 | 11 | 6605.0B015765 | 6645.0D045765 |
| ≈ DIN 374 | NPT | 3/8 | 18 | - | 110 | 19,5 | - | 14 | 11 | 7605.0B015766 | 7645.0D045766 |
| | NPT | 1/2 | 14 | - | 140 | 25 | - | 16 | 12 | 7605.0B015767 | 7645.0D045767 |
| | NPT | 3/4 | 14 | - | 150 | 26 | - | 20 | 16 | 7605.0B015768 | |
| | NPT | 1" | 11,5 | - | 170 | 32 | - | 25 | 20 | 7605.0B015769 | |
| ≈ DIN 371 | NPTF | 1/16 | 27 | - | 90 | 13 | 26 | 8 | 6,2 | 6605.0B015782 | |
| | NPTF | 1/8 | 27 | - | 90 | 13 | 26 | 10 | 8 | 6605.0B015783 | |
| | NPTF | 1/4 | 18 | - | 100 | 19,5 | 34,5 | 14 | 11 | 6605.0B015784 | |
| ≈ DIN 374 | NPTF | 3/8 | 18 | - | 110 | 19,5 | - | 14 | 11 | 7605.0B015785 | |
| | NPTF | 1/2 | 14 | - | 140 | 25 | - | 16 | 12 | 7605.0B015786 | |
| | NPTF | 3/4 | 14 | - | 150 | 26 | - | 20 | 16 | 7605.0B015787 | |
| | NPTF | 1" | 11,5 | - | 170 | 32 | - | 25 | 20 | | |





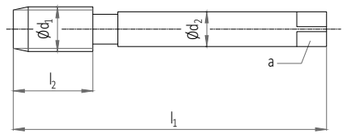

| | NORIS TWIN ST | NORIS TWIN ST AZ | NORIS TWIN VG | NORIS TWIN VG AZ |
|---|---|---|---|---|
| |  |  |  |  |
| | | AZ | | AZ |
| OBERFLÄCHE · SURFACE · SURFACE · SUPERFICIE | WAC | WAC | WAC | WAC |
| SCHNEIDSTOFF · MATERIAL · MATIÈRE · MATERIALE | HSSE | HSSE | HSSE | HSSE |
| ANSCHNITTFORM · CHAMFER FORM · FORME D'ENTRÉE · FORMA D'IMBOCCO | C / 2-3 | C / 2-3 | C / 2-3 | C / 2-3 |
| TOLERANZ · TOLERANCE · TOLÉRANCE · TOLLERANZA | - | - | - | - |
| | RH | RH | RH | RH |

| | $d_1$ | - | P Gg/1" [tpi] | $l_1$ [mm][1)] | $l_1$ [mm] | $l_2$ [mm] | $l_3$ [mm] | Ø $d_2$ [mm] | a [mm] | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ≈ DIN 2181 | NPT | 1/16 | 27 | - | 63 | 13 | - | 6 | 4,9 | 5100.0B005763 | | | |
| | NPT | 1/8 | 27 | - | 63 | 13 | - | 7 | 5,5 | 5100.0B005764 | 5110.0B005764 | | |
| | NPT | 1/4 | 18 | - | 63 | 19,5 | - | 11 | 9 | 5100.0B005765 | 5110.0B005765 | | |
| | NPT | 3/8 | 18 | - | 70 | 19,5 | - | 12 | 9 | 5100.0B005766 | 5110.0B005766 | | |
| | NPT | 1/2 | 14 | - | 80 | 25 | - | 16 | 12 | 5100.0B005767 | 5110.0B005767 | | |
| | NPT | 3/4 | 14 | - | 100 | 26 | - | 20 | 16 | 5100.0B005768 | 5110.0B005768 | | |
| | NPT | 1" | 11,5 | - | 110 | 32 | - | 25 | 20 | 5100.0B005769 | 5110.0B005769 | | |
| ≈ DIN 371 | NPT | 1/16 | 27 | - | 90 | 13 | 26 | 8 | 6,2 | 6100.0B005763 | | 6102.0B005763 | 6112.0B005763 |
| | NPT | 1/8 | 27 | - | 90 | 13 | 26 | 10 | 8 | 6100.0B005764 | | 6102.0B005764 | 6112.0B005764 |
| | NPT | 1/4 | 18 | - | 100 | 19,5 | 34,5 | 14 | 11 | 6100.0B005765 | | 6102.0B005765 | 6112.0B005765 |
| ≈ DIN 374 | NPT | 3/8 | 18 | - | 110 | 19,5 | - | 14 | 11 | 7100.0B005766 | | 7102.0B005766 | 7112.0B005766 |
| | NPT | 1/2 | 14 | - | 140 | 25 | - | 16 | 12 | 7100.0B005767 | | 7102.0B005767 | 7112.0B005767 |
| | NPT | 3/4 | 14 | - | 150 | 26 | - | 20 | 16 | 7100.0B005768 | | 7102.0B005768 | 7112.0B005768 |
| | NPT | 1" | 11,5 | - | 170 | 32 | - | 25 | 20 | 7100.0B005769 | | 7102.0B005769 | 7112.0B005769 |
| ≈ DIN 2181 | NPTF | 1/16 | 27 | - | 63 | 13 | - | 6 | 4,9 | 5100.0B005782 | | | |
| | NPTF | 1/8 | 27 | - | 63 | 13 | - | 7 | 5,5 | 5100.0B005783 | | | |
| | NPTF | 1/4 | 18 | - | 63 | 19,5 | - | 11 | 9 | 5100.0B005784 | | | |
| | NPTF | 3/8 | 18 | - | 70 | 19,5 | - | 12 | 9 | 5100.0B005785 | | | |
| | NPTF | 1/2 | 14 | - | 80 | 25 | - | 16 | 12 | 5100.0B005786 | | | |
| | NPTF | 3/4 | 14 | - | 100 | 26 | - | 20 | 16 | 5100.0B005787 | | | |
| ≈ DIN 371 | NPTF | 1/16 | 27 | - | 90 | 13 | 26 | 8 | 6,2 | 6100.0B005782 | | 6102.0B005782 | |
| | NPTF | 1/8 | 27 | - | 90 | 13 | 26 | 10 | 8 | 6100.0B005783 | | 6102.0B005783 | |
| | NPTF | 1/4 | 18 | - | 100 | 19,5 | 34,5 | 14 | 11 | 6100.0B005784 | | 6102.0B005784 | |
| ≈ DIN 374 | NPTF | 3/8 | 18 | - | 110 | 19,5 | - | 14 | 11 | 7100.0B005785 | | 7102.0B005785 | |
| | NPTF | 1/2 | 14 | - | 140 | 25 | - | 16 | 12 | 7100.0B005786 | | 7102.0B005786 | |
| | NPTF | 3/4 | 14 | - | 150 | 26 | - | 20 | 16 | 7100.0B005787 | | 7102.0B005787 | |
| | NPTF | 1" | 11,5 | - | 170 | 32 | - | 25 | 20 | 7100.0B005788 | | 7102.0B005788 | |

1) Gewinde-Kernlochdurchmesser-Tabelle => NPT Seite 283 | NPTF Seite 284
Threaded Core Hole Diameter Table => NPT Page 283 | NPTF Page 284
Tableau des diamètres des trous de filetage => NPT Page 283 | NPTF Page 284
Tabella dei diametri dei fori filettati => NPT Pagina 283 | NPTF Pagina 284

# NPSM ANSI B1.20.1 | NPSF ANSI B1.20.3

(NPSM ~ NPSC ~ NPS)




| | NORIS SALOREX<br>UNI CNC | NORIS TWIN<br>ST |
|---|---|---|
| |  |  |
| | 3xD CNC | 2xD |
| OBERFLÄCHE · SURFACE · SURFACE · SUPERFICIE | VAP | WAC |
| SCHNEIDSTOFF · MATERIAL · MATIÈRE · MATERIALE | HSSE | HSSE |
| ANSCHNITTFORM · CHAMFER FORM · FORME D'ENTRÉE · FORMA D'IMBOCCO | E / 1,5-2 | C / 2-3 |
| TOLERANZ · TOLERANCE · TOLÉRANCE · TOLLERANZA | - | X |
| | RH | RH |

≈ DIN 5156

| $d_1$ | - | P | | | $l_1$ | $l_2$ | $l_3$ | Ø $d_2$ | a | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Gg/1" [tpi] | NPSM | NPSC | [mm] | [mm] | [mm] | [mm] | [mm] | | |
| NPSM | 1/8 | - 27 | 9,1 | 8,8 | 90 | 10 | - | 7 | 5,5 | 7470.0D015858 | |
| NPSM | 1/8 | - 27 | 9,1 | 8,8 | 90 | 18 | - | 7 | 5,5 | | 7100.0B005858 |
| NPSM | 1/4 | - 18 | 12 | 11,4 | 100 | 15 | - | 11 | 9 | 7470.0D015859 | |
| NPSM | 1/4 | - 18 | 12 | 11,4 | 100 | 22 | - | 11 | 9 | | 7100.0B005859 |
| NPSM | 3/8 | - 18 | 15,5 | 14,9 | 100 | 15 | - | 12 | 9 | 7470.0D015860 | |
| NPSM | 3/8 | - 18 | 15,5 | 14,9 | 100 | 22 | - | 12 | 9 | | 7100.0B005860 |
| NPSM | 1/2 | - 14 | 19 | 18,4 | 125 | 17 | - | 16 | 12 | 7470.0D015861 | |
| NPSM | 1/2 | - 14 | 19 | 18,4 | 125 | 25 | - | 16 | 12 | | 7100.0B005861 |
| NPSM | 3/4 | - 14 | 24,5 | 23,7 | 140 | 20 | - | 20 | 16 | 7470.0D015862 | |
| NPSM | 3/4 | - 14 | 24,5 | 23,7 | 140 | 28 | - | 20 | 16 | | 7100.0B005862 |
| NPSM | 1" | - 11,5 | 30,5 | 29,8 | 160 | 30 | - | 25 | 20 | | 7100.0B005863 |

≈ DIN 5156

| $d_1$ | - | P | | $l_1$ | $l_2$ | $l_3$ | Ø $d_2$ | a | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | Gg/1" [tpi] | [mm] | [mm] | [mm] | [mm] | [mm] | [mm] | | |
| NPSF | 1/16 | - 27 | 6,35 | 90 | 17 | - | 6 | 4,9 | | 7100.0B005904 |
| NPSF | 1/8 | - 27 | 8,7 | 90 | 10 | - | 7 | 5,5 | 7470.0D015905 | |
| NPSF | 1/8 | - 27 | 8,7 | 90 | 18 | - | 7 | 5,5 | | 7100.0B005905 |
| NPSF | 1/4 | - 18 | 11,3 | 100 | 15 | - | 11 | 9 | 7470.0D015906 | |
| NPSF | 1/4 | - 18 | 11,3 | 100 | 22 | - | 11 | 9 | | 7100.0B005906 |
| NPSF | 3/8 | - 18 | 14,75 | 100 | 15 | - | 12 | 9 | 7470.0D015907 | |
| NPSF | 3/8 | - 18 | 14,75 | 100 | 22 | - | 12 | 9 | | 7100.0B005907 |
| NPSF | 1/2 | - 14 | 18,2 | 125 | 17 | - | 16 | 12 | 7470.0D015908 | |
| NPSF | 1/2 | - 14 | 18,2 | 125 | 25 | - | 16 | 12 | | 7100.0B005908 |
| NPSF | 3/4 | - 14 | 23,5 | 140 | 20 | - | 20 | 16 | 7470.0D015909 | |
| NPSF | 3/4 | - 14 | 23,5 | 140 | 28 | - | 20 | 16 | | 7100.0B005909 |
| NPSF | 1" | - 11,5 | 29,5 | 160 | 30 | - | 25 | 20 | | 7100.0B005910 |



# NPT ANSI/ASME B 1.20.1

NPT-Gewindebohrer sind für die Lochformen A bis C geeignet. Für Gewinde mit höheren Anforderungen, z.B. NPT-Gewinde für die Luftfahrt, empfehlen wir, das Kernloch nach Form B bzw. C auszuführen.

NPT taps are suited for the hole forms A to C. For threads with higher demands, e.g. NPT threads for the aircraft industry, we recommend preparing the thread hole to form B, resp. C.

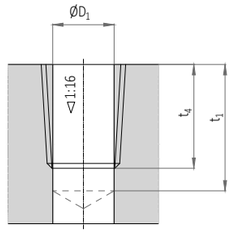
Les tarauds NPT sont appropriés pour les formes A, B et C. Pour taraudages destinés à de hautes exigences techniques, p.ex. le filetage NPT pour l'industrie aéronautique, nous recommandons de percer l'avant-trou selon forme B ou C.

I maschi NPT sono appropriati per le forme di foro A fino a C. Per filettature per elevate esigenze, p.es. filettature NPT per l'aviazione, raccommandiamo realizzare il preforo secondo forma B o C.

## ZYLINDRISCH VORBOHREN OHNE VERWENDUNG EINER REIBAHLE

Drill cylindrically without using a reamer / Perçage cylindrique sans utilisation d'alésoir / Perforare cilindrico senza l'utilizzo di alesatore

A

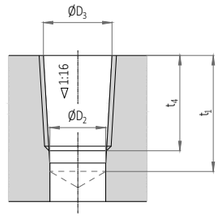



| ø $d_1$ | P | ø $D_1$ | $t_1$ 1) | $t_4$ 1) |
|---|---|---|---|---|
| mm | Gg/1" (tpi) | mm | mm | mm |
| 1/16 | 27 | 6,15 | 11,8 | 9,7 |
| 1/8 | 27 | 8,5 | 11,9 | 9,75 |
| 1/4 | 18 | 11 | 17,4 | 14,25 |
| 3/8 | 18 | 14,4 | 17,7 | 14,55 |
| 1/2 | 14 | 17,8 | 23,1 | 19 |
| 3/4 | 14 | 23,15 | 23,6 | 19,5 |
| 1" | 11 1/2 | 29,05 | 28,4 | 23,4 |
| 1 1/4 | 11 1/2 | 37,8 | 28,9 | 23,9 |
| 1 1/2 | 11 1/2 | 43,85 | 28,9 | 23,9 |
| 2" | 11 1/2 | 55,85 | 29,3 | 24,35 |

## ZYLINDRISCH VORBOHREN UND KEGELIG AUFREIBEN

Drill cylindrically and prepare tapered hole with reamer / Perçage cylindrique et alésage conique / Perforare cilindrico alesare conico

B




| ø $d_1$ | P | ø $D_1$ | ø $D_3$ (+0,05) | $t_1$ 1) | $t_4$ 1) |
|---|---|---|---|---|---|
| mm | Gg/1" (tpi) | mm | mm | mm | mm |
| 1/16 | 27 | 5,95 | 6,39 | 11,8 | 9,7 |
| 1/8 | 27 | 8,3 | 8,74 | 11,9 | 9,75 |
| 1/4 | 18 | 10,75 | 11,36 | 17,4 | 14,25 |
| 3/8 | 18 | 14,15 | 14,80 | 17,7 | 14,55 |
| 1/2 | 14 | 17,45 | 18,32 | 23,1 | 19 |
| 3/4 | 14 | 22,8 | 23,67 | 23,6 | 19,5 |
| 1" | 11 1/2 | 28,65 | 29,69 | 28,4 | 23,4 |
| 1 1/4 | 11 1/2 | 37,35 | 38,45 | 28,9 | 23,9 |
| 1 1/2 | 11 1/2 | 43,45 | 44,52 | 28,9 | 23,9 |
| 2" | 11 1/2 | 55,45 | 56,56 | 29,3 | 24,35 |

1) Die Vorbohrtiefe $t_1$ berücksichtigt die Längen L und $L_3$ nach ASME-Norm, sowie die jeweiligen Faktoren der Bearbeitungsprozesse.

1) The pilot hole depth $t_1$ takes into account the lengths L and $L_3$ according to the ASME standard, as well as the respective factors of the machining processes.

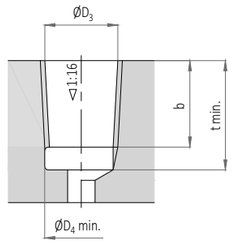
1) La profondeur du trou pilote $t_1$ tient compte des longueurs L et $L_3$ selon la norme ASME, ainsi que des facteurs respectifs des processus d'usinage.

1) La profondità del foro pilota $t_1$ tiene conto delle lunghezze L e $L_3$ secondo lo standard ASME, nonché dei rispettivi fattori dei processi di lavorazione.

## EMPFEHLUNG FÜR DAS VORARBEITEN VON GRUNDLÖCHERN

Recommended preparation of blind holes / Recommandation pour préparation des trous borgnes / Raccomandazione per la preparazione di fori ciechi

C




| ø $d_1$ | P | ø $D_3$ | b | t min 2) | ø $D_4$ min |
|---|---|---|---|---|---|
| mm | Gg/1" (tpi) | mm | mm | mm | mm |
| 1/16 | 27 | 6,39 | 7 | 10 | 7,6 |
| 1/8 | 27 | 8,74 | 7 | 10 | 10 |
| 1/4 | 18 | 11,36 | 10,2 | 14,5 | 13,1 |
| 3/8 | 18 | 14,80 | 10,6 | 15 | 16,5 |
| 1/2 | 14 | 18,32 | 13,8 | 19 | 20,5 |
| 3/4 | 14 | 23,67 | 14,2 | 20 | 25,8 |
| 1" | 11 1/2 | 29,69 | 17 | 24 | 32,2 |
| 1 1/4 | 11 1/2 | 38,45 | 17,5 | 24,5 | 41 |
| 1 1/2 | 11 1/2 | 44,52 | 17,5 | 24,5 | 47,2 |
| 2" | 11 1/2 | 56,56 | 18 | 25 | 59,2 |

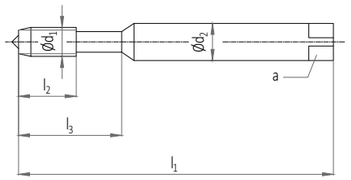
2) Die Kernlochmaße sind auf Minimallängen nach ASME-Norm aufgebaut.

2) The core hole dimensions are based on minimum lengths in accordance with the ASME standard.

2) Les dimensions des trous de noyau sont basées sur des longueurs minimales selon la norme ASME.

2) Le dimensioni dei fori di carotaggio si basano su lunghezze minime conformi allo standard ASME.

# MJ DIN ISO 5855

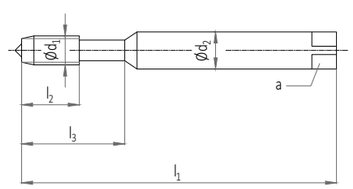





| | NORIS SALOREX SOFT | NORIS SL15 TI | NORIS SL15 NI | NORIS DL15 TI | NORIS DL15 NI |
|---|---|---|---|---|---|
| | 3xD | 2xD | 2xD | 4xD | 4xD |
| OBERFLÄCHE · SURFACE · SURFACE · SUPERFICIE | DLC | TICN | TICN | TICN | TICN |
| SCHNEIDSTOFF · MATERIAL · MATIÈRE · MATERIALE | HSSE | HSSE | HSSE-PM | HSSE | HSSE-PM |
| ANSCHNITTFORM · CHAMFER FORM · FORME D'ENTRÉE · FORMA D'IMBOCCO | C / 2-3 | C / 2-3 | C / 2-3 | D / 4-5 | D / 4-5 |
| TOLERANZ · TOLERANCE · TOLÉRANCE · TOLLERANZA | ISO1 | ISO1X | ISO1X | ISO1X | ISO1X |
| | RH | RH | RH | RH | RH |

| | $d_1$ | x | P [mm] | $l_1$ [mm] | $l_2$ [mm] | $l_3$ [mm] | Ø $d_2$ [mm] | a [mm] | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DIN 371 | MJ | 3 | x 0,5 | 2,6 | 56 | 6 | 18 | 3,5 | 2,7 | 664S.02101229 | | | | |
| DIN 371 | MJ | 3 | x 0,5 | 2,6 | 56 | 11 | 18 | 3,5 | 2,7 | | 6604.02051229 | 66A7.02051229 | 6504.03051229 | 6507.03051229 |
| DIN 371 | MJ | 4 | x 0,7 | 3,4 | 63 | 7 | 21 | 4,5 | 3,4 | 664S.02101231 | | | | |
| DIN 371 | MJ | 4 | x 0,7 | 3,4 | 63 | 13 | 21 | 4,5 | 3,4 | | 6604.02051231 | 66A7.02051231 | 6504.03051231 | 6507.03051231 |
| DIN 371 | MJ | 5 | x 0,8 | 4,3 | 70 | 8 | 25 | 6 | 4,9 | 664S.02101232 | | | | |
| DIN 371 | MJ | 5 | x 0,8 | 4,3 | 70 | 15 | 25 | 6 | 4,9 | | 6604.02051232 | 66A7.02051232 | 6504.03051232 | 6507.03051232 |
| DIN 371 | MJ | 6 | x 1 | 5,1 | 80 | 10 | 30 | 6 | 4,9 | 664S.02101233 | | | | |
| DIN 371 | MJ | 6 | x 1 | 5,1 | 80 | 17 | 30 | 6 | 4,9 | | 6604.02051233 | 66A7.02051233 | 6504.03051233 | 6507.03051233 |
| DIN 371 | MJ | 8 | x 1 | 7,1 | 90 | 10 | 35 | 8 | 6,2 | 664S.02101235 | | | | |
| DIN 371 | MJ | 8 | x 1 | 7,1 | 90 | 17 | 35 | 8 | 6,2 | | 6604.02051235 | 66A7.02051235 | 6504.03051235 | 6507.03051235 |
| DIN 371 | MJ | 8 | x 1,25 | 6,9 | 90 | 14 | 35 | 8 | 6,2 | 664S.02102026 | | | | |
| DIN 371 | MJ | 8 | x 1,25 | 6,9 | 90 | 20 | 35 | 8 | 6,2 | | 6604.02052026 | 66A7.02052026 | 6504.03052026 | 6507.03052026 |
| DIN 371 | MJ | 10 | x 1,25 | 8,9 | 100 | 16 | 39 | 10 | 8 | 664S.02101236 | | | | |
| DIN 371 | MJ | 10 | x 1,25 | 8,9 | 100 | 18 | 39 | 10 | 8 | | 6604.02051236 | 66A7.02051236 | 6504.03051236 | 6507.03051236 |
| DIN 371 | MJ | 10 | x 1,5 | 8,6 | 100 | 16 | 39 | 10 | 8 | 664S.02102308 | | | | |
| DIN 371 | MJ | 10 | x 1,5 | 8,6 | 100 | 22 | 39 | 10 | 8 | | 6604.02052308 | 66A7.02052308 | 6504.03052308 | 6507.03052308 |

# UNJC ASME B1.1 (ASME B1-15) | UNJF ASME B1.1 (ASME B1-15)





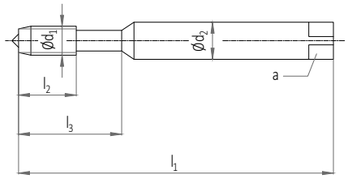

| | NORIS SL15 TI | NORIS SL15 NI | NORIS DL15 TI | NORIS DL15 NI |
|---|---|---|---|---|
| | 2xD | 2xD | 4xD | 4xD |
| OBERFLÄCHE · SURFACE · SURFACE · SUPERFICIE | TICN | TICN | TICN | TICN |
| SCHNEIDSTOFF · MATERIAL · MATIÈRE · MATERIALE | HSSE | HSSE-PM | HSSE | HSSE-PM |
| ANSCHNITTFORM · CHAMFER FORM · FORME D'ENTRÉE · FORMA D'IMBOCCO | C / 2-3 | C / 2-3 | D / 4-5 | D / 4-5 |
| TOLERANZ · TOLERANCE · TOLÉRANCE · TOLLERANZA | 3BX | 3BX | 3BX | 3BX |
| | RH | RH | RH | RH |

| | $d_1$ [inch] | - | P Gg/1" [tpi] | $l_1$ [mm] | $l_2$ [mm] | $l_3$ [mm] | Ø $d_2$ [mm] | a [mm] | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ≈ DIN 371 | UNJC | Nr. 4 | - 40 | 2,3 | 56 | 11 | 18 | 3,5 | 2,7 | 6604.02055479 | 66A7.02055479 | 6504.03055479 | 6507.03055479 |
| ≈ DIN 371 | UNJC | Nr. 6 | - 32 | 2,85 | 56 | 12 | 20 | 4 | 3 | 6604.02055481 | 66A7.02055481 | 6504.03055481 | 6507.03055481 |
| ≈ DIN 371 | UNJC | Nr. 8 | - 32 | 3,5 | 63 | 13 | 21 | 4,5 | 3,4 | 6604.02055482 | 66A7.02055482 | 6504.03055482 | 6507.03055482 |
| ≈ DIN 371 | UNJC | Nr. 10 | - 24 | 3,9 | 70 | 15 | 25 | 6 | 4,9 | 6604.02055483 | 66A7.02055483 | 6504.03055483 | 6507.03055483 |
| ≈ DIN 371 | UNJC | 1/4 | - 20 | 5,25 | 80 | 17 | 30 | 7 | 5,5 | 6604.02055485 | 66A7.02055485 | 6504.03055485 | 6507.03055485 |
| ≈ DIN 371 | UNJC | 5/16 | - 18 | 6,7 | 90 | 17 | 35 | 8 | 6,2 | | | | 6507.03055486 |
| ≈ DIN 371 | UNJC | 5/16 | - 18 | 6,7 | 90 | 20 | 35 | 8 | 6,2 | 6604.02055486 | 66A7.02055486 | 6504.03055486 | |
| ≈ DIN 371 | UNJC | 3/8 | - 16 | 8,1 | 100 | 22 | 39 | 10 | 8 | 6604.02055487 | | 6504.03055487 | |

| | $d_1$ [inch] | - | P Gg/1" [tpi] | $l_1$ [mm] | $l_2$ [mm] | $l_3$ [mm] | Ø $d_2$ [mm] | a [mm] | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ≈ DIN 371 | UNJF | Nr. 4 | - 48 | 2,4 | 56 | 11 | 18 | 3,5 | 2,7 | 6604.02055505 | 66A7.02055505 | 6504.03055505 | 6507.03055505 |
| ≈ DIN 371 | UNJF | Nr. 6 | - 40 | 3 | 56 | 12 | 20 | 4 | 3 | 6604.02055507 | 66A7.02055507 | 6504.03055507 | 6507.03055507 |
| ≈ DIN 371 | UNJF | Nr. 8 | - 36 | 3,55 | 63 | 13 | 21 | 4,5 | 3,4 | 6604.02055508 | 66A7.02055508 | 6504.03055508 | 6507.03055508 |
| ≈ DIN 371 | UNJF | Nr. 10 | - 32 | 4,15 | 70 | 15 | 25 | 6 | 4,9 | 6604.02055509 | 66A7.02055509 | 6504.03055509 | 6507.03055509 |
| ≈ DIN 371 | UNJF | 1/4 | - 28 | 5,55 | 80 | 17 | 30 | 7 | 5,5 | 6604.02055511 | 66A7.02055511 | 6504.03055511 | 6507.03055511 |
| ≈ DIN 371 | UNJF | 5/16 | - 24 | 7 | 90 | 17 | 35 | 8 | 6,2 | 6604.02055512 | 66A7.02055512 | 6504.03055512 | 6507.03055512 |
| ≈ DIN 371 | UNJF | 3/8 | - 24 | 8,6 | 90 | 18 | 35 | 10 | 8 | 6604.02055513 | | 6504.03055513 | |

# EG-M (STI) DIN 8140-2

3xD










CNC

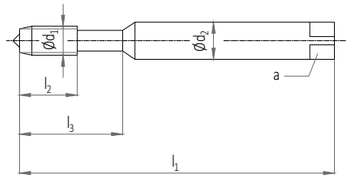
| | NORIS SALOREX UNI CNC | NORIS SALOREX VA | NORIS SALOREX SOFT |
|---|---|---|---|
| OBERFLÄCHE · SURFACE · SURFACE · SUPERFICIE | VAP | ALTINHD | DLC |
| SCHNEIDSTOFF · MATERIAL · MATIÈRE · MATERIALE | HSSE | HSSE | HSSE |
| ANSCHNITTFORM · CHAMFER FORM · FORME D'ENTRÉE · FORMA D'IMBOCCO | C /2-3 | E / 1,5-2 | C /2-3 |
| TOLERANZ · TOLERANCE · TOLÉRANCE · TOLLERANZA | 6H MOD | 6H MOD | 6H MOD |
| | RH | RH | RH |

| | $d_1$ [mm] | P [mm] | [mm] | $l_1$ [mm] | $l_2$ [mm] | $l_3$ [mm] | Ø $d_2$ [mm] | a [mm] | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| DIN 40435 | EG-M | 2,5 | 0,45 | 2,65 | 56 | 5 | 18 | 3,5 | 2,7 | 6470.0B010965 | | 664S.0B100965 |
| | EG-M | 3 | 0,5 | 3,15 | 63 | 5 | 21 | 4,5 | 3,4 | 6470.0B010966 | 6645.0D090966 | 664S.0B100966 |
| | EG-M | 4 | 0,7 | 4,2 | 70 | 8 | 25 | 6 | 4,9 | 6470.0B010968 | 6645.0D090968 | 664S.0B100968 |
| | EG-M | 5 | 0,8 | 5,25 | 80 | 8 | 30 | 6 | 4,9 | 6470.0B010970 | 6645.0D090970 | 664S.0B100970 |
| | EG-M | 6 | 1 | 6,3 | 90 | 10 | 35 | 8 | 6,2 | 6470.0B010971 | 6645.0D090971 | 664S.0B100971 |
| | EG-M | 8 | 1,25 | 8,4 | 100 | 16 | 39 | 10 | 8 | 6470.0B010973 | 6645.0D090973 | 664S.0B100973 |
| | EG-M | 10 | 1,5 | 10,5 | 100 | 15 | - | 9 | 7 | 7470.0B010975 | 7645.0D090975 | 764S.0B100975 |
| | EG-M | 12 | 1,75 | 12,5 | 110 | 20 | - | 11 | 9 | 7470.0B010977 | | 764S.0B100977 |
| | EG-M | 16 | 2 | 16,5 | 125 | 20 | - | 14 | 11 | 7470.0B010979 | | |
| | EG-M | 20 | 2,5 | 20,75 | 160 | 30 | - | 18 | 14,5 | 7470.0B010981 | | |



EG-M (STI) DIN 8140-2

4xD









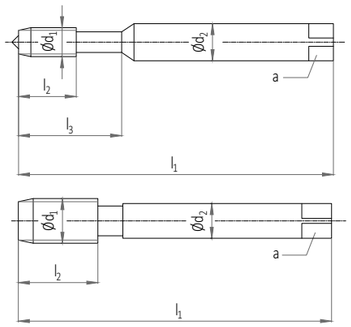

CNC

| | NORIS STABIL UNI CNC | NORIS STABIL VA | NORIS STABIL SOFT |
|---|---|---|---|
| OBERFLÄCHE · SURFACE · SURFACE · SUPERFICIE | ALTINHD | ALTINHD | DLC |
| SCHNEIDSTOFF · MATERIAL · MATIÈRE · MATERIALE | HSSE | HSSE | HSSE |
| ANSCHNITTFORM · CHAMFER FORM · FORME D'ENTRÉE · FORMA D'IMBOCCO | B / 4-5 | B / 4-5 | B / 4-5 |
| TOLERANZ · TOLERANCE · TOLÉRANCE · TOLLERANZA | 6H MOD | 6H MOD | 6H MOD |
| | RH | RH | RH |

| | $d_1$ [mm] | P [mm] | [mm] | $l_1$ [mm] | $l_2$ [mm] | $l_3$ [mm] | Ø $d_2$ [mm] | a [mm] | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| DIN 40435 | EG-M | 2,5 | 0,45 | 2,65 | 56 | 11 | 18 | 3,5 | 2,7 | 65C0.0A090965 | | 657S.0A100965 |
| | EG-M | 3 | 0,5 | 3,15 | 63 | 10 | 21 | 4,5 | 3,4 | 65C0.0A090966 | 6535.0A090966 | 657S.0A100966 |
| | EG-M | 4 | 0,7 | 4,2 | 70 | 12 | 25 | 6 | 4,9 | 65C0.0A090968 | 6535.0A090968 | 657S.0A100968 |
| | EG-M | 5 | 0,8 | 5,25 | 80 | 13 | 30 | 6 | 4,9 | 65C0.0A090970 | 6535.0A090970 | 657S.0A100970 |
| | EG-M | 6 | 1 | 6,3 | 90 | 17 | 35 | 8 | 6,2 | 65C0.0A090971 | 6535.0A090971 | 657S.0A100971 |
| | EG-M | 8 | 1,25 | 8,4 | 100 | 18 | 39 | 10 | 8 | 65C0.0A090973 | 6535.0A090973 | 657S.0A100973 |
| | EG-M | 10 | 1,5 | 10,5 | 100 | 22 | - | 9 | 7 | 75C0.0A090975 | 7535.0A090975 | |
| | EG-M | 12 | 1,75 | 12,5 | 110 | 26 | - | 11 | 9 | 75C0.0A090977 | | |
| | EG-M | 16 | 2 | 16,5 | 125 | 27 | - | 14 | 11 | 75C0.0A090979 | | |
| | EG-M | 20 | 2,5 | 20,75 | 160 | 34 | - | 18 | 14,5 | 75C0.0A090981 | | |

# EG-UNC (STI) ASME B18.29.1

CNC




| | NORIS SALOREX UNI CNC | NORIS SALOREX UNI CNC | NORIS STABIL UNI CNC |
|---|---|---|---|
| |  |  |  |
| | 3xD | 3xD | 4xD |
| OBERFLÄCHE · SURFACE · SURFACE · SUPERFICIE | VAP | ALTINHD | ALTINHD |
| SCHNEIDSTOFF · MATERIAL · MATIÈRE · MATERIALE | HSSE | HSSE | HSSE |
| ANSCHNITTFORM · CHAMFER FORM · FORME D'ENTRÉE · FORMA D'IMBOCCO | E / 2-3 | E / 2-3 | B / 4-5 |
| TOLERANZ · TOLERANCE · TOLÉRANCE · TOLLERANZA | 2B | 2B | 2B |
| | RH | RH | RH |

≈ DIN 371

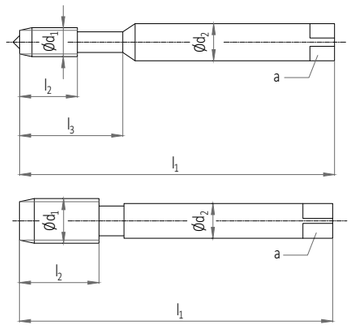
| $d_1$ | | P | $l_1$ | $l_2$ | $l_3$ | Ø $d_2$ | a | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| [inch] | | Gg/1" [tpi] | [mm] | [mm] | [mm] | [mm] | [mm] | | | |
| EG-UNC | Nr. 4 | - 40 | 3,1 | 63 | 7 | 21 | 4,5 | 3,4 | 6470.0D095611 | |
| EG-UNC | Nr. 4 | - 40 | 3,1 | 63 | 13 | 21 | 4,5 | 3,4 | | 65C0.0A095611 |
| EG-UNC | Nr. 6 | - 32 | 3,8 | 70 | 8 | 25 | 6 | 4,9 | 6470.0D095613 | |
| EG-UNC | Nr. 6 | - 32 | 3,8 | 70 | 14 | 25 | 6 | 4,9 | | 65C0.0A095613 |
| EG-UNC | Nr. 8 | - 32 | 4,4 | 80 | 8 | 30 | 6 | 4,9 | 6470.0D095614 | |
| EG-UNC | Nr. 8 | - 32 | 4,4 | 80 | 16 | 30 | 6 | 4,9 | | 65C0.0A095614 |
| EG-UNC | Nr. 10 | - 24 | 5,2 | 80 | 10 | 30 | 7 | 5,5 | 6470.0D095615 | |
| EG-UNC | Nr. 10 | - 24 | 5,2 | 80 | 17 | 30 | 7 | 5,5 | | 65C0.0A095615 |
| EG-UNC | 1/4 | - 20 | 6,7 | 90 | 14 | 35 | 8 | 6,2 | 6470.0D095617 | |
| EG-UNC | 1/4 | - 20 | 6,7 | 90 | 20 | 35 | 8 | 6,2 | | 65C0.0A095617 |
| EG-UNC | 5/16 | - 18 | 8,4 | 100 | 16 | 39 | 10 | 8 | 6470.0D095618 | |
| EG-UNC | 5/16 | - 18 | 8,4 | 100 | 22 | 39 | 10 | 8 | | 65C0.0A095618 |

≈ DIN 376

| $d_1$ | | P | $l_1$ | $l_2$ | $l_3$ | Ø $d_2$ | a | | |
|---|---|---|---|---|---|---|---|---|---|
| [inch] | | Gg/1" [tpi] | [mm] | [mm] | [mm] | [mm] | [mm] | | |
| EG-UNC | 3/8 | - 16 | 10 | 100 | 15 | - | 9 | 7 | 7470.0D015619 | |
| EG-UNC | 3/8 | - 16 | 10 | 100 | 22 | - | 9 | 7 | | 75C0.0A095619 |
| EG-UNC | 7/16 | - 14 | 11,6 | 110 | 20 | - | 11 | 9 | 7470.0D015620 | |
| EG-UNC | 7/16 | - 14 | 11,6 | 110 | 26 | - | 11 | 9 | | 75C0.0A095620 |
| EG-UNC | 1/2 | - 13 | 13,3 | 110 | 22 | - | 12 | 9 | 7470.0D015621 | |
| EG-UNC | 1/2 | - 13 | 13,3 | 110 | 27 | - | 12 | 9 | | 75C0.0A095621 |
| EG-UNC | 9/16 | - 12 | 14,9 | 110 | 22 | - | 12 | 9 | 7470.0D015622 | |
| EG-UNC | 9/16 | - 12 | 14,9 | 110 | 27 | - | 12 | 9 | | 75C0.0A095622 |
| EG-UNC | 5/8 | - 11 | 16,5 | 125 | 25 | - | 14 | 11 | 7470.0D015623 | |
| EG-UNC | 5/8 | - 11 | 16,5 | 125 | 30 | - | 14 | 11 | | 75C0.0A095623 |
| EG-UNC | 3/4 | - 10 | 19,75 | 140 | 27 | - | 18 | 14,5 | 7470.0D015624 | |
| EG-UNC | 3/4 | - 10 | 19,75 | 140 | 32 | - | 18 | 14,5 | | 75C0.0A095624 |

# EG-UNF (STI) ASME B18.29.1

CNC




| | NORIS SALOREX UNI CNC | NORIS SALOREX UNI CNC | NORIS STABIL UNI CNC |
|---|---|---|---|
| |  |  |  |
| | 3xD | 3xD | 4xD |
| OBERFLÄCHE · SURFACE · SURFACE · SUPERFICIE | VAP | ALTINHD | ALTINHD |
| SCHNEIDSTOFF · MATERIAL · MATIÈRE · MATERIALE | HSSE | HSSE | HSSE |
| ANSCHNITTFORM · CHAMFER FORM · FORME D'ENTRÉE · FORMA D'IMBOCCO | E / 2-3 | E / 2-3 | B / 4-5 |
| TOLERANZ · TOLERANCE · TOLÉRANCE · TOLLERANZA | 2B | 2B | 2B |
| | RH | RH | RH |

≈ DIN 371

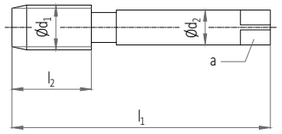
| $d_1$ | | P | $l_1$ | $l_2$ | $l_3$ | Ø $d_2$ | a | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| [inch] | | Gg/1" [tpi] | [mm] | [mm] | [mm] | [mm] | [mm] | | | |
| EG-UNF | Nr. 4 | - 48 | 3 | 56 | 7 | 20 | 4 | 3 | 6470.0D095633 | |
| EG-UNF | Nr. 4 | - 48 | 3 | 56 | 9 | 20 | 4 | 3 | | 65C0.0A095633 |
| EG-UNF | Nr. 6 | - 40 | 3,7 | 70 | 8 | 25 | 6 | 4,9 | 6470.0D095635 | |
| EG-UNF | Nr. 6 | - 40 | 3,7 | 70 | 11 | 25 | 6 | 4,9 | | 65C0.0A095635 |
| EG-UNF | Nr. 8 | - 36 | 4,4 | 80 | 8 | 30 | 6 | 4,9 | 6470.0D095636 | |
| EG-UNF | Nr. 8 | - 36 | 4,4 | 80 | 13 | 30 | 6 | 4,9 | | 65C0.0A095636 |
| EG-UNF | Nr. 10 | - 32 | 5,1 | 80 | 8 | 30 | 6 | 4,9 | 6470.0D095637 | |
| EG-UNF | Nr. 10 | - 32 | 5,1 | 80 | 13 | 30 | 6 | 4,9 | | 65C0.0A095637 |
| EG-UNF | 1/4 | - 28 | 6,6 | 90 | 10 | 35 | 8 | 6,2 | 6470.0D095639 | |
| EG-UNF | 1/4 | - 28 | 6,6 | 90 | 17 | 35 | 8 | 6,2 | | 65C0.0A095639 |
| EG-UNF | 5/16 | - 24 | 8,25 | 90 | 10 | 35 | 10 | 8 | 6470.0D095640 | |
| EG-UNF | 5/16 | - 24 | 8,25 | 90 | 18 | 35 | 10 | 8 | | 65C0.0A095640 |

≈ DIN 374

| $d_1$ | | P | $l_1$ | $l_2$ | $l_3$ | Ø $d_2$ | a | | |
|---|---|---|---|---|---|---|---|---|---|
| [inch] | | Gg/1" [tpi] | [mm] | [mm] | [mm] | [mm] | [mm] | | |
| EG-UNF | 3/8 | - 24 | 9,8 | 90 | 11 | - | 8 | 6,2 | 7470.0D015641 | |
| EG-UNF | 3/8 | - 24 | 9,8 | 90 | 18 | - | 8 | 6,2 | | 75C0.0A095641 |
| EG-UNF | 7/16 | - 20 | 11,5 | 100 | 13 | - | 9 | 7 | 7470.0D015642 | |
| EG-UNF | 7/16 | - 20 | 11,5 | 100 | 22 | - | 9 | 7 | | 75C0.0A095642 |
| EG-UNF | 1/2 | - 20 | 13,1 | 100 | 15 | - | 11 | 9 | 7470.0D015643 | |
| EG-UNF | 1/2 | - 20 | 13,1 | 100 | 22 | - | 11 | 9 | | 75C0.0A095643 |
| EG-UNF | 9/16 | - 18 | 14,7 | 100 | 15 | - | 12 | 9 | 7470.0D015644 | |
| EG-UNF | 9/16 | - 18 | 14,7 | 100 | 22 | - | 12 | 9 | | 75C0.0A095644 |
| EG-UNF | 5/8 | - 18 | 16,25 | 110 | 17 | - | 14 | 11 | 7470.0D015645 | |
| EG-UNF | 5/8 | - 18 | 16,25 | 110 | 25 | - | 14 | 11 | | 75C0.0A095645 |
| EG-UNF | 3/4 | - 16 | 19,5 | 125 | 17 | - | 16 | 12 | 7470.0D015646 | |
| EG-UNF | 3/4 | - 16 | 19,5 | 125 | 25 | - | 16 | 12 | | 75C0.0A095646 |

Tr DIN 103

1xD AUT




NORIS TWIN

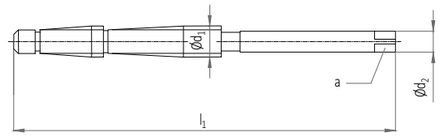
MS AUT



| OBERFLÄCHE · SURFACE · SURFACE · SUPERFICIE | WAC |
|---|---|
| SCHNEIDSTOFF · MATERIAL · MATIÈRE · MATERIALE | HSSE |
| ANSCHNITTFORM · CHAMFER FORM · FORME D'ENTRÉE · FORMA D'IMBOCCO | E / 1,5-2 |
| TOLERANZ · TOLERANCE · TOLÉRANCE · TOLLERANZA | 7H |
| | RH |

| | $d_1$ | x | P | | $l_1$ | $l_2$ | $l_3$ | Ø $d_2$ | a | |
|---|---|---|---|---|---|---|---|---|---|---|
| | [mm] | | [mm] | [mm] | [mm] | [mm] | [mm] | [mm] | [mm] | |
| R NORM | Tr | 8 | x 1,5 | 6,6 | 70 | 22 | - | 8 | 6,2 | 5250.0D007040 |
| | Tr | 8 | x 2 | 6,2 | 70 | 22 | - | 8 | 6,2 | 5250.0D007041 |
| | Tr | 9 | x 1,5 | 7,6 | 70 | 22 | - | 8 | 6,2 | 5250.0D007111 |
| | Tr | 9 | x 2 | 7,2 | 70 | 22 | - | 8 | 6,2 | 5250.0D007042 |
| | Tr | 10 | x 1,5 | 8,6 | 70 | 22 | - | 8 | 6,2 | 5250.0D007112 |
| | Tr | 10 | x 2 | 8,2 | 70 | 22 | - | 8 | 6,2 | 5250.0D007043 |
| | Tr | 10 | x 3 | 7,25 | 70 | 22 | - | 8 | 6,2 | 5250.0D007044 |
| | Tr | 11 | x 2 | 9,2 | 75 | 24 | - | 9 | 7 | 5250.0D007128 |
| | Tr | 11 | x 3 | 8,25 | 75 | 24 | - | 9 | 7 | 5250.0D007045 |
| | Tr | 12 | x 2 | 10,2 | 75 | 25 | - | 9 | 7 | 5250.0D007129 |
| | Tr | 12 | x 3 | 9,25 | 75 | 25 | - | 9 | 7 | 5250.0D007046 |
| | Tr | 14 | x 2 | 12,2 | 80 | 26 | - | 10 | 8 | 5250.0D007130 |
| | Tr | 14 | x 3 | 11,25 | 80 | 26 | - | 10 | 8 | 5250.0D007047 |
| | Tr | 14 | x 4 | 10,25 | 80 | 26 | - | 10 | 8 | 5250.0D007048 |
| | Tr | 16 | x 2 | 14,2 | 80 | 27 | - | 12 | 9 | 5250.0D007132 |
| | Tr | 16 | x 4 | 12,25 | 80 | 27 | - | 12 | 9 | 5250.0D007051 |
| | Tr | 18 | x 2 | 16,2 | 80 | 22 | - | 12 | 9 | 5250.0D007133 |
| | Tr | 18 | x 4 | 14,25 | 95 | 32 | - | 12 | 9 | 5250.0D007052 |
| | Tr | 20 | x 2 | 18,2 | 80 | 22 | - | 15 | 12 | 5250.0D007134 |
| | Tr | 20 | x 4 | 16,25 | 95 | 32 | - | 15 | 12 | 5250.0D007053 |
| | Tr | 22 | x 3 | 19,25 | 100 | 32 | - | 15 | 12 | 5250.0D007156 |
| | Tr | 24 | x 3 | 21,25 | 110 | 36 | - | 18 | 14,5 | 5250.0D007157 |
| | Tr | 26 | x 3 | 23,25 | 110 | 36 | - | 18 | 14,5 | 5250.0D007159 |
| | Tr | 28 | x 3 | 25,25 | 125 | 36 | - | 18 | 14,5 | 5250.0D007160 |
| | Tr | 30 | x 3 | 27,25 | 125 | 34 | - | 18 | 14,5 | 5250.0D007161 |

2xD




NORIS DL15

ST TR-STUFEN



NORIS DL15

ST TR-STUFEN

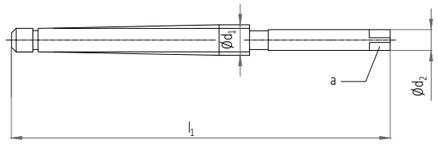


| OBERFLÄCHE · SURFACE · SURFACE · SUPERFICIE | WAC | WAC |
|---|---|---|
| SCHNEIDSTOFF · MATERIAL · MATIÈRE · MATERIALE | HSSE | HSSE |
| ANSCHNITTFORM · CHAMFER FORM · FORME D'ENTRÉE · FORMA D'IMBOCCO | - | - |
| TOLERANZ · TOLERANCE · TOLÉRANCE · TOLLERANZA | 7H | 7H |
| | RH | LH |

| | $d_1$ | x | P | | $l_1$ | Ø $d_2$ | a | | |
|---|---|---|---|---|---|---|---|---|---|
| | [mm] | | [mm] | [mm] | [mm] | [mm] | [mm] | | |
| R NORM | Tr | 8 | x 1,5 | 6,6 | 105 | 6 | 4,9 | 9720.09007040 | 9720.48007040 |
| | Tr | 9 | x 2 | 7,2 | 130 | 7 | 5,5 | 9720.09007042 | 9720.48007042 |
| | Tr | 10 | x 2 | 8,2 | 130 | 7 | 5,5 | 9720.09007043 | 9720.48007043 |
| | Tr | 10 | x 3 | 7,25 | 155 | 7 | 5,5 | 9720.09007044 | 9720.48007044 |
| | Tr | 11 | x 3 | 8,25 | 155 | 8 | 6,2 | 9720.09007045 | 9720.48007045 |
| | Tr | 12 | x 3 | 9,25 | 160 | 9 | 7 | 9720.09007046 | 9720.48007046 |
| | Tr | 14 | x 3 | 11,25 | 170 | 10 | 8 | 9720.09007047 | 9720.48007047 |
| | Tr | 14 | x 4 | 10,25 | 195 | 10 | 8 | 9720.09007048 | |
| | Tr | 16 | x 4 | 12,25 | 225 | 12 | 9 | 9720.09007051 | 9720.48007051 |
| | Tr | 18 | x 4 | 14,25 | 225 | 14 | 11 | 9720.09007052 | 9720.48007052 |
| | Tr | 20 | x 4 | 16,25 | 225 | 16 | 12 | 9720.09007053 | 9720.48007053 |
| | Tr | 22 | x 5 | 17,25 | 260 | 16 | 12 | 9720.09007054 | 9720.48007054 |
| | Tr | 24 | x 5 | 19,25 | 285 | 18 | 14,5 | 9720.09007055 | 9720.48007055 |
| | Tr | 26 | x 5 | 21,25 | 285 | 20 | 16 | 9720.09007057 | 9720.48007057 |
| | Tr | 28 | x 5 | 23,25 | 300 | 22 | 18 | 9720.09007058 | 9720.48007058 |
| | Tr | 30 | x 6 | 24,25 | 335 | 22 | 18 | 9720.09007059 | 9720.48007059 |
| | Tr | 32 | x 6 | 26,25 | 335 | 25 | 20 | 9720.09007060 | 9720.48007060 |
| | Tr | 34 | x 6 | 28,25 | 350 | 28 | 22 | 9720.09007061 | 9720.48007061 |
| | Tr | 48 | x 8 | 40,5 | 455 | 40 | 32 | 9720.09007068 | |

# Tr DIN 103

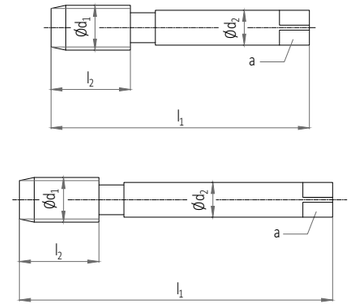
1,5xD




| | NORIS DL25<br>VA TR-EINSCHNITT | NORIS DL25<br>VA TR-EINSCHNITT |
|---|---|---|
| |  |  |
| OBERFLÄCHE · SURFACE · SURFACE · SUPERFICIE | NIT | NIT |
| SCHNEIDSTOFF · MATERIAL · MATIÈRE · MATERIALE | HSSE | HSSE |
| ANSCHNITTFORM · CHAMFER FORM · FORME D'ENTRÉE · FORMA D'IMBOCCO | - | - |
| TOLERANZ · TOLERANCE · TOLÉRANCE · TOLLERANZA | 7H | 7H |
| | RH | LH |

| | $d_1$ | | P | $l_1$ | Ø $d_2$ | a | | |
|---|---|---|---|---|---|---|---|---|
| | [mm] | | [mm] | [mm] | [mm] | [mm] | | |
| R NORM | Tr 8 | x | 1,5 | 6,6 | 90 | 6 | 4,9 | 9745.09027040 | 9745.48027040 |
| | Tr 9 | x | 2 | 7,2 | 110 | 7 | 5,5 | 9745.09027042 | 9745.48027042 |
| | Tr 10 | x | 2 | 8,2 | 110 | 7 | 5,5 | 9745.09027043 | 9745.48027043 |
| | Tr 10 | x | 3 | 7,25 | 130 | 7 | 5,5 | 9745.09027044 | 9745.48027044 |
| | Tr 11 | x | 3 | 8,25 | 130 | 8 | 6,2 | 9745.09027045 | 9745.48027045 |
| | Tr 12 | x | 3 | 9,25 | 140 | 9 | 7 | 9745.09027046 | 9745.48027046 |
| | Tr 14 | x | 3 | 11,25 | 145 | 10 | 8 | 9745.09027047 | 9745.48027047 |
| | Tr 14 | x | 4 | 10,25 | 165 | 10 | 8 | 9745.09027048 | |
| | Tr 16 | x | 4 | 12,25 | 190 | 12 | 9 | 9745.09027051 | 9745.48027051 |
| | Tr 18 | x | 4 | 14,25 | 195 | 14 | 11 | 9745.09027052 | 9745.48027052 |
| | Tr 20 | x | 4 | 16,25 | 195 | 16 | 12 | 9745.09027053 | 9745.48027053 |
| | Tr 22 | x | 5 | 17,25 | 220 | 16 | 12 | 9745.09027054 | 9745.48027054 |
| | Tr 24 | x | 5 | 19,25 | 245 | 18 | 14,5 | 9745.09027055 | 9745.48027055 |

# Rd DIN 405 | Pg DIN 40430




| | NORIS TWIN<br>ST | NORIS TWIN<br>ST |
|---|---|---|
| |  |  |
| | 1xD | 2xD |
| OBERFLÄCHE · SURFACE · SURFACE · SUPERFICIE | WAC | WAC |
| SCHNEIDSTOFF · MATERIAL · MATIÈRE · MATERIALE | HSSE | HSSE |
| ANSCHNITTFORM · CHAMFER FORM · FORME D'ENTRÉE · FORMA D'IMBOCCO | C / 2-3 | C / 2-3 |
| TOLERANZ · TOLERANCE · TOLÉRANCE · TOLLERANZA | 7H | X |
| | RH | RH |

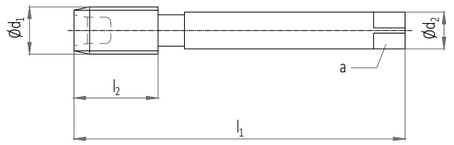
| | $d_1$ | | P | $l_1$ | $l_2$ | $l_3$ | Ø $d_2$ | a | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | [mm] | | Gg/1" [tpi] | [mm] | [mm] | [mm] | [mm] | [mm] | | |
| ≈ DIN 352 | Rd 8 | - | 10 | 6 | 70 | 22 | - | 8 | 6,2 | 7100.0B007287 | |
| | Rd 9 | - | 10 | 7 | 70 | 22 | - | 8 | 6,2 | 7100.0B007288 | |
| | Rd 10 | - | 10 | 8 | 70 | 22 | - | 8 | 6,2 | 7100.0B007289 | |
| | Rd 11 | - | 10 | 9 | 70 | 22 | - | 8 | 6,2 | 7100.0B007290 | |
| | Rd 12 | - | 10 | 10 | 75 | 25 | - | 9 | 7 | 7100.0B007291 | |
| | Rd 14 | - | 8 | 11,5 | 80 | 26 | - | 11 | 9 | 7100.0B007293 | |
| | Rd 16 | - | 8 | 13,5 | 80 | 27 | - | 12 | 9 | 7100.0B007294 | |
| | Rd 18 | - | 8 | 15,5 | 95 | 32 | - | 14 | 11 | 7100.0B007295 | |
| | Rd 20 | - | 8 | 17,5 | 95 | 32 | - | 16 | 12 | 7100.0B007296 | |
| | Rd 22 | - | 8 | 19,5 | 100 | 32 | - | 18 | 14,5 | 7100.0B007297 | |
| | Rd 24 | - | 8 | 21,5 | 110 | 36 | - | 18 | 14,5 | 7100.0B007298 | |
| | Rd 26 | - | 8 | 23,5 | 110 | 36 | - | 20 | 16 | 7100.0B007299 | |
| | Rd 28 | - | 8 | 25,5 | 125 | 34 | - | 22 | 18 | 7100.0B007300 | |
| | Rd 30 | - | 8 | 27,5 | 125 | 34 | - | 22 | 18 | 7100.0B007301 | |

| | $d_1$ | | P | $l_1$ | $l_2$ | $l_3$ | Ø $d_2$ | a | |
|---|---|---|---|---|---|---|---|---|---|
| | | | Gg/1" [tpi] | [mm] | [mm] | [mm] | [mm] | [mm] | |
| DIN 40433 | Pg 7 | - | 20 | 11,35 | 100 | 22 | - | 9 | 7 | 7100.0B004153 |
| | Pg 9 | - | 18 | 13,95 | 100 | 22 | - | 12 | 9 | 7100.0B004154 |
| | Pg 11 | - | 18 | 17,35 | 110 | 25 | - | 14 | 11 | 7100.0B004155 |
| | Pg 13,5 | - | 18 | 19,15 | 125 | 25 | - | 16 | 12 | 7100.0B004156 |
| | Pg 16 | - | 18 | 21,25 | 125 | 25 | - | 18 | 14,5 | 7100.0B004157 |
| | Pg 21 | - | 16 | 26,95 | 150 | 28 | - | 22 | 18 | 7100.0B004158 |
| | Pg 29 | - | 16 | 35,6 | 170 | 30 | - | 28 | 22 | 7100.0B004159 |
| | Pg 36 | - | 16 | 45,6 | 190 | 32 | - | 36 | 29 | 7100.0B004160 |
| | Pg 42 | - | 16 | 52,6 | 190 | 32 | - | 40 | 32 | 7100.0B004161 |

# M DIN 13 | MF DIN 13 | UNC ASME B1.1

1,5xD

2xD




NORIS INNENSPAN

RA15



NORIS INNENSPAN

RA15



| | | | |
|---|---|---|---|
| OBERFLÄCHE · SURFACE · SURFACE · SUPERFICIE | VAP | VAP |
| SCHNEIDSTOFF · MATERIAL · MATIÈRE · MATERIALE | HSSE | HSSE |
| ANSCHNITTFORM · CHAMFER FORM · FORME D'ENTRÉE · FORMA D'IMBOCCO | C / 2-3 | C / 2-3 |
| TOLERANZ · TOLERANCE · TOLÉRANCE · TOLLERANZA | ISO2X | 2BX |
| | RH | RH |

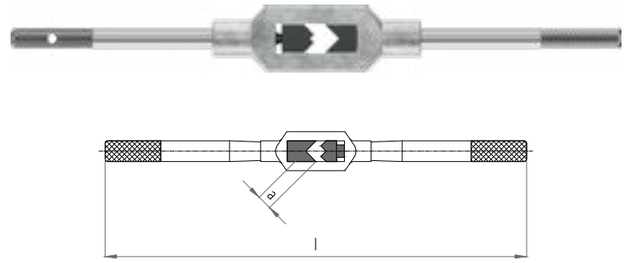
| | $d_1$ | | P | | $l_1$ | $l_2$ | $l_3$ | Ø $d_2$ | a | |
|---|---|---|---|---|---|---|---|---|---|---|
| | [mm] | | [mm] | [mm] | [mm] | [mm] | [mm] | [mm] | [mm] | |
| DIN 376 | M 30 | x | 3,5 | 26,5 | 180 | 40 | - | 22 | 18 | 7682.0B010130 |
| | M 33 | x | 3,5 | 29,5 | 180 | 40 | - | 25 | 20 | 7682.0B010133 |
| | M 36 | x | 4 | 32 | 200 | 50 | - | 28 | 22 | 7682.0B010136 |
| | M 42 | x | 4,5 | 37,5 | 200 | 56 | - | 32 | 24 | 7682.0B010142 |
| | M 45 | x | 4,5 | 40,5 | 220 | 58 | - | 36 | 29 | 7682.0B010145 |
| | M 48 | x | 5 | 43 | 250 | 65 | - | 36 | 29 | 7682.0B010148 |
| | M 52 | x | 5 | 47 | 250 | 65 | - | 40 | 32 | 7682.0B010152 |
| | M 56 | x | 5,5 | 50,5 | 280 | 70 | - | 40 | 32 | 7682.0B010156 |
| | M 60 | x | 5,5 | 54,5 | 280 | 70 | - | 45 | 35 | 7682.0B010160 |
| | M 64 | x | 6 | 58 | 315 | 75 | - | 50 | 39 | 7682.0B010164 |

| | $d_1$ | | P | | $l_1$ | $l_2$ | $l_3$ | Ø $d_2$ | a | |
|---|---|---|---|---|---|---|---|---|---|---|
| | [mm] | | [mm] | [mm] | [mm] | [mm] | [mm] | [mm] | [mm] | |
| DIN 374 | MF 30 | x | 2 | 28 | 150 | 28 | - | 22 | 18 | 7682.0B010491 |
| | MF 33 | x | 2 | 31 | 160 | 30 | - | 25 | 20 | 7682.0B010512 |
| | MF 36 | x | 3 | 33 | 200 | 42 | - | 28 | 22 | 7682.0B010534 |
| | MF 39 | x | 3 | 36 | 200 | 42 | - | 32 | 24 | 7682.0B010555 |
| | MF 42 | x | 3 | 39 | 200 | 45 | - | 32 | 24 | 7682.0B010576 |
| | MF 45 | x | 3 | 42 | 200 | 45 | - | 36 | 29 | 7682.0B010597 |
| | MF 48 | x | 3 | 45 | 225 | 50 | - | 36 | 29 | 7682.0B010618 |
| | MF 72 | x | 6 | 66 | 340 | 80 | - | 50 | 39 | 7682.0B010704 |

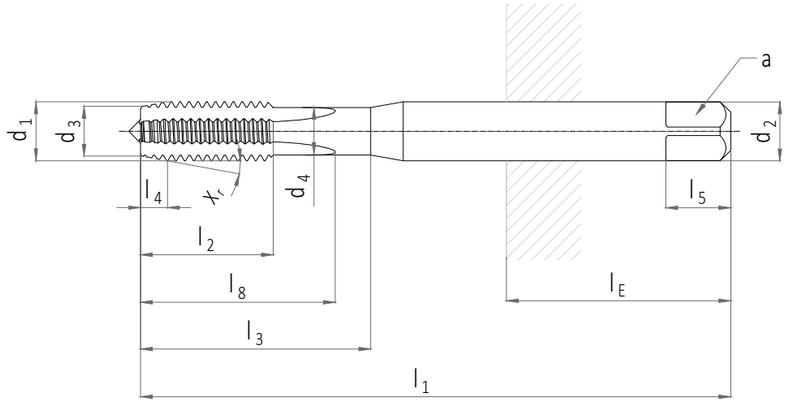
| | $d_1$ | | P | | $l_1$ | $l_2$ | $l_3$ | Ø $d_2$ | a | |
|---|---|---|---|---|---|---|---|---|---|---|
| | [inch] | | Gg/1" [tpi] | [mm] | [mm] | [mm] | [mm] | [mm] | [mm] | |
| ≈ DIN 376 | UNC 3/4 | - | 10 | 16,5 | 125 | 32 | - | 14 | 11 | 7682.0B015016 |
| | UNC 1" | - | 8 | 22,2 | 160 | 36 | - | 20 | 16 | 7682.0B015018 |

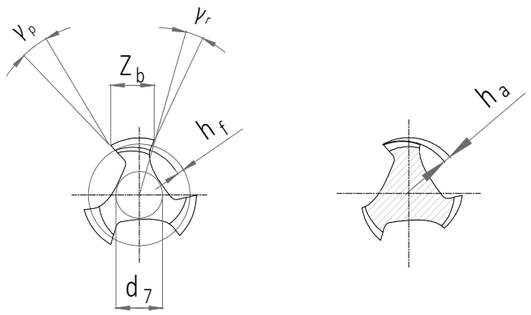
NORIS

VERSTELLBARE WINDEISEN · ADJUSTABLE TAP WRENCHES · TOURNES À GAUCHE RÉGLABLES · GIRAMASCHI REGOLABILI




| | Nr. | a min. | - | a max. | l | |
|---|---|---|---|---|---|---|
| | | [mm] | | | [mm] | |
| ≈ DIN 1814 | 1 | 2 | - | 6 | 180 | 9980AAAAA |
| | 2 | 4 | - | 9 | 280 | 9980AABAA |
| | 3 | 4,9 | - | 12 | 375 | 9980AACAA |
| | 4 | 5,5 | - | 16 | 500 | 9980AADAA |
| | 5 | 7 | - | 20 | 750 | 9980AAEAA |





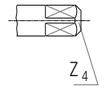


| | | | | |
|---|---|---|---|---|
| $d_1$ | Außendurchmesser | Outside diameter | Diamètre extérieur | Diametro esterno |
| $d_2$ | Schaftdurchmesser | Shank diameter | Diamètre de queue | Gambo |
| $d_3$ | Anschnittdurchmesser | Chamfer diameter | Diamètre de l'avant-trou | Diametro dell'imbocco |
| $d_4$ | Halsdurchmesser | Neck diameter | Diamètre du cou | Rastrematura del gambo |
| $d_7$ | Seelendurchmesser | Web diameter | Diamètre de l'âme | Diametro dell'anima |
| $l_1$ | Gesamtlänge | Overall length | Longueur totale | Lunghezza totale |
| $l_2$ | Gewindelänge | Thread length | Longueur du filetage | Lunghezza del filetto |
| $l_3$ | nutzbare Gewindelänge | Useful length | Longueur utile | Lunghezza utile |
| $l_4$ | Anschnittlänge | Chamfer lead length | Longueur d'entrée | Lunghezza imbocco |
| $l_5$ | Vierkantlänge | Square length | Longueur du carré | Lunghezza del quadro |
| $l_8$ | Nutenlänge | Flute length | Longueur de la goujure | Lunghezza gola tagliente |
| $l_E$ | Einspannlänge | Clamping length | Longueur de serrage | Lunghezza di serraggio |
| a | Vierkantmaß | Square dimension | Dimension de carré | Misura del quadro |
| $h_a$ | Anschnitthinterschliff | Chamfer relief | Détalonnage ébauche | Rastrematura dell'imbocco |
| $h_f$ | Flankenhinterschliff | Relief on flanks | Détalonnage flanc | Rastrematura dei fianchi |
| $Z_b$ | Zahnbreite | Tooth width | Largeur de dent | Larghezza del dente |
| Z | Anzahl der Schneiden | Number of cutting edges | Nombre de dents | Numero dei denti |
| $\chi_r$ | Anschnittwinkel | Chamfer angle | Angle de chanfrein | Angolo di smussatura |
| $\gamma_p$ | Spanwinkel | Rake angle | Angle de coupe | Angolo di spoglia |
| $\gamma_r$ | Rückenwinkel | Back angle | Angle de dépouille | Angolo di rilievo |



TECHNISCHER TEIL / TECHNICAL PART / PARTIE TECHNIQUE / PARTE TECNICA

## ZENTRIERUNG
CENTERING / CENTRAGE / CENTRATURA

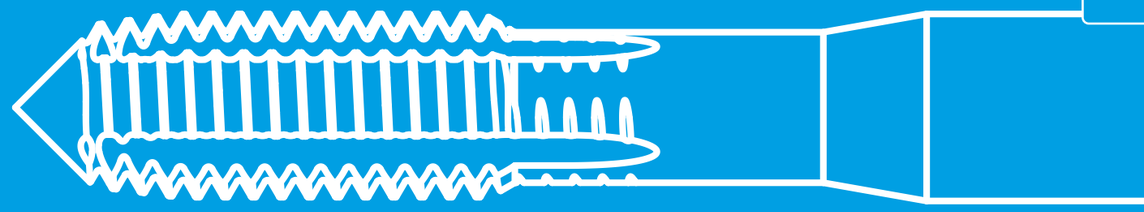
| | | | | |
|---|---|---|---|---|
|   < ø 5,6 mm | Zentrierspitze | Centre point | Pointe de centre | Centrino |
|   ø 5,6 mm- 12,8 mm | Zentrierspitze abgesetzt | Centring point set off | avec enlèvement du point de centre | Centrino taglianto |
|   > ø 12,8 mm | Zentrierbohrung | Centring hole | Trou de centrage | Foro di centratura |
|   | Zentrierfase | Centring bevel | Chanfrein de centrage | Smusso per centratura |

## FERTIGUNGS-BAUMASSE
CONTRUCTION-DIMENSIONS / ENCOMBREMENTS / DIMENSIONE CONSTRUTTIVA

| Katalog-Nr. / Catalogue No. No. de Catalogue / Catalogo Nr. | Typ / Type Type / Tipo | Gewindebohrer – Norm / Tap – Standard Tarauds – Norme / Maschi – Norma | | | | |
|---|---|---|---|---|---|---|
| | | M | MF | G | PG | EG-M |
| 5000 5999 |  | DIN 352 | DIN 2181 | DIN 5157 | DIN 40432 | - |
| 6000 6999 |  | DIN 371 | DIN 371 | - | - | DIN 40435 |
| 7000 7999 |  | DIN 376 | DIN 374 | DIN 5156 | DIN 40433 | DIN 40435 |

## ANWENDUNGSKLASSEN
APPLICATION CLASSES / CLASSES DAPPLICATION / CLASS DI APPLICAZIONE

| Anwendungsklasse des Gewindebohrers / Application class of tap / Classe d'utilisation du taraud / Classe d'applicazione del maschiatore | | Toleranz des Innengewindes / Tolerance class of internal thread / Classe de tolérance du filetage intérieur / Classe di tolleranza del filetto interno | | | | |
|---|---|---|---|---|---|---|
| ISO | DIN | | | | | |
| ISO 1 | 4H | 4H | 5H | - | - | - |
| ISO 2 | 6H | 4G | 5G | 6H | - | - |
| ISO 3 | 6G | | (4E) | 6G | 7H | 8H |
| - | 7G | - | - | (6E) | 7G | 8G |



# 02

GEWINDEFORMER
COLD FORMING TAPS
TARAUDS Á REFOULER
MACHI A RULLARE

## AUSWAHLÜBERSICHT

DIE ANGEGEBENEN SCHNITTWERTE
SIND RICHTWERTE UND MÜSSEN DEN INDIVIDUELLEN
ARBEITSBEDINGUNGEN ANGEPASST WERDEN.

## GUIDE DE SELECTION

LES VALEURS DE VITESSE DE COUPE INDIQUÉES DANSLES
COLONNES RESPECTIVES NE SONT QU'INDICATIVES ET DOIVENT ÊTRE
ADAPTÉES INDIVIDUELLEMENT AUX CONDITIONS D'USINAGE.

## SUMMARY OF ASSORTMENT

THE LISTED CUTTING DATA ARE STANDARD VALUES.
THIS VALUES HAVE TO BE ADJUSTED TO INDIVIDUAL WORK
CONDITIONS.

## SCELTA DEGLI UTENSILI

I VALORI DI VELOCITÀ DI TAGLIO QUI ELENCATI SONO
PURAMENTE INDICATIVI E DEVONO ESSERE ADATTATI ALLE
CONDIZIONI D'IMPIEGO.

## NORIS SPANLOS

## NORIS SPANLOS NEO



| | EC | EC SN | | | CNC SN | | | BL | HR SN | | AL SN | | GAL SN | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | mKB | EL | | | mKB | | mKB | | mKB | |
| OBERFLÄCHE · SURFACE · SURFACE · SUPERFICIE | TIN | TIN | ALTINHD | DLC | TIN | TIN | TIN | TIN | TIN | TIN | DLC | DLC | TICN | TICN |
| SCHNEIDSTOFF · MATERIAL · MATIÈRE · MATERIALE | HSSE | HSSE | HSSE | HSSE | HSSE-PM | HSSE-PM | HSSE-PM | HSSE-PM | HSSE-PM | HSSE-PM | HSSE-PM | HSSE-PM | HSSE-PM | HSSE-PM |
| M | 154 | 154 | 154 | 154 | 155 | 155 | 156 | 157 | 157 | 157 | 158 | 159 | 160 | 161 |
| MF | | 162 | | | 162 | 162 | | | 163 | 163 | | | | |
| UNC | | 164 | | | 164 | 164 | | | | | | | | |
| UNF | | 165 | | | 165 | 165 | | | | | | | | |
| G | | 166 | | | 166 | 166 | | | | | | | | |

| P | STAHLWERKSTOFFE | STEEL MATERIALS | ACIERS | ACCIAI | | MAT. | | Vc [m/min] | | | | Vc [m/min] | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Un- und niedriglegierte Stähle | Unalloyed and low-alloy steels | Aciers non et faiblement alliés | Acciai non legati e basso legati | ≤ 800N/mm² | P1.1 | | **20 - 40** | **20 - 40** | 20- 40 | | **20 - 40** | **20 - 40** | **20 - 40** | **20 - 40** | | | | | | |
| | | | | | ≤ 1200N/mm² | P1.2 | | **10 - 30** | **10 - 30** | 10- 30 | | **10 - 30** | **10 - 30** | **10 - 30** | **10 - 30** | **10 - 30** | **10 - 30** | | | | |
| | | | | | ≤ 1400N/mm² | P1.3 | | | | | | | | | | **5 - 10** | **5 - 10** | | | | |
| | Hochlegierte Stähle | High alloy steels | Aciers hautement alliés | Acciai alto legati | ≤ 1400N/mm² | P2.1 | | | | | | | | | | **5 - 15** | **5 - 15** | | | | |
| M | ROSTFREIE STÄHLE | CORROSION AND ACID PROOF STEELS | ACIERS INOX/RESIST. ACIDES | ACCIAI INOX E RESISTENTI AGLI ACIDI | | | | Vc [m/min] | | | | Vc [m/min] | | | | | | | | | |
| | Rostfreie austenitische Stähle + DUPLEX Stähle | Stainless austenitic steels + DUPLEX steels | Aciers inoxydables austénitiques + Aciers DUPLEX | Acciai inossidabili austenitici + Acciai DUPLEX | ≤ 800N/mm² | M1.1 | | 8-15 | 8-15 | 8-15 | | 8-15 | 8-15 | 8-15 | 8-15 | 8-15 | 8-15 | | | | |
| | | | | | ≤ 1300N/mm² | M1.2 | | | | | | 4- 8 | 4- 8 | 4- 8 | 4- 8 | 4- 8 | 4- 8 | | | | |
| K | GUSSWERKSTOFFE | CAST MATERIALS | FONTES | GHISE | | | | Vc [m/min] | | | | Vc [m/min] | | | | | | | | | |
| | Grauguss, Kugelgraphitguss, Vermicular-graphitguss, Temperguss | Cast iron, nodular cast iron, Vermicular graphite cast iron, malleable cast iron | Fonte grise, fonte à graphite sphéroïdal, Fonte à graphite vermiculaire, Fonte malléable | Ghisa grigia, ghisa nodulare, Ghisa a grafite vermiculata, ghisa malleabile | ≤ 800N/mm² | K1.1 | | 15- 25 | 15- 25 | 15- 25 | | 15- 25 | 15- 25 | 15- 25 | | **15 - 25** | **15 - 25** | | | | |
| | Gusseisen ausferritisch (ADI) + Hartguss | Ausferritic cast iron (ADI) + Hard casting | Fonte ausferritique (ADI) + Fontes trempées | Ghisa ausferritica (ADI) + Ghise in conchiglia | ≤ 1400N/mm² | K2.1 | | | | | | | | | | | | | | | |
| N | NICHTEISEN-WERKSTOFFE | NON FERROUS MATERIALS | MATÉRIAUX NON FERREUX | MATERIALI NON FERROSI | | | | Vc [m/min] | | | | Vc [m/min] | | | | | | | | | |
| | Aluminium-Knetlegierungen | Aluminium wrought alloys | Alliages d'aluminium corroyés | Leghe malleabili di alluminio | | N1.1 | | | | | **30 - 60** | | | | | | | **30 - 60** | **30 - 60** | | |
| | Aluminium-Gusslegierungen | Aluminium cast alloys | Fontes d'alu | Leghe fuse di alluminio | ≤ 12%Si | N1.2 | | 30- 40 | 30- 40 | 30- 40 | 30- 40 | 30- 40 | 30- 40 | 30- 40 | | | | 30- 60 | 30- 60 | **30 - 60** | **30 - 60** |
| | | | | | ≥ 12%Si | N1.3 | | | | | | | | | | | | | | **20 - 40** | **20 - 40** |
| | Kupfer + Kupferlegierungen (langsp.) | Copper + Copper alloys (long-chip.) | Cuivre + Alliages cuivre (cop. longs) | Rame + Leghe rame (truciolo lungo) | | N2.1 | | 20- 30 | 20- 30 | 20- 30 | 20- 30 | 20- 30 | 20- 30 | 20- 30 | | 20- 30 | 20- 30 | **20 - 30** | **20 - 30** | | |
| | Kupferlegierungen (kurzsp.) | Copper alloys (short-chip.) | Alliages cuivre (cop. courts) | Leghe rame (truciolo corto) | | N2.2 | | | | | | | | | | | | | | | |
| | Kupferlegierungen hochfest | High-strength copper alloys | Alliages cuivre haute résistance | Leghe rame ad alta resistenza | ≥ 800N/mm² | N2.3 | | | | | | | | | | | | | | | |
| | Zinklegierungen | Zinc alloys | Alliages de zinc | Leghe zinco | | N3.1 | | 30- 40 | 30- 40 | 30- 40 | 30- 40 | 30- 40 | 30- 40 | 30- 40 | | 30- 40 | 30- 40 | **30 - 40** | **30 - 40** | | |
| | Magnesiumlegierungen | Magnesium wrought alloys | Alliages de magnésium corroyés | Leghe malleabili di magnesio | | N4.1 | | | | | | | | | | | | | | | |
| | Thermoplaste | Thermoplastics | Thermoplastiques | Resine termoplastiche | | N5.1 | | | | | | | | | | | | | | | |
| | Faserverstärkte Kunststoffe + Duroplaste | Fibre-reinforced synthetics + Duroplastics | Plastiques chargées en fibres + Thermodurcissables | Resine epossidiche + Plastiche termoindurenti | | N5.2 | | | | | | | | | | | | | | | |
| S | SPEZIALWERKSTOFFE | SPECIAL MATERIALS | MATÉRIAUX SPÉCIAUX | MATERIALI SPECIALI | | | | Vc [m/min] | | | | Vc [m/min] | | | | | | | | | |
| | Ni-, Fe- oder Co-basierte Superlegierungen | Ni-, Fe- or Co-based superalloys | Superalliages à base de Ni, Fe ou Co | Superleghe a base di Ni, Fe o Co | ≤ 800N/mm² | S1.1 | | | | | | | | | | | | | | | |
| | | | | | ≤ 1600N/mm² | S1.2 | | | | | | | | | | | | | | | |
| | Titan + Titanlegierungen | Titanium + Titanium alloys | Titane + Alliages de titane | Titanio + Leghe di titanio | ≤ 800N/mm² | S2.1 | | | | | | 2- 6 | 2- 6 | 2- 6 | | | | | | | |
| | | | | | ≤ 1300N/mm² | S2.2 | | | | | | | | | | | | | | | |
| H | GEHÄRTETE WERKSTOFFE | HARDENED STEELS | ACIERS TRAITÉS | ACCIAI TEMPRATI | | | | Vc [m/min] | | | | Vc [m/min] | | | | | | | | | |
| | Gehärtete Stähle | Hardened steels | Aciers traités | Acciai temprati | ≤ 55HRc | H1.1 | | | | | | | | | | | | | | | |
| | | | | | ≤ 63HRc | H1.2 | | | | | | | | | | | | | | | |
| | | | | | ≤ 65HRc | H1.3 | | | | | | | | | | | | | | | |

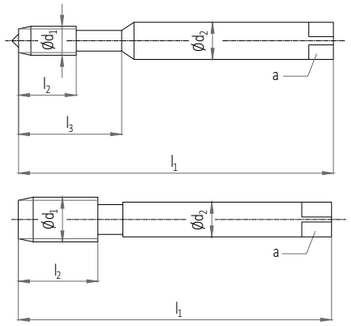
Schmiermittelempfehlung • Lubricant recommendation
Lubrification recommandée • Raccomandazioni per i lubrificanti

EMULSION • EMULSION
ÉMULSION • EMULSIONE

SCHNEIDÖL • CUTTING OIL
HUILE DE COUPE • OLIO DA TAGLIO

M DIN 13

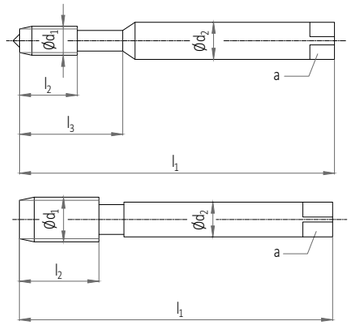
3xD




| | NORIS SPANLOS | NORIS SPANLOS | NORIS SPANLOS | NORIS SPANLOS | NORIS SPANLOS | NORIS SPANLOS |
|---|---|---|---|---|---|---|
| | EC | EC | EC SN | EC SN | EC SN | EC SN |
| |  |  |  |  |  |  |
| OBERFLÄCHE · SURFACE · SURFACE · SUPERFICIE | TIN | TIN | TIN | TIN | ALTINHD | DLC |
| SCHNEIDSTOFF · MATERIAL · MATIÈRE · MATERIALE | HSSE | HSSE | HSSE | HSSE | HSSE | HSSE |
| ANSCHNITTFORM · CHAMFER FORM · FORME D'ENTRÉE · FORMA D'IMBOCCO | C / 2-3 | C / 2-3 | C / 2-3 | C / 2-3 | C / 2-3 | C / 2-3 |
| TOLERANZ · TOLERANCE · TOLÉRANCE · TOLLERANZA | ISO1X | ISO2X | ISO2X | ISO3X | ISO2X | ISO2X |
| | RH | RH | RH | RH | RH | RH |

| | $d_1$ | P | Ø | $l_1$ | $l_2$ | $l_3$ | Ø $d_2$ | a | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | [mm] | [mm] | [mm] | [mm] | [mm] | [mm] | [mm] | [mm] | | | | | | |
| DIN 2174 | M 1 | 0,25 | 0,9 | 40 | 5 | 5 | 2,5 | 2,1 | 6960.02040010 | | | | | |
| | M 1,2 | 0,25 | 1,1 | 40 | 5 | 5 | 2,5 | 2,1 | 6960.02040012 | | | | | |
| | M 1,4 | 0,3 | 1,28 | 40 | 6 | 6 | 2,5 | 2,1 | 6960.02040014 | | | | | |
| | M 1,6 | 0,35 | 1,45 | 40 | 6 | 11 | 2,5 | 2,1 | | 6960.0B040016 | | | | |
| | M 1,7 | 0,35 | 1,57 | 40 | 6 | 11 | 2,5 | 2,1 | | 6960.0B040017 | | | | |
| | M 2 | 0,4 | 1,85 | 45 | 7 | 12 | 2,8 | 2,1 | | | | | | |
| | M 2 | 0,4 | 1,85 | 45 | 7 | 12 | 2,8 | 2,1 | | | 6970.0B040020 | | | 6971.0B100020 |
| | M 2,5 | 0,45 | 2,33 | 50 | 9 | 14 | 2,8 | 2,1 | | | 6970.0B040025 | | | 6971.0B100025 |
| | M 3 | 0,5 | 2,8 | 56 | 11 | 18 | 3,5 | 2,7 | | | 6970.0B040030 | 6970.14040030 | 6970.0B090030 | 6971.0B100030 |
| | M 3,5 | 0,6 | 3,25 | 56 | 12 | 20 | 4 | 3 | | | 6970.0B040035 | | | |
| | M 4 | 0,7 | 3,7 | 63 | 13 | 21 | 4,5 | 3,4 | | | 6970.0B040040 | 6970.14040040 | 6970.0B090040 | 6971.0B100040 |
| | M 5 | 0,8 | 4,65 | 70 | 15 | 25 | 6 | 4,9 | | | 6970.0B040050 | 6970.14040050 | 6970.0B090050 | 6971.0B100050 |
| | M 6 | 1 | 5,6 | 80 | 17 | 30 | 6 | 4,9 | | | 6970.0B040060 | 6970.14040060 | 6970.0B090060 | 6971.0B100060 |
| | M 8 | 1,25 | 7,45 | 90 | 20 | 35 | 8 | 6,2 | | | 6970.0B040080 | 6970.14040080 | 6970.0B090080 | 6971.0B100080 |
| | M 10 | 1,5 | 9,35 | 100 | 22 | 39 | 10 | 8 | | | 6970.0B040100 | 6970.14040100 | 6970.0B090100 | 6971.0B100100 |
| | M 12 | 1,75 | 11,25 | 110 | 24 | - | 9 | 7 | | | 7970.0B040112 | | 7970.0B090112 | |
| | M 14 | 2 | 13,1 | 110 | 26 | - | 11 | 9 | | | 7970.0B040114 | | | |
| | M 16 | 2 | 15,1 | 110 | 27 | - | 12 | 9 | | | 7970.0B040116 | | 7970.0B090116 | |
| | M 20 | 2,5 | 18,85 | 140 | 25 | - | 16 | 12 | | | | | | |
| | M 24 | 3 | 22,65 | 160 | 30 | - | 18 | 14,5 | | | | | | |
| | M 30 | 3,5 | 28,4 | 180 | 35 | - | 22 | 18 | | | | | | |

3xD

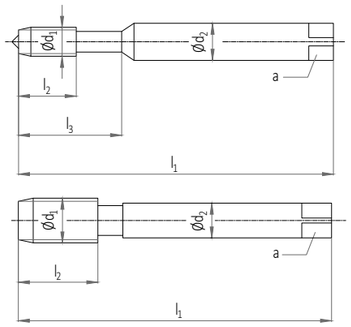



| | NORIS SPANLOS NEO | NORIS SPANLOS NEO | NORIS SPANLOS NEO |
|---|---|---|---|
| | CNC SN | CNC SN | CNC SN |
| |  |  |  |
| OBERFLÄCHE · SURFACE · SURFACE · SUPERFICIE | TIN | TIN | TIN |
| SCHNEIDSTOFF · MATERIAL · MATIÈRE · MATERIALE | HSSE-PM | HSSE-PM | HSSE-PM |
| ANSCHNITTFORM · CHAMFER FORM · FORME D'ENTRÉE · FORMA D'IMBOCCO | C / 2-3 | C / 2-3 | E / 1,5-2 |
| TOLERANZ · TOLERANCE · TOLÉRANCE · TOLLERANZA | ISO2X | ISO3X | ISO2X |
| | RH | RH | RH |

| | $d_1$ | P | Ø | $l_1$ | $l_2$ | $l_3$ | Ø $d_2$ | a | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | [mm] | [mm] | [mm] | [mm] | [mm] | [mm] | [mm] | [mm] | | | |
| DIN 2174 | M 1 | 0,25 | 0,9 | 40 | 5 | 5 | 2,5 | 2,1 | | | |
| | M 1,2 | 0,25 | 1,1 | 40 | 5 | 5 | 2,5 | 2,1 | | | |
| | M 1,4 | 0,3 | 1,28 | 40 | 6 | 6 | 2,5 | 2,1 | | | |
| | M 1,6 | 0,35 | 1,45 | 40 | 6 | 11 | 2,5 | 2,1 | | | |
| | M 1,7 | 0,35 | 1,57 | 40 | 6 | 11 | 2,5 | 2,1 | | | |
| | M 2 | 0,4 | 1,85 | 45 | 7 | 12 | 2,8 | 2,1 | | | |
| | M 2,5 | 0,45 | 2,33 | 50 | 9 | 14 | 2,8 | 2,1 | | | |
| | M 3 | 0,5 | 2,8 | 56 | 6 | 18 | 3,5 | 2,7 | 69BC.0B040030 | 69BC.14040030 | 69BC.0D040030 |
| | M 3,5 | 0,6 | 3,25 | 56 | 12 | 20 | 4 | 3 | | | |
| | M 4 | 0,7 | 3,7 | 63 | 7 | 21 | 4,5 | 3,4 | 69BC.0B040040 | 69BC.14040040 | 69BC.0D040040 |
| | M 5 | 0,8 | 4,65 | 70 | 8 | 25 | 6 | 4,9 | 69BC.0B040050 | 69BC.14040050 | 69BC.0D040050 |
| | M 6 | 1 | 5,6 | 80 | 10 | 30 | 6 | 4,9 | 69BC.0B040060 | 69BC.14040060 | 69BC.0D040060 |
| | M 8 | 1,25 | 7,45 | 90 | 14 | 35 | 8 | 6,2 | 69BC.0B040080 | 69BC.14040080 | 69BC.0D040080 |
| | M 10 | 1,5 | 9,35 | 100 | 16 | 39 | 10 | 8 | 69BC.0B040100 | 69BC.14040100 | 69BC.0D040100 |
| | M 12 | 1,75 | 11,25 | 110 | 18 | - | 9 | 7 | 79BC.0B040112 | | 79BC.0D040112 |
| | M 14 | 2 | 13,1 | 110 | 20 | - | 11 | 9 | | | 79BC.0D040114 |
| | M 16 | 2 | 15,1 | 110 | 22 | - | 12 | 9 | 79BC.0B040116 | | 79BC.0D040116 |
| | M 16 | 2 | 15,1 | 110 | 27 | - | 12 | 9 | | | |
| | M 20 | 2,5 | 18,85 | 140 | 25 | - | 16 | 12 | | | |
| | M 24 | 3 | 22,65 | 160 | 30 | - | 18 | 14,5 | | | |
| | M 30 | 3,5 | 28,4 | 180 | 35 | - | 22 | 18 | | | |

M DIN 13

3xD CNC




| | NORIS SPANLOS NEO CNC SN MKB | NORIS SPANLOS NEO CNC SN MKB | NORIS SPANLOS NEO CNC SN EL |
|---|---|---|---|
| |  |  |  |
| | | | EL |
| OBERFLÄCHE · SURFACE · SURFACE · SUPERFICIE | TIN | TIN | TIN |
| SCHNEIDSTOFF · MATERIAL · MATIÈRE · MATERIALE | HSSE-PM | HSSE-PM | HSSE-PM |
| ANSCHNITTFORM · CHAMFER FORM · FORME D'ENTRÉE · FORMA D'IMBOCCO | C / 2-3 | E / 1,5-2 | C / 2-3 |
| TOLERANZ · TOLERANCE · TOLÉRANCE · TOLLERANZA | ISO2X | ISO2X | ISO2X |
| | RH | RH | RH |

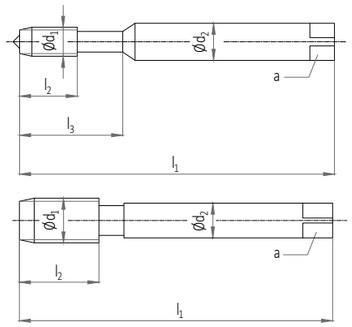
DIN 2174

| | $d_1$ | P | | $l_1$ | $l_2$ | $l_3$ | Ø $d_2$ | a | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | [mm] | [mm] | [mm] | [mm] | [mm] | [mm] | [mm] | [mm] | | | |
| M | 1 | 0,25 | 0,9 | 40 | 5 | 5 | 2,5 | 2,1 | | | |
| M | 1,2 | 0,25 | 1,1 | 40 | 5 | 5 | 2,5 | 2,1 | | | |
| M | 1,4 | 0,3 | 1,28 | 40 | 6 | 6 | 2,5 | 2,1 | | | |
| M | 1,6 | 0,35 | 1,45 | 40 | 6 | 11 | 2,5 | 2,1 | | | |
| M | 1,7 | 0,35 | 1,57 | 40 | 6 | 11 | 2,5 | 2,1 | | | |
| M | 2 | 0,4 | 1,85 | 45 | 7 | 12 | 2,8 | 2,1 | | | |
| M | 2,5 | 0,45 | 2,33 | 50 | 9 | 14 | 2,8 | 2,1 | | | |
| M | 3 | 0,5 | 2,8 | 56 | 11 | 18 | 3,5 | 2,7 | | | |
| M | 3,5 | 0,6 | 3,25 | 56 | 12 | 20 | 4 | 3 | | | |
| M | 4 | 0,7 | 3,7 | 63 | 7 | 21 | 4,5 | 3,4 | 69CC.0B040040 | 69CC.0D040040 | |
| M | 5 | 0,8 | 4,65 | 70 | 8 | 25 | 6 | 4,9 | 69CC.0B040050 | 69CC.0D040050 | |
| M | 6 | 1 | 5,6 | 80 | 10 | 30 | 6 | 4,9 | 69CC.0B040060 | 69CC.0D040060 | |
| M | 8 | 1,25 | 7,45 | 90 | 14 | 35 | 8 | 6,2 | 69CC.0B040080 | 69CC.0D040080 | |
| M | 10 | 1,5 | 9,35 | 100 | 16 | 39 | 10 | 8 | 69CC.0B040100 | 69CC.0D040100 | |
| M | 12 | 1,75 | 11,25 | 110 | 18 | - | 9 | 7 | 79CC.0B040112 | 79CC.0D040112 | |
| M | 14 | 2 | 13,1 | 110 | 20 | - | 11 | 9 | 79CC.0B040114 | 79CC.0D040114 | |
| M | 16 | 2 | 15,1 | 110 | 22 | - | 12 | 9 | 79CC.0B040116 | 79CC.0D040116 | |
| M | 20 | 2,5 | 18,85 | 140 | 25 | - | 16 | 12 | 79CC.0B040120 | | |
| M | 24 | 3 | 22,65 | 160 | 30 | - | 18 | 14,5 | | | |
| M | 30 | 3,5 | 28,4 | 180 | 35 | - | 22 | 18 | | | |

≈ DIN 2174 EL

| | $d_1$ | P | | $l_1$ | $l_2$ | $l_3$ | Ø $d_2$ | a | |
|---|---|---|---|---|---|---|---|---|---|
| | [mm] | [mm] | [mm] | [mm] | [mm] | [mm] | [mm] | [mm] | |
| M | 3 | 0,5 | 2,8 | 100 | 6 | 18 | 3,5 | 2,7 | 99BC.0B040030 |
| M | 4 | 0,7 | 3,7 | 125 | 7 | 21 | 4,5 | 3,4 | 99BC.0B040040 |
| M | 5 | 0,8 | 4,65 | 140 | 8 | 25 | 6 | 4,9 | 99BC.0B040050 |
| M | 6 | 1 | 5,6 | 160 | 10 | 30 | 6 | 4,9 | 99BC.0B040060 |
| M | 8 | 1,25 | 7,45 | 180 | 14 | 35 | 8 | 6,2 | 99BC.0B040080 |
| M | 10 | 1,5 | 9,35 | 200 | 16 | 39 | 10 | 8 | 99BC.0B040100 |
| M | 12 | 1,75 | 11,25 | 224 | 18 | - | 9 | 7 | 99BC.0B040112 |
| M | 16 | 2 | 15,1 | 224 | 22 | - | 12 | 9 | 99BC.0B040116 |

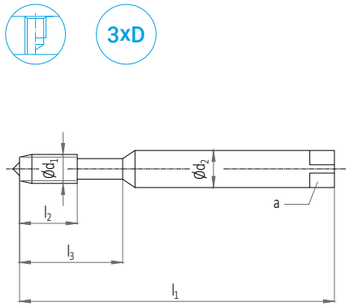
3xD




| | NORIS SPANLOS NEO BL | NORIS SPANLOS NEO HR SN | NORIS SPANLOS NEO HR SN MKB |
|---|---|---|---|
| |  |  |  |
| OBERFLÄCHE · SURFACE · SURFACE · SUPERFICIE | TIN | TIN | TIN |
| SCHNEIDSTOFF · MATERIAL · MATIÈRE · MATERIALE | HSSE-PM | HSSE-PM | HSSE-PM |
| ANSCHNITTFORM · CHAMFER FORM · FORME D'ENTRÉE · FORMA D'IMBOCCO | D / 4-5 | C / 2-3 | C / 2-3 |
| TOLERANZ · TOLERANCE · TOLÉRANCE · TOLLERANZA | ISO2X | ISO2X | ISO2X |
| | RH | RH | RH |

DIN 2174

| | $d_1$ | P | | $l_1$ | $l_2$ | $l_3$ | Ø $d_2$ | a | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | [mm] | [mm] | [mm] | [mm] | [mm] | [mm] | [mm] | [mm] | | | |
| M | 1 | 0,25 | 0,9 | 40 | 5 | 5 | 2,5 | 2,1 | | | |
| M | 1,2 | 0,25 | 1,1 | 40 | 5 | 5 | 2,5 | 2,1 | | | |
| M | 1,4 | 0,3 | 1,28 | 40 | 6 | 6 | 2,5 | 2,1 | | | |
| M | 1,6 | 0,35 | 1,45 | 40 | 6 | 11 | 2,5 | 2,1 | | | |
| M | 1,7 | 0,35 | 1,57 | 40 | 6 | 11 | 2,5 | 2,1 | | | |
| M | 2 | 0,4 | 1,85 | 45 | 7 | 12 | 2,8 | 2,1 | | | |
| M | 2 | 0,4 | 1,85 | 45 | 7 | 12 | 2,8 | 2,1 | | | |
| M | 2,5 | 0,45 | 2,33 | 50 | 9 | 14 | 2,8 | 2,1 | | | |
| M | 3 | 0,5 | 2,8 | 56 | 6 | 18 | 3,5 | 2,7 | | | |
| M | 3 | 0,5 | 2,8 | 56 | 11 | 18 | 3,5 | 2,7 | 69AB.0C040030 | | |
| M | 3,5 | 0,6 | 3,25 | 56 | 12 | 20 | 4 | 3 | | | |
| M | 4 | 0,7 | 3,7 | 63 | 13 | 21 | 4,5 | 3,4 | 69AB.0C040040 | | |
| M | 5 | 0,8 | 4,65 | 70 | 8 | 25 | 6 | 4,9 | | 69B3.0B040050 | 69C3.0B040050 |
| M | 5 | 0,8 | 4,65 | 70 | 15 | 25 | 6 | 4,9 | 69AB.0C040050 | | |
| M | 6 | 1 | 5,6 | 80 | 10 | 30 | 6 | 4,9 | | 69B3.0B040060 | 69C3.0B040060 |
| M | 6 | 1 | 5,6 | 80 | 17 | 30 | 6 | 4,9 | 69AB.0C040060 | | |
| M | 8 | 1,25 | 7,45 | 90 | 14 | 35 | 8 | 6,2 | | 69B3.0B040080 | 69C3.0B040080 |
| M | 8 | 1,25 | 7,45 | 90 | 20 | 35 | 8 | 6,2 | 69AB.0C040080 | | |
| M | 10 | 1,5 | 9,35 | 100 | 16 | 39 | 10 | 8 | | 69B3.0B040100 | 69C3.0B040100 |
| M | 10 | 1,5 | 9,35 | 100 | 22 | 39 | 10 | 8 | 69AB.0C040100 | | |
| M | 12 | 1,75 | 11,25 | 110 | 18 | - | 9 | 7 | | 79B3.0B040112 | 79C3.0B040112 |
| M | 14 | 2 | 13,1 | 110 | 26 | - | 11 | 9 | | | |
| M | 16 | 2 | 15,1 | 110 | 22 | - | 12 | 9 | | 79B3.0B040116 | 79C3.0B040116 |
| M | 20 | 2,5 | 18,85 | 140 | 25 | - | 16 | 12 | | 79B3.0B040120 | 79C3.0B040120 |
| M | 24 | 3 | 22,65 | 160 | 30 | - | 18 | 14,5 | | 79B3.0B040124 | 79C3.0B040124 |
| M | 30 | 3,5 | 28,4 | 180 | 35 | - | 22 | 18 | | | 79C3.0B040130 |



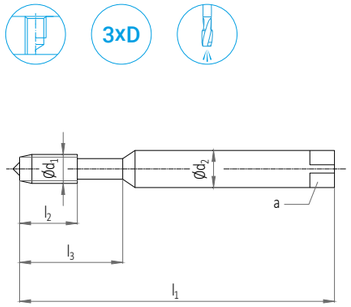





| | NORIS SPANLOS NEO AL SN | NORIS SPANLOS NEO AL SN |
|---|---|---|
| OBERFLÄCHE · SURFACE · SURFACE · SUPERFICIE | DLC | DLC |
| SCHNEIDSTOFF · MATERIAL · MATIÈRE · MATERIALE | HSSE-PM | HSSE-PM |
| ANSCHNITTFORM · CHAMFER FORM · FORME D'ENTRÉE · FORMA D'IMBOCCO | C / 2-3 | E / 1,5-2 |
| TOLERANZ · TOLERANCE · TOLÉRANCE · TOLLERANZA | ISO2X | ISO2X |
| | RH | RH |

| | $d_1$ [mm] | P [mm] | [mm] | $l_1$ [mm] | $l_2$ [mm] | $l_3$ [mm] | Ø $d_2$ [mm] | a [mm] | | |
|---|---|---|---|---|---|---|---|---|---|---|
| DIN 2174 | M 1 | 0,25 | 0,9 | 40 | 5 | 5 | 2,5 | 2,1 | | |
| | M 1,2 | 0,25 | 1,1 | 40 | 5 | 5 | 2,5 | 2,1 | | |
| | M 1,4 | 0,3 | 1,28 | 40 | 6 | 6 | 2,5 | 2,1 | | |
| | M 1,6 | 0,35 | 1,45 | 40 | 6 | 11 | 2,5 | 2,1 | | |
| | M 1,7 | 0,35 | 1,57 | 40 | 6 | 11 | 2,5 | 2,1 | | |
| | M 2 | 0,4 | 1,85 | 45 | 7 | 12 | 2,8 | 2,1 | 69B1.0B100020 | 69B1.0D100020 |
| | M 2,5 | 0,45 | 2,33 | 50 | 9 | 14 | 2,8 | 2,1 | | |
| | M 3 | 0,5 | 2,8 | 56 | 6 | 18 | 3,5 | 2,7 | 69B1.0B100030 | 69B1.0D100030 |
| | M 4 | 0,7 | 3,7 | 63 | 7 | 21 | 4,5 | 3,4 | 69B1.0B100040 | 69B1.0D100040 |
| | M 5 | 0,8 | 4,65 | 70 | 8 | 25 | 6 | 4,9 | 69B1.0B100050 | 69B1.0D100050 |
| | M 6 | 1 | 5,6 | 80 | 10 | 30 | 6 | 4,9 | 69B1.0B100060 | 69B1.0D100060 |
| | M 8 | 1,25 | 7,45 | 90 | 14 | 35 | 8 | 6,2 | 69B1.0B100080 | 69B1.0D100080 |
| | M 10 | 1,5 | 9,35 | 100 | 16 | 39 | 10 | 8 | 69B1.0B100100 | 69B1.0D100100 |





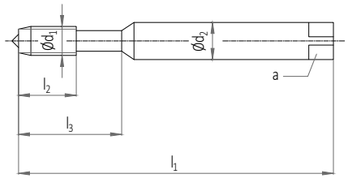





| | NORIS SPANLOS NEO AL SN MKB | NORIS SPANLOS NEO AL SN MKB |
|---|---|---|
| OBERFLÄCHE · SURFACE · SURFACE · SUPERFICIE | DLC | DLC |
| SCHNEIDSTOFF · MATERIAL · MATIÈRE · MATERIALE | HSSE-PM | HSSE-PM |
| ANSCHNITTFORM · CHAMFER FORM · FORME D'ENTRÉE · FORMA D'IMBOCCO | C / 2-3 | E / 1,5-2 |
| TOLERANZ · TOLERANCE · TOLÉRANCE · TOLLERANZA | ISO2X | ISO2X |
| | RH | RH |

| | $d_1$ [mm] | P [mm] | [mm] | $l_1$ [mm] | $l_2$ [mm] | $l_3$ [mm] | Ø $d_2$ [mm] | a [mm] | | |
|---|---|---|---|---|---|---|---|---|---|---|
| DIN 2174 | M 1 | 0,25 | 0,9 | 40 | 5 | 5 | 2,5 | 2,1 | | |
| | M 1,2 | 0,25 | 1,1 | 40 | 5 | 5 | 2,5 | 2,1 | | |
| | M 1,4 | 0,3 | 1,28 | 40 | 6 | 6 | 2,5 | 2,1 | | |
| | M 1,6 | 0,35 | 1,45 | 40 | 6 | 11 | 2,5 | 2,1 | | |
| | M 1,7 | 0,35 | 1,57 | 40 | 6 | 11 | 2,5 | 2,1 | | |
| | M 2 | 0,4 | 1,85 | 45 | 7 | 12 | 2,8 | 2,1 | | |
| | M 2,5 | 0,45 | 2,33 | 50 | 9 | 14 | 2,8 | 2,1 | | |
| | M 3 | 0,5 | 2,8 | 56 | 11 | 18 | 3,5 | 2,7 | | |
| | M 4 | 0,7 | 3,7 | 63 | 7 | 21 | 4,5 | 3,4 | 69C1.0B100040 | 69C1.0D100040 |
| | M 5 | 0,8 | 4,65 | 70 | 8 | 25 | 6 | 4,9 | 69C1.0B100050 | 69C1.0D100050 |
| | M 6 | 1 | 5,6 | 80 | 10 | 30 | 6 | 4,9 | 69C1.0B100060 | 69C1.0D100060 |
| | M 8 | 1,25 | 7,45 | 90 | 14 | 35 | 8 | 6,2 | 69C1.0B100080 | 69C1.0D100080 |
| | M 10 | 1,5 | 9,35 | 100 | 16 | 39 | 10 | 8 | 69C1.0B100100 | 69C1.0D100100 |




NORIS SPANLOS NEO

GAL SN



NORIS SPANLOS NEO

GAL SN



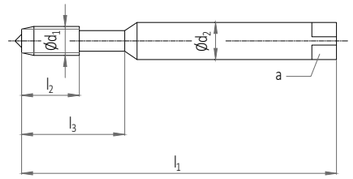
| | | |
|---|---|---|
| OBERFLÄCHE · SURFACE · SURFACE · SUPERFICIE | TICN | TICN |
| SCHNEIDSTOFF · MATERIAL · MATIÈRE · MATERIALE | HSSE-PM | HSSE-PM |
| ANSCHNITTFORM · CHAMFER FORM · FORME D'ENTRÉE · FORMA D'IMBOCCO | C / 2-3 | E / 1,5-2 |
| TOLERANZ · TOLERANCE · TOLÉRANCE · TOLLERANZA | ISO2X | ISO2X |
| | RH | RH |

DIN 2174

| $d_1$ | P | | $l_1$ | $l_2$ | $l_3$ | Ø $d_2$ | a | | |
|---|---|---|---|---|---|---|---|---|---|
| [mm] | [mm] | [mm] | [mm] | [mm] | [mm] | [mm] | [mm] | | |
| M 1 | 0,25 | 0,9 | 40 | 5 | 5 | 2,5 | 2,1 | | |
| M 1,2 | 0,25 | 1,1 | 40 | 5 | 5 | 2,5 | 2,1 | | |
| M 1,4 | 0,3 | 1,28 | 40 | 6 | 6 | 2,5 | 2,1 | | |
| M 1,6 | 0,35 | 1,45 | 40 | 6 | 11 | 2,5 | 2,1 | | |
| M 1,7 | 0,35 | 1,57 | 40 | 6 | 11 | 2,5 | 2,1 | | |
| M 2 | 0,4 | 1,85 | 45 | 7 | 12 | 2,8 | 2,1 | | |
| M 2 | 0,4 | 1,85 | 45 | 7 | 12 | 2,8 | 2,1 | | |
| M 2,5 | 0,45 | 2,33 | 50 | 9 | 14 | 2,8 | 2,1 | | |
| M 3 | 0,5 | 2,8 | 56 | 11 | 18 | 3,5 | 2,7 | | |
| M 4 | 0,7 | 3,7 | 63 | 13 | 21 | 4,5 | 3,4 | | |
| M 5 | 0,8 | 4,65 | 70 | 8 | 25 | 6 | 4,9 | 69BG.0B050050 | 69BG.0D050050 |
| M 6 | 1 | 5,6 | 80 | 10 | 30 | 6 | 4,9 | 69BG.0B050060 | 69BG.0D050060 |
| M 8 | 1,25 | 7,45 | 90 | 14 | 35 | 8 | 6,2 | 69BG.0B050080 | 69BG.0D050080 |
| M 10 | 1,5 | 9,35 | 100 | 16 | 39 | 10 | 8 | 69BG.0B050100 | 69BG.0D050100 |






NORIS SPANLOS NEO

GAL SN MKB



NORIS SPANLOS NEO

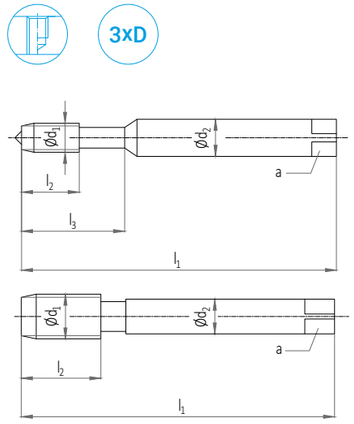
GAL SN MKB



| | | |
|---|---|---|
| OBERFLÄCHE · SURFACE · SURFACE · SUPERFICIE | TICN | TICN |
| SCHNEIDSTOFF · MATERIAL · MATIÈRE · MATERIALE | HSSE-PM | HSSE-PM |
| ANSCHNITTFORM · CHAMFER FORM · FORME D'ENTRÉE · FORMA D'IMBOCCO | C / 2-3 | E / 1,5-2 |
| TOLERANZ · TOLERANCE · TOLÉRANCE · TOLLERANZA | ISO2X | ISO2X |
| | RH | RH |

DIN 2174

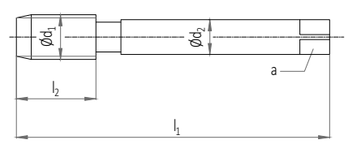
| $d_1$ | P | | $l_1$ | $l_2$ | $l_3$ | Ø $d_2$ | a | | |
|---|---|---|---|---|---|---|---|---|---|
| [mm] | [mm] | [mm] | [mm] | [mm] | [mm] | [mm] | [mm] | | |
| M 1 | 0,25 | 0,9 | 40 | 5 | 5 | 2,5 | 2,1 | | |
| M 1,2 | 0,25 | 1,1 | 40 | 5 | 5 | 2,5 | 2,1 | | |
| M 1,4 | 0,3 | 1,28 | 40 | 6 | 6 | 2,5 | 2,1 | | |
| M 1,6 | 0,35 | 1,45 | 40 | 6 | 11 | 2,5 | 2,1 | | |
| M 1,7 | 0,35 | 1,57 | 40 | 6 | 11 | 2,5 | 2,1 | | |
| M 2 | 0,4 | 1,85 | 45 | 7 | 12 | 2,8 | 2,1 | | |
| M 2 | 0,4 | 1,85 | 45 | 7 | 12 | 2,8 | 2,1 | | |
| M 2,5 | 0,45 | 2,33 | 50 | 9 | 14 | 2,8 | 2,1 | | |
| M 3 | 0,5 | 2,8 | 56 | 11 | 18 | 3,5 | 2,7 | | |
| M 4 | 0,7 | 3,7 | 63 | 13 | 21 | 4,5 | 3,4 | | |
| M 5 | 0,8 | 4,65 | 70 | 8 | 25 | 6 | 4,9 | 69CG.0B050050 | 69CG.0D050050 |
| M 6 | 1 | 5,6 | 80 | 10 | 30 | 6 | 4,9 | 69CG.0B050060 | 69CG.0D050060 |
| M 8 | 1,25 | 7,45 | 90 | 14 | 35 | 8 | 6,2 | 69CG.0B050080 | 69CG.0D050080 |
| M 10 | 1,5 | 9,35 | 100 | 16 | 39 | 10 | 8 | 69CG.0B050100 | 69CG.0D050100 |
| M 10 | 1,5 | 9,35 | 100 | 22 | 39 | 10 | 8 | | |




| | NORIS SPANLOS EC SN | NORIS SPANLOS NEO CNC SN | NORIS SPANLOS NEO CNC SN MKB |
|---|---|---|---|
| |  |  |  |
| OBERFLÄCHE · SURFACE · SURFACE · SUPERFICIE | TIN | TIN | TIN |
| SCHNEIDSTOFF · MATERIAL · MATIÈRE · MATERIALE | HSSE | HSSE-PM | HSSE-PM |
| ANSCHNITTFORM · CHAMFER FORM · FORME D'ENTRÉE · FORMA D'IMBOCCO | C / 2-3 | C / 2-3 | C / 2-3 |
| TOLERANZ · TOLERANCE · TOLÉRANCE · TOLLERANZA | ISO2X | ISO2X | ISO2X |
| | RH | RH | RH |

| | $d_1$ | x | P [mm] | [mm] | $l_1$ [mm] | $l_2$ [mm] | $l_3$ [mm] | Ø $d_2$ [mm] | a [mm] | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DIN 2174 | MF 4 | x | 0,5 | 3,8 | 63 | 10 | 21 | 4,5 | 3,4 | 6970.0B040210 | | |
| | MF 5 | x | 0,5 | 4,8 | 70 | 11 | 25 | 6 | 4,9 | 6970.0B040218 | | |
| | MF 6 | x | 0,5 | 5,8 | 80 | 13 | 30 | 6 | 4,9 | 6970.0B040228 | | |
| | MF 6 | x | 0,75 | 5,7 | 80 | 13 | 30 | 6 | 4,9 | 6970.0B040229 | | |
| | MF 8 | x | 0,75 | 7,7 | 80 | 14 | 30 | 8 | 6,2 | 6970.0B040250 | | |
| | MF 8 | x | 1 | 7,6 | 90 | 10 | 35 | 8 | 6,2 | | 69BC.0B040251 | 69CC.0B040251 |
| | MF 8 | x | 1 | 7,6 | 90 | 17 | 35 | 8 | 6,2 | 6970.0B040251 | | |
| | MF 10 | x | 1 | 9,6 | 90 | 10 | 35 | 10 | 8 | | 69BC.0B040276 | 69CC.0B040276 |
| | MF 10 | x | 1 | 9,6 | 90 | 18 | 35 | 10 | 8 | 6970.0B040276 | | |
| | MF 12 | x | 1 | 11,6 | 100 | 18 | - | 9 | 7 | 7970.0B040301 | | |
| | MF 12 | x | 1,5 | 11,35 | 100 | 15 | - | 9 | 7 | | 79BC.0B040303 | 79CC.0B040303 |
| | MF 12 | x | 1,5 | 11,35 | 100 | 22 | - | 9 | 7 | 7970.0B040303 | | |
| | MF 14 | x | 1,5 | 13,35 | 100 | 15 | - | 11 | 9 | | 79BC.0B040331 | 79CC.0B040331 |
| | MF 14 | x | 1,5 | 13,35 | 100 | 22 | - | 11 | 9 | 7970.0B040331 | | |
| | MF 16 | x | 1,5 | 15,35 | 100 | 15 | - | 12 | 9 | | 79BC.0B040359 | 79CC.0B040359 |
| | MF 16 | x | 1,5 | 15,35 | 100 | 22 | - | 12 | 9 | 7970.0B040359 | | |
| | MF 20 | x | 1,5 | 19,35 | 125 | 25 | - | 16 | 12 | 7970.0B040422 | | |

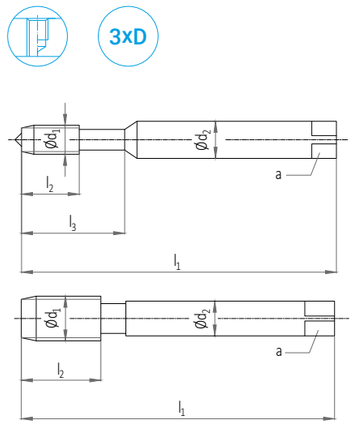





| | NORIS SPANLOS NEO HR SN | NORIS SPANLOS NEO HR SN MKB |
|---|---|---|
| |  |  |
| OBERFLÄCHE · SURFACE · SURFACE · SUPERFICIE | TIN | TIN |
| SCHNEIDSTOFF · MATERIAL · MATIÈRE · MATERIALE | HSSE-PM | HSSE-PM |
| ANSCHNITTFORM · CHAMFER FORM · FORME D'ENTRÉE · FORMA D'IMBOCCO | C / 2-3 | C / 2-3 |
| TOLERANZ · TOLERANCE · TOLÉRANCE · TOLLERANZA | ISO2X | ISO2X |
| | RH | RH |

| | $d_1$ | x | P [mm] | [mm] | $l_1$ [mm] | $l_2$ [mm] | $l_3$ [mm] | Ø $d_2$ [mm] | a [mm] | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| DIN 2174 | MF 4 | x | 0,5 | 3,8 | 63 | 10 | 21 | 4,5 | 3,4 | | |
| | MF 5 | x | 0,5 | 4,8 | 70 | 11 | 25 | 6 | 4,9 | | |
| | MF 6 | x | 0,5 | 5,8 | 80 | 13 | 30 | 6 | 4,9 | | |
| | MF 6 | x | 0,75 | 5,7 | 80 | 13 | 30 | 6 | 4,9 | | |
| | MF 8 | x | 0,75 | 7,7 | 80 | 14 | 30 | 8 | 6,2 | | |
| | MF 8 | x | 1 | 7,6 | 90 | 10 | 35 | 8 | 6,2 | | |
| | MF 8 | x | 1 | 7,6 | 90 | 17 | 35 | 8 | 6,2 | | |
| | MF 10 | x | 1 | 9,6 | 90 | 10 | 35 | 10 | 8 | | |
| | MF 10 | x | 1 | 9,6 | 90 | 18 | 35 | 10 | 8 | | |
| | MF 12 | x | 1 | 11,6 | 100 | 18 | - | 9 | 7 | | |
| | MF 12 | x | 1,5 | 11,35 | 100 | 15 | - | 9 | 7 | 79B3.0B040303 | 79C3.0B040303 |
| | MF 12 | x | 1,5 | 11,35 | 100 | 22 | - | 9 | 7 | | |
| | MF 14 | x | 1,5 | 13,35 | 100 | 15 | - | 11 | 9 | 79B3.0B040331 | 79C3.0B040331 |
| | MF 14 | x | 1,5 | 13,35 | 100 | 22 | - | 11 | 9 | | |
| | MF 16 | x | 1,5 | 15,35 | 100 | 15 | - | 12 | 9 | 79B3.0B040359 | 79C3.0B040359 |
| | MF 16 | x | 1,5 | 15,35 | 100 | 22 | - | 12 | 9 | | |
| | MF 20 | x | 1,5 | 19,35 | 125 | 25 | - | 16 | 12 | | |

# UNC ASME B1.1











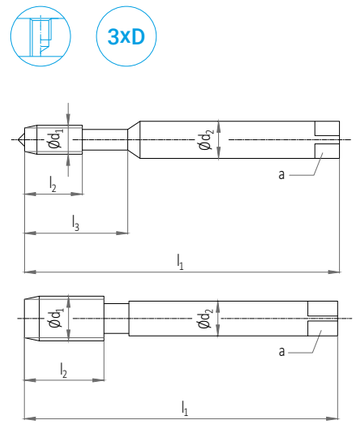


| OBERFLÄCHE · SURFACE · SURFACE · SUPERFICIE | TIN | TIN | TIN |
|---|---|---|---|
| SCHNEIDSTOFF · MATERIAL · MATIÈRE · MATERIALE | HSSE | HSSE-PM | HSSE-PM |
| ANSCHNITTFORM · CHAMFER FORM · FORME D'ENTRÉE · FORMA D'IMBOCCO | C / 2-3 | C / 2-3 | C / 2-3 |
| TOLERANZ · TOLERANCE · TOLÉRANCE · TOLLERANZA | 2BX | 2BX | 2BX |
| | RH | RH | RH |

≈ DIN 2174

| $d_1$ [inch] | - | P Gg/1" [tpi] | [mm] | $l_1$ [mm] | $l_2$ [mm] | $l_3$ [mm] | Ø $d_2$ [mm] | a [mm] | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| UNC | Nr. 4 | - 40 | 2,55 | 56 | 6 | 18 | 3,5 | 2,7 | | 69BC.0B045003 | |
| UNC | Nr. 4 | - 40 | 2,55 | 56 | 11 | 18 | 3,5 | 2,7 | 6970.0B045003 | | |
| UNC | Nr. 6 | - 32 | 3,15 | 56 | 7 | 20 | 4 | 3 | | 69BC.0B045005 | |
| UNC | Nr. 6 | - 32 | 3,15 | 56 | 12 | 20 | 4 | 3 | 6970.0B045005 | | |
| UNC | Nr. 8 | - 32 | 3,8 | 63 | 8 | 21 | 4,5 | 3,4 | | 69BC.0B045006 | |
| UNC | Nr. 8 | - 32 | 3,8 | 63 | 13 | 21 | 4,5 | 3,4 | 6970.0B045006 | | |
| UNC | Nr. 10 | - 24 | 4,35 | 70 | 10 | 25 | 6 | 4,9 | | 69BC.0B045007 | 69CC.0B045007 |
| UNC | Nr. 10 | - 24 | 4,35 | 70 | 15 | 25 | 6 | 4,9 | 6970.0B045007 | | |
| UNC | 1/4 | - 20 | 5,75 | 80 | 13 | 30 | 7 | 5,5 | | 69BC.0B045009 | 69CC.0B045009 |
| UNC | 1/4 | - 20 | 5,75 | 80 | 17 | 30 | 7 | 5,5 | 6970.0B045009 | | |
| UNC | 5/16 | - 18 | 7,3 | 90 | 14 | 35 | 8 | 6,2 | | 69BC.0B045010 | 69CC.0B045010 |
| UNC | 5/16 | - 18 | 7,3 | 90 | 20 | 35 | 8 | 6,2 | 6970.0B045010 | | |
| UNC | 3/8 | - 16 | 8,8 | 100 | 16 | 39 | 10 | 8 | | 69BC.0B045011 | 69CC.0B045011 |
| UNC | 3/8 | - 16 | 8,8 | 100 | 22 | 39 | 10 | 8 | 6970.0B045011 | | |
| UNC | 7/16 | - 14 | 10,25 | 100 | 18 | - | 8 | 6,2 | | 79BC.0B045012 | 79CC.0B045012 |
| UNC | 7/16 | - 14 | 10,25 | 100 | 22 | - | 8 | 6,2 | 7970.0B045012 | | |
| UNC | 1/2 | - 13 | 11,8 | 110 | 20 | - | 9 | 7 | | 79BC.0B045013 | 79CC.0B045013 |
| UNC | 1/2 | - 13 | 11,8 | 110 | 25 | - | 9 | 7 | 7970.0B045013 | | |
| UNC | 5/8 | - 11 | 14,8 | 110 | 22 | - | 12 | 9 | | 79BC.0B045015 | 79CC.0B045015 |
| UNC | 5/8 | - 11 | 14,8 | 110 | 27 | - | 12 | 9 | 7970.0B045015 | | |
| UNC | 3/4 | - 10 | 17,85 | 125 | 25 | - | 14 | 11 | | 79BC.0B045016 | 79CC.0B045016 |
| UNC | 3/4 | - 10 | 17,85 | 125 | 30 | - | 14 | 11 | 7970.0B045016 | | |

# UNF ASME B1.1











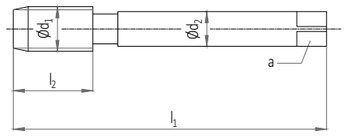


| OBERFLÄCHE · SURFACE · SURFACE · SUPERFICIE | TIN | TIN | TIN |
|---|---|---|---|
| SCHNEIDSTOFF · MATERIAL · MATIÈRE · MATERIALE | HSSE | HSSE-PM | HSSE-PM |
| ANSCHNITTFORM · CHAMFER FORM · FORME D'ENTRÉE · FORMA D'IMBOCCO | C / 2-3 | C / 2-3 | C / 2-3 |
| TOLERANZ · TOLERANCE · TOLÉRANCE · TOLLERANZA | 2BX | 2BX | 2BX |
| | RH | RH | RH |

≈ DIN 2174

| $d_1$ [inch] | - | P Gg/1" [tpi] | [mm] | $l_1$ [mm] | $l_2$ [mm] | $l_3$ [mm] | Ø $d_2$ [mm] | a [mm] | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| UNF | Nr. 4 | - 48 | 2,62 | 56 | 11 | 18 | 3,5 | 2,7 | 6970.0B045037 | | |
| UNF | Nr. 6 | - 40 | 3,22 | 56 | 7 | 20 | 4 | 3 | | 69BC.0B045039 | |
| UNF | Nr. 6 | - 40 | 3,22 | 56 | 12 | 20 | 4 | 3 | 6970.0B045039 | | |
| UNF | Nr. 8 | - 36 | 3,85 | 63 | 8 | 21 | 4,5 | 3,4 | | 69BC.0B045040 | |
| UNF | Nr. 8 | - 36 | 3,85 | 63 | 13 | 21 | 4,5 | 3,4 | 6970.0B045040 | | |
| UNF | Nr. 10 | - 32 | 4,45 | 70 | 10 | 25 | 6 | 4,9 | | 69BC.0B045041 | 69CC.0B045041 |
| UNF | Nr. 10 | - 32 | 4,45 | 70 | 15 | 25 | 6 | 4,9 | 6970.0B045041 | | |
| UNF | 1/4 | - 28 | 5,95 | 80 | 10 | 30 | 7 | 5,5 | | 69BC.0B045043 | 69CC.0B045043 |
| UNF | 1/4 | - 28 | 5,95 | 80 | 17 | 30 | 7 | 5,5 | 6970.0B045043 | | |
| UNF | 5/16 | - 24 | 7,45 | 90 | 10 | 35 | 8 | 6,2 | | 69BC.0B045044 | 69CC.0B045044 |
| UNF | 5/16 | - 24 | 7,45 | 90 | 17 | 35 | 8 | 6,2 | 6970.0B045044 | | |
| UNF | 3/8 | - 24 | 9,05 | 90 | 10 | 35 | 10 | 8 | | 69BC.0B045045 | 69CC.0B045045 |
| UNF | 3/8 | - 24 | 9,05 | 90 | 18 | 35 | 10 | 8 | 6970.0B045045 | | |
| UNF | 7/16 | - 20 | 10,55 | 100 | 13 | - | 8 | 6,2 | | 79BC.0B045046 | 79CC.0B045046 |
| UNF | 7/16 | - 20 | 10,55 | 100 | 22 | - | 8 | 6,2 | 7970.0B045046 | | |
| UNF | 1/2 | - 20 | 12,15 | 100 | 13 | - | 9 | 7 | | 79BC.0B045047 | 79CC.0B045047 |
| UNF | 1/2 | - 20 | 12,15 | 100 | 22 | - | 9 | 7 | 7970.0B045047 | | |
| UNF | 5/8 | - 18 | 15,25 | 100 | 22 | - | 12 | 9 | 7970.0B045049 | | |
| UNF | 3/4 | - 16 | 18,35 | 110 | 25 | - | 14 | 11 | 7970.0B045050 | | |

3xD









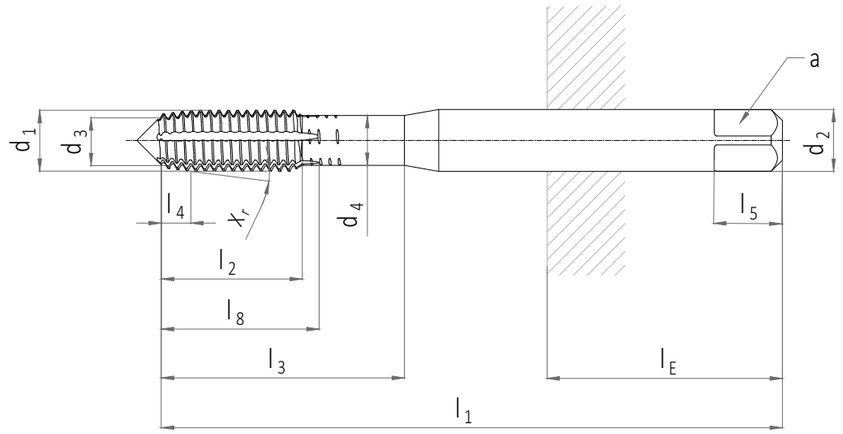


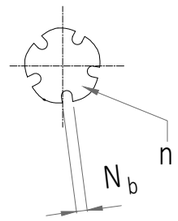


| | NORIS SPANLOS EC SN | NORIS SPANLOS NEO CNC SN | NORIS SPANLOS NEO CNC SN MKB |
|---|---|---|---|
| OBERFLÄCHE · SURFACE · SURFACE · SUPERFICIE | TIN | TIN | TIN |
| SCHNEIDSTOFF · MATERIAL · MATIÈRE · MATERIALE | HSSE | HSSE-PM | HSSE-PM |
| ANSCHNITTFORM · CHAMFER FORM · FORME D'ENTRÉE · FORMA D'IMBOCCO | C / 2-3 | C / 2-3 | C / 2-3 |
| TOLERANZ · TOLERANCE · TOLÉRANCE · TOLLERANZA | ISO 228 X | ISO 228 X | ISO 228 X |
| | RH | RH | RH |

| | $d_1$ - P Gg/1" [tpi] | [mm] | $l_1$ [mm] | $l_2$ [mm] | $l_3$ [mm] | Ø $d_2$ [mm] | a [mm] | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| DIN 2189 | G 1/8 - | 28 | 9,25 | 90 | 10 | - | 7 | 5,5 | | 79BC.0B044035 | 79CC.0B044035 |
| | G 1/8 - | 28 | 9,25 | 90 | 18 | - | 7 | 5,5 | 7970.0B044035 | | |
| | G 1/4 - | 19 | 12,55 | 100 | 15 | - | 11 | 9 | | 79BC.0B044036 | 79CC.0B044036 |
| | G 1/4 - | 19 | 12,55 | 100 | 22 | - | 11 | 9 | 7970.0B044036 | | |
| | G 3/8 - | 19 | 16,05 | 100 | 15 | - | 12 | 9 | | 79BC.0B044037 | 79CC.0B044037 |
| | G 3/8 - | 19 | 16,05 | 100 | 22 | - | 12 | 9 | 7970.0B044037 | | |
| | G 1/2 - | 14 | 20,1 | 125 | 17 | - | 16 | 12 | | 79BC.0B044038 | 79CC.0B044038 |
| | G 1/2 - | 14 | 20,1 | 125 | 25 | - | 16 | 12 | 7970.0B044038 | | |





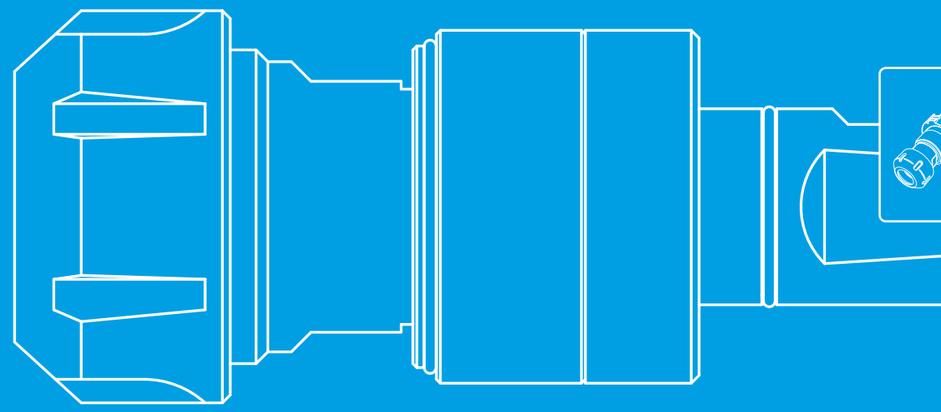

| | | | | |
|---|---|---|---|---|
| $d_1$ | Gewindeaußendurchmesser | Thread diameter | Diamètre du filetage | Diametro nominale filetto |
| $d_2$ | Schaftdurchmesser | Shank diameter | Diamètre de queue | Gambo |
| $d_3$ | Anformkegeldurchmesser | Entry taper diameter | Diamètre du cône d'entrée | Diametro del cono di ingresso |
| $d_4$ | Halsdurchmesser | Neck diameter | Diamètre du cou | Rastrematura del gambo |
| $l_1$ | Gesamtlänge | Overall length | Longueur totale | Lunghezza totale |
| $l_2$ | Gewindelänge | Thread length | Longueur du filetage | Lunghezza del filetto |
| $l_3$ | Nutzbare Gewindelänge | Useful length | Longueur utile | Lunghezza utile |
| $l_4$ | Anformkegellänge | Lead taper length | Longueur du cône d'entrée | Lunghezza del cono di ingresso |
| $l_5$ | Vierkantlänge | Square length | Longueur du carré | Lunghezza del quadro |
| $l_8$ | Ölnutenlänge | Oil groove length | Longueur de la rainure d'huile | Lunghezza della scanalatura dell'olio |
| $l_E$ | Einspannlänge | Clamping length | Longueur de serrage | Lunghezza di serraggio |
| $\chi_r$ | Anformkegelwinkel | Lead taper angle | Angle du cône d'entrée | Angolo del cono di ingresso |
| a | Vierkantmaß | Square dimension | Dimension de carré | Misura del quadro |
| $N_b$ | Ölnutenbreite | Oil groove width | Largeur de la rainure d'huile | Larghezza della scanalatura dell'olio |
| n | Anzahl Drückstollen | Number of lands | Nombre de dents | Numero dei denti |

## FERTIGUNGS-BAUMASSE

CONTRUCTION-DIMENSIONS / ENCOMBREMENTS / DIMENSIONE CONSTRUTTIVA

| Katalog-Nr. / Catalogue No. No. de Catalogue / Catalogo Nr. | Typ / Type Type / Tipo | Gewindebohrer – Norm / Tap – Standard Tarauds – Norme / Maschi – Norma | | | | |
|---|---|---|---|---|---|---|
| | | M | MF | G | PG | EG-M |
| 6000 6999 |  | DIN 2174 | DIN 2174 | - | DIN 2174 | DIN 2174 |
| 7000 7999 |  | DIN 2174 | DIN 2174 | DIN 2189 | DIN 2174 | DIN 2174 |





# 03

GEWINDESCHNEIDFUTTER
TAP HOLDERS
MANDRINS DE TARAUDAGE
MANDRINI

## NORIS UNI



## NORIS UNI HP



## NORIS UNI HP ER



## NORIS HELIXPRO



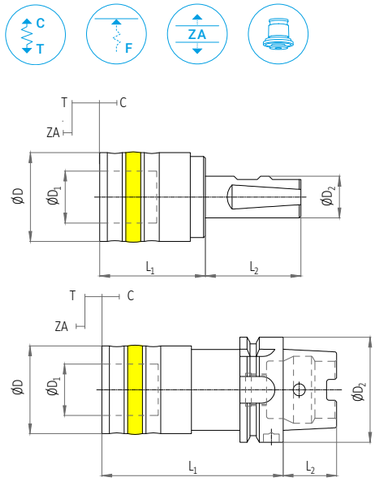
## NORIS ISP



| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| AUFNAHME · SHANK · PORTE-OUTIL · PORTAUTENSILE | DIN 1835-1 B+E | HSK-A DIN 69893-1 | DIN 228-1 B | DIN 1835-1 B+E | HSK-A DIN 69893-1 | DIN 1835-1 B+E | HSK-A DIN 69893-1 | DIN 1835-1 B+E | HSK-A DIN 69893-1 | HSK-A DIN 69893-1 | DIN 2080-1 | DIN 228-1 B |
| BEREICH · RANGE · PLAGE DE DIAMÈTRE · INTERVALLO DI DIAMETRO | M1- M48 (7/8- 1 3/4) | M1- M48 (7/8- 1 3/4) | M1- M48 (7/8- 1 3/4) | M3- M36 (Nr.4- 1 3/8) | M3- M24 (Nr.4- 1") | M4- M20 (Nr.8- 3/4) | M4- M20 (Nr.8- 3/4) | M0,5- M30 (Nr.0- 1 1/8) | M0,5- M48 (Nr.0- 1 3/4) | M45- M76 (1 3/8- 2 3/8) | M24- M160 (1"- 3 1/2) | |
| SEITE · PAGE · PAGE · PAGINA | 174 | 174 | 173 | 176 | 176 | 177 | 177 | 178 | 178 | 179 | 180 | |
| EINSATZBEREICH · APPLICATION RANGE · DOMAINE D'APPLICATION · CAMPO DI UTILIZZO | | | | | | | | | | | | |
| Einsatz auf Maschinen mit Synchronspindel<br>For use on machines with synchronous spindle<br>Utilisation sur machines avec broche synchronisée<br>Impiego su macchine con mandrino sincronizzato | ○ | ○ | ○ | ○ | ○ | ○ | ○ | • | • | • | | |
| Einsatz auf sonstigen Werkzeugmaschinen<br>For use on other machine tools<br>Utilisation sur d'autres machines-outils<br>Applicazione su altre macchine utensili | • | • | • | • | • | • | • | | | | • | |
| Einsatz auf Säulenbohrmaschinen<br>For use on pillar drilling machines<br>Utilisation sur perceuses à colonne<br>Impiego su trapani a colonna | • | • | • | | | | | | | | • | |
| KÜHLUNG UND SCHMIERUNG<br>COOLING AND LUBRICATION<br>REFROIDISSEMENT ET LUBRIFICATION<br>RAFFREDDAMENTO E LUBRIFICAZIONE | | | | | | | | | | | | |
| FUNKTIONEN<br>FUNCTIONS<br>FONCTIONS<br>FUNZIONI | | | | | | | | | | | | |
| ADAPTIERUNG<br>ADAPTATION<br>ADAPTATION<br>ADATTAMENTO | | | | | | | | | | | | |

FUTTERTYP · TAP HOLDERS TYP · MANDRIN DE TARAUDAGE TYPE · TIPO DI MANDRINO FILETTATO

| | NORIS WE | NORIS WE E | NORIS WE MKBA | NORIS WE-L | NORIS WE-U | NORIS WE-U E | NORIS WE-U MKBA | NORIS WE-U-L | NORIS WE-L/ER | NORIS ER \| ER GB NORIS DS | NORIS IE |
|---|---|---|---|---|---|---|---|---|---|---|---|
| |  |  |  |  |  |  |  |  |  |   |  |
| SEITE · PAGE · PAGE · PAGINA | 182 | 184 | 186 | 187 | 188 | 190 | 191 | 192 | 193 | 194 | 196 |
| NORIS UNI | • | • | ○ | • | • | • | ○ | • | • | | |
| NORIS UNI HP | • | • | • | • | • | • | • | • | • | | |
| NORIS UNI HP ER | | | | | | | | | | • | |
| NORIS HELIXPRO µ- 5 | | | | | | | | | | • | |
| NORIS HELIXPRO 6 | | | | | | | | | | | • |
| NORIS ISP | | | | | | | | | | | • |
| KÜHLUNG UND SCHMIERUNG<br>COOLING AND LUBRICATION<br>REFROIDISSEMENT ET LUBRIFICATION<br>RAFFREDDAMENTO E LUBRIFICAZIONE | | | | | | | | | | | IE 20+ HELIXPRO 6 |
| FUNKTIONEN<br>FUNCTIONS<br>FONCTIONS<br>FUNZIONI | | | | L+ | | | | L+ | L+ | | |
| ADAPTIERUNG<br>ADAPTATION<br>ADAPTATION<br>ADATTAMENTO | | | | | | | | | | | |




NORIS UNI



NORIS UNI

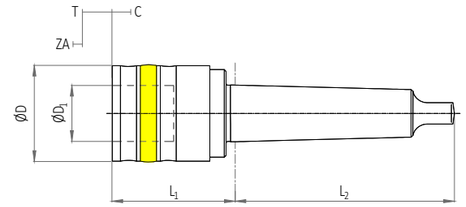


DIN 1835-1 B+E

| Nr. | | | Ø $D_1$ [mm] | Ø $D_2$ [mm] | Ø D [mm] | $L_1$ [mm] | $L_2$ [mm] | C [mm] | T [mm] | ZA [mm] | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0 | M1- M10 (Nr.0- 3/8) | WE 00 | 13 | ø 16 | 26 | 38 | 49 | 5 | 7,5 | 1,7 | A170.E0016 |
| 1 | M3- M14 (Nr.4- 9/16) | WE 01 | 19 | ø 16 | 36 | 39 | 49 | 5 | 8 | 2,1 | A170E0116 |
| | | | 19 | ø 20 | 36 | 39 | 51 | 5 | 8 | 2,1 | A170E0120 |
| | | | 19 | ø 25 | 36 | 39 | 57 | 5 | 8 | 2,1 | A170E0125 |
| 3 | M4,5- M24 (Nr.10- 1“) | WE 03 | 31 | ø 25 | 53 | 63 | 57 | 8,5 | 15 | 2,8 | A170E0325 |
| | | | 31 | ø 32 | 53 | 63 | 61 | 8,5 | 15 | 2,8 | A170E0332 |
| 4 | M14- M36 (9/16- 1 3/8) | WE 04 | 48 | ø 32 | 78 | 124 | 61 | 15 | 23,5 | 4,1 | A170E0432 |
| 5 | M22- M48 (7/8- 1 3/4) | WE 05 | 60 | Ø 40 | 96 | 135,5 | 71 | 16,5 | 25 | 5,7 | A170E0540 |

DIN 69893-1

| Nr. | | | Ø $D_1$ [mm] | Ø $D_2$ | Ø D [mm] | $L_1$ [mm] | $L_2$ [mm] | C [mm] | T [mm] | ZA [mm] | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | M3- M14 (Nr.4- 9/16) | WE 01 | 19 | HSK-A32 | 36 | 71 | 16 | 5 | 8 | 2,1 | A190E0132 |
| | | | 19 | HSK-A40 | 36 | 73 | 20 | 5 | 8 | 2,1 | A190E0140 |
| | | | 19 | HSK-A50 | 36 | 77 | 25 | 5 | 8 | 2,1 | A190E0150 |
| | | | 19 | HSK-A63 | 36 | 79 | 32 | 5 | 8 | 2,1 | A190E0163 |
| | | | 19 | HSK-A80 | 36 | 83,5 | 40 | 5 | 8 | 2,1 | A190E0180 |
| | | | 19 | HSK-A100 | 36 | 85,5 | 50 | 5 | 8 | 2,1 | A190E0100 |
| 3 | M4,5- M24 (Nr.10- 1“) | WE 03 | 31 | HSK-A50 | 53 | 111 | 25 | 8,5 | 15 | 2,8 | A190E0350 |
| | | | 31 | HSK-A63 | 53 | 113 | 32 | 8,5 | 15 | 2,8 | A190E0363 |
| | | | 31 | HSK-A100 | 53 | 119,5 | 50 | 8,5 | 15 | 2,8 | A190E0300 |
| 4 | M14- M36 (9/16- 1 3/8) | WE 04 | 48 | HSK-A63 | 78 | 164 | 32 | 15 | 23,5 | 4,1 | A190E0463 |
| | | | 48 | HSK-A100 | 78 | 170,5 | 50 | 15 | 23,5 | 4,1 | A190E0400 |
| 5 | M22- M48 (7/8- 1 3/4) | WE 05 | 60 | HSK-A100 | 96 | 205 | 50 | 16,5 | 25 | 5,7 | A190E0500 |

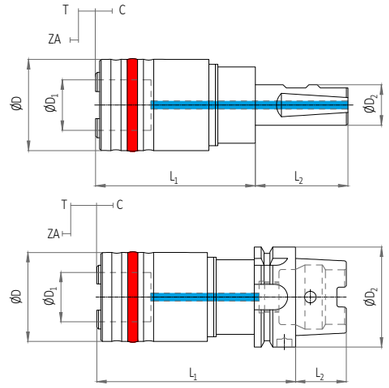



NORIS UNI



DIN 228-1 B

| Nr. | | | Ø $D_1$ [mm] | Ø $D_2$ | Ø D [mm] | $L_1$ [mm] | $L_2$ [mm] | C [mm] | T [mm] | ZA [mm] | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0 | M1- M10 (Nr.0- 3/4) | WE 00 | 13 | MK 1 | 26 | 43,5 | 62 | 5 | 7,5 | 1,7 | A110E0001 |
| | | | 13 | MK 2 | 26 | 45 | 75 | 5 | 7,5 | 1,7 | A110E0002 |
| 1 | M3- M14 (Nr.4- 9/16) | WE 01 | 19 | MK 2 | 36 | 47 | 75 | 5 | 8 | 2,1 | A110E0102 |
| | | | 19 | MK 3 | 36 | 47 | 94 | 5 | 8 | 2,1 | A110E0103 |
| 3 | M4,5- M24 (Nr.10- 1“) | WE 03 | 31 | MK 3 | 53 | 71 | 94 | 8,5 | 15 | 2,8 | A110E0303 |
| | | | 31 | MK 4 | 53 | 72 | 117,5 | 8,5 | 15 | 2,8 | A110E0304 |
| | | | 31 | MK 5 | 53 | 72,5 | 149,5 | 8,5 | 15 | 2,8 | A110E0305 |
| 4 | M14- M36 (9/16- 1 3/8) | WE 04 | 48 | MK 4 | 78 | 105 | 117,5 | 15 | 23,5 | 4,1 | A110E0404 |
| | | | 48 | MK 5 | 78 | 105,5 | 149,5 | 15 | 23,5 | 4,1 | A110E0405 |
| 5 | M22- M48 (7/8- 1 3/4) | WE 05 | 60 | MK 5 | 96 | 116,5 | 149,5 | 16,5 | 25 | 5,7 | A110E0505 |
| | | | 60 | MK 6 | 96 | 118,5 | 210 | 16,5 | 25 | 5,7 | A110E0506 |




NORIS UNI HP




NORIS UNI HP

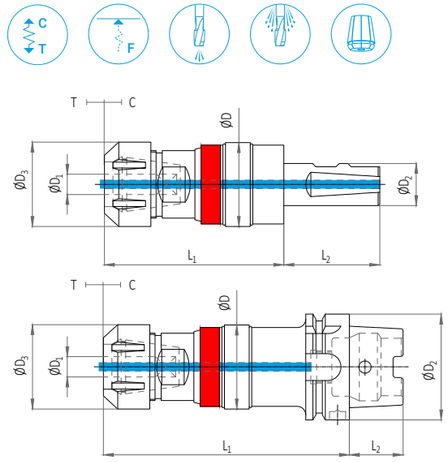



| | Nr. | | | Ø $D_1$ [mm] | Ø $D_2$ | Ø D [mm] | $L_1$ [mm] | $L_2$ [mm] | C [mm] | T [mm] | ZA [mm] | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DIN 1835-1 B+E | 1 | M3- M14 (Nr.4- 9/16) | WE 01 | 19 | ø 25 | 40 | 62 | 57 | 5 | 7,5 | 2,5 | A460E0125 |
| | 3 | M4,5- M24 (Nr.10- 1“) | WE 03 | 31 | ø 25 | 56 | 98 | 57 | 7 | 10 | 3 | A460E0325 |
| | 4 | M14- M36 (9/16- 1 3/8) | WE 04 | 48 | ø 32 | 80 | 147 | 61 | 15 | 20 | 5 | A460E0432 |

| | Nr. | | | Ø $D_1$ [mm] | Ø $D_2$ | Ø D [mm] | $L_1$ [mm] | $L_2$ [mm] | C [mm] | T [mm] | ZA [mm] | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DIN 69893-1 | 1 | M3- M14 (Nr.4- 9/16) | WE 01 | 19 | HSK-A50 | 40 | 91 | 25 | 5 | 7,5 | 2,5 | A490E0150 |
| | | | | 19 | HSK-A63 | 40 | 93 | 32 | 5 | 7,5 | 2,5 | A490E0163 |
| | | | | 19 | HSK-A100 | 40 | 98 | 50 | 5 | 7,5 | 2,5 | A490E0100 |
| | 3 | M4,5- M24 (Nr.10- 1“) | WE 03 | 31 | HSK-A63 | 56 | 130 | 32 | 7 | 10 | 3 | A490E0363 |
| | | | | 31 | HSK-A100 | 56 | 135 | 50 | 7 | 10 | 3 | A490E0300 |

Schnellwechsel-Einsätze siehe Seite 182- 187
Quick-change adapters, see page 182- 187
Adaptateurs à changement rapide, voir page 182- 187
Bussole a cambio rapido, vedi pagina 182- 187






NORIS UNI HP ER




NORIS UNI HP ER

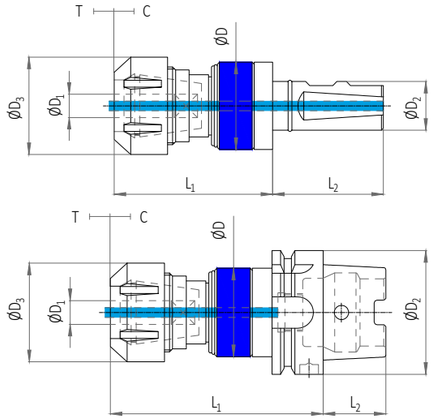



| | Nr. | | | | Ø $D_1$ [mm] | Ø $D_2$ | Ø $D_3$ [mm] | Ø D [mm] | $L_1$ [mm] | $L_2$ [mm] | C [mm] | T [mm] | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DIN 1835-1 B+E | 1 | M4- M12 (Nr.8- 7/16) | ER 20 | DS 20 | 4,5- 10 | ø 25 | 28 | 38 | 85 | 57 | 5 | 7,5 | AK70Z2025 |
| | 3 | M4- M20 (Nr.8- 3/4) | ER 32 | DS 32 | 4,5- 16 | ø 25 | 50 | 52 | 115 | 57 | 7 | 10 | AK70Z3225 |

| | Nr. | | | | Ø $D_1$ [mm] | Ø $D_2$ | Ø $D_3$ [mm] | Ø D [mm] | $L_1$ [mm] | $L_2$ [mm] | C [mm] | T [mm] | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DIN 69893-1 | 1 | M4- M12 (Nr.8- 7/16) | ER 20 | DS 20 | 4,5- 10 | HSK-A50 | 28 | 38 | 114 | 25 | 5 | 7,5 | AK90Z2050 |
| | | | | | | HSK-A63 | 28 | 38 | 116 | 32 | 5 | 7,5 | AK90Z2063 |
| | | | | | | HSK-A100 | 28 | 38 | 121 | 50 | 5 | 7,5 | AK90Z2000 |
| | 3 | M4- M20 (Nr.8- 3/4) | ER 32 | DS 32 | 4,5- 16 | HSK-A63 | 50 | 52 | 147 | 32 | 7 | 10 | AK90Z3263 |
| | | | | | | HSK-A100 | 50 | 52 | 152 | 50 | 7 | 10 | AK90Z3200 |

Spannmutter für Dichtscheiben ist im Lieferumfang enthalten
Clamping nut for sealing disks is included in the delivery
L’écrou de serrage pour les disques d’étanchéité est inclus dans la livraison
Il dado di serraggio per i dischi di tenuta è incluso nella fornitura

Spannzangen und Dichtscheiben siehe Seite 194
Collets and sealing disks, see page 194
Pinces et disques d’étanchéité, voir page 194
Pinze di serraggio e guarnizioni, vedi pagina 194




NORIS HELIXPRO



NORIS HELIXPRO



DIN 1835-1 B+E

| Nr. | | | | Ø $D_1$ [mm] | Ø $D_2$ [mm] | Ø $D_3$ [mm] | Ø D [mm] | $L_1$ ER [mm] | $L_1$ ER GB [mm] | $L_2$ [mm] | C [mm] | T [mm] | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | µ | M0,5- M4 (Nr.0- Nr.8) | ER 8 | - | 2- 4,5 | ø 10 | 12 | 20 | 43,5 | – | 40 | 0,2 | 0,2 | A770Z0820 |

DIN 69893-1

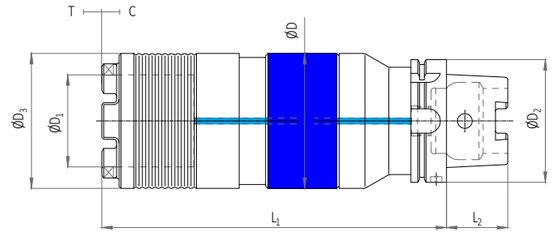
| Nr. | | | | Ø $D_1$ [mm] | Ø $D_2$ | Ø $D_3$ [mm] | Ø D [mm] | $L_1$ ER [mm] | $L_1$ ER GB [mm] | $L_2$ [mm] | C [mm] | T [mm] | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | µ | M0,5- M4 (Nr.0- Nr.8) | ER 8 | - | 2- 4,5 | HSK-A32 | 12 | 20 | 60 | – | 16 | 0,2 | 0,2 | A790Z0832 |

DIN 1835-1 B+E

| Nr. | | | | Ø $D_1$ [mm] | Ø $D_2$ [mm] | Ø $D_3$ [mm] | Ø D [mm] | $L_1$ ER [mm] | $L_1$ ER GB [mm] | $L_2$ [mm] | C [mm] | T [mm] | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0 | M2- M8 (Nr.2- 5/16) | ER 11 | - | 2,5- 7 | ø 16 | 16 | 34 | 72,7 | 71 | 49 | 0,5 | 0,5 | A770Z1116 |
| | | | | 2,5- 7 | ø 20 | 16 | 34 | 72,7 | 71 | 51 | 0,5 | 0,5 | A770Z1120 |
| | | | | 2,5- 7 | ø 25 | 16 | 34 | 72,7 | 71 | 57 | 0,5 | 0,5 | A770Z1125 |
| 1 | M4- M12 (Nr.8- 7/16) | ER 20 | DS 20 | 4,5- 10 | ø 20 | 34 | 34 | – | 73 | 51 | 0,5 | 0,5 | A770Z2020 |
| | | | | 4,5- 10 | ø 25 | 34 | 34 | – | 73 | 57 | 0,5 | 0,5 | A770Z2025 |
| 3 | M4- M20 (Nr.8- 3/4) | ER 32 | DS 32 | 4,5- 16 | ø 25 | 50 | 45 | – | 87,3 | 57 | 0,5 | 0,5 | A770Z3225 |
| 4 | M12- M30 (7/16- 1 1/8) | ER 40 | DS 40 | 9- 22 | ø 32 | 63 | 63 | – | 113,5 | 61 | 0,7 | 0,7 | A770Z4032 |

DIN 69893-1

| Nr. | | | | Ø $D_1$ [mm] | Ø $D_2$ | Ø $D_3$ [mm] | Ø D [mm] | $L_1$ ER [mm] | $L_1$ ER GB [mm] | $L_2$ [mm] | C [mm] | T [mm] | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0 | M2- M8 (Nr.2- 5/16) | ER 11 | - | 2,5- 7 | HSK-A40 | 16 | 34 | 89,2 | 87,5 | 20 | 0,5 | 0,5 | A790Z1140 |
| | | | | | HSK-A63 | 16 | 34 | 95,2 | 93,5 | 32 | 0,5 | 0,5 | A790Z1163 |
| 1 | M4- M12 (Nr.8- 7/16) | ER 20 | DS 20 | 4,5- 10 | HSK-A40 | 34 | 34 | – | 89,5 | 20 | 0,5 | 0,5 | A790Z2040 |
| | | | | | HSK-A50 | 34 | 34 | – | 93,5 | 25 | 0,5 | 0,5 | A790Z2050 |
| | | | | | HSK-A63 | 34 | 34 | – | 95,5 | 32 | 0,5 | 0,5 | A790Z2063 |
| | | | | | HSK-A80 | 34 | 34 | – | 100 | 40 | 0,5 | 0,5 | A790Z2080 |
| | | | | | HSK-A100 | 34 | 34 | – | 102 | 50 | 0,5 | 0,5 | A790Z2000 |
| 3 | M4- M20 (Nr.8- 3/4) | ER 32 | DS 32 | 4,5- 16 | HSK-A50 | 50 | 45 | – | 116,3 | 25 | 0,5 | 0,5 | A790Z3250 |
| | | | | | HSK-A63 | 50 | 45 | – | 108,8 | 32 | 0,5 | 0,5 | A790Z3263 |
| | | | | | HSK-A80 | 50 | 45 | – | 113,3 | 40 | 0,5 | 0,5 | A790Z3280 |
| | | | | | HSK-A100 | 50 | 45 | – | 115,3 | 50 | 0,5 | 0,5 | A790Z3200 |
| 4 | M12- M30 (7/16- 1 1/8) | ER 40 | DS 40 | 9- 22 | HSK-A63 | 63 | 63 | – | 146,5 | 32 | 0,7 | 0,7 | A790Z4063 |
| | | | | | HSK-A80 | 63 | 63 | – | 136 | 40 | 0,7 | 0,7 | A790Z4080 |
| | | | | | HSK-A100 | 63 | 63 | – | 138 | 50 | 0,7 | 0,7 | A790Z4000 |
| 5 | M30- M48 (1 3/8- 1 3/4) | ER 50 | DS 50 | 22- 36 | HSK-A100 | 78 | 103 | 269 | 265,6 | 50 | 2 | 2 | A790Z5000 |




NORIS HELIXPRO



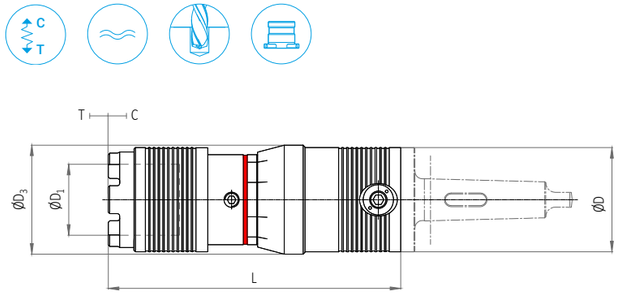
DIN 69893-1

| Nr. | | | | Ø $D_1$ [mm] | Ø $D_2$ | Ø $D_3$ [mm] | Ø D [mm] | $L_1$ [mm] | $L_2$ [mm] | C [mm] | T [mm] | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 6 | M45- M76 (1 3/8- 2 3/8) | IE 20 | - | 75 | HSK-A100 | 110 | 110 | 281 | 50 | 2 | 2 | A790ZH200 |

Weiteres Zubehör auf Anfrage
Further accessories on request
Autres accessoires sur demande
Altri accessori su richiesta

Spannmutter ist im Lieferumfang enthalten
Clamping nut is included in the delivery
L'écrou de serrage est inclus dans la livraison
Il dado di serraggio è incluso nella fornitura

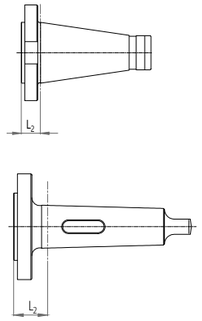
Spannzangen und Dichtscheiben siehe Seite 194
Collets and sealing disks, see page 194
Pinces et disques d'étanchéité, voir page 194
Pinze di serraggio e guarnizioni, vedi pagina 194




NORIS ISP



| Nr. | | | [Nm] | Ø $D_1$ [mm] | Ø $D_3$ [mm] | Ø D [mm] | L [mm] | C [mm] | T [mm] | [kg] | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 20 | M24- M76 (1“- 2 1/2) | IE 20 | 1300 Nm | 75 | 115 | 110 | 308 | 15 | 15 | 14,8 | AFH0E0220 |
| 30 | M36- M160 (1 3/8- 3 1/2) | IE 30 | 3000 Nm | 90 | 160 | 160 | 372 | 20 | 20 | 36,5 | AFH0E0330 |




NORIS FS

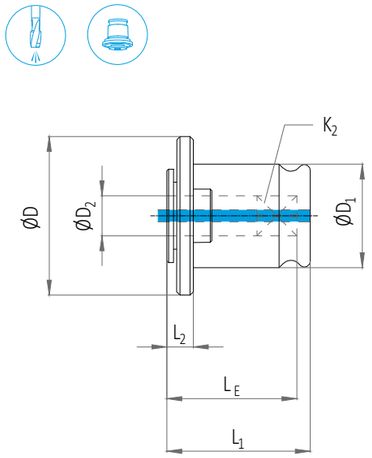


NORIS FS



| | Nr. | Ø $D_2$ | $L_2$ [mm] | [kg] | | |
|---|---|---|---|---|---|---|
| DIN 2080-1 A | 20 | SK 50 | 18 | 3 | AFYH2E1850 | |
| | 30 | SK 50 | 19 | 4,3 | AFYH3E1950 | |
| DIN 228-1 B | 20 | MK 5 | 32 | 2,8 | | AFYH2E3205 |
| | | MK 6 | 31 | 4,8 | | AFYH2E3106 |
| | 30 | MK 5 | 30 | 3,9 | | AFYH3E3005 |
| | | MK 6 | 32 | 6,2 | | AFYH3E3206 |

Ausführung mit innerer Kühlschmierstoff-Zufuhr bis 10 bar auf Anfrage erhältlich
Available with internal coolant-lubricant supply up to 10 bar upon request
Version avec lubrification par le centre d’une pression jusqu’à 10 bars disponible sur demande
Esecuzione con lubrorefrigerazione interna fino a 10 bar disponibile a richiesta



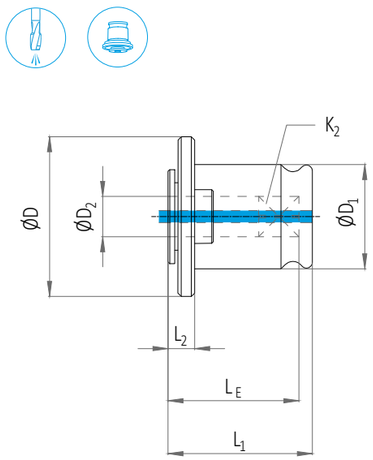

NORIS WE



DIN

| NR. | | 00 | 01 | 03 | 04 | 05 |
|---|---|---|---|---|---|---|
| | | M1 - M10 | M3 - M14 | M4,5 - M24 | M14 - M36 | M22 - M48 |
| Ø D | [mm] | 23 | 30 | 48 | 70 | 92 |
| Ø D1 | [mm] | 13 | 19 | 31 | 48 | 60 |
| L1 | [mm] | 27 | 29 | 45 | 67 | 111 |
| L2 | [mm] | 7 | 7 | 10 | 11 | 48 |

| | | Ø $D_2$ [mm] | $K_2$ [mm] | $L_E$ [mm] | | $L_E$ [mm] | | $L_E$ [mm] | | $L_E$ [mm] | | $L_E$ [mm] | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| M1- M1,8 | M3,5 | 2,5 | 2,1 | 20 | A1100E0000 | | | | | | | | |
| M2- M2,6 | M4 | 2,8 | 2,1 | 20 | A1100E0001 | | | | | | | | |
| M3 | M4,5- M5 | 3,5 | 2,7 | 21 | A1100E0002 | 23 | A1101E0102 | | | | | | |
| M3,5 | M5,5 | 4 | 3 | 21 | A1100E0003 | 23 | A1101E0103 | | | | | | |
| M4 | M6 | 4,5 | 3,4 | 21 | A1100E0004 | 23 | A1101E0104 | | | | | | |
| M4,5- M6 | M8 | 6 | 4,9 | 23 | A1100E0006 | 25 | A1101E0106 | 37 | A1103E0306 | | | | |
| M7 | M9- M10 | 7 | 5,5 | 23 | A1100E0007 | 25 | A1101E0107 | 37 | A1103E0307 | | | | |
| M8 | M11 | 8 | 6,2 | | | 26 | A1101E0108 | 38 | A1103E0308 | | | | |
| M9 | M12 | 9 | 7 | | | 27 | A1101E0109 | 39 | A1103E0309 | | | | |
| M10 | - | 10 | 8 | | | 27 | A1101E0110 | 40 | A1103E0310 | | | | |
| - | M14 | 11 | 9 | | | 27 | A1101E0111 | 41 | A1103E0311 | 53 | A1104E0411 | | |
| - | M16 | 12 | 9 | | | | | 41 | A1103E0312 | 53 | A1104E0412 | | |
| - | M18 | 14 | 11 | | | | | 43 | A1103E0313 | 55 | A1104E0413 | | |
| - | M20 | 16 | 12 | | | | | 44 | A1103E0314 | 56 | A1104E0414 | | |
| - | M22- M24 | 18 | 14,5 | | | | | 44 | A1103E0315 | 58 | A1104E0415 | 94 | A1105E0515 |
| - | M27 | 20 | 16 | | | | | | | 60 | A1104E0416 | 96 | A1105E0516 |
| - | M30 | 22 | 18 | | | | | | | 62 | A1104E0417 | 98 | A1105E0517 |
| - | M33 | 25 | 20 | | | | | | | 64 | A1104E0418 | 100 | A1105E0518 |
| - | M36 | 28 | 22 | | | | | | | 66 | A1104E0419 | 102 | A1105E0519 |
| - | M39- M42 | 32 | 24 | | | | | | | | | 104 | A1105E0520 |
| - | M45- M48 | 36 | 29 | | | | | | | | | 109 | A1105E0521 |




NORIS WE



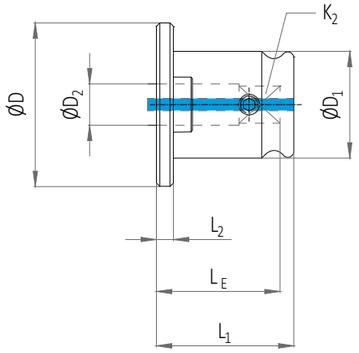
ISO

| NR. | | 00 | 01 | 03 | 04 | 05 |
|---|---|---|---|---|---|---|
| | | M1 - M10 | M3 - M14 | M4,5 - M24 | M14 - M36 | M22 - M48 |
| Ø D | [mm] | 23 | 30 | 48 | 70 | 92 |
| Ø D1 | [mm] | 13 | 19 | 31 | 48 | 60 |
| L1 | [mm] | 27 | 29 | 45 | 67 | 111 |
| L2 | [mm] | 7 | 7 | 10 | 11 | 48 |

| | | Ø $D_2$ [mm] | $K_2$ [mm] | $L_E$ [mm] | | $L_E$ [mm] | | $L_E$ [mm] | | $L_E$ [mm] | | $L_E$ [mm] | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| - | M3 | 2,24 | 1,8 | 19 | A1200.E0000 | | | | | | | | |
| M1- M2 | M3,5 | 2,5 | 2 | 19 | A1200.E0001 | | | | | | | | |
| M2,2- M2,5 | - | 2,8 | 2,24 | 20 | A1200.E0002 | | | | | | | | |
| M3 | M4 | 3,15 | 2,5 | 20 | A1200.E0003 | | | | | | | | |
| M3,5 | M4,5 | 3,55 | 2,8 | 20 | A1200.E0004 | 22 | A1201.E0104 | | | | | | |
| M4 | M5 | 4 | 3,15 | 21 | A1200.E0005 | 23 | A1201.E0105 | | | | | | |
| M4,5 | M6 | 4,5 | 3,55 | 21 | A1200.E0006 | 23 | A1201.E0106 | | | | | | |
| M5 | - | 5 | 4 | 22 | A1200.E0007 | 24 | A1201.E0107 | | | | | | |
| - | M7 | 5,6 | 4,5 | 22 | A1200.E0008 | 24 | A1201.E0108 | | | | | | |
| M6 | M8 | 6,3 | 5 | 23 | A1200.E0009 | 25 | A1201.E0109 | 37 | A1203.E0309 | | | | |
| M7 | M9 | 7,1 | 5,6 | 23 | A1200.E0010 | 25 | A1201.E0110 | 37 | A1203.E0310 | | | | |
| M8 | M10- M11 | 8 | 6,3 | | | 26 | A1201.E0111 | 38 | A1203.E0311 | | | | |
| M9 | M12 | 9 | 7,1 | | | 27 | A1201.E0112 | 39 | A1203.E0312 | | | | |
| M10 | - | 10 | 8 | | | 27 | A1101.E0110 | 40 | A1103.E0310 | | | | |
| - | M14 | 11,2 | 9 | | | 27 | A1201.E0114 | 41 | A1203.E0314 | 53 | A1204.E0414 | | |
| - | M16 | 12,5 | 10 | | | | | 42 | A1203.E0315 | 54 | A1204.E0415 | | |
| - | M18- M20 | 14 | 11,2 | | | | | 43 | A1203.E0316 | 55 | A1204.E0416 | | |
| - | M22 | 16 | 12,5 | | | | | 43 | A1203.E0317 | 57 | A1204.E0417 | | |
| - | M24 | 18 | 14 | | | | | 43 | A1203.E0318 | 59 | A1204.E0418 | 95 | A1205.E0518 |
| - | M27- M30 | 20 | 16 | | | | | | | 61 | A1104.E0416 | 97 | A1105.E0516 |
| - | M33 | 22,4 | 18 | | | | | | | 63 | A1204.E0420 | 99 | A1205.E0520 |
| - | M36 | 25 | 20 | | | | | | | 65 | A1104.E0418 | 101 | A1105.E0518 |
| - | M39- M42 | 28 | 22,4 | | | | | | | 66 | A1204.E0422 | 103 | A1205.E0522 |
| - | M45- M48 | 31,5 | 25 | | | | | | | | | 105 | A1205.E0523 |

NORIS WE

E



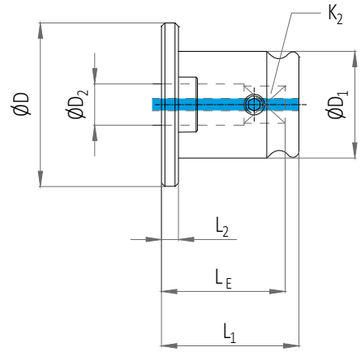



| NR. | | 00 | 01 | 03 | 04 | 05 |
|---|---|---|---|---|---|---|
| | | M8 - M11 | M16 | M27 - M30 | M39- M48 | M52 - M60 |
| Ø D | [mm] | 23 | 30 | 48 | 70 | 92 |
| Ø D1 | [mm] | 13 | 19 | 31 | 48 | 60 |
| L1 | [mm] | 23,5 | 25,5 | 40 | 61,5 | 84 |
| L2 | [mm] | 7 | 4 | 5 | 6 | 21 |

| | | Ø $D_2$ [mm] | $K_2$ [mm] | $L_E$ [mm] | | $L_E$ [mm] | | $L_E$ [mm] | | $L_E$ [mm] | | $L_E$ [mm] | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DIN | M8 | M11 | 8 | 6,2 | 21 | A1100E0008 | | | | | | | | | |
| | - | M16 | 12 | 9 | | | 25 | A1101E0112 | | | | | | | |
| | - | M27 | 20 | 16 | | | | | 39 | A1103E0316 | | | | | |
| | - | M30 | 22 | 18 | | | | | 39 | A1103E0317 | | | | | |
| | - | M39- M42 | 32 | 24 | | | | | | | 61 | A1104E0420 | | | |
| | - | M45- M48 | 36 | 29 | | | | | | | 60 | A1104E0421 | | | |
| | - | M52- M56 | 40 | 32 | | | | | | | | | 83 | A1105E0522 | |
| | - | M60 | 45 | 35 | | | | | | | | | 83 | A1105E0523 | |

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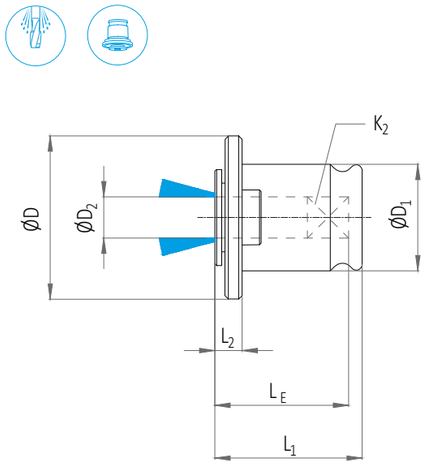
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| NR. | | 00 | 01 | 03 | 04 | 05 |
|---|---|---|---|---|---|---|
| | | M8 - M11 | M16 | M27 - M30 | M39- M48 | M52 - M60 |
| Ø D | [mm] | 23 | 30 | 48 | 70 | 92 |
| Ø D1 | [mm] | 13 | 19 | 31 | 48 | 60 |
| L1 | [mm] | 23,5 | 25,5 | 40 | 61,5 | 84 |
| L2 | [mm] | 7 | 4 | 5 | 6 | 21 |

| | | Ø $D_2$ [mm] | $K_2$ [mm] | $L_E$ [mm] | | $L_E$ [mm] | | $L_E$ [mm] | | $L_E$ [mm] | | $L_E$ [mm] | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ISO | M8 | M10- M11 | 8 | 6,3 | 21 | A1200E0011 | | | | | | | | | |
| | - | M16 | 12,5 | 10 | | | 25 | A1201E0115 | | | | | | | |
| | - | M27- M30 | 20 | 16 | | | | | 40 | A1103E0316 | | | | | |
| | - | M33 | 22,4 | 18 | | | | | 39 | A1203E0320 | | | | | |
| | - | M45- M48 | 31,5 | 25 | | | | | | | 61 | A1204E0423 | | | |
| | - | M52- M56 | 35,5 | 28 | | | | | | | 61 | A1204E0424 | 81 | A1205E0524 | |
| | - | M60- M64 | 40 | 31,5 | | | | | | | | | 82 | A1205E0525 | |
| | - | M68 | 45 | 35,5 | | | | | | | | | 83 | A1205E0526 | |



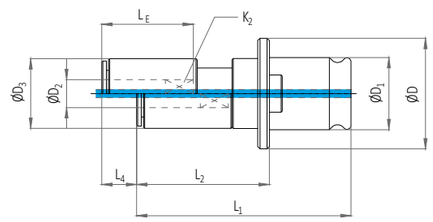

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| NR. | | 00 | 01 | 03 | 04 | 05 |
|---|---|---|---|---|---|---|
| | | M1 - M10 | M3 - M14 | M4,5 - M24 | M14 - M36 | M22 - M48 |
| Ø D | [mm] | 23 | 30 | 48 | 70 | 92 |
| Ø D1 | [mm] | 13 | 19 | 31 | 48 | 60 |
| L1 | [mm] | 27 | 29 | 45 | 67 | 111 |
| L2 | [mm] | 7 | 7 | 10 | 11 | 48 |

| | | Ø $D_2$ [mm] | $K_2$ [mm] | $L_E$ [mm] | | $L_E$ [mm] | | $L_E$ [mm] | | $L_E$ [mm] | | $L_E$ [mm] | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DIN | | | | | | | | | | | | | |
| M3 | M4,5- M5 | 3,5 | 2,7 | | | 21 | A2101E0102 | | | | | | |
| M3,5 | M5,5 | 4 | 3 | | | 23 | A2101E0103 | | | | | | |
| M4 | M6 | 4,5 | 3,4 | | | 23 | A2101E0104 | | | | | | |
| M4,5- M6 | M8 | 6 | 4,9 | | | 25 | A2101E0106 | 37 | A2103E0306 | | | | |
| M7 | M9- M10 | 7 | 5,5 | | | 25 | A2101E0107 | 37 | A2103E0307 | | | | |
| M8 | M11 | 8 | 6,2 | | | 26 | A2101E0108 | 38 | A2103E0308 | | | | |
| M9 | M12 | 9 | 7 | | | 27 | A2101E0109 | 39 | A2103E0309 | | | | |
| M10 | - | 10 | 8 | | | 27 | A2101E0110 | 40 | A2103E0310 | | | | |
| - | M14 | 11 | 9 | | | 27 | A2101E0111 | 41 | A2103E0311 | 53 | A2104E0411 | | |
| - | M16 | 12 | 9 | | | | | 41 | A2103E0312 | 53 | A2104E0412 | | |
| - | M18 | 14 | 11 | | | | | 43 | A2103E0313 | 55 | A2104E0413 | | |
| - | M20 | 16 | 12 | | | | | 44 | A2103E0314 | 56 | A2104E0414 | | |
| - | M22- M24 | 18 | 14,5 | | | | | 44 | A2103E0315 | 58 | A2104E0415 | 94 | A2105E0515 |
| - | M27 | 20 | 16 | | | | | | | 60 | A2104E0416 | 96 | A2105E0516 |
| - | M30 | 22 | 18 | | | | | | | 62 | A2104E0417 | 98 | A2105E0517 |
| - | M33 | 25 | 20 | | | | | | | 64 | A2104E0418 | 100 | A2105E0518 |
| - | M36 | 28 | 22 | | | | | | | 66 | A2104E0419 | 102 | A2105E0519 |
| - | M39- M42 | 32 | 24 | | | | | | | | | 104 | A2105E0520 |
| - | M45- M48 | 36 | 29 | | | | | | | | | 109 | A2105E0521 |




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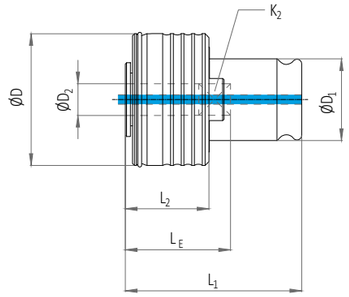


| NR. | | 00 | 01 | 03 | 04 | 05 |
|---|---|---|---|---|---|---|
| | | M1 - M10 | M3 - M14 | M4,5 - M24 | M14 - M36 | M22 - M48 |
| Ø D | [mm] | 23 | 30 | 48 | 70 | 92 |
| Ø D1 | [mm] | 13 | 19 | 31 | 48 | 60 |
| Ø D3 | [mm] | 13 | 18 | 30 | 47 | 58 |
| L1 | [mm] | 48 | 55 | 94 | 137 | 205 |
| L2 | [mm] | 29 | 33 | 59 | 81 | 142 |
| L4 | [mm] | 8 | 10 | 15 | 25 | 40 |

| | | | Ø $D_2$ [mm] | $K_2$ [mm] | $L_E$ [mm] | | $L_E$ [mm] | | $L_E$ [mm] | | $L_E$ [mm] | | $L_E$ [mm] | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DIN | | | | | | | | | | | | | | |
| M1- M1,8 | M3,5 | | 2,5 | 2,1 | 21 | A6100E0000 | | | | | | | | |
| M2- M2,6 | M4 | | 2,8 | 2,1 | 21 | A6100E0001 | | | | | | | | |
| M3 | M4,5- M5 | | 3,5 | 2,7 | 22 | A6100E0002 | 23 | A6101E0102 | | | | | | |
| M3,5 | M5,5 | | 4 | 3 | 22 | A6100E0003 | 22 | A6101E0103 | | | | | | |
| M4 | M6 | | 4,5 | 3,4 | 22 | A6100E0004 | 23 | A6101E0104 | | | | | | |
| M4,5- M6 | M8 | | 6 | 4,9 | 24 | A6100E0006 | 25 | A6101E0106 | 38 | A6103E0306 | | | | |
| M7 | M9- M10 | | 7 | 5,5 | 24 | A6100E0007 | 25 | A6101E0107 | 38 | A6103E0307 | | | | |
| M8 | M11 | | 8 | 6,2 | | | 26 | A6101E0108 | 39 | A6103E0308 | | | | |
| M9 | M12 | | 9 | 7 | | | 27 | A6101E0109 | 40 | A6103E0309 | | | | |
| M10 | - | | 10 | 8 | | | 28 | A6101E0110 | 41 | A6103E0310 | | | | |
| - | M14 | | 11 | 9 | | | 29 | A6101E0111 | 42 | A6103E0311 | 55 | A6104E0411 | | |
| - | M16 | | 12 | 9 | | | | | 42 | A6103E0312 | 55 | A6104E0412 | | |
| - | M18 | | 14 | 11 | | | | | 44 | A6103E0313 | 57 | A6104E0413 | | |
| - | M20 | | 16 | 12 | | | | | 45 | A6103E0314 | 58 | A6104E0414 | | |
| - | M22- M24 | | 18 | 14,5 | | | | | 47 | A6103E0315 | 60 | A6104E0415 | 94 | A6105E0515 |
| - | M27 | | 20 | 16 | | | | | | | 62 | A6104E0416 | 96 | A6105E0516 |
| - | M30 | | 22 | 18 | | | | | | | 64 | A6104E0417 | 98 | A6105E0517 |
| - | M33 | | 25 | 20 | | | | | | | 66 | A6104E0418 | 100 | A6105E0518 |
| - | M36 | | 28 | 22 | | | | | | | 68 | A6104E0419 | 102 | A6105E0519 |
| - | M39- M42 | | 32 | 24 | | | | | | | | | 104 | A6105E0520 |
| - | M45- M48 | | 36 | 29 | | | | | | | | | 109 | A6105E0521 |

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| NR. | | 00 | 01 | 03 | 04 | 05 |
|---|---|---|---|---|---|---|
| | | M1 - M10 | M3 - M14 | M4,5 - M24 | M14 - M36 | M22 - M48 |
| Ø D | [mm] | 24 | 33 | 50 | 72 | 95 |
| Ø D1 | [mm] | 13 | 19 | 31 | 48 | 60 |
| L1 | [mm] | 41,5 | 47 | 69 | 101 | 138 |
| L2 | [mm] | 22 | 25 | 34 | 45 | 75 |

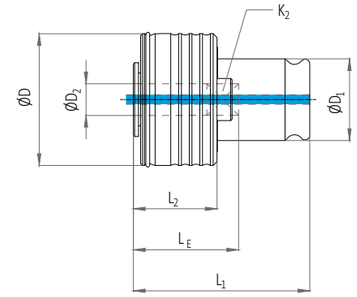
DIN

| Ø $D_2$ [mm] | $K_2$ [mm] | $L_E$ [mm] | | $L_E$ [mm] | | $L_E$ [mm] | | $L_E$ [mm] | | $L_E$ [mm] | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| M1- M1,8 | - | 2,5 | 2,1 | 21 | A4100E0001 | | | | | | |
| - | M3,5 | 2,5 | 2,1 | 21 | A4100E0002 | | | | | | |
| M2 | - | 2,8 | 2,1 | 21 | A4100E0011 | | | | | | |
| M2,5 | - | 2,8 | 2,1 | 21 | A4100E0012 | | | | | | |
| - | M4 | 2,8 | 2,1 | 21 | A4100E0013 | | | | | | |
| M3 | - | 3,5 | 2,7 | 22 | A4100E0021 | 23 | A4101E0121 | | | | |
| - | M4,5- M5 | 3,5 | 2,7 | 22 | A4100E0022 | 23 | A4101E0122 | | | | |
| M3,5 | - | 4 | 3 | 22 | A4100E0030 | 23 | A4101E0130 | | | | |
| M4 | - | 4,5 | 3,4 | 22 | A4100E0041 | 23 | A4101E0141 | | | | |
| - | M6 | 4,5 | 3,4 | 22 | A4100E0042 | 23 | A4101E0142 | | | | |
| M4,5- M5 | - | 6 | 4,9 | 24 | A4100E0061 | 25 | A4101E0161 | 38 | A4103E0361 | | |
| M6 | - | 6 | 4,9 | 24 | A4100E0062 | 25 | A4101E0162 | 38 | A4103E0362 | | |
| - | M8 | 6 | 4,9 | 24 | A4100E0063 | 25 | A4101E0163 | 38 | A4103E0363 | | |
| - | M10 | 7 | 5,5 | 24 | A4100E0070 | 25 | A4101E0170 | 38 | A4103E0370 | | |
| M8 | - | 8 | 6,2 | | | 26 | A4101E0180 | 39 | A4103E0380 | | |
| - | M12 | 9 | 7 | | | 27 | A4101E0190 | 40 | A4103E0390 | | |
| M10 | - | 10 | 8 | | | 28 | A4101E01A0 | 41 | A4103E03A0 | | |
| - | M14 | 11 | 9 | | | 29 | A4101E01A1 | 42 | A4103E03A1 | 56 | A4104E04A1 |
| - | M16 | 12 | 9 | | | | | 42 | A4103E03A2 | 56 | A4104E04A2 |
| - | M18 | 14 | 11 | | | | | 44 | A4103E03A3 | 58 | A4104E04A3 |
| - | M20 | 16 | 12 | | | | | 45 | A4103E03A4 | 59 | A4104E04A4 |
| - | M22- M24 | 18 | 14,5 | | | | | 47 | A4103E03A5 | 61 | A4104E04A5 |
| - | M27 | 20 | 16 | | | | | | | 63 | A4104E04A6 |
| - | M30 | 22 | 18 | | | | | | | 65 | A4104E04A7 |
| - | M33 | 25 | 20 | | | | | | | 67 | A4104E04A8 |
| - | M36 | 28 | 22 | | | | | | | 69 | A4104E04A9 |
| - | M39- M42 | 32 | 24 | | | | | | | | |
| - | M45- M48 | 36 | 29 | | | | | | | | |
| - | M52- M56 | 40 | 32 | | | | | | | | |

| | | $L_E$ [mm] | | $L_E$ [mm] | | $L_E$ [mm] | |
|---|---|---|---|---|---|---|---|
| 56 | A4104E04A1 | | | | | | |
| 56 | A4104E04A2 | | | | | | |
| 58 | A4104E04A3 | | | | | | |
| 59 | A4104E04A4 | | | | | | |
| 61 | A4104E04A5 | 94 | A4105E05A5 | | | | |
| 63 | A4104E04A6 | 96 | A4105E05A6 | | | | |
| 65 | A4104E04A7 | 98 | A4105E05A7 | | | | |
| 67 | A4104E04A8 | 100 | A4105E05A8 | | | | |
| 69 | A4104E04A9 | 102 | A4105E05A9 | | | | |
| | | 104 | A4105E05B0 | | | | |
| | | 109 | A4105E05B1 | | | | |

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| NR. | | 00 | 01 | 03 | 04 | 05 |
|---|---|---|---|---|---|---|
| | | M2,2 - M9 | M3,5 - M14 | M6 - M24 | M14 - M42 | M24 - M48 |
| Ø D | [mm] | 24 | 33 | 50 | 72 | 95 |
| Ø D1 | [mm] | 13 | 19 | 31 | 48 | 60 |
| L1 | [mm] | 41,5 | 47 | 69 | 101 | 138 |
| L2 | [mm] | 22 | 25 | 34 | 45 | 75 |

ISO

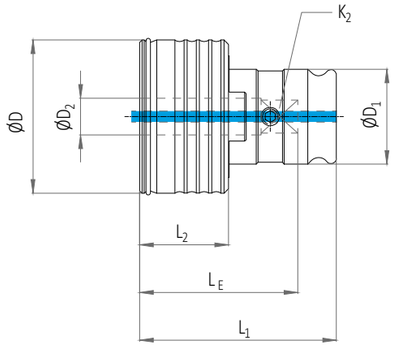
| Ø $D_2$ [mm] | $K_2$ [mm] | $L_E$ [mm] | | $L_E$ [mm] | | $L_E$ [mm] | | $L_E$ [mm] | | $L_E$ [mm] | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| M2,2- M2,5 | | 2,8 | 2,24 | 21 | A4200E0020 | | | | | | |
| M3 | | 3,15 | 2,5 | 21 | A4200E0031 | | | | | | |
| | M4 | 3,15 | 2,5 | 21 | A4200E0032 | | | | | | |
| M3,5 | | 3,55 | 2,8 | 21 | A4200E0041 | 22 | A4201E0141 | | | | |
| | M4,5 | 3,55 | 2,8 | 21 | A4200E0042 | 22 | A4201E0142 | | | | |
| M4 | | 4 | 3,15 | 22 | A4200E0051 | 23 | A4201E0151 | | | | |
| | M5 | 4 | 3,15 | 22 | A4200E0052 | 23 | A4201E0152 | | | | |
| M4,5 | | 4,5 | 3,55 | 22 | A4200E0061 | 23 | A4201E0161 | | | | |
| | M6 | 4,5 | 3,55 | 22 | A4200E0062 | 23 | A4201E0162 | | | | |
| M5 | | 5 | 4 | 23 | A4200E0070 | 24 | A4201E0170 | | | | |
| | M7 | 5,6 | 4,5 | 23 | A4200E0080 | 24 | A4201E0180 | | | | |
| M6 | | 6,3 | 5 | 24 | A4200E0091 | 25 | A4201E0191 | 38 | A4203E0391 | | |
| | M8 | 6,3 | 5 | 24 | A4200E0092 | 25 | A4201E0192 | 38 | A4203E0392 | | |
| M7 | M9 | 7,1 | 5,6 | 24 | A4200E00A0 | 25 | A4201E01A0 | 38 | A4203E03A0 | | |
| M8 | M10- M11 | 8 | 6,3 | | | 29 | A4201E01A1 | 39 | A4203E03A1 | | |
| M9 | M12 | 9 | 7,1 | | | 27 | A4201E01A2 | 40 | A4203E03A2 | | |
| M10 | | 10 | 8 | | | 28 | A4101E01A0 | 41 | A4103E03A0 | | |
| - | M14 | 11,2 | 9 | | | 29 | A4201E01A4 | 42 | A4203E03A4 | 56 | A4204E04A4 |
| - | M16 | 12,5 | 10 | | | | | 43 | A4203E03A5 | 57 | A4204E04A5 |
| - | M18- M20 | 14 | 11,2 | | | | | 44 | A4203E03A6 | 58 | A4204E04A6 |
| - | M22 | 16 | 12,5 | | | | | 46 | A4203E03A7 | 60 | A4204E04A7 |
| - | M24 | 18 | 14 | | | | | 48 | A4203E03A8 | 62 | A4204E04A8 |
| - | M27- M30 | 20 | 16 | | | | | | | 64 | A4104E04A6 |
| - | M33 | 22,4 | 18 | | | | | | | 66 | A4204E04B0 |
| - | M36 | 25 | 20 | | | | | | | 68 | A4104E04A8 |
| - | M39- M42 | 28 | 22,4 | | | | | | | 70 | A4204E04B2 |
| - | M45- M48 | 31,5 | 25 | | | | | | | | |
| - | M52- M56 | 35,5 | 28 | | | | | | | | |
| - | M60- M64 | 40 | 31,5 | | | | | | | | |

| | | $L_E$ [mm] | | $L_E$ [mm] | | $L_E$ [mm] | |
|---|---|---|---|---|---|---|---|
| 95 | A4205E05A8 | | | | | | |
| 97 | A4105E05A6 | | | | | | |
| 99 | A4205E05B0 | | | | | | |
| 101 | A4105E05A8 | | | | | | |
| 103 | A4205E05B2 | | | | | | |
| 105 | A4205E05B3 | | | | | | |

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## NORIS WE

## U E






| | NR. | | 00 | 01 | 03 | 04 | 05 |
|---|---|---|---|---|---|---|---|
| | | | M8 - M11 | M16 | M27 - M30 | M39- M48 | M52 - M60 |
| | Ø D | [mm] | 24 | 33 | 50 | 72 | 95 |
| | Ø D1 | [mm] | 13 | 19 | 31 | 48 | 60 |
| | L1 | [mm] | 38,5 | 44 | 64,5 | 96 | 125 |
| | L2 | [mm] | 19 | 22,5 | 29,5 | 40,5 | 62 |

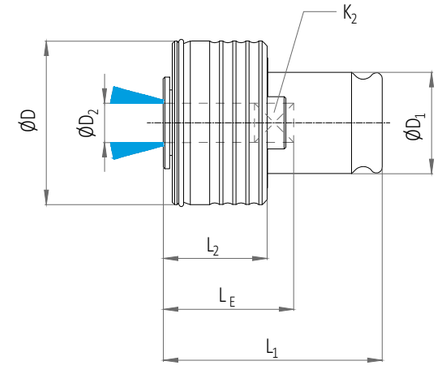
| | | | Ø $D_2$ [mm] | $K_2$ [mm] | $L_E$ [mm] | | $L_E$ [mm] | | $L_E$ [mm] | | $L_E$ [mm] | | $L_E$ [mm] | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DIN | M8 | M11 | 8 | 6,2 | 28 | A4100E0080 | | | | | | | | |
| | - | M16 | 12 | 9 | | | 37 | A4101E01A2 | | | | | | |
| | - | M27 | 20 | 16 | | | | | 50 | A4103E03A6 | | | | |
| | - | M30 | 22 | 18 | | | | | 52 | A4103E03A7 | | | | |
| | - | M39- M42 | 32 | 24 | | | | | | | 66 | A4104E04B0 | | |
| | - | M45- M48 | 36 | 29 | | | | | | | 71 | A4104E04B1 | | |
| | - | M52- M56 | 40 | 32 | | | | | | | | | 91 | A4105E05B2 |
| | - | M60 | 45 | 35 | | | | | | | | | 94 | A4105E05B3 |

| | | | Ø $D_2$ [mm] | $K_2$ [mm] | $L_E$ [mm] | | $L_E$ [mm] | | $L_E$ [mm] | | $L_E$ [mm] | | $L_E$ [mm] | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ISO | M8 | M10-M11 | 8 | 6,3 | 28 | A4200E00A1 | | | | | | | | |
| | - | M16 | 12,5 | 10 | | | 38 | A4201E01A5 | | | | | | |
| | - | M27- M30 | 20 | 16 | | | | | 51 | A4103E03A6 | | | | |
| | - | M33 | 22,4 | 18 | | | | | 53 | A4203E03B0 | | | | |
| | - | M45- M48 | 31,5 | 25 | | | | | | | 69 | A4204E04B3 | | |
| | - | M52- M56 | 35,5 | 28 | | | | | | | 72 | A4204E04B4 | 96 | A4205E05B4 |
| | - | M60- M64 | 40 | 31,5 | | | | | | | | | 103 | A4205E05B5 |
| | - | M68 | 45 | 35,5 | | | | | | | | | 107 | A4205E05B6 |

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Accouplement à déclenchement de surcharge voir le mode d'emploi sur notre site internet
Frizione di sovraccarico regolabile, vedere le istruzioni per l'uso sul nostro sito web

## NORIS WE

## U MKBA






| | NR. | | 00 | 01 | 03 | 04 | 05 |
|---|---|---|---|---|---|---|---|
| | | | M1 - M10 | M3 - M14 | M4,5 - M24 | M14 - M36 | M22 - M48 |
| | Ø D | [mm] | 24 | 33 | 50 | 72 | 95 |
| | Ø D1 | [mm] | 13 | 19 | 31 | 48 | 60 |
| | L1 | [mm] | 41,5 | 47 | 69 | 101 | 138 |
| | L2 | [mm] | 22 | 25 | 34 | 45 | 75 |

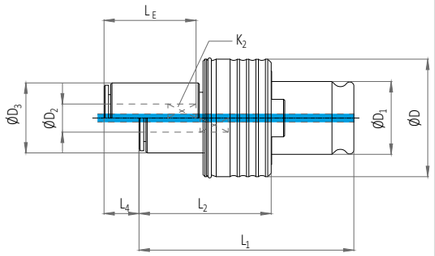
| | | | Ø $D_2$ [mm] | $K_2$ [mm] | $L_E$ [mm] | | $L_E$ [mm] | | $L_E$ [mm] | | $L_5$ [mm] | | $L_E$ [mm] | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DIN | M3 | - | 3,5 | 2,7 | | | | | 22 | A5101E0121 | | | | |
| | - | M4,5- M5 | 3,5 | 2,7 | | | | | 22 | A5101E0122 | | | | |
| | M3,5 | - | 4 | 3 | | | | | 22 | A5101E0135 | | | | |
| | M4 | - | 4,5 | 3,4 | | | | | 23 | A5101E0141 | | | | |
| | - | M6 | 4,5 | 3,4 | | | | | 23 | A5101E0142 | | | | |
| | M4,5- M5 | - | 6 | 4,9 | | | | | 25 | A5101E0161 | 38 | A5103E0361 | | |
| | M6 | - | 6 | 4,9 | | | | | 25 | A5101E0162 | 38 | A5103E0362 | | |
| | - | M8 | 6 | 4,9 | | | | | 25 | A5101E0163 | 38 | A5103E0363 | | |
| | - | M10 | 7 | 5,5 | | | | | 25 | A5101E0175 | 38 | A5103E0375 | | |
| | M8 | - | 8 | 6,2 | | | | | 26 | A5101E0185 | 39 | A5103E0385 | | |
| | - | M12 | 9 | 7 | | | | | 27 | A5101E0195 | 40 | A5103E0395 | | |
| | M10 | - | 10 | 8 | | | | | 28 | A5101E01A5 | 41 | A5103E03A5 | | |
| | - | M14 | 11 | 9 | | | | | 29 | A5101E01B5 | 42 | A5103E03B5 | 56 | A5104E04B5 |
| | - | M16 | 12 | 9 | | | | | | | 42 | A5103E03C5 | 56 | A5104E04C5 |
| | - | M18 | 14 | 11 | | | | | | | 44 | A5103E03D5 | 58 | A5104E04D5 |
| | - | M20 | 16 | 12 | | | | | | | 45 | A5103E03E5 | 59 | A5104E04E5 |
| | - | M22- M24 | 18 | 14,5 | | | | | | | 47 | A5103E03F5 | 61 | A5104E04F5 |
| | - | M27 | 20 | 16 | | | | | | | | | 63 | A5104E04G5 |
| | - | M30 | 22 | 18 | | | | | | | | | 65 | A5104E04H5 |
| | - | M33 | 25 | 20 | | | | | | | | | 67 | A5104E04J5 |
| | - | M36 | 28 | 22 | | | | | | | | | 69 | A5104E04K5 |
| | - | M39- M42 | 32 | 24 | | | | | | | | | | |
| | - | M45- M48 | 36 | 29 | | | | | | | | | | |

| | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | 102 | A5105E05K5 |
| | | | | | | | | | | | | | 104 | A5105E05L5 |
| | | | | | | | | | | | | | 109 | A5105E05M5 |

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Frizione di sovraccarico regolabile, vedere le istruzioni per l'uso sul nostro sito web

## NORIS WE

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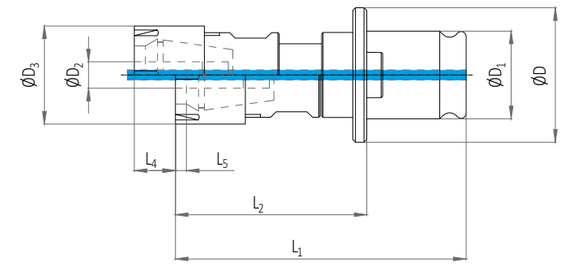

| NR. | | 00 | 01 | 03 | 04 | 05 |
|---|---|---|---|---|---|---|
| | | M1 - M10 | M3 - M14 | M4,5 - M24 | M14 - M36 | M22 - M48 |
| Ø D | [mm] | 24 | 33 | 50 | 72 | 95 |
| Ø D1 | [mm] | 13 | 19 | 31 | 48 | 60 |
| Ø D3 | [mm] | 13 | 18 | 30 | 47 | 58 |
| L1 | [mm] | 49 | 55 | 94 | 137 | 205 |
| L2 | [mm] | 29 | 33 | 59 | 81 | 142 |
| L4 | [mm] | 8 | 10 | 15 | 25 | 40 |

| | | $L_5$ [mm] | $K_2$ | $L_E$ [mm] | | $L_E$ [mm] | | $L_E$ [mm] | | $L_E$ [mm] | | $L_E$ [mm] | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| M1- M1,8 | - | 2,5 | 2,1 | 21 | A7100E0001 | | | | | | | | |
| - | M3,5 | 2,5 | 2,1 | 21 | A7100E0002 | | | | | | | | |
| M2 | - | 2,8 | 2,1 | 21 | A7100E0011 | | | | | | | | |
| M2,5 | - | 2,8 | 2,1 | 21 | A7100E0012 | | | | | | | | |
| - | M4 | 2,8 | 2,1 | 21 | A7100E0013 | | | | | | | | |
| M3 | - | 3,5 | 2,7 | 22 | A7100E0021 | 23 | A7101E0121 | | | | | | |
| - | M4,5- M5 | 3,5 | 2,7 | 22 | A7100E0022 | 23 | A7101E0122 | | | | | | |
| M3,5 | - | 4 | 3 | 22 | A7100E0036 | 22 | A7101E0136 | | | | | | |
| M4 | - | 4,5 | 3,4 | 22 | A7100E0041 | 23 | A7101E0141 | | | | | | |
| - | M6 | 4,5 | 3,4 | 22 | A7100E0042 | 23 | A7101E0142 | | | | | | |
| M4,5- M5 | - | 6 | 4,9 | 24 | A7100E0061 | 25 | A7101E0161 | 38 | A7103E0361 | | | | |
| M6 | - | 6 | 4,9 | 24 | A7100E0062 | 25 | A7101E0162 | 38 | A7103E0362 | | | | |
| - | M8 | 6 | 4,9 | 24 | A7100E0063 | 25 | A7101E0163 | 38 | A7103E0363 | | | | |
| - | M10 | 7 | 5,5 | 24 | A7100E0076 | 25 | A7101E0176 | 38 | A7103E0376 | | | | |
| M8 | - | 8 | 6,2 | | | 26 | A7101E0186 | 39 | A7103E0386 | | | | |
| - | M12 | 9 | 7 | | | 27 | A7101E0196 | 40 | A7103E0396 | | | | |
| M10 | - | 10 | 8 | | | 28 | A7101E01A6 | 41 | A7103E03A6 | | | | |
| - | M14 | 11 | 9 | | | 29 | A7101E01B6 | 42 | A7103E03B6 | 55 | A7104E04B6 | | |
| - | M16 | 12 | 9 | | | | | 42 | A7103E03C6 | 55 | A7104E04C6 | | |
| - | M18 | 14 | 11 | | | | | 44 | A7103E03D6 | 57 | A7104E04D6 | | |
| - | M20 | 16 | 12 | | | | | 45 | A7103E03E6 | 58 | A7104E04E6 | | |
| - | M22- M24 | 18 | 14,5 | | | | | 47 | A7103E03F6 | 60 | A7104E04F6 | 94 | A7105E05F6 |
| - | M27 | 20 | 16 | | | | | | | 62 | A7104E04G6 | 96 | A7105E05G6 |
| - | M30 | 22 | 18 | | | | | | | 64 | A7104E04H6 | 98 | A7105E05H6 |
| - | M33 | 25 | 20 | | | | | | | 66 | A7104E04J6 | 100 | A7105E05J6 |
| - | M36 | 28 | 22 | | | | | | | 68 | A7104E04K6 | 102 | A7105E05K6 |
| - | M39- M42 | 32 | 24 | | | | | | | | | 104 | A7105E05L6 |
| - | M45- M48 | 36 | 29 | | | | | | | | | 109 | A7105E05M6 |

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## NORIS WE

L ER

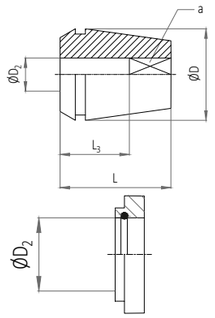





| Nr. | | | | ØD [mm] | ØD2 [mm] | ØD3 [mm] | $L_1$ [mm] | $L_2$ [mm] | $L_4$ [mm] | $L_5$ [mm] | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 00 | M2- M8 (Nr.2- 5/16) | ER 11 | - | 23 | 13 | 16 | 57,5 | 38 | 8 | 0,9 | AZ100E0011 |
| 01 | M4- M12 (Nr.8- 7/16) | ER 16 | DS 16 | 30 | 19 | 22 | 72 | 50,5 | 10 | 5 | AZ100E0116 |
| 03 | M4- M20 (Nr.8- 3/4) | ER 25 | DS 25 | 48 | 31 | 35 | 103 | 68 | 15 | 5 | AZ100E0325 |

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## NORIS ER | DS



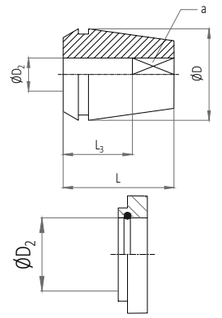



| NR. | | | 08 | 11 | 16 | 20 |
|---|---|---|---|---|---|---|
| | | | ER 08 | ER 11 GB | ER 16 GB | ER 20 GB |
| | | | - | - | DS 16 | DS 20 |
| | | | M1 - M4 | M2 - M8 | M4 - M12 | M4 - M12 |
| Ø D | | [mm] | 8 | 11 | 16 | 20 |
| L | | [mm] | 13,6 | 18 | 27,5 | 31,5 |

| | | Ø $D_2$ [mm] | $K_2$ [mm] | $L_3$ [mm] | | $L_3$ [mm] | | $L_3$ [mm] | | $L_3$ [mm] | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| M1- M1,8 | M3,5 | 2,5 | 2,1 | ER | - | AC408Z0825 | | | | | |
| - | - | - | - | DS | | | | | | | |
| M2- M2,6 | M4 | 2,8 | 2,1 | ER | - | AC408Z0830 | 12 | AD411Z1120 | | | |
| - | - | - | - | DS | | | | - | | | |
| M3 | M4,5- M5 | 3,5 | 2,7 | ER | - | AC408Z0835 | 14 | AD411Z1130 | | | |
| - | - | - | - | DS | | | | - | | | |
| M3,5 | M5,5 | 4 | 3 | ER | - | AC408Z0840 | 14 | AD411Z1140 | | | |
| - | - | - | - | DS | | | | - | | | |
| M4 | M6 | 4,5 | 3,4 | ER | - | AC408Z0845 | 14 | AD411Z1145 | 15 | AD416Z1640 | 15 | AD420Z2045 |
| - | - | - | - | DS | | | | - | | AK7Z0Z1645 | | AK7Z0Z2045 |
| M4,5- M6 | M8 | 6 | 4,9 | ER | | | 14 | AD411Z1160 | 18 | AD416Z1660 | 18 | AD420Z2060 |
| - | - | - | - | DS | | | | - | | AK7Z0Z1660 | | AK7Z0Z2060 |
| M7 | M9- M10 | 7 | 5,5 | ER | | | | | 18 | AD416Z1670 | 18 | AD420Z2070 |
| - | - | - | - | DS | | | | | | AK7Z0Z1670 | | AK7Z0Z2070 |
| M8 | M11 | 8 | 6,2 | ER | | | | | 22 | AD416Z1680 | 22 | AD420Z2080 |
| - | - | - | - | DS | | | | | | AK7Z0Z1680 | | AK7Z0Z2080 |
| M9 | M12 | 9 | 7 | ER | | | | | 22 | AD416Z1690 | 22 | AD420Z2090 |
| - | - | - | - | DS | | | | | | AK7Z0Z1690 | | AK7Z0Z2090 |
| M10 | - | 10 | 8 | ER | | | | | | | 25 | AD420Z2010 |
| - | - | - | - | DS | | | | | | | | AK7Z0Z20A0 |

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## NORIS ER | DS





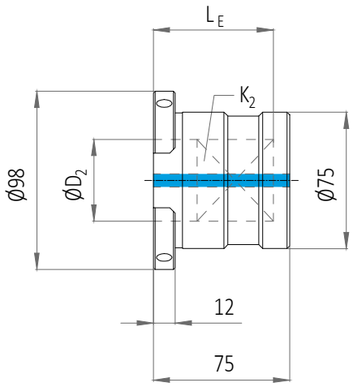

| NR. | | | 25 | 32 | 40 | 50 |
|---|---|---|---|---|---|---|
| | | | ER 25 GB | ER 32 GB | ER 40 GB | ER 50 GB |
| | | | DS 25 | DS 32 | DS 40 | DS 50 |
| | | | M4 - M20 | M4 - M20 | M 10 - M30 | M30 - M42 |
| Ø D | | [mm] | 25 | 32 | 40 | 51 |
| L | | [mm] | 34 | 40 | 46 | 60 |

| | | Ø $D_2$ [mm] | $K_2$ [mm] | $L_3$ [mm] | | $L_3$ [mm] | | $L_3$ [mm] | | $L_3$ [mm] | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| M4 | M6 | 4,5 | 3,4 | ER | 15 | AD425Z2545 | | | | | |
| - | - | - | - | DS | | AK7Z0Z2545 | | | | | |
| M4,5- M6 | M8 | 6 | 4,9 | ER | 18 | AD425Z2560 | 18 | AD432Z3260 | | | |
| - | - | - | - | DS | | AK7Z0Z2560 | | AK7Z0Z3260 | | | |
| M7 | M9- M10 | 7 | 5,5 | ER | 18 | AD425Z2570 | 18 | AD432Z3270 | 18 | AD440Z4070 | |
| - | - | - | - | DS | | AK7Z0Z2570 | | AK7Z0Z3270 | | AK7Z0Z4070 | |
| M8 | M11 | 8 | 6,2 | ER | 22 | AD425Z2580 | 22 | AD432Z3280 | 22 | AD440Z4080 | |
| - | - | - | - | DS | | AK7Z0Z2580 | | AK7Z0Z3280 | | AK7Z0Z4080 | |
| M9 | M12 | 9 | 7 | ER | 22 | AD425Z2590 | 22 | AD432Z3290 | 22 | AD440Z4090 | |
| - | - | - | - | DS | | AK7Z0Z2590 | | AK7Z0Z3290 | | AK7Z0Z4090 | |
| M10 | - | 10 | 8 | ER | 25 | AD425Z25A0 | 25 | AD432Z32A0 | 25 | AD440Z40A0 | |
| - | - | - | - | DS | | AK7Z0Z25A0 | | AK7Z0Z32A0 | | AK7Z0Z40A0 | |
| - | M14 | 11 | 9 | ER | 25 | AD425Z25B0 | 25 | AD432Z32B0 | 25 | AD440Z40B1 | |
| - | - | - | - | DS | | AK7Z0Z25B0 | | AK7Z0Z32B0 | | AK7Z0Z40B0 | |
| - | M16 | 12 | 9 | ER | 25 | AD425Z25C0 | 25 | AD432Z32C0 | 25 | AD440Z40C2 | |
| - | - | - | - | DS | | AK7Z0Z25C0 | | AK7Z0Z32C0 | | AK7Z0Z40C0 | |
| - | M18 | 14 | 11 | ER | 25 | AD425Z25D0 | 25 | AD432Z32E0 | 25 | AD440Z40E4 | |
| - | - | - | - | DS | | AK7Z0Z25E0 | | AK7Z0Z32E0 | | AK7Z0Z40E0 | |
| - | M20 | 16 | 12 | ER | 25 | AD425Z25E0 | 25 | AD432Z32G0 | 25 | AD440Z40G6 | |
| - | - | - | - | DS | | AK7Z0Z25G0 | | AK7Z0Z32G0 | | AK7Z0Z40G0 | |
| - | M22- M24 | 18 | 14,5 | ER | | | | | 25 | AD440Z40J8 | |
| - | - | - | - | DS | | | | | | AK7Z0Z40J0 | |
| - | M27 | 20 | 16 | ER | | | | | 28 | AD440Z40L0 | |
| - | - | - | - | DS | | | | | | AK7Z0Z40L0 | |
| - | M30 | 22 | 18 | ER | | | | | 28 | AD440Z40N0 | 41 | AD450Z50B2 |
| - | - | - | - | DS | | | | | | AK7Z0Z4022 | | AK7Z0Z5022 |
| - | M33 | 25 | 20 | ER | | | | | | | 41 | AD450Z50B5 |
| - | - | - | - | DS | | | | | | | | AK7Z0Z5025 |
| - | M36 | 28 | 22 | ER | | | | | | | 41 | AD450Z50B8 |
| - | - | - | - | DS | | | | | | | | AK7Z0Z5028 |
| - | M39- M42 | 32 | 24 | ER | | | | | | | 41 | AD450Z50C2 |
| - | - | - | - | DS | | | | | | | | AK7Z0Z5032 |

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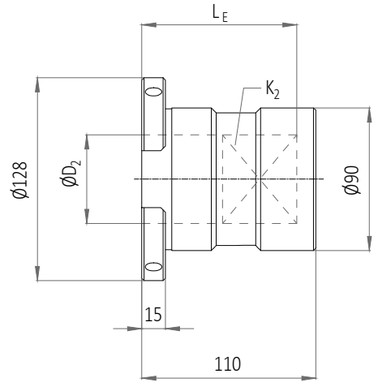



| DIN | | Ø $D_2$ [mm] | $K_2$ [mm] | $L_E$ [mm] | [kg] | |
|---|---|---|---|---|---|---|
| | M24 | 18 | 14,5 | 53 | 2,2 | AFXH2.E0501 |
| | M27 | 20 | 16 | 53 | 2,2 | AFXH2.E0502 |
| | M30 | 22 | 18 | 53 | 2,1 | AFXH2.E0503 |
| | M33 | 25 | 20 | 53 | 2,1 | AFXH2.E0504 |
| | M36 | 28 | 22 | 53 | 2,1 | AFXH2.E0505 |
| | M39- M42 | 32 | 24 | 53 | 2 | AFXH2.E0506 |
| | M45- M48 | 36 | 29 | 66 | 1,9 | AFXH2.E0507 |
| | M52- M56 | 40 | 32 | 66 | 1,8 | AFXH2.E0508 |
| | M60 | 45 | 35 | 66 | 1,7 | AFXH2.E0509 |
| | M64- M76 \| M80 [1]- M90 [1] | 50 | 39 | 66 | 1,6 | AFXH2.E0510 |
| | M92 [1]- M120 [1] | 56 | 44 | 66 | 1,4 | AFXH2.E0511 |

1) Maximales Drehmoment der Aufnahme beachten
Take note of the maximum torque of the holder
Considérer le couple maximal du porte-taraud
Considerare la coppia massima del portamaschi

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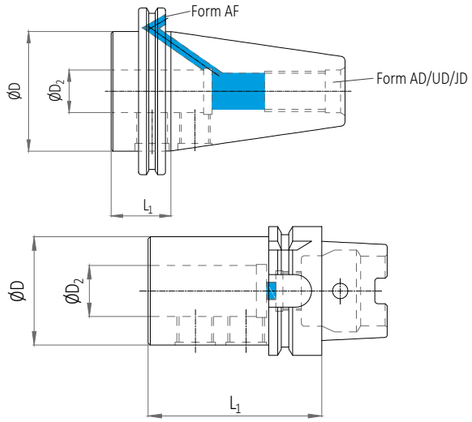
30






| DIN | | Ø $D_2$ [mm] | $K_2$ [mm] | $L_E$ [mm] | [kg] | |
|---|---|---|---|---|---|---|
| | M36 | 28 | 22 | 76 | 4,4 | AFXH3E0101 |
| | M39- M42 | 32 | 24 | 76 | 4,3 | AFXH3E0102 |
| | M45- M48 | 36 | 29 | 76 | 4,2 | AFXH3E0103 |
| | M52- M56 | 40 | 32 | 76 | 4 | AFXH3E0104 |
| | M60 | 45 | 35 | 76 | 3,9 | AFXH3E0105 |
| | M64- M90 | 50 | 39 | 76 | 3,7 | AFXH3E0106 |
| | M92- M120 | 56 | 44 | 98 | 3,4 | AFXH3E0107 |
| | M122- M150 | 63 | 49 | 98 | 3 | AFXH3E0108 |
| | M155- M160 | 70 | 55 | 98 | 2,7 | AFXH3E0109 |

Ausführung mit innerer Kühlschmierstoff-Zufuhr bis 10 bar auf Anfrage erhältlich
Available with internal coolant-lubricant supply up to 10 bar upon request
Version avec lubrification par le centre d'une pression jusqu'à 10 bars disponible sur demande
Esecuzione con lubrorefrigerazione interna fino a 10 bar disponibile a richiesta




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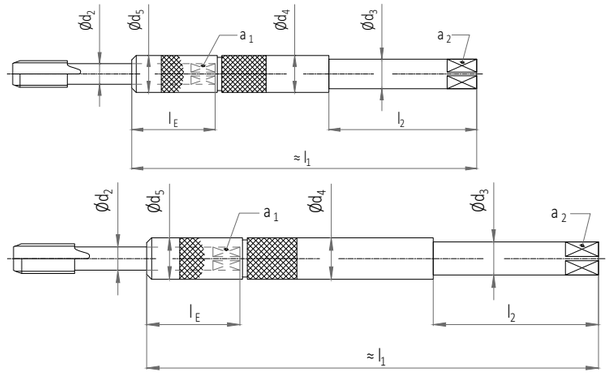
DIN 1835 B



NORIS AS

DIN 1835 B






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SCHAFTVERLÄNGERUNGEN · SHANK EXTENSIONS · ALLONGES PORTE-TARAUDS · PROLUNGHE SPECIALI





DIN 2080-1 AD

| Ø $D_2$ [mm] | SK \| HSK | Ø D [mm] | $L_1$ [mm] | |
|---|---|---|---|---|
| Ø 20 | SK 30 | 36 | 34 | AK41E0503 |
| Ø 25 | SK 40 | 44 | 22 | AK41E0501 |
| Ø 25 | SK 50 | 70 | 16 | AK41E0502 |
| Ø 32 | SK 50 | 70 | 16 | AK41E0504 |

DIN 69893-1

| Ø $D_2$ [mm] | SK \| HSK | Ø D [mm] | $L_1$ [mm] | |
|---|---|---|---|---|
| Ø 20 | HSK-A40 | 52 | 75 | AK91E0C02 |
| Ø 20 | HSK-A50 | 52 | 80 | AK91E0C04 |
| Ø 25 | HSK-A40 | 65 | 105 | AK91E0C03 |
| Ø 25 | HSK-A50 | 65 | 107 | AK91E0C05 |
| Ø 25 | HSK-A63 | 53 | 85 | AK91E0C07 |
| Ø 25 | HSK-A80 | 65 | 90 | AK91E0C09 |
| Ø 25 | HSK-A100 | 65 | 100 | AK91E0C11 |
| Ø 32 | HSK-A50 | 77 | 114 | AK91E0C06 |
| Ø 32 | HSK-A63 | 72 | 110 | AK91E0C08 |
| Ø 32 | HSK-A80 | 72 | 110 | AK91E0C10 |
| Ø 32 | HSK-A100 | 72 | 96 | AK91E0C12 |

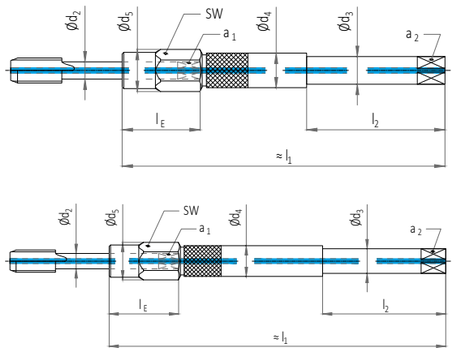
KURZ · SHORT · COURT · CORTO

| Nr. | Ø $d_2$ [mm] | $a_1$ [mm] | | | $l_1$ [mm] | $l_2$ [mm] | $l_E$ [mm] | Ø $d_3$ [mm] | $a_2$ [mm] | Ø $d_4/d_5$ [mm] | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 2,8 | 2,10 | M2- M2,6 | M4 | 21 | 60 | 130 | 6 | 4,9 | 6,1 | 9951V01 |
| 2 | 3,5 | 2,70 | M3 | M4,5- M5 | 22 | 60 | 130 | 6 | 4,9 | 7,5 | 9951V02 |
| 3 | 4 | 3,00 | M3,5 | M5,5 | 22 | 60 | 130 | 6 | 4,9 | 8,4 | 9951V03 |
| 4 | 4,5 | 3,40 | M4 | M6 | 22 | 60 | 130 | 6 | 4,9 | 8,4 | 9951V04 |
| 5 | 6 | 4,90 | M4,5- M6 | M8 | 25 | 60 | 130 | 7 | 5,5 | 12,1 | 9951V05 |
| 6 | 7 | 5,50 | M7 | M9- M10 | 25 | 60 | 130 | 7 | 5,5 | 12,1 | 9951V06 |
| 7 | 8 | 6,20 | M8 | M11 | 29 | 60 | 130 | 8 | 6,2 | 13 | 9951V07 |
| 8 | 9 | 7,00 | M9 | M12 | 30 | 60 | 130 | 9 | 7 | 15 | 9951V08 |
| 9 | 10 | 8,00 | M10 | - | 32 | 60 | 130 | 10 | 8 | 15 | 9951V09 |
| 10 | 11 | 9,00 | - | M14 | 35 | 90 | 180 | 11 | 9 | 18 | 9951V10 |
| 11 | 12 | 9,00 | (M12) | M16 | 35 | 90 | 180 | 12 | 9 | 18 | 9951V11 |
| 12 | 14 | 11,00 | - | M18 | 39 | 90 | 180 | 14 | 11 | 22 | 9951V12 |
| 13 | 16 | 12,00 | - | M20 | 40 | 90 | 180 | 16 | 12 | 22 | 9951V13 |
| 14 | 18 | 14,50 | - | M22- M24 | 42 | 100 | 200 | 18 | 14,5 | 26 | 9951V14 |
| 15 | 20 | 16,00 | - | M27 | 44 | 100 | 200 | 20 | 16 | 28 | 9951V15 |
| 16 | 22 | 18,00 | - | M30 | 46 | 100 | 200 | 22 | 18 | 30 | 9951V16 |
| 17 | 25 | 20,00 | - | M33 | 49 | 100 | 200 | 25 | 20 | 35 | 9951V17 |

LANG · LONG · LONG · LUNGO

| Nr. | Ø $d_2$ [mm] | $a_1$ [mm] | | | $l_1$ [mm] | $l_2$ [mm] | $l_E$ [mm] | Ø $d_3$ [mm] | $a_2$ [mm] | Ø $d_4/d_5$ [mm] | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 2,8 | 2,10 | M2- M2,6 | M4 | 21 | 65 | 230 | 6 | 4,9 | 6,1 | 9952V01 |
| 2 | 3,5 | 2,70 | M3 | M4,5- M5 | 22 | 70 | 230 | 6 | 4,9 | 7,5 | 9952V02 |
| 3 | 4 | 3 | M3,5 | M5,5 | 22 | 70 | 230 | 6 | 4,9 | 8,4 | 9952V03 |
| 4 | 4,5 | 3,4 | M4 | M6 | 22 | 70 | 230 | 6 | 4,9 | 8,4 | 9952V04 |
| 5 | 6 | 4,9 | M4,5- M6 | M8 | 25 | 70 | 230 | 7 | 5,5 | 12,1 | 9952V05 |
| 6 | 7 | 5,5 | M7 | M9- M10 | 25 | 70 | 230 | 7 | 5,5 | 12,1 | 9952V06 |
| 7 | 8 | 6,2 | M8 | M11 | 29 | 80 | 230 | 8 | 6,2 | 13 | 9952V07 |
| 8 | 9 | 7 | M9 | M12 | 30 | 80 | 230 | 9 | 7 | 15 | 9952V08 |
| 9 | 10 | 8 | M10 | - | 32 | 80 | 230 | 10 | 8 | 15 | 9952V09 |
| 10 | 11 | 9 | - | M14 | 35 | 90 | 330 | 11 | 9 | 18 | 9952V10 |
| 11 | 12 | 9 | (M12) | M16 | 35 | 90 | 330 | 12 | 9 | 18 | 9952V11 |
| 12 | 14 | 11 | - | M18 | 39 | 90 | 330 | 14 | 11 | 22 | 9952V12 |
| 13 | 16 | 12 | - | M20 | 40 | 90 | 330 | 16 | 12 | 22 | 9952V13 |
| 14 | 18 | 14,5 | - | M22- M24 | 42 | 100 | 330 | 18 | 14,5 | 26 | 9952V14 |
| 15 | 20 | 16 | - | M27 | 44 | 100 | 330 | 20 | 16 | 28 | 9952V15 |
| 16 | 22 | 18 | - | M30 | 46 | 100 | 330 | 22 | 18 | 30 | 9952V16 |
| 17 | 25 | 20 | - | M33 | 49 | 100 | 330 | 25 | 20 | 35 | 9952V17 |

Spannschrauben sind im Lieferumfang enthalten
Clamping screws are included in the delivery
les vis de serrage sont comprises dans la livraison
Le viti di fissaggio sono incluse nella fornitura











Für den Einsatz auf CNC-Maschinen und herkömmlichen Gewindeschneideinrichtungen
For use on CNC machines and conventional thread cutting machinery
Pour utilisation sur machines CNC et tous dispositifs de taraudage conventionnels
Per l'impiego su macchina CNC ed apparecchiature a filettare tradizionali

KURZ · SHORT · COURT · CORTO

| Nr. | Ø $d_2$ [mm] | $a_1$ [mm] | | | $l_1$ [mm] | $l_2$ [mm] | $l_E$ [mm] | Ø $d_3$ [mm] | $a_2$ [mm] | Ø $d_4$ [mm] | Ø $d_5$ [mm] | SW [mm] | $M_d$ [Nm] | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 2,8 | 2,10 | M2- M2,6 | M4 | 21 | 60 | 130 | 6 | 4,9 | 6,1 | 6,5 | 6 | 2 | 9953VK01 |
| 2 | 3,5 | 2,70 | M3 | M4,5- M5 | 22 | 60 | 130 | 6 | 4,9 | 7,5 | 9 | 8 | 2 | 9953VK02 |
| 3 | 4 | 3,00 | M3,5 | M5,5 | 22 | 60 | 130 | 6 | 4,9 | 8,4 | 10 | 9 | 2,5 | 9953VK03 |
| 4 | 4,5 | 3,40 | M4 | M6 | 22 | 60 | 130 | 6 | 4,9 | 8,4 | 10 | 9 | 3 | 9953VK04 |
| 5 | 6 | 4,90 | M4,5- M6 | M8 | 25 | 60 | 130 | 7 | 5,5 | 12,1 | 13,5 | 12 | 3,5 | 9953VK05 |
| 6 | 7 | 5,50 | M7 | M9- M10 | 25 | 60 | 130 | 7 | 5,5 | 12,1 | 13,5 | 12 | 5 | 9953VK06 |
| 7 | 8 | 6,20 | M8 | M11 | 29 | 60 | 130 | 8 | 6,2 | 13 | 14,5 | 13 | 6 | 9953VK07 |
| 8 | 9 | 7,00 | M9 | M12 | 30 | 60 | 130 | 9 | 7 | 15 | 16,5 | 15 | 8 | 9953VK08 |
| 9 | 10 | 8,00 | M10 | - | 32 | 60 | 130 | 10 | 8 | 15 | 16,5 | 15 | 11 | 9953VK09 |
| 10 | 11 | 9,00 | - | M14 | 35 | 90 | 180 | 11 | 9 | 18 | 20 | 18 | 15 | 9953VK10 |
| 11 | 12 | 9,00 | (M12) | M16 | 35 | 90 | 180 | 12 | 9 | 18 | 20 | 18 | 20 | 9953VK11 |
| 12 | 14 | 11,00 | - | M18 | 39 | 90 | 180 | 14 | 11 | 22 | 25 | 22 | 25 | 9953VK12 |
| 13 | 16 | 12,00 | - | M20 | 40 | 90 | 180 | 16 | 12 | 22 | 25 | 22 | 33 | 9953VK13 |
| 14 | 18 | 14,50 | - | M22- M24 | 42 | 100 | 200 | 18 | 14,5 | 26 | 29 | 26 | 45 | 9953VK14 |
| 15 | 20 | 16,00 | - | M27 | 44 | 100 | 200 | 20 | 16 | 28 | 32 | 28 | 60 | 9953VK15 |
| 16 | 22 | 18,00 | - | M30 | 46 | 100 | 200 | 22 | 18 | 30 | 34 | 30 | 77 | 9953VK16 |
| 17 | 25 | 20,00 | - | M33 | 49 | 100 | 200 | 25 | 20 | 35 | 41 | 36 | 100 | 9953VK17 |

LANG · LONG · LONG · LUNGO

| Nr. | Ø $d_2$ [mm] | $a_1$ [mm] | | | $l_1$ [mm] | $l_2$ [mm] | $l_E$ [mm] | Ø $d_3$ [mm] | $a_2$ [mm] | Ø $d_4$ [mm] | Ø $d_5$ [mm] | SW [mm] | $M_d$ [Nm] | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 2,8 | 2,10 | M2- M2,6 | M4 | 21 | 65 | 230 | 6 | 4,9 | 6,1 | 6,5 | 6 | 2 | 9954VK01 |
| 2 | 3,5 | 2,70 | M3 | M4,5- M5 | 22 | 70 | 230 | 6 | 4,9 | 7,5 | 9 | 8 | 2 | 9954VK02 |
| 3 | 4 | 3 | M3,5 | M5,5 | 22 | 70 | 230 | 6 | 4,9 | 8,4 | 10 | 9 | 2,5 | 9954VK03 |
| 4 | 4,5 | 3,4 | M4 | M6 | 22 | 70 | 230 | 6 | 4,9 | 8,4 | 10 | 9 | 3 | 9954VK04 |
| 5 | 6 | 4,9 | M4,5- M6 | M8 | 25 | 70 | 230 | 7 | 5,5 | 12,1 | 13,5 | 12 | 3,5 | 9954VK05 |
| 6 | 7 | 5,5 | M7 | M9- M10 | 25 | 70 | 230 | 7 | 5,5 | 12,1 | 13,5 | 12 | 5 | 9954VK06 |
| 7 | 8 | 6,2 | M8 | M11 | 29 | 80 | 230 | 8 | 6,2 | 13 | 14,5 | 13 | 6 | 9954VK07 |
| 8 | 9 | 7 | M9 | M12 | 30 | 80 | 230 | 9 | 7 | 15 | 16,5 | 15 | 8 | 9954VK08 |
| 9 | 10 | 8 | M10 | - | 32 | 80 | 230 | 10 | 8 | 15 | 16,5 | 15 | 11 | 9954VK09 |
| 10 | 11 | 9 | - | M14 | 35 | 90 | 330 | 11 | 9 | 18 | 20 | 18 | 15 | 9954VK10 |
| 11 | 12 | 9 | (M12) | M16 | 35 | 90 | 330 | 12 | 9 | 18 | 20 | 18 | 20 | 9954VK11 |
| 12 | 14 | 11 | - | M18 | 39 | 90 | 330 | 14 | 11 | 22 | 25 | 22 | 25 | 9954VK12 |
| 13 | 16 | 12 | - | M20 | 40 | 90 | 330 | 16 | 12 | 22 | 25 | 22 | 33 | 9954VK13 |
| 14 | 18 | 14,5 | - | M22- M24 | 42 | 100 | 330 | 18 | 14,5 | 26 | 29 | 26 | 45 | 9954VK14 |
| 15 | 20 | 16 | - | M27 | 44 | 100 | 330 | 20 | 16 | 28 | 32 | 28 | 60 | 9954VK15 |
| 16 | 22 | 18 | - | M30 | 46 | 100 | 330 | 22 | 18 | 30 | 34 | 30 | 77 | 9954VK16 |
| 17 | 25 | 20 | - | M33 | 49 | 100 | 330 | 25 | 20 | 35 | 41 | 36 | 100 | 9954VK17 |



# NORIS HELIXPRO

SPANNZANGEN-AUFNAHMEN / COLLET HOLDERS / MANDRINS DE TARAUDAGE À PINCE / MANDRINI A PINZE

C Soft T

## MINIMALLÄNGENAUSGLEICH

Durch den Einbau eines Minimallängenausgleiches in Druck- und Zugrichtung werden auftretende Minimalsteigungsdifferenzen zwischen Synchronspindel und dem Werkzeug, die zu hohen Gewindeflankenreibkräften führen würden, ausgeglichen. Eine eventuelle Axialkrafterhöhung während des Gewindeherstellung wird auf ein Minimum reduziert.
Die Vorteile sind:
- kein Verschneiden der Gewinde
- optimierte Standzeit des Werkzeugs
- geeignet für innere Kühlschmierstoff-Zufuhr

## MINIMAL LENGTH COMPENSATION

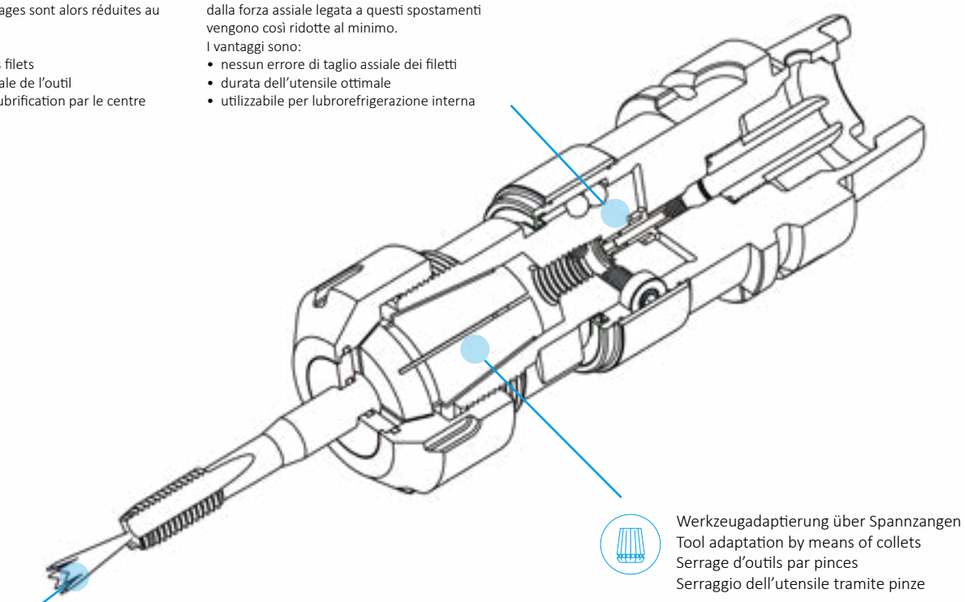
An integrated minimal length compensation on compression and tension compensates minimal pitch differences between synchronous spindle and tool which would lead to excessive friction forces on the thread flanks. A possible increase of axial force during the thread production is reduced to a minimum.
The advantages of this arrangement are:
- no miscut threads
- optimised tool life
- suitable for internal coolant-lubricant supply

## COMPENSATION DE LONGUEUR MINIMALE

La compensation de longueur minimale en compression et traction permet d'absorber des différences de pas minimes entre la broche synchronisée et l'outil. Les forces de friction élevées sur les flancs de filet qui résultent de la force axiale liée à ces décalages sont alors réduites au minimum.
Les avantages sont:
- pas de recoupe des filets
- durée de vie optimale de l'outil
- approprié pour la lubrification par le centre

## COMPENSAZIONE LONGITUDINALE MINIMA

La compensazione longitudinale minima a compressione e trazione permette di assorbire le differenze di passo minime che si creano tra il mandrino sincronizzato e l'utensile. Le forze di frizione elevate sui fianchi del filetto che risultano dalla forza assiale legata a questi spostamenti vengono così ridotte al minimo.
I vantaggi sono:
- nessun errore di taglio assiale dei filetti
- durata dell'utensile ottimale
- utilizzabile per lubrorefrigerazione interna



Werkzeugadaptierung über Spannzangen
Tool adaptation by means of collets
Serrage d'outils par pinces
Serraggio dell'utensile tramite pinze

## INNERE KÜHLSCHMIERSTOFF-ZUFUHR

Die Vorteile sind:
- optimale Schmierung an der Werkzeugschneide
- Verbesserung der Gewindegüte
- Herausschwemmen der Späne aus der Kernlochbohrung

## INTERNAL COOLANT-LUBRICANT SUPPLY

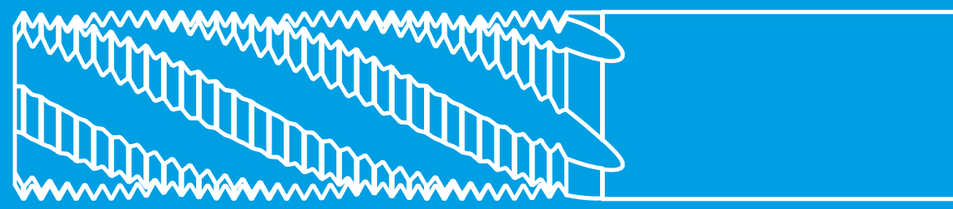
The advantages of this arrangement are:
- perfect lubrication at the cutting edge of the tool
- improved thread quality
- chips are washed out of the thread hole

## LUBRIFICATION PAR LE CENTRE

Les avantages sont:
- lubrification optimale sur l'arête de coupe
- amélioration de la qualité de taraudage
- nettoyage du trou et évacuation des copeaux

## LUBROREFRIGERAZIONE INTERNA

I vantaggi sono:
- lubrorefrigerazione ottimale sul tagliente dell'utensile
- miglioramento della qualità della filettatura
- espulsione dei trucioli dal preforo



# 04

GEWINDEFRÄSER
THREAD MILLS
FRAISES Á FILETER
FRESA A FILETTARE

## AUSWAHLÜBERSICHT

DIE ANGEGEBENEN SCHNITTWERTE
SIND RICHTWERTE UND MÜSSEN DEN INDIVIDUELLEN
ARBEITSBEDINGUNGEN ANGEPASST WERDEN.

## GUIDE DE SELECTION

LES VALEURS DE VITESSE DE COUPE INDIQUÉES DANSLES
COLONNES RESPECTIVES NE SONT QU'INDICATIVES ET DOIVENT ÊTRE
ADAPTÉES INDIVIDUELLEMENT AUX CONDITIONS D'USINAGE.

## SUMMARY OF ASSORTMENT

THE LISTED CUTTING DATA ARE STANDARD VALUES.
THIS VALUES HAVE TO BE ADJUSTED TO INDIVIDUAL WORK
CONDITIONS.

## SCELTA DEGLI UTENSILI

I VALORI DI VELOCITÀ DI TAGLIO QUI ELENCATI SONO
PURAMENTE INDICATIVI E DEVONO ESSERE ADATTATI ALLE
CONDIZIONI D'IMPIEGO.

| | NORIS SFR15 | NORIS EIR | | | NORIS ZTF |
|---|---|---|---|---|---|
| | UNI | HR | | | HT |
| |  |  |  |  |  |
| NUTZLÄNGE · USABLE LENGTH · LONGUEUR UTILE · LUNGHEZZA UTILE | 2xD | 1,5xD | 2xD | 3xD | 2xD |
| OBERFLÄCHE · SURFACE · SURFACE · SUPERFICIE | ACR | ALTIN | ACR | ACR | ALTIN |
| SCHNEIDSTOFF · MATERIAL · MATIÈRE · MATERIALE | K20 | K30 | K30 | K30 | K20 |
| M | 208 | 211 | 212 | 213 | 215 |
| MF | 208 | 211 | 212 | 213 | 215 |
| UNC | 209 | | | 214 | |
| UNF | 209 | | | 214 | |
| G | 210 | | | | |
| NPT | 210 | | | | |

| P | STAHLWERKSTOFFE | STEEL MATERIALS | ACIERS | ACCIAI | | MAT. | Vc [m/min] | fz [mm] | Vc [m/min] | fz [mm] | | | Vc [m/min] | fz [mm] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Un- und niedriglegierte Stähle | Unalloyed and low-alloy steels | Aciers non et faiblement alliés | Acciai non legati e basso legati | ≤ 800N/mm² | P1.1 | 100- 200 | **0,045xP** | 100- 200 | **0,045xP** | **0,045xP** | **0,040xP** | | |
| | | | | | ≤ 1200N/mm² | P1.2 | 60- 120 | **0,035xP** | 60- 140 | **0,035xP** | **0,035xP** | **0,030xP** | | |
| | | | | | ≤ 1400N/mm² | P1.3 | 40- 60 | 0,030xP | 40- 80 | **0,030xP** | **0,030xP** | **0,025xP** | | |
| | Hochlegierte Stähle | High alloy steels | Aciers hautement alliés | Acciai alto legati | ≤ 1400N/mm² | P2.1 | 40- 140 | 0,030xP | 40- 140 | **0,030xP** | **0,030xP** | **0,025xP** | | |
| M | ROSTFREIE STÄHLE | CORROSION AND ACID PROOF STEELS | ACIERS INOX/RESIST. ACIDES | ACCIAI INOX E RESISTENTI AGLI ACIDI | | | Vc [m/min] | fz [mm] | Vc [m/min] | fz [mm] | | | Vc [m/min] | fz [mm] |
| | Rostfreie austenitische Stähle + DUPLEX Stähle | Stainless austenitic steels + DUPLEX steels | Aciers inoxydables austénitiques + Aciers DUPLEX | Acciai inossidabili austenitici + Acciai DUPLEX | ≤ 800N/mm² | M1.1 | 60- 100 | 0,030xP | 60- 120 | **0,030xP** | **0,030xP** | **0,025xP** | | |
| | | | | | ≤ 1300N/mm² | M1.2 | 40- 60 | 0,020xP | 30- 80 | **0,020xP** | **0,020xP** | **0,015xP** | | |
| K | GUSSWERKSTOFFE | CAST MATERIALS | FONTES | GHISE | | | Vc [m/min] | fz [mm] | Vc [m/min] | fz [mm] | | | Vc [m/min] | fz [mm] |
| | Grauguss, Kugelgraphitguss, Vermiculargraphitguss, Temperguss | Cast iron, nodular cast iron, Vermicular graphite cast iron, malleable cast iron | Fonte grise, fonte à graphite sphéroïdal, Fonte à graphite vermiculaire, Fonte malléable | Ghisa grigia, ghisa nodulare, Ghisa a grafite vermiculata, ghisa malleabile | ≤ 800N/mm² | K1.1 | 100- 200 | **0,050xP** | 100- 200 | 0,050xP | 0,050xP | 0,050xP | | |
| | Gusseisen ausferritisch (ADI) + Hartguss | Ausferritic cast iron (ADI) + Hard casting | Fonte ausferritique (ADI) + Fontes trempées | Ghisa ausferritica (ADI) + Ghise in conchiglia | ≤ 1400N/mm² | K2.1 | 60- 120 | 0,035xP | 60- 140 | **0,035xP** | **0,035xP** | **0,030xP** | | |
| N | NICHTEISEN-WERKSTOFFE | NON FERROUS MATERIALS | MATÉRIAUX NON FERREUX | MATERIALI NON FERROSI | | | Vc [m/min] | fz [mm] | Vc [m/min] | fz [mm] | | | Vc [m/min] | fz [mm] |
| | Aluminium-Knetlegierungen | Aluminium wrought alloys | Alliages d'aluminium corroyés | Leghe malleabili di alluminio | | N1.1 | 150- 300 | **0,060xP** | 200- 400 | 0,060xP | 0,060xP | 0,060xP | | |
| | Aluminium-Gusslegierungen | Aluminium cast alloys | Fontes d'alu | Leghe fuse di alluminio | ≤ 12%Si | N1.2 | 150- 300 | **0,060xP** | 200- 400 | 0,060xP | 0,060xP | 0,060xP | | |
| | | | | | ≥ 12%Si | N1.3 | 100- 200 | **0,060xP** | 150- 300 | 0,060xP | 0,060xP | 0,060xP | | |
| | Kupfer + Kupferlegierungen (langsp.) | Copper + Copper alloys (long-chip.) | Cuivre + Alliages cuivre (cop. longs) | Rame + Leghe rame (truciolo lungo) | | N2.1 | 150- 300 | **0,060xP** | 200- 400 | 0,060xP | 0,060xP | 0,060xP | | |
| | Kupferlegierungen (kurzsp.) | Copper alloys (short-chip.) | Alliages cuivre (cop. courts) | Leghe rame (truciolo corto) | | N2.2 | 150- 300 | **0,060xP** | 200- 400 | 0,060xP | 0,060xP | 0,060xP | | |
| | Kupferlegierungen hochfest | High-strength copper alloys | Alliages cuivre haute résistance | Leghe rame ad alta resistenza | ≥ 800N/mm² | N2.3 | 60- 100 | **0,030xP** | 40- 120 | 0,030xP | 0,030xP | 0,025xP | | |
| | Zinklegierungen | Zinc alloys | Alliages de zinc | Leghe zinco | | N3.1 | 150- 300 | **0,060xP** | 200- 400 | 0,060xP | 0,060xP | 0,060xP | | |
| | Magnesiumlegierungen | Magnesium wrought alloys | Alliages de magnésium corroyés | Leghe malleabili di magnesio | | N4.1 | 150- 300 | **0,060xP** | 200- 400 | 0,060xP | 0,060xP | 0,060xP | | |
| | Thermoplaste | Thermoplastics | Thermoplastiques | Resine termoplastiche | | N5.1 | 150- 300 | **0,060xP** | 200- 400 | 0,060xP | 0,060xP | 0,060xP | | |
| | Faserverstärkte Kunststoffe + Duroplaste | Fibre-reinforced synthetics + Duroplastics | Plastiques chargées en fibres + Thermodurcissables | Resine epossidiche + Plastiche termoindurenti | | N5.2 | 100- 200 | **0,060xP** | 150- 300 | 0,060xP | 0,060xP | 0,060xP | | |
| S | SPEZIALWERKSTOFFE | SPECIAL MATERIALS | MATÉRIAUX SPÉCIAUX | MATERIALI SPECIALI | | | Vc [m/min] | fz [mm] | Vc [m/min] | fz [mm] | | | Vc [m/min] | fz [mm] |
| | Ni-, Fe- oder Co-basierte Superlegierungen | Ni-, Fe- or Co-based superalloys | Superalliages à base de Ni, Fe ou Co | Superleghe a base di Ni, Fe o Co | ≤ 800N/mm² | S1.1 | 30- 50 | 0,015xP | 30- 80 | **0,020xP** | **0,020xP** | **0,015xP** | 40- 80 | **0,020xP** |
| | | | | | ≤ 1600N/mm² | S1.2 | | | 20- 60 | **0,010xP** | 0,010xP | | 30- 60 | **0,015xP** |
| | Titan + Titanlegierungen | Titanium + Titanium alloys | Titane + Alliages de titane | Titanio + Leghe di titanio | ≤ 800N/mm² | S2.1 | 40- 80 | 0,015xP | 40- 120 | **0,025xP** | **0,025xP** | **0,020xP** | | |
| | | | | | ≤ 1300N/mm² | S2.2 | 30- 50 | 0,010xP | 30- 80 | **0,020xP** | 0,020xP | 0,015xP | 40- 80 | **0,015xP** |
| H | GEHÄRTETE WERKSTOFFE | HARDENED STEELS | ACIERS TRAITÉS | ACCIAI TEMPRATI | | | Vc [m/min] | fz [mm] | Vc [m/min] | fz [mm] | | | Vc [m/min] | fz [mm] |
| | Gehärtete Stähle | Hardened steels | Aciers traités | Acciai temprati | ≤ 55HRc | H1.1 | | | 30- 60 | 0,015xP | | | 80- 120 | **0,020xP** |
| | | | | | ≤ 63HRc | H1.2 | | | | | | | 60- 100 | **0,015xP** |
| | | | | | ≤ 65HRc | H1.3 | | | | | | | 30- 60 | **0,010xP** |

## AUSWAHLÜBERSICHT

DIE ANGEGEBENEN SCHNITTWERTE
SIND RICHTWERTE UND MÜSSEN DEN INDIVIDUELLEN
ARBEITSBEDINGUNGEN ANGEPASST WERDEN.

## GUIDE DE SELECTION

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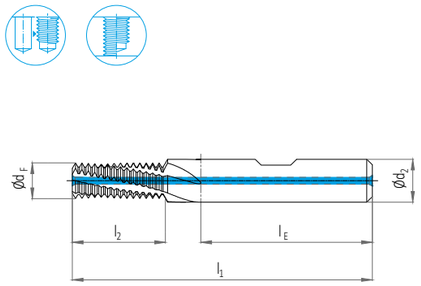
I VALORI DI VELOCITÀ DI TAGLIO QUI ELENCATI SONO
PURAMENTE INDICATIVI E DEVONO ESSERE ADATTATI ALLE
CONDIZIONI D'IMPIEGO.



| | NORIS SP | NORIS NES-Z | | NORIS WP | | NORIS NES | NORIS NES TS |
|---|---|---|---|---|---|---|---|
| NUTZLÄNGE · USABLE LENGTH · LONGUEUR UTILE · LUNGHEZZA UTILE | | 2xD | 2,5xD | | | | |
| OBERFLÄCHE · SURFACE · SURFACE · SUPERFICIE | ACR | | | TIN | TIALN | | |
| SCHNEIDSTOFF · MATERIAL · MATIÈRE · MATERIALE | K25 | | | K20 | K20 | | |
| M | 217 | 216 | 216 | 220 | 220 | 218 | 219 |
| MF | 217 | | | 220 | 220 | | |
| UNC | 217 | | | 220 | 220 | | |
| UNF | 217 | | | 220 | 220 | | |
| G | 217 | | | 220 | 220 | | |

| | | | | | | MAT. | Vc [m/min] | fz [mm] | | Vc [m/min] | | fz [mm] | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| P | STAHLWERKSTOFFE | STEEL MATERIALS | ACIERS | ACCIAI | | | | | | | | | |
| | Un- und niedriglegierte Stähle | Unalloyed and low-alloy steels | Aciers non et faiblement alliés | Acciai non legati e basso legati | ≤ 800N/mm² | P1.1 | 100- 200 | 0,060xP | 0,055xP | 200- 350 | 250- 400 | 0,15- 0,30 | 0,15- 0,30 |
| | | | | | ≤ 1200N/mm² | P1.2 | 60- 140 | 0,045xP | 0,040xP | 150- 250 | 200- 300 | 0,10- 0,25 | 0,10- 0,25 |
| | | | | | ≤ 1400N/mm² | P1.3 | 40- 80 | 0,035xP | 0,030xP | 100- 150 | 150- 200 | 0,06- 0,12 | 0,06- 0,12 |
| | Hochlegierte Stähle | High alloy steels | Aciers hautement alliés | Acciai alto legati | ≤ 1400N/mm² | P2.1 | 40- 140 | 0,035xP | 0,030xP | 80- 160 | 100- 180 | 0,08- 0,12 | 0,08- 0,12 |
| M | ROSTFREIE STÄHLE | CORROSION AND ACID PROOF STEELS | ACIERS INOX/RESIST. ACIDES | ACCIAI INOX E RESISTENTI AGLI ACIDI | | | Vc [m/min] | fz [mm] | | Vc [m/min] | | fz [mm] | |
| | Rostfreie austenitische Stähle + DUPLEX Stähle | Stainless austenitic steels + DUPLEX steels | Aciers inoxydables austénitiques + Aciers DUPLEX | Acciai inossidabili austenitici + Acciai DUPLEX | ≤ 800N/mm² | M1.1 | 60- 120 | 0,035xP | 0,030xP | 80- 120 | 80- 120 | 0,06- 0,12 | 0,06- 0,12 |
| | | | | | ≤ 1300N/mm² | M1.2 | 30- 80 | 0,030xP | 0,020xP | 50- 100 | 50- 100 | 0,04- 0,10 | 0,04- 0,10 |
| K | GUSSWERKSTOFFE | CAST MATERIALS | FONTES | GHISE | | | Vc [m/min] | fz [mm] | | Vc [m/min] | | fz [mm] | |
| | Grauguss, Kugelgraphitguss, Vermicular-graphitguss, Temperguss | Cast iron, nodular cast iron, Vermicular graphite cast iron, malleable cast iron | Fonte grise, fonte à graphite sphéroïdal, Fonte à graphite vermiculaire, Fonte malléable | Ghisa grigia, ghisa nodulare, Ghisa a grafite vermiculata, ghisa malleabile | ≤ 800N/mm² | K1.1 | 100- 200 | 0,060xP | 0,060xP | 200- 350 | 250- 400 | 0,15- 0,30 | 0,15- 0,30 |
| | Gusseisen ausferritisch (ADI) + Hartguss | Ausferritic cast iron (ADI) + Hard casting | Fonte ausferritique (ADI) + Fontes trempées | Ghisa ausferritica (ADI) + Ghise in conchiglia | ≤ 1400N/mm² | K2.1 | 60- 140 | 0,045xP | 0,040xP | 100- 250 | 150- 300 | 0,08- 0,12 | 0,08- 0,12 |
| N | NICHTEISEN-WERKSTOFFE | NON FERROUS MATERIALS | MATÉRIAUX NON FERREUX | MATERIALI NON FERROSI | | | Vc [m/min] | fz [mm] | | Vc [m/min] | | fz [mm] | |
| | Aluminium-Knetlegierungen | Aluminium wrought alloys | Alliages d'aluminium corroyés | Leghe malleabili di alluminio | | N1.1 | 200- 400 | 0,080xP | 0,080xP | 300- 500 | 300- 500 | 0,15- 0,30 | 0,15- 0,30 |
| | Aluminium-Gusslegierungen | Aluminium cast alloys | Fontes d'alu | Leghe fuse di alluminio | ≤ 12%Si | N1.2 | 200- 400 | 0,080xP | 0,080xP | 300- 500 | 300- 500 | 0,15- 0,30 | 0,15- 0,30 |
| | | | | | ≥ 12%Si | N1.3 | 150- 300 | 0,080xP | 0,080xP | 250- 350 | 300- 450 | 0,15- 0,25 | 0,15- 0,25 |
| | Kupfer + Kupferlegierungen (langsp.) | Copper + Copper alloys (long-chip.) | Cuivre + Alliages cuivre (cop. longs) | Rame + Leghe rame (truciolo lungo) | | N2.1 | 200- 400 | 0,080xP | 0,080xP | 300- 400 | 300- 400 | 0,15- 0,30 | 0,15- 0,30 |
| | Kupferlegierungen (kurzsp.) | Copper alloys (short-chip.) | Alliages cuivre (cop. courts) | Leghe rame (truciolo corto) | | N2.2 | 200- 400 | 0,080xP | 0,080xP | 300- 400 | 300- 400 | 0,15- 0,30 | 0,15- 0,30 |
| | Kupferlegierungen hochfest | High-strength copper alloys | Alliages cuivre haute résistance | Leghe rame ad alta resistenza | ≥ 800N/mm² | N2.3 | 40- 120 | 0,045xP | 0,040xP | 100- 250 | 150- 300 | 0,08- 0,12 | 0,08- 0,12 |
| | Zinklegierungen | Zinc alloys | Alliages de zinc | Leghe zinco | | N3.1 | 200- 400 | 0,080xP | 0,080xP | 300- 400 | 300- 400 | 0,15- 0,30 | 0,15- 0,30 |
| | Magnesiumlegierungen | Magnesium wrought alloys | Alliages de magnésium corroyés | Leghe malleabili di magnesio | | N4.1 | 200- 400 | 0,080xP | 0,080xP | 300- 400 | 300- 400 | 0,15- 0,30 | 0,15- 0,30 |
| | Thermoplaste | Thermoplastics | Thermoplastiques | Resine termoplastiche | | N5.1 | 200- 400 | 0,080xP | 0,080xP | 300- 400 | 300- 400 | 0,15- 0,30 | 0,15- 0,30 |
| | Faserverstärkte Kunststoffe + Duroplaste | Fibre-reinforced synthetics + Duroplastics | Plastiques chargées en fibres + Thermodurcissables | Resine epossidiche + Plastiche termoindurenti | | N5.2 | 150- 300 | 0,080xP | 0,080xP | 250- 350 | 250- 350 | 0,15- 0,30 | 0,15- 0,30 |
| S | SPEZIALWERKSTOFFE | SPECIAL MATERIALS | MATÉRIAUX SPÉCIAUX | MATERIALI SPECIALI | | | Vc [m/min] | fz [mm] | | Vc [m/min] | | fz [mm] | |
| | Ni-, Fe- oder Co-basierte Superlegierungen | Ni-, Fe- or Co-based superalloys | Superalliages à base de Ni, Fe ou Co | Superleghe a base di Ni, Fe o Co | ≤ 800N/mm² | S1.1 | 30- 80 | 0,030xP | 0,025xP | 60- 120 | 60- 120 | 0,06- 0,10 | 0,06- 0,10 |
| | | | | | ≤ 1600N/mm² | S1.2 | 20- 60 | 0,020xP | 0,020xP | 50- 80 | 50- 80 | 0,04- 0,08 | 0,04- 0,08 |
| | Titan + Titanlegierungen | Titanium + Titanium alloys | Titane + Alliages de titane | Titanio + Leghe di titanio | ≤ 800N/mm² | S2.1 | 40- 120 | 0,030xP | 0,020xP | 80- 140 | 80- 140 | 0,08- 0,12 | 0,08- 0,12 |
| | | | | | ≤ 1300N/mm² | S2.2 | 30- 80 | 0,025xP | 0,020xP | 60- 100 | 60- 100 | 0,06- 0,10 | 0,06- 0,10 |
| H | GEHÄRTETE WERKSTOFFE | HARDENED STEELS | ACIERS TRAITÉS | ACCIAI TEMPRATI | | | Vc [m/min] | fz [mm] | | Vc [m/min] | | fz [mm] | |
| | Gehärtete Stähle | Hardened steels | Aciers traités | Acciai temprati | ≤ 55HRc | H1.1 | 30- 60 | 0,020xP | | 30- 60 | 30- 60 | 0,04- 0,08 | 0,04- 0,08 |
| | | | | | ≤ 63HRc | H1.2 | | | | | | | |
| | | | | | ≤ 65HRc | H1.3 | | | | | | | |

# M DIN 13 | MF DIN 13




NORIS SFR15

UNI



NORIS SFR15

UNI MKB



| | NORIS SFR15 UNI | NORIS SFR15 UNI MKB |
|---|---|---|
| NUTZLÄNGE · USABLE LENGTH · LONGUEUR UTILE · LUNGHEZZA UTILE | 2 X D | 2 X D |
| OBERFLÄCHE · SURFACE · SURFACE · SUPERFICIE | ACR | ACR |
| SCHNEIDSTOFF · MATERIAL · MATIÈRE · MATERIALE | K20 | K20 |

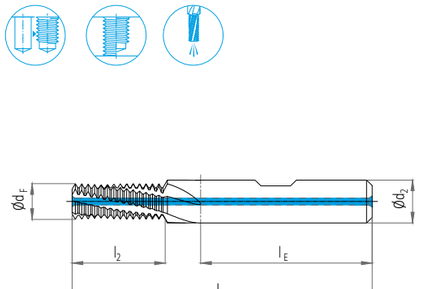
M DIN 13

| Ø $d_{1\ min}$ | | P | Ø $d_F$ | $l_1$ | $l_2$ | $l_E$ | Ø $d_2$ | z | | |
|---|---|---|---|---|---|---|---|---|---|---|
| [mm] | | [mm] | [mm] | [mm] | [mm] | [mm] | [mm] | | | |
| ≥ M | 3 | 0,50 | 2,4 | 51 | 6,2 | 36 | 6 | 3 | F312HBF000309 | |
| ≥ M | 4 | 0,7 | 3,15 | 55 | 8,7 | 36 | 6 | 3 | | F312HBF000409 |
| ≥ M | 5 | 0,8 | 4 | 55 | 10,8 | 36 | 6 | 3 | | F312HBF000509 |
| ≥ M | 6 | 1 | 4,8 | 55 | 12,5 | 36 | 6 | 3 | | F312HBF000609 |
| ≥ M | 8 | 1,25 | 6,5 | 63 | 16,8 | 36 | 8 | 3 | | F312HBF000809 |
| ≥ M | 10 | 1,5 | 8,2 | 70 | 21,7 | 40 | 10 | 4 | | F312HBF001009 |
| ≥ M | 12 | 1,75 | 9,9 | 74 | 25,3 | 40 | 10 | 4 | | F312HBF001129 |
| ≥ M | 14 | 2 | 11,6 | 85 | 28,9 | 45 | 12 | 4 | | F312HBF001149 |
| ≥ M | 16 | 2 | 13,6 | 90 | 32,9 | 45 | 14 | 4 | | F312HBF001169 |

MF DIN 13

| Ø $d_{1\ min}$ | | | P | Ø $d_F$ | $l_1$ | $l_2$ | $l_E$ | Ø $d_2$ | z | |
|---|---|---|---|---|---|---|---|---|---|---|
| [mm] | | | [mm] | [mm] | [mm] | [mm] | [mm] | [mm] | | |
| ≥ M | 5 | x | 0,5 | 4,34 | 55 | 10,2 | 36 | 6 | 3 | F312HBF002189 |
| ≥ M | 6 | x | 0,75 | 5 | 55 | 12,4 | 36 | 6 | 3 | F312HBF002299 |
| ≥ M | 8 | x | 0,75 | 6,9 | 63 | 16,1 | 36 | 8 | 3 | F312HBF002509 |
| ≥ M | 8 | x | 1 | 6,7 | 63 | 16,5 | 36 | 8 | 3 | F312HBF002519 |
| ≥ M | 10 | x | 1 | 8,7 | 70 | 20,5 | 40 | 10 | 4 | F312HBF002769 |
| ≥ M | 12 | x | 1 | 9,9 | 74 | 24,5 | 40 | 10 | 4 | F312HBF003019 |
| ≥ M | 12 | x | 1,5 | 9,9 | 74 | 24,7 | 40 | 10 | 4 | F312HBF003039 |
| ≥ M | 14 | x | 1,5 | 11,9 | 85 | 29,2 | 45 | 12 | 4 | F312HBF003319 |
| ≥ M | 16 | x | 1,5 | 13,9 | 90 | 33,7 | 45 | 14 | 4 | F312HBF003599 |

# UNC ASME B1.1 | UNF ASME B1.1




NORIS SFR15

UNI MKB



| | NORIS SFR15 UNI MKB |
|---|---|
| NUTZLÄNGE · USABLE LENGTH · LONGUEUR UTILE · LUNGHEZZA UTILE | 2 X D |
| OBERFLÄCHE · SURFACE · SURFACE · SUPERFICIE | ACR |
| SCHNEIDSTOFF · MATERIAL · MATIÈRE · MATERIALE | K20 |

ASME B1.1

| Ø $d_{1\ min}$ | | | P | Ø $d_F$ | $l_1$ | $l_2$ | $l_E$ | Ø $d_2$ | z | |
|---|---|---|---|---|---|---|---|---|---|---|
| [inch] | | | Gg/1" [tpi] | [mm] | [mm] | [mm] | [mm] | [mm] | | |
| ≥ UNC | Nr. 10 | - | 24 | 3,45 | 55 | 10 | 36 | 6 | 3 | F312HBF050079 |
| ≥ UNC | 1/4 | - | 20 | 4,7 | 58 | 13,3 | 36 | 6 | 3 | F312HBF050099 |
| ≥ UNC | 5/16 | - | 18 | 6,15 | 62 | 16,2 | 36 | 8 | 3 | F312HBF050109 |
| ≥ UNC | 3/8 | - | 16 | 7,65 | 65 | 19,8 | 36 | 8 | 3 | F312HBF050119 |
| ≥ UNC | 7/16 | - | 14 | 9 | 74 | 22,6 | 40 | 10 | 3 | F312HBF050129 |
| ≥ UNC | 1/2 | - | 13 | 10,35 | 80 | 26,3 | 45 | 12 | 4 | F312HBF050139 |
| ≥ UNC | 9/16 | - | 12 | 11,8 | 85 | 30,6 | 45 | 12 | 4 | F312HBF050149 |
| ≥ UNC | 5/8 | - | 11 | 13,1 | 90 | 33,4 | 45 | 14 | 4 | F312HBF050159 |
| ≥ UNC | 3/4 | - | 10 | 15,9 | 100 | 39,3 | 48 | 16 | 5 | F312HBF050169 |

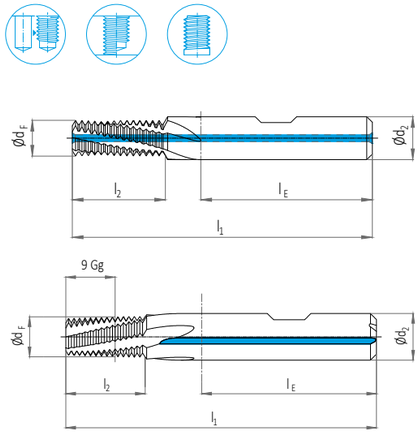
ASME B1.1

| Ø $d_{1\ min}$ | | | P | Ø $d_F$ | $l_1$ | $l_2$ | $l_E$ | Ø $d_2$ | z | |
|---|---|---|---|---|---|---|---|---|---|---|
| [inch] | | | Gg/1" [tpi] | [mm] | [mm] | [mm] | [mm] | [mm] | | |
| ≥ UNF | Nr. 10 | - | 32 | 3,9 | 55 | 10,7 | 36 | 6 | 3 | F312HBF050419 |
| ≥ UNF | 1/4 | - | 28 | 5,15 | 58 | 13,1 | 36 | 6 | 3 | F312HBF050439 |
| ≥ UNF | 5/16 | - | 24 | 6,6 | 62 | 16,4 | 36 | 8 | 3 | F312HBF050449 |
| ≥ UNF | 3/8 | - | 24 | 8,2 | 70 | 19,5 | 40 | 10 | 4 | F312HBF050459 |
| ≥ UNF | 7/16 | - | 20 | 9,55 | 74 | 23,5 | 40 | 10 | 4 | F312HBF050469 |
| ≥ UNF | 1/2 | - | 20 | 11,1 | 80 | 26 | 45 | 12 | 4 | F312HBF050479 |
| ≥ UNF | 9/16 | - | 18 | 12,5 | 85 | 28,9 | 45 | 14 | 4 | F312HBF050489 |
| ≥ UNF | 5/8 | - | 18 | 13,9 | 90 | 33,1 | 45 | 14 | 5 | F312HBF050499 |
| ≥ UNF | 3/4 | - | 16 | 15,9 | 100 | 38,9 | 48 | 16 | 5 | F312HBF050509 |

# G (BSP) DIN EN ISO 228 | NPT ANSI/ASME B1.20.1

## NORIS SFR15

UNI MKB






| | |
|---|---|
| NUTZLÄNGE · USABLE LENGTH · LONGUEUR UTILE · LUNGHEZZA UTILE | - |
| OBERFLÄCHE · SURFACE · SURFACE · SUPERFICIE | ACR |
| SCHNEIDSTOFF · MATERIAL · MATIÈRE · MATERIALE | K20 |

DIN EN ISO 228

| | Ø $d_{1\ min}$ | - | P Gg/1" [tpi] | Ø $d_F$ [mm] | $l_1$ [mm] | $l_2$ [mm] | $l_E$ [mm] | Ø $d_2$ [mm] | z | |
|---|---|---|---|---|---|---|---|---|---|---|
| ≥ G | 1/8 | - | 28 | 7,9 | 63 | 16,8 | 36 | 8 | 5 | F312HBF095409 |
| ≥ G | 1/4 | - | 19 | 9,9 | 70 | 20,7 | 40 | 10 | 6 | F312HBF095459 |
| ≥ G | 1/2 | - | 14 | 11,9 | 80 | 26,3 | 45 | 12 | 5 | F312HBF095489 |
| ≥ G | 3/4 | - | 14 | 15,9 | 90 | 33,6 | 48 | 16 | 6 | F312HBF095499 |
| ≥ G | 1" | - | 11 | 15,9 | 90 | 33,5 | 48 | 16 | 5 | F312HBF095509 |

ANSI/ASME B1.20.1

| | Ø $d_{1\ min}$ | - | P Gg/1" [tpi] | Ø $d_F$ [mm] | $l_1$ [mm] | $l_2$ [mm] | $l_E$ [mm] | Ø $d_2$ [mm] | z | |
|---|---|---|---|---|---|---|---|---|---|---|
| ≥ NPT | 1/16 | - | 27 | 5,9 | 60 | 13,6 | 36 | 8 | 4 | F312HBF096769 |
| ≥ NPT | 1/4 | - | 18 | 10,15 | 80 | 20,4 | 45 | 12 | 4 | F312HBF096779 |
| ≥ NPT | 1/2 | - | 14 | 14,25 | 85 | 26,3 | 48 | 16 | 4 | F312HBF096789 |
| ≥ NPT | 1" | - | 11,5 | 19,6 | 95 | 32 | 50 | 20 | 5 | F312HBF096799 |

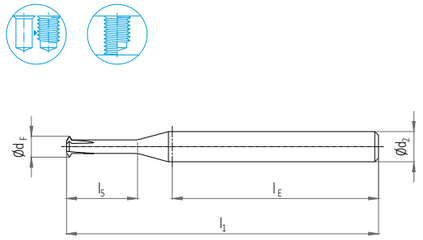
## NORIS SFL15

UNI MKN



| | |
|---|---|
| NUTZLÄNGE · USABLE LENGTH · LONGUEUR UTILE · LUNGHEZZA UTILE | - |
| OBERFLÄCHE · SURFACE · SURFACE · SUPERFICIE | ACR |
| SCHNEIDSTOFF · MATERIAL · MATIÈRE · MATERIALE | K20 |

# M DIN 13 | MF DIN 13




## NORIS EIR

HR

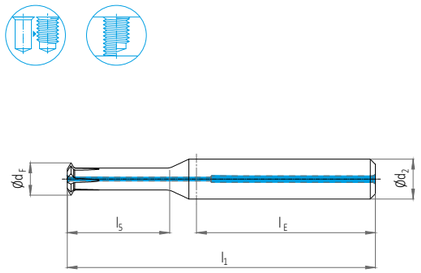


| | |
|---|---|
| NUTZLÄNGE · USABLE LENGTH · LONGUEUR UTILE · LUNGHEZZA UTILE | 1,5 X D |
| OBERFLÄCHE · SURFACE · SURFACE · SUPERFICIE | ALTIN |
| SCHNEIDSTOFF · MATERIAL · MATIÈRE · MATERIALE | K30 |

DIN 13

| | Ø $d_{1\ min}$ [mm] | | P [mm] | Ø $d_F$ [mm] | $l_1$ [mm] | $l_5$ [mm] | $l_{E\ min}$ [mm] | Ø $d_2$ [mm] | z | |
|---|---|---|---|---|---|---|---|---|---|---|
| ≥ M | 1 | | 0,20 - 0,25 | 0,74 | 32 | 3 | 18 | 3 | 4 | F500HAF00109 |
| ≥ M | 1,2 | | 0,2 - 0,3 | 0,9 | 32 | 3,5 | 18 | 3 | 4 | F500HAF00129 |
| ≥ M | 1,4 | | 0,25 - 0,35 | 1 | 32 | 3,5 | 18 | 3 | 4 | F500HAF00149 |
| ≥ M | 1,6 | | 0,35 - 0,4 | 1,2 | 32 | 4 | 18 | 3 | 4 | F500HAF00169 |
| ≥ M | 1,7 | | 0,35 - 0,4 | 1,2 | 32 | 4 | 18 | 3 | 4 | F500HAF00169 |
| ≥ M | 1,8 | | 0,35 - 0,45 | 1,35 | 32 | 4 | 18 | 3 | 4 | F500HAF00189 |
| ≥ M | 2 | | 0,35 - 0,45 | 1,5 | 32 | 4 | 18 | 3 | 4 | F500HAF00209 |
| ≥ M | 2,2 | | 0,35 - 0,45 | 1,5 | 32 | 4 | 18 | 3 | 4 | F500HAF00209 |
| ≥ M | 2,5 | | 0,4 - 0,5 | 1,9 | 32 | 6 | 18 | 3 | 5 | F500HAF00259 |
| ≥ M | 3 | | 0,5 - 0,6 | 2,4 | 32 | 6 | 18 | 3 | 5 | F500HAF00309 |
| ≥ M | 3,5 | | 0,5 - 0,7 | 2,8 | 32 | 6 | 18 | 3 | 6 | F500HAF00359 |
| ≥ M | 4 | | 0,6 - 0,8 | 3,2 | 40 | 8 | 18 | 5 | 6 | F500HAF00409 |
| ≥ M | 5 | | 0,7 - 0,8 | 4,1 | 40 | 9 | 28 | 5 | 6 | F500HAF00509 |
| ≥ M | 6 | | 0,8 - 1 | 4,9 | 40 | 9 | 28 | 5 | 6 | F500HAF00609 |
| ≥ M | 7 | | 0,8 - 1 | 4,9 | 40 | 9 | 28 | 5 | 6 | F500HAF00609 |


Gewinde-Kernlochdurchmesser-Tabelle => NPT Seite 283
Threaded Core Hole Diameter Table => NPT Page 283
Tableau des diamètres des trous de filetage => NPT Page 283
Tabella dei diametri dei fori filettati => NPT Pagina 283

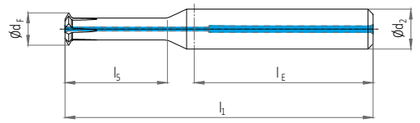



| | NORIS EIR HR | NORIS EIR HR | NORIS EIR HR MKB |
|---|---|---|---|
| |  |  |  |
| NUTZLÄNGE · USABLE LENGTH · LONGUEUR UTILE · LUNGHEZZA UTILE | 2 X D | 2 X D | 2 X D |
| OBERFLÄCHE · SURFACE · SURFACE · SUPERFICIE | ACR | ACR | ACR |
| SCHNEIDSTOFF · MATERIAL · MATIÈRE · MATERIALE | K30 | K30 | K30 |

| Ø $d_{1\ min}$ [mm] | P [mm] | Ø $d_F$ [mm] | $l_1$ [mm] | $l_5$ [mm] | $l_E$ [mm] | Ø $d_2$ [mm] | z | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| ≥ M 1 | 0,1 - 0,25 | 0,7 | 39 | 3,3 | 28 | 3 | 1 | F50ES0522368 | | |
| ≥ M 1,2 | 0,1 - 0,25 | 0,7 | 39 | 3,3 | 28 | 3 | 1 | F50ES0522368 | | |
| ≥ M 1,4 | 0,12 - 0,35 | 1,04 | 39 | 3,7 | 28 | 3 | 2 | F50ES0522369 | | |
| ≥ M 1,6 | 0,12 - 0,35 | 1,04 | 39 | 3,7 | 28 | 3 | 2 | F50ES0522369 | | |
| ≥ M 1,7 | 0,12 - 0,35 | 1,04 | 39 | 3,7 | 28 | 3 | 2 | F50ES0522369 | | |
| ≥ M 1,8 | 0,12 - 0,35 | 1,04 | 39 | 3,7 | 28 | 3 | 2 | F50ES0522369 | | |
| ≥ M 2 | 0,15 - 0,45 | 1,52 | 39 | 5 | 28 | 3 | 3 | F50ES0522370 | | |
| ≥ M 2,2 | 0,15 - 0,45 | 1,52 | 39 | 5 | 28 | 3 | 3 | F50ES0522370 | | |
| ≥ M 2,5 | 0,17 - 0,5 | 1,95 | 39 | 6,3 | 28 | 3 | 3 | F50ES0522371 | | |
| ≥ M 3 | 0,17 - 0,5 | 1,95 | 39 | 6,3 | 28 | 3 | 3 | F50ES0522371 | | |
| ≥ M 3,5 | 0,22 - 0,75 | 2,78 | 42 | 9,4 | 28 | 4 | 3 | F50ES0522372 | | |
| ≥ M 4 | 0,22 - 0,75 | 2,78 | 42 | 9,4 | 28 | 4 | 3 | F50ES0522372 | | |
| ≥ M 5 | 0,3 - 1 | 4 | 55 | 14,5 | 36 | 6 | 4 | | F50EHBF000509 | |
| ≥ M 6 | 0,3 - 1 | 4 | 55 | 14,5 | 36 | 6 | 4 | | F50EHBF000509 | |
| ≥ M 7 | 0,3 - 1 | 4 | 55 | 14,5 | 36 | 6 | 4 | | F50EHBF000509 | |
| ≥ M 8 | 0,43 - 1,5 | 6,5 | 62 | 20,6 | 36 | 8 | 5 | | | F50EHBF000809 |
| ≥ M 10 | 0,43 - 1,5 | 6,5 | 62 | 20,6 | 36 | 8 | 5 | | | F50EHBF000809 |
| ≥ M 12 | 0,5 - 2 | 9,9 | 78 | 32,8 | 40 | 10 | 5 | | | F50EHBF001129 |
| ≥ M 14 | 0,5 - 2 | 9,9 | 78 | 32,8 | 40 | 10 | 5 | | | F50EHBF001129 |
| ≥ M 16 | 0,5 - 2 | 9,9 | 78 | 32,8 | 40 | 10 | 5 | | | F50EHBF001129 |

DIN 13





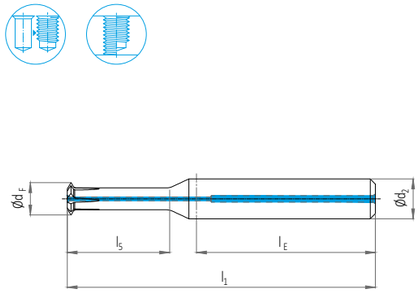

| | NORIS EIR HR | NORIS EIR HR | NORIS EIR HR MKB |
|---|---|---|---|
| |  |  |  |
| NUTZLÄNGE · USABLE LENGTH · LONGUEUR UTILE · LUNGHEZZA UTILE | 3 X D | 3 X D | 3 X D |
| OBERFLÄCHE · SURFACE · SURFACE · SUPERFICIE | ACR | ACR | ACR |
| SCHNEIDSTOFF · MATERIAL · MATIÈRE · MATERIALE | K30 | K30 | K30 |

| Ø $d_{1\ min}$ [mm] | P [mm] | Ø $d_F$ [mm] | $l_1$ [mm] | $l_5$ [mm] | $l_E$ [mm] | Ø $d_2$ [mm] | z | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| ≥ M 1 | 0,1 - 0,25 | 0,7 | 39 | 3,3 | 28 | 3 | 1 | F51EHAF00105 | | |
| ≥ M 1,6 | 0,14 - 0,35 | 1,18 | 39 | 5,2 | 28 | 3 | 2 | F51EHAF00165 | | |
| ≥ M 2 | 0,15 - 0,4 | 1,52 | 39 | 6,4 | 28 | 3 | 3 | F51EHAF00205 | | |
| ≥ M 2,5 | 0,17 - 0,45 | 1,96 | 39 | 8 | 28 | 3 | 3 | F51EHAF00255 | | |
| ≥ M 3 | 0,18 - 0,5 | 2,4 | 41 | 9,5 | 28 | 3 | 3 | F51EHAF00305 | | |
| ≥ M 4 | 0,26 - 0,7 | 3,15 | 44 | 12,7 | 28 | 4 | 3 | F51EHAF00405 | | |
| ≥ M 5 | 0,28 - 0,8 | 4,04 | 56 | 15,8 | 36 | 6 | 4 | | F51EHBF000509 | |
| ≥ M 6 | 0,35 - 1 | 4,8 | 59 | 19 | 36 | 6 | 4 | | F51EHBF000609 | |
| ≥ M 8 | 0,43 - 1,25 | 6,5 | 65 | 25,3 | 36 | 8 | 5 | | | F51EHBF000809 |
| ≥ M 10 | 0,51 - 1,5 | 8,2 | 77 | 31,5 | 40 | 10 | 5 | | | F51EHBF001009 |
| ≥ M 12 | 0,6 - 1,75 | 9,9 | 82 | 37,8 | 40 | 10 | 5 | | | F51EHBF001129 |
| ≥ M 14 | 0,68 - 2 | 11,6 | 94 | 44 | 45 | 12 | 5 | | | F51EHBF001149 |
| ≥ M 16 | 0,68 - 2 | 13,6 | 100 | 50 | 45 | 14 | 5 | | | F51EHBF001169 |

DIN 13

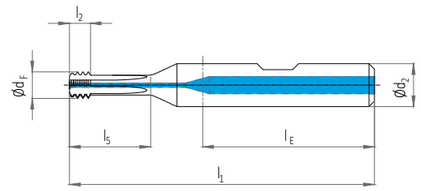
# UNC ASME B1.1 | UNF ASME B1.1

# M DIN 13 | MF DIN 13




| | NORIS EIR HR | NORIS EIR HR | NORIS EIR HR MKB |
|---|---|---|---|
| NUTZLÄNGE · USABLE LENGTH · LONGUEUR UTILE · LUNGHEZZA UTILE | 3 X D | 3 X D | 3 X D |
| OBERFLÄCHE · SURFACE · SURFACE · SUPERFICIE | ACR | ACR | ACR |
| SCHNEIDSTOFF · MATERIAL · MATIÈRE · MATERIALE | K30 | K30 | K30 |

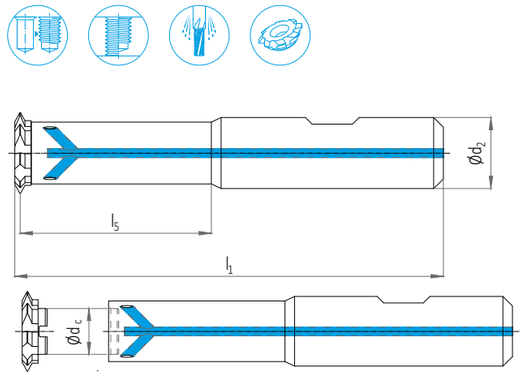
| | Ø $d_{1\ min}$ [inch] | P Gg/1" [tpi] | Ø $d_F$ [mm] | $l_1$ [mm] | $l_5$ [mm] | $l_E$ [mm] | Ø $d_2$ [mm] | z | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| ASME B1.1 | ≥ UNC Nr.2 | 80 - 56 | 1,7 | 39 | 7 | 28 | 3 | 3 | F51EHAF050019 | | |
| | ≥ UNC Nr.4 | 80 - 40 | 2,15 | 40 | 9,2 | 28 | 3 | 3 | F51EHAF050039 | | |
| | ≥ UNC Nr.6 | 80 - 32 | 2,7 | 42 | 11,3 | 28 | 3 | 3 | F51EHAF050059 | | |
| | ≥ UNC Nr.10 | 72 - 24 | 3,7 | 46 | 15,5 | 28 | 4 | 3 | F51EHAF050079 | | |
| | ≥ UNC 1/4 | 56 - 20 | 4,95 | 59 | 20,3 | 36 | 6 | 4 | | F51EHBF050099 | |
| | ≥ UNC 5/16 | 48 - 18 | 6,3 | 65 | 25,2 | 36 | 8 | 4 | | | F51EHBF050109 |
| | ≥ UNC 3/8 | 48 - 16 | 7,7 | 68 | 30,2 | 36 | 8 | 5 | | | F51EHBF050119 |
| | Ø $d_{1\ min}$ [inch] | P Gg/1" [tpi] | Ø $d_F$ [mm] | $l_1$ [mm] | $l_5$ [mm] | $l_E$ [mm] | Ø $d_2$ [mm] | z | | | |
| ASME B1.1 | ≥ UNF Nr.10 | 80 - 32 | 3,9 | 46 | 15,3 | 28 | 4 | 4 | F51EHAF050419 | | |
| | ≥ UNF 1/4 | 80 - 28 | 5,25 | 59 | 20 | 36 | 6 | 4 | | F51EHBF050439 | |
| | ≥ UNF 5/16 | 64 - 24 | 6,6 | 65 | 24,9 | 36 | 8 | 5 | | | F51EHBF050449 |
| | ≥ UNF 7/16 | 56 - 20 | 9,55 | 77 | 34,6 | 40 | 10 | 5 | | | F51EHBF050469 |




| | NORIS ZTF HT | NORIS ZTF HT MKB |
|---|---|---|
| NUTZLÄNGE · USABLE LENGTH · LONGUEUR UTILE · LUNGHEZZA UTILE | 2 X D | 2 X D |
| OBERFLÄCHE · SURFACE · SURFACE · SUPERFICIE | ALTIN | ALTIN |
| SCHNEIDSTOFF · MATERIAL · MATIÈRE · MATERIALE | K20 | K20 |

| | Ø $d_{1\ min}$ [mm] | P [mm] | Ø $d_F$ [mm] | $l_1$ [mm] | $l_2$ [mm] | $l_5$ [mm] | $l_E$ [mm] | Ø $d_2$ [mm] | z | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| DIN 13 | M 3 - - - | 0,5 | 2,3 | 51 | 2 | 7 | 36 | 6 | 4 | F154HBF00306 | |
| | M 4 - - - | 0,7 | 3 | 51 | 2,8 | 9,4 | 36 | 6 | 4 | F154HBF00406 | |
| | M 5 - - - | 0,8 | 3,8 | 51 | 3,2 | 11,6 | 36 | 6 | 4 | F154HBF00506 | |
| | M 6 - M 7 | 1 | 4,6 | 60 | 4 | 14 | 36 | 8 | 4 | F154HBF00606 | |
| | M 8 - MF 10 | 1,25 | 6,2 | 71 | 5 | 19 | 40 | 10 | 4 | | F154HBF00806 |
| | M 10 - MF 12 | 1,5 | 7,75 | 76 | 6 | 25 | 40 | 10 | 4 | | F154HBF01006 |
| | M 12 - MF 14 | 1,75 | 9,2 | 86 | 7 | 31 | 45 | 12 | 4 | | F154HBF01126 |
| | M 14 - M 16 | 2 | 11,1 | 98 | 8 | 36 | 48 | 16 | 4 | | F154HBF01146 |

# M DIN 13 | MF DIN 13 | UN ASME B1.1 | G (BSP) DIN EN ISO 228




NORIS NES-Z

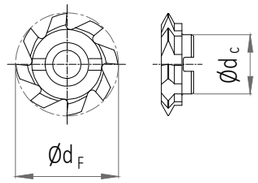
MKBR



NORIS NES-Z

MKBR






NORIS SP

UNI



NUTZLÄNGE · USABLE LENGTH · LONGUEUR UTILE · LUNGHEZZA UTILE

2 X D

2,5 X D

OBERFLÄCHE · SURFACE · SURFACE · SUPERFICIE: ACR

SCHNEIDSTOFF · MATERIAL · MATIÈRE · MATERIALE: K25

2xD

| M \| MF Ø $d_{1\,min}$ [mm] | M \| MF P [mm] | UN \| UNC \| UNF Ø $d_{1\,min}$ [inch] | UN \| UNC \| UNF Gg/1" [tpi] | G Ø $d_{1\,min}$ | G Gg/1" [tpi] | Ø $d_C$ [mm] | $l_1$ [mm] | $l_5$ [mm] | Ø $d_2$ [mm] | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| ≥ M 12 | 1 - 1,75 | ≥ UNC 1/2 | 24 - 13 | ≥ G 1/4 | 19 - 32 | 5,4 | 68 | 24 | 10 | M2,5 | F50ZNES1010 |
| ≥ M 14 | 1 - 2 | ≥ UNC 9/16 | 24 - 12 | ≥ G 3/8 | 16 - 26 | 6,5 | 71,5 | 28 | 10 | M3 | F50ZNES1011 |
| ≥ M 16 | 1 - 2 | ≥ UNF 5/8 | 24 - 12 | ≥ G 3/8 | 16 - 26 | 7,9 | 78 | 32 | 12 | M3 | F50ZNES1016 |
| ≥ M 20 | 1,5 - 2,5 | ≥ UNC 3/4 | 16 - 10 | ≥ G 1/2 | 14 - 20 | 9,2 | 88 | 40 | 14 | M4 | F50ZNES1012 |
| ≥ M 24 | 1,5 - 3 | ≥ UNC 1" | 16 - 8 | ≥ G 5/8 | 10 - 14 | 11,4 | 99 | 48 | 16 | M5 | F50ZNES1013 |
| ≥ M 30 | 2 - 3,5 | ≥ UNC 1 1/4 | 12 - 7 | ≥ G 7/8 | 8 - 14 | 14,6 | 115 | 60 | 20 | M5 | F50ZNES1014 |
| ≥ M 36 | 3 - 4 | ≥ UNC 1 3/8 | 8 - 6 | ≥ G 1" | 7 - 11 | 17,8 | 133 | 72 | 25 | M5 | F50ZNES1015 |

2,5xD

| M \| MF Ø $d_{1\,min}$ [mm] | M \| MF P [mm] | UN \| UNC \| UNF Ø $d_{1\,min}$ [inch] | UN \| UNC \| UNF Gg/1" [tpi] | G Ø $d_{1\,min}$ | G Gg/1" [tpi] | Ø $d_C$ [mm] | $l_1$ [mm] | $l_5$ [mm] | Ø $d_2$ [mm] | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| ≥ M 12 | 1 - 1,75 | ≥ UNC 1/2 | 24 - 13 | ≥ G 1/4 | 19 - 32 | 5,4 | 74 | 30 | 10 | M2,5 | F50ZNES1017 |
| ≥ M 14 | 1 - 2 | ≥ UNC 9/16 | 24 - 12 | ≥ G 3/8 | 16 - 26 | 6,5 | 78,5 | 35 | 10 | M3 | F50ZNES1018 |
| ≥ M 16 | 1 - 2 | ≥ UNF 5/8 | 24 - 12 | ≥ G 3/8 | 16 - 26 | 7,9 | 86 | 40 | 12 | M3 | F50ZNES1023 |
| ≥ M 20 | 1,5 - 2,5 | ≥ UNC 3/4 | 16 - 10 | ≥ G 1/2 | 14 - 20 | 9,2 | 98 | 50 | 14 | M4 | F50ZNES1019 |
| ≥ M 24 | 1,5 - 3 | ≥ UNC 1" | 16 - 8 | ≥ G 5/8 | 10 - 14 | 11,4 | 111 | 60 | 16 | M5 | F50ZNES1020 |
| ≥ M 30 | 2 - 3,5 | ≥ UNC 1 1/4 | 12 - 7 | ≥ G 7/8 | 8 - 14 | 14,6 | 130 | 75 | 20 | M5 | F50ZNES1021 |
| ≥ M 36 | 3 - 4 | ≥ UNC 1 3/8 | 8 - 6 | ≥ G 1" | 7 - 11 | 17,8 | 151 | 90 | 25 | M5 | F50ZNES1022 |

M | MF | UN

| Ø $d_C$ [mm] | P [mm] | Gg/1" [tpi] | Ø $d_F$ [mm] | z | |
|---|---|---|---|---|---|
| 5,4 | 1 - 1,75 | 24 - 13 | 9,9 | 6 | F52ZNES10912 |
| 6,5 | 1 - 2 | 24 - 12 | 11,6 | 7 | F52ZNES20912 |
| 7,9 | 1 - 2 | 24 - 12 | 13,6 | 8 | F52ZNES70912 |
| 9,2 | 1,5 - 2,5 | 16 - 10 | 15,9 | 8 | F52ZNES30914 |
| 11,4 | 1,5 - 3 | 16 - 8 | 19,9 | 8 | F52ZNES40914 |
| 14,6 | 2 - 3,5 | 12 - 7 | 24,9 | 9 | F52ZNES50916 |
| 17,8 | 3 - 4 | 8 - 6 | 29,9 | 10 | F52ZNES60918 |

G

| Ø $d_C$ [mm] | Gg/1" [tpi] | | | Ø $d_F$ [mm] | z | |
|---|---|---|---|---|---|---|
| 5,4 | 19 - 32 | - | - | 9,9 | 6 | F52ZNES10945 |
| 6,5 | 16 - 26 | - | - | 11,6 | 7 | F52ZNES20945 |
| 7,9 | 16 - 26 | - | - | 13,9 | 8 | F52ZNES70945 |
| 9,2 | 14 - 20 | - | - | 15,9 | 8 | F52ZNES30948 |
| 11,4 | 10 - 14 | - | - | 19,9 | 8 | F52ZNES40950 |
| 14,6 | 8 - 14 | - | - | 24,9 | 9 | F52ZNES50950 |
| 17,8 | 7 - 11 | - | - | 29,9 | 10 | F52ZNES60950 |

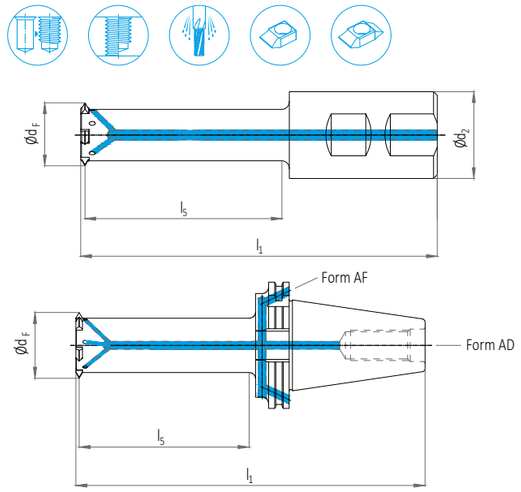
Lieferumfang: Werkzeughalter, Befestigungsschraube
Contents of delivery: Tool holder, mounting screw
Contenu de la livraison: Porte d'outil, vis de fixation
Volume di consegna: portautensili, vite di fissaggio

Bitte Schneidplatten separat bestellen, Seite 221
Please order insert separately, page 221
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Schrauben und Schraubendreher siehe Seite 225
Screws and screwdrivers see page 225
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Viti e cacciaviti vedi pagina 225

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Altri sistemi di filettatura su richiesta

# M DIN 13 | MF DIN 13 | UN ASME B1.1 | G (BSP) DIN EN ISO 228




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DIN 1835-1 B+E

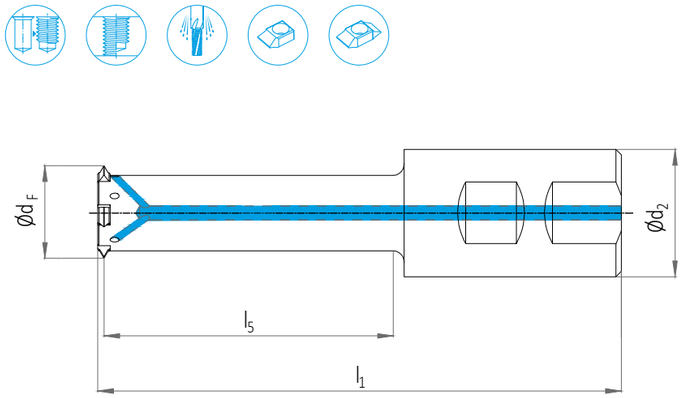
| M \| MF Ø d 1 min [mm] | M \| MF P [mm] | UN \| UNC \| UNF Ø d 1 min [inch] | UN \| UNC \| UNF Gg/1" [tpi] | G Ø d 1 min | G Gg/1" [tpi] | | | Ø d F [mm] | l 1 [mm] | l 5 [mm] | Ø d 2 [mm] | z | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ≥ M 20 | 1,5 - 3 | ≥ UNC 3/4 | 16 - 9 | ≥ G 1/2 | 28 - 9 | F521 | - | 16,5 | 100 | 45 | 20 | 2 | M2,5 | F501F0003 |
| ≥ M 22 | 2,5 - 3,5 | ≥ UNC 7/8 | 10 - 7 | - | - | F522 | - | 18 | 100 | 45 | 20 | 2 | M2,5 | F501F0003 |
| ≥ M 20 | 1,5 - 3 | ≥ UNC 3/4 | 16 - 9 | ≥ G 1/2 | 28 - 9 | F521 | - | 16,5 | 114 | 60 | 20 | 2 | M2,5 | F501F0005 |
| ≥ M 22 | 2,5 - 3,5 | ≥ UNC 7/8 | 10 - 7 | - | - | F522 | - | 18 | 114 | 60 | 20 | 2 | M2,5 | F501F0005 |
| ≥ M 24 | 1,5 - 3 | ≥ UNC 1" | 16 - 9 | ≥ G 5/8 | 28 - 9 | F521 | - | 20,5 | 100 | 50 | 16 | 3 | M2,5 | F501F0019 |
| ≥ M 27 | 2,5 - 3,5 | ≥ UNC 1 1/8 | 10 - 7 | - | - | F522 | - | 22 | 100 | 50 | 16 | 3 | M2,5 | F501F0019 |
| ≥ M 30 | 1 - 4 | ≥ UNC 1 1/8 | 24 - 6 | ≥ G 3/4 | 28 - 9 | - | F510 | 23,85 | 124 | 60 | 32 | 3 | M2,5 | F501AANAA |
| ≥ M 30 | 1 - 4 | ≥ UNC 1 1/8 | 24 - 6 | ≥ G 3/4 | 28 - 9 | - | F510 | 23,85 | 140 | 80 | 25 | 3 | M2,5 | F501F0011 |
| ≥ M 30 | 1 - 4 | ≥ UNC 1 1/8 | 24 - 6 | ≥ G 3/4 | 28 - 9 | - | F510 | 23,85 | 144 | 80 | 32 | 3 | M2,5 | F501AARAA |
| ≥ M 30 | 1 - 4 | ≥ UNC 1 1/8 | 24 - 6 | ≥ G 3/4 | 28 - 9 | - | F510 | 23,85 | 154 | 90 | 32 | 3 | M2,5 | F501AA8AA |
| ≥ M 36 | 1 - 4 | ≥ UNC 1 1/2 | 24 - 6 | ≥ G 1" | 28 - 9 | - | F510 | 29,27 | 159 | 95 | 32 | 3 | M2,5 | F501E0841 |
| ≥ M 39 | 1,5 - 5,5 | ≥ UNC 1 1/2 | 16 - 4,5 | ≥ G 1 1/8 | 28 - 9 | - | F511 | 32,85 | 155 | 95 | 25 | 3 | M3 | F501F0012 |
| ≥ M 39 | 1,5 - 5,5 | ≥ UNC 1 1/2 | 16 - 4,5 | ≥ G 1 1/8 | 28 - 9 | - | F511 | 32,85 | 159 | 95 | 32 | 3 | M3 | F501AAPAA |
| ≥ M 39 | 1,5 - 5,5 | ≥ UNC 1 1/2 | 16 - 4,5 | ≥ G 1 1/8 | 28 - 9 | - | F511 | 32,85 | 179 | 115 | 32 | 3 | M3 | F501F0007 |
| ≥ M 48 | 1,5 - 6 | ≥ UNC 2" | 16 - 4 | ≥ G 1 3/8 | 12 - 4,5 | - | F512 | 40,25 | 173 | 110 | 32 | 4 | M4 | F501F0013 |
| ≥ M 48 | 1,5 - 6 | ≥ UNC 2" | 16 - 4 | ≥ G 1 3/8 | 12 - 4,5 | - | F512 | 40,25 | 208 | 145 | 32 | 4 | M4 | F501F0010 |

DIN ISO 7388-1 AD/AF

| M \| MF Ø d 1 min [mm] | M \| MF P [mm] | UN \| UNC \| UNF Ø d 1 min [inch] | UN \| UNC \| UNF Gg/1" [tpi] | G Ø d 1 min | G Gg/1" [tpi] | | | Ø d F [mm] | l 1 [mm] | l 5 [mm] | Ø d 2 [mm] | z | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ≥ M 48 | 1,5 - 6 | ≥ UNC 2" | 16 - 4 | ≥ G 1 1/4 | 12 - 4,5 | - | F512 | 40,25 | 212 | 110 | SK40 | 4 | M4 | F505AADAA |
| ≥ M 48 | 1,5 - 6 | ≥ UNC 2" | 16 - 4 | ≥ G 1 1/4 | 12 - 4,5 | - | F512 | 40,25 | 245 | 110 | SK50 | 4 | M4 | F505AADAC |
| ≥ M 48 | 1,5 - 6 | ≥ UNC 2" | 16 - 4 | ≥ G 1 1/4 | 12 - 4,5 | - | F512 | 40,25 | 247 | 145 | SK40 | 4 | M4 | F505AAWAA |
| ≥ M 48 | 1,5 - 6 | ≥ UNC 2" | 16 - 4 | ≥ G 1 1/4 | 12 - 4,5 | - | F512 | 40,25 | 280 | 145 | SK50 | 4 | M4 | F505AAWAB |
| ≥ M 60 | 1,5 - 6 | ≥ UNC 2" | 16 - 4 | ≥ G 2" | 12 - 3,5 | - | F513 | 52,55 | 286 | 150 | SK50 | 4 | M5 | F505AAEAB |
| ≥ M 60 | 1,5 - 6 | ≥ UNC 2" | 16 - 4 | ≥ G 2" | 12 - 3,5 | - | F513 | 52,55 | 331 | 195 | SK50 | 4 | M5 | F505F0007 |
| ≥ M 72 | 1,5 - 6 | ≥ UNC 3" | 16 - 4 | ≥ G 2 1/2 | 12 - 3,5 | - | F513 | 66,55 | 308 | 170 | SK50 | 7 | M5 | F505AACAA |
| ≥ M 72 | 1,5 - 6 | ≥ UNC 3" | 16 - 4 | ≥ G 2 1/2 | 12 - 3,5 | - | F513 | 66,55 | 398 | 260 | SK50 | 7 | M5 | F505E5553 |
| ≥ M 120 | 6 - 8 | ≥ UNC - | 4 - | - - | - - - | - | F514 | 92 | 341 | 204 | SK50 | 7 | M5 | F505AA2AA |
| ≥ M 120 | 6 - 8 | ≥ UNC - | 4 - - | - - | - - - | - | F514 | 92 | 497 | 360 | SK50 | 7 | M5 | F505F0008 |



# M DIN 13 | MF DIN 13 | UN ASME B1.1 | G (BSP) DIN EN ISO 228




NORIS NES-TS
MKBR



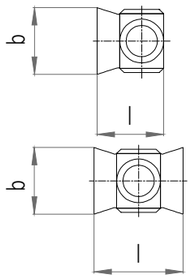
DIN 1835-1 B+E

| M \| MF Ø d 1 min [mm] | M \| MF P [mm] | UN \| UNC \| UNF Ø d 1 min [inch] | UN \| UNC \| UNF Gg/1" [tpi] | G Ø d 1 min | G Gg/1" [tpi] | | | Ø d F [mm] | l 1 [mm] | l 5 [mm] | Ø d 2 [mm] | z | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ≥ M 24 | 1,5 - 3 | ≥ UNC 1" | 16 - 9 | ≥ G 5/8 | 28 - 9 | F521 | - | 20,5 | 100 | 50 | 16 | 4 | M2,5 | F701F0016 |
| ≥ M 27 | 2,5 - 3,5 | ≥ UNC 1 1/8 | 10 - 7 | - - | - - - | F522 | - | 22 | 100 | 50 | 16 | 4 | M2,5 | F701F0016 |
| ≥ M 27 | 2,5 - 4,5 | ≥ UNC 1 1/8 | 10 - 6 | - - | - - - | F710 | - | 23,85 | 124 | 60 | 32 | 5 | M2,5 | F701F0015 |
| ≥ M 30 | 2,5 - 4 | ≥ UNC 1 1/4 | 10 - 6 | - - | - - - | - | F750 | 27 | 153 | 90 | 32 | 5 | M2,5 | F701F0003 |
| ≥ M 39 | 2,5 - 5,5 | ≥ UNC 1 1/2 | 10 - 4,5 | - - | - - - | F711 | - | 32,85 | 179 | 115 | 32 | 5 | M3 | F701F0001 |

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Autres standards de filetage sur demande
Altri sistemi di filettatura su richiesta

Sonderkonturen auf Anfrage
Special contours upon request
Profils spéciaux sur demande
Profili speciali su richiesta

# M DIN 13 | MF DIN 13 | UN ASME B1.1 | G (BSP) DIN EN ISO 228



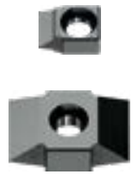

NORIS WP

UNI



NORIS WP

UNI



NORIS

NES SCHRAUBE · SCREW · VIS · VITE



NORIS

SCHRAUBENDREHER · SCREWDRIVER · TOURNEVIS · CACCIAVITE



| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| OBERFLÄCHE · SURFACE · SURFACE · SUPERFICIE | | | | | | | | | | TIN | TIALN | |
| SCHNEIDSTOFF · MATERIAL · MATIÈRE · MATERIALE | | | | | | | | | | K20 | K20 | |
| | | P [mm] | | | Gg/1" [tpi] | | | l [mm] | b [mm] | h [mm] | | |
| F521 | | 1,5 | - | 3,00 | 16 | - | 9 | 7 | 5 | 3,18 | F521F0002 | F521F0004 |
| F522 | | 2,5 | - | 3,5 | 10 | - | 7 | 7,8 | 5 | 3,18 | F522F0001 | F522F0002 |
| | F510 | 1 | - | 2,5 | 24 | - | 10 | 9,52 | 6,35 | 3,3 | | F510F0012 |
| | F510 | 1,5 | - | 2,5 | 16 | - | 10 | 9,52 | 6,35 | 3,3 | F510AAAAA | F510F0003 |
| | F510 | 2,5 | - | 4 | 10 | - | 6 | 9,52 | 6,35 | 3,3 | F510AABAA | F510F0004 |
| | F511 | 1,5 | - | 2,5 | 16 | - | 10 | 13,5 | 8,5 | 3,97 | F511AAAAA | F511F0001 |
| | F511 | 2,5 | - | 5,5 | 10 | - | 4,5 | 13,5 | 8,5 | 3,97 | F511AABAA | F511F0002 |
| | F512 | 1,5 | - | 3 | 16 | - | 9 | 15,5 | 9,5 | 5 | F512AAAAA | F512F0001 |
| | F512 | 3 | - | 6 | 9 | - | 4 | 15,5 | 9,5 | 5 | F512AABAA | F512F0002 |
| | F513 | 1,5 | - | 3 | 16 | - | 9 | 19 | 12,5 | 6 | F513AAAAA | F513F0001 |
| | F513 | 3 | - | 6 | 9 | - | 4 | 19 | 12,5 | 6 | F513AABAA | F513F0002 |
| | F514 | 6 | - | 8 | 4 | | | 28,58 | 14,3 | 9,5 | F514AAAAA | F514F0005 |
| F710 | | 2,5 | - | 4,5 | 10 | - | 6 | 9,52 | 5 | 3,3 | | F710F0001 |
| | F750 | 2,5 | - | 4 | 10 | - | 6 | 9,52 | 5 | 3,3 | | F750F0002 |
| F711 | | 2,5 | - | 5,5 | 10 | - | 4,5 | 10 | 7 | 3,97 | | F711F0001 |
| | | Gg/1" [tpi] | | | | | | l [mm] | b [mm] | h [mm] | | |
| F521 | | 28 | - | 9 | | - | | 7 | 5 | 3,18 | F521F0005 | F521F0008 |
| | F510 | 28 | - | 9 | | - | | 9,52 | 6,35 | 3,3 | F510AACAA | F510F0005 |
| | F511 | 28 | - | 9 | | - | | 13,5 | 8,5 | 3,97 | F511AACAA | F511F0003 |
| | F512 | 12 | - | 4,5 | | - | | 15,5 | 9,5 | 5 | F512AACAA | F512F0003 |
| | F513 | 12 | - | 3,5 | | - | | 19 | 12,5 | 6 | F513AACAA | F513F0003 |

M | MF | UN

G | W

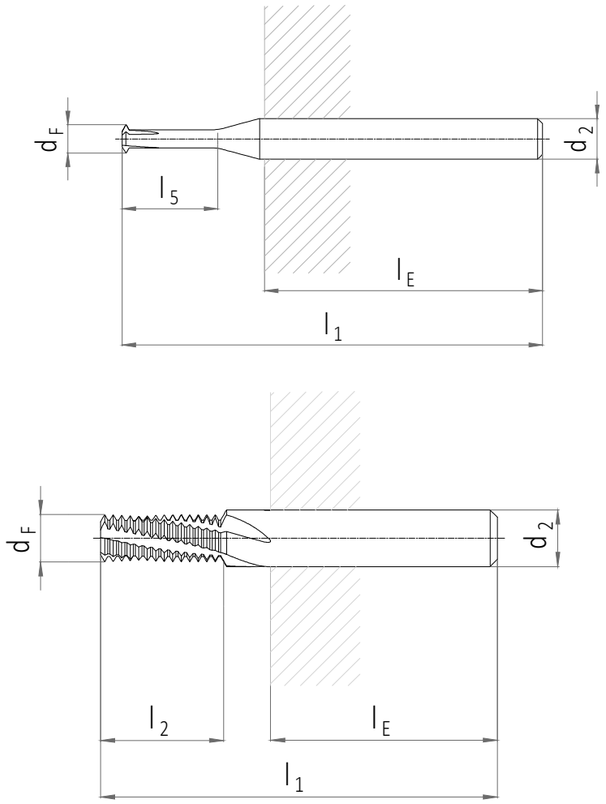
| | | $M_d$ [Nm] | | |
|---|---|---|---|---|
| M2,5 | x 8,5 | 7 IP | 0,9 | F550F0001 | 1033F0001 |
| M3 | x 11 | 9 IP | 2,5 | F550F0002 | 1033F0002 |
| M4 | x 13 | 15 IP | 5,5 | F550F0003 | 1033F0003 |
| M5 | x 15 | 20 IP | 8 | F550F0004 | 1033F0004 |

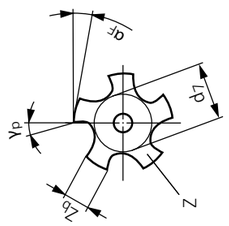
Andere Gewindesysteme auf Anfrage
Other thread standards upon request
Autres standards de filetage sur demande
Altri sistemi di filettatura su richiesta

Sonderkonturen auf Anfrage
Special contours upon request
Profils spéciaux sur demande
Profili speciali su richiesta

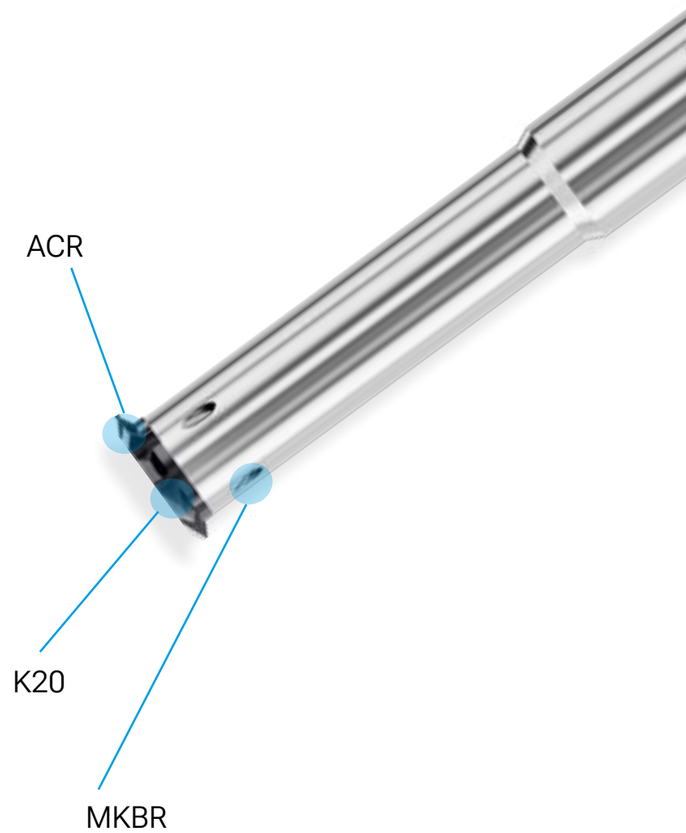
Beim Anziehen der Schraube muss das empfohlene Drehmoment eingehalten werden
When tightening the screw, the recommended torque must be used
Lors du serrage de la vis, il convient d'utiliser le couple recommandé
Quando si stringe la vite, è necessario utilizzare la coppia di serraggio consigliata

# NORIS NES-Z




| | | | | |
|---|---|---|---|---|
| $d_F$ | Frästeildurchmesser | Diameter of milling part | Diamètre du filetage | Diametro della parte di fresatura |
| $d_4$ | Halsdurchmesser | Neck diameter | Diamètre d'étalonnage | Rastrematura del gambo |
| $d_7$ | Seelendurchmesser | Web diameter | Diamètre de l'âme | Diametro dell'anima |
| $l_1$ | Gesamtlänge | Overall length | Longueur totale | Lunghezza totale |
| $l_2$ | Frästeillänge | Length of threading part | Longueur du filetage | Lunghezza del filetto |
| $l_5$ | Nutzbare Länge | Useful length | Longueur utile | Lunghezza utile |
| $l_E$ | Einspannlänge | Clamping length | Longueur de serrage | Lunghezza di serraggio |
| $\gamma_p$ | Spanwinkel | Rake angle | Angle de coupe | Angolo di taglio |
| $\alpha_F$ | Freiwinkel | Clearance angle | Angle de dépouille | Angolo di spoglia |
| $Z_b$ | Zahnbreite | Width of land | Largeur de dent | Larghezza del dente |
| Z | Zähnezahl | Number of teeth | Nombre de dents | Numero di denti |




UNIVERSELL
INNOVATIV
LEISTUNGSSTARK

UNIVERSEL
INNOVANT
PERFORMANT

UNIVERSAL
INNOVATIVE
POWERFUL

UNIVERSALE
INNOVATIVO
POTENTE



# 05

SPIRALBOHRER
TWIST DRILL
FORET
PUNTA ELICOIDALE

## AUSWAHLÜBERSICHT

DIE ANGEGEBENEN SCHNITTWERTE
SIND RICHTWERTE UND MÜSSEN DEN INDIVIDUELLEN
ARBEITSBEDINGUNGEN ANGEPASST WERDEN.

## GUIDE DE SELECTION

LES VALEURS DE VITESSE DE COUPE INDIQUÉES DANSLES
COLONNES RESPECTIVES NE SONT QU'INDICATIVES ET DOIVENT ÊTRE
ADAPTÉES INDIVIDUELLEMENT AUX CONDITIONS D'USINAGE.

## SUMMARY OF ASSORTMENT

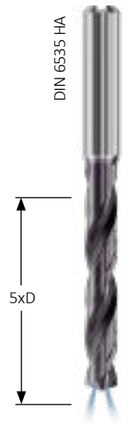
THE LISTED CUTTING DATA ARE STANDARD VALUES.
THIS VALUES HAVE TO BE ADJUSTED TO INDIVIDUAL WORK
CONDITIONS.

## SCELTA DEGLI UTENSILI

I VALORI DI VELOCITÀ DI TAGLIO QUI ELENCATI SONO
PURAMENTE INDICATIVI E DEVONO ESSERE ADATTATI ALLE
CONDIZIONI D'IMPIEGO.

# NORIS DRILLREX

UNI




| | |
|---|---|
| OBERFLÄCHE · SURFACE · SURFACE · SUPERFICIE | ALTIN |
| SCHNEIDSTOFF · MATERIAL · MATIÈRE · MATERIALE | VHM |
| SEITE · PAGE · PAGE · PAGINA | 228 - 231 |

| | | | | | | Vc [m/min] | | | f [mm/U] | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | $d_1$ = 3 mm | | | $d_1$ = 5 mm | | | $d_1$ = 8 mm | | | $d_1$ = 10 mm | | | $d_1$ = 12 mm | | | $d_1$ = 16 mm | | | $d_1$ = 18 mm | | |
| P | STAHLWERKSTOFFE | STEEL MATERIALS | ACIERS | ACCIAI | | MAT. | | | MIN | MED | MAX | MIN | MED | MAX | MIN | MED | MAX | MIN | MED | MAX | MIN | MED | MAX | MIN | MED | MAX | MIN | MED | MAX |
| | Un- und niedriglegierte Stähle | Unalloyed and low-alloy steels | Aciers non et faiblement alliés | Acciai non legati e basso legati | ≤ 800N/mm² | P1.1 | | | 80 | 130 | 180 | 0,11 | 0,16 | 0,25 | 0,16 | 0,2 | 0,28 | 0,2 | 0,25 | 0,35 | 0,23 | 0,28 | 0,4 | 0,25 | 0,31 | 0,43 | 0,27 | 0,34 | 0,47 | 0,29 | 0,35 | 0,49 |
| | | | | | ≤ 1200N/mm² | P1.2 | | | 50 | 85 | 120 | 0,11 | 0,15 | 0,24 | 0,16 | 0,18 | 0,24 | 0,2 | 0,24 | 0,3 | 0,23 | 0,26 | 0,34 | 0,25 | 0,29 | 0,37 | 0,27 | 0,32 | 0,41 | 0,29 | 0,33 | 0,43 |
| | | | | | ≤ 1400N/mm² | P1.3 | | | 50 | 60 | 100 | 0,1 | 0,13 | 0,21 | 0,13 | 0,17 | 0,24 | 0,17 | 0,21 | 0,3 | 0,19 | 0,24 | 0,34 | 0,21 | 0,26 | 0,37 | 0,22 | 0,28 | 0,39 | 0,23 | 0,29 | 0,4 |
| | Hochlegierte Stähle | High alloy steels | Aciers hautement alliés | Acciai alto legati | ≤ 1400N/mm² | P2.1 | | | 40 | 60 | 85 | 0,04 | 0,06 | 0,09 | 0,09 | 0,12 | 0,19 | 0,11 | 0,17 | 0,26 | 0,14 | 0,19 | 0,3 | 0,15 | 0,21 | 0,33 | 0,16 | 0,23 | 0,36 | 0,17 | 0,24 | 0,37 |
| M | ROSTFREIE STÄHLE | CORROSION AND ACID PROOF STEELS | ACIERS INOX/RESIST. ACIDES | ACCIAI INOX E RESISTENTI AGLI ACIDI | | | | | MIN | MED | MAX | MIN | MED | MAX | MIN | MED | MAX | MIN | MED | MAX | MIN | MED | MAX | MIN | MED | MAX | MIN | MED | MAX |
| | Rostfreie austenitische Stähle + DUPLEX Stähle | Stainless austenitic steels + DUPLEX steels | Aciers inoxydables austénitiques + Aciers DUPLEX | Acciai inossidabili austenitici + Acciai DUPLEX | ≤ 800N/mm² | M1.1 | | | 40 | 55 | 75 | 0,04 | 0,05 | 0,08 | 0,08 | 0,11 | 0,16 | 0,1 | 0,15 | 0,2 | 0,14 | 0,18 | 0,27 | 0,15 | 0,2 | 0,3 | 0,16 | 0,22 | 0,32 | 0,17 | 0,23 | 0,34 |
| | | | | | ≤ 1300N/mm² | M1.2 | | | 40 | 50 | 70 | 0,04 | 0,05 | 0,08 | 0,08 | 0,11 | 0,16 | 0,1 | 0,15 | 0,2 | 0,14 | 0,18 | 0,27 | 0,15 | 0,2 | 0,3 | 0,16 | 0,22 | 0,32 | 0,17 | 0,23 | 0,34 |
| K | GUSSWERKSTOFFE | CAST MATERIALS | FONTES | GHISE | | | | | MIN | MED | MAX | MIN | MED | MAX | MIN | MED | MAX | MIN | MED | MAX | MIN | MED | MAX | MIN | MED | MAX | MIN | MED | MAX |
| | Grauguss, Kugelgraphitguss, Vermicular-graphitguss, Temperguss | Cast iron, nodular cast iron, Vermicular graphite cast iron, malleable cast iron | Fonte grise, fonte à graphite sphéroïdal, Fonte à graphite vermiculaire, Fonte malléable | Ghisa grigia, ghisa nodulare, Ghisa a grafite vermiculata, ghisa malleabile | ≤ 800N/mm² | K1.1 | | | 60 | 120 | 180 | 0,1 | 0,15 | 0,25 | 0,14 | 0,19 | 0,28 | 0,18 | 0,24 | 0,35 | 0,2 | 0,26 | 0,4 | 0,22 | 0,29 | 0,43 | 0,24 | 0,32 | 0,47 | 0,26 | 0,33 | 0,5 |
| | Gusseisen ausferritisch (ADI) + Hartguss | Ausferritic cast iron (ADI) + Hard casting | Fonte ausferritique (ADI) + Fontes trempées | Ghisa ausferritica (ADI) + Ghise in conchiglia | ≤ 1400N/mm² | K2.1 | | | | | | | | | | | | | | | | | | | | | | | | |
| N | NICHTEISEN-WERKSTOFFE | NON FERROUS MATERIALS | MATÉRIAUX NON FERREUX | MATERIALI NON FERROSI | | | | | MIN | MED | MAX | MIN | MED | MAX | MIN | MED | MAX | MIN | MED | MAX | MIN | MED | MAX | MIN | MED | MAX | MIN | MED | MAX |
| | Aluminium-Knetlegierungen | Aluminium wrought alloys | Alliages d'aluminium corroyés | Leghe malleabili di alluminio | | N1.1 | | | 160 | 180 | 240 | 0,14 | 0,19 | 0,31 | 0,19 | 0,28 | 0,38 | 0,24 | 0,33 | 0,42 | 0,27 | 0,37 | 0,47 | 0,3 | 0,41 | 0,52 | 0,32 | 0,45 | 0,57 | 0,33 | 0,46 | 0,58 |
| | Aluminium-Gusslegierungen | Aluminium cast alloys | Fontes d'alu | Leghe fuse di alluminio | ≤ 12%Si | N1.2 | | | 160 | 180 | 240 | 0,14 | 0,19 | 0,31 | 0,19 | 0,28 | 0,38 | 0,24 | 0,33 | 0,42 | 0,27 | 0,37 | 0,47 | 0,3 | 0,41 | 0,52 | 0,32 | 0,45 | 0,57 | 0,33 | 0,46 | 0,58 |
| | | | | | ≥ 12%Si | N1.3 | | | 160 | 180 | 240 | 0,14 | 0,19 | 0,31 | 0,19 | 0,28 | 0,38 | 0,24 | 0,33 | 0,42 | 0,27 | 0,37 | 0,47 | 0,3 | 0,41 | 0,52 | 0,32 | 0,45 | 0,57 | 0,33 | 0,46 | 0,58 |
| | Kupfer + Kupferlegierungen (langsp.) | Copper + Copper alloys (long-chip.) | Cuivre + Alliages cuivre (cop. longs) | Rame + Leghe rame (truciolo lungo) | | N2.1 | | | 120 | 140 | 180 | 0,03 | 0,05 | 0,07 | 0,04 | 0,06 | 0,08 | 0,05 | 0,1 | 0,13 | 0,06 | 0,12 | 0,14 | 0,06 | 0,14 | 0,16 | 0,07 | 0,15 | 0,17 | 0,07 | 0,16 | 0,17 |
| | Kupferlegierungen (kurzsp.) | Copper alloys (short-chip.) | Alliages cuivre (cop. courts) | Leghe rame (truciolo corto) | | N2.2 | | | 120 | 140 | 180 | 0,11 | 0,14 | 0,19 | 0,17 | 0,22 | 0,3 | 0,22 | 0,28 | 0,39 | 0,25 | 0,31 | 0,42 | 0,27 | 0,33 | 0,44 | 0,3 | 0,36 | 0,48 | 0,31 | 0,37 | 0,5 |
| | Kupferlegierungen hochfest | High-strength copper alloys | Alliages cuivre haute résistance | Leghe rame ad alta resistenza | ≥ 800N/mm² | N2.3 | | | | | | | | | | | | | | | | | | | | | | | | |
| | Zinklegierungen | Zinc alloys | Alliages de zinc | Leghe zinco | | N3.1 | | | | | | | | | | | | | | | | | | | | | | | | |
| | Magnesiumlegierungen | Magnesium wrought alloys | Alliages de magnésium corroyés | Leghe malleabili di magnesio | | N4.1 | | | | | | | | | | | | | | | | | | | | | | | | |
| | Thermoplaste | Thermoplastics | Thermoplastiques | Resine termoplastiche | | N5.1 | | | | | | | | | | | | | | | | | | | | | | | | |
| | Faserverstärkte Kunststoffe + Duroplaste | Fibre-reinforced synthetics + Duroplastics | Plastiques chargées en fibres + Thermodurcissables | Resine epossidiche + Plastiche termoindurenti | | N5.2 | | | | | | | | | | | | | | | | | | | | | | | | |
| S | SPEZIALWERKSTOFFE | SPECIAL MATERIALS | MATÉRIAUX SPÉCIAUX | MATERIALI SPECIALI | | | | | MIN | MED | MAX | MIN | MED | MAX | MIN | MED | MAX | MIN | MED | MAX | MIN | MED | MAX | MIN | MED | MAX | MIN | MED | MAX |
| | Ni-, Fe- oder Co-basierte Superlegierungen | Ni-, Fe- or Co-based superalloys | Superalliages à base de Ni, Fe ou Co | Superleghe a base di Ni, Fe o Co | ≤ 800N/mm² | S1.1 | | | 20 | 40 | 60 | 0,04 | 0,05 | 0,07 | 0,06 | 0,08 | 0,11 | 0,1 | 0,13 | 0,2 | 0,11 | 0,15 | 0,23 | 0,12 | 0,17 | 0,25 | 0,14 | 0,18 | 0,27 | 0,15 | 0,19 | 0,28 |
| | | | | | ≤ 1600N/mm² | S1.2 | | | 10 | 25 | 40 | 0,04 | 0,05 | 0,07 | 0,06 | 0,08 | 0,1 | 0,1 | 0,12 | 0,15 | 0,11 | 0,13 | 0,17 | 0,12 | 0,14 | 0,19 | 0,14 | 0,16 | 0,2 | 0,15 | 0,17 | 0,21 |
| | Titan + Titanlegierungen | Titanium + Titanium alloys | Titane + Alliages de titane | Titanio + Leghe di titanio | ≤ 800N/mm² | S2.1 | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | ≤ 1300N/mm² | S2.2 | | | 30 | 45 | 60 | 0,04 | 0,05 | 0,06 | 0,06 | 0,08 | 0,1 | 0,1 | 0,12 | 0,15 | 0,11 | 0,13 | 0,17 | 0,12 | 0,14 | 0,19 | 0,14 | 0,16 | 0,2 | 0,15 | 0,17 | 0,21 |
| H | GEHÄRTETE WERKSTOFFE | HARDENED STEELS | ACIERS TRAITÉS | ACCIAI TEMPRATI | | | | | MIN | MED | MAX | MIN | MED | MAX | MIN | MED | MAX | MIN | MED | MAX | MIN | MED | MAX | MIN | MED | MAX | MIN | MED | MAX |
| | Gehärtete Stähle | Hardened steels | Aciers traités | Acciai temprati | ≤ 55HRc | H1.1 | | | 20 | 35 | 50 | 0,05 | 0,06 | 0,11 | 0,08 | 0,11 | 0,16 | 0,1 | 0,16 | 0,25 | 0,11 | 0,18 | 0,28 | 0,12 | 0,19 | 0,31 | 0,14 | 0,2 | 0,34 | 0,15 | 0,21 | 0,35 |
| | | | | | ≤ 63HRc | H1.2 | | | 20 | 30 | 40 | 0,05 | 0,06 | 0,11 | 0,08 | 0,11 | 0,16 | 0,1 | 0,16 | 0,25 | 0,11 | 0,18 | 0,28 | 0,12 | 0,19 | 0,31 | 0,14 | 0,2 | 0,34 | 0,15 | 0,21 | 0,35 |
| | | | | | ≤ 65HRc | H1.3 | | | | | | | | | | | | | | | | | | | | | | | | |

Schmiermittelempfehlung • Lubricant recommendation
Lubrification recommandée • Raccomandazioni per i lubrificanti

EMULSION • EMULSION
ÉMULSION • EMULSIONE

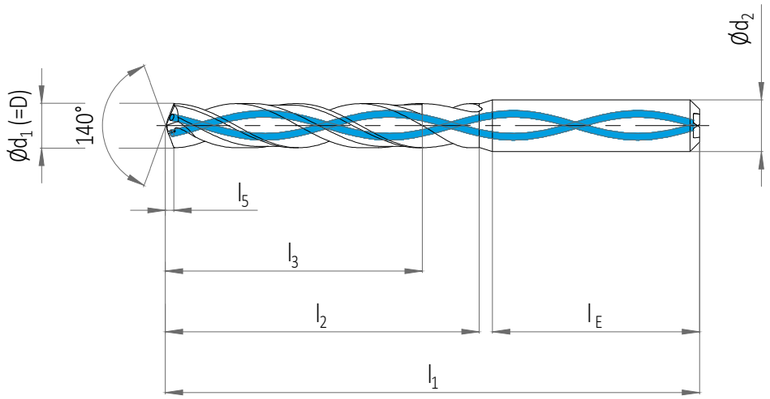
KÜHLÖL • CUTTING OIL
HUILE DE COUPE • OLIO DA TAGLIO

MMS • MQL
LQM • LQM

TROCKEN • DRY
SÈCHE • SECCO

5xD · h6 · 140° · m7 · IT9-10 · 4FF · Z2

NORIS DRILLREX
UNI






| BOHRTIEFE · DRILL DEPTH · PROFONDEUR DE PERÇAGE · PROFONDITÀ DI FORATURA | 5 X D |
|---|---|
| OBERFLÄCHE · SURFACE · SURFACE · SUPERFICIE | ALTIN |
| SCHNEIDSTOFF · MATERIAL · MATIÈRE · MATERIALE | VHM |

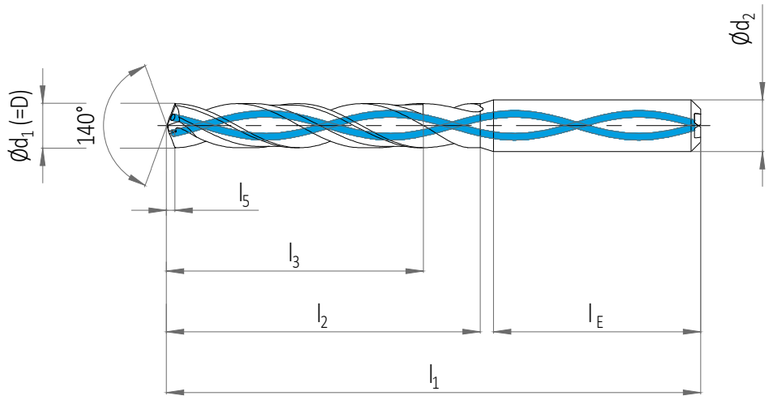
DIN 6537 L

| Ø $d_1$ [mm] | | | $l_1$ [mm] | $l_2$ [mm] | $l_3$ [mm] | $l_E$ [mm] | $l_5$ [mm] | Ø $d_2$ [mm] | |
|---|---|---|---|---|---|---|---|---|---|
| 3,00 | M3,5x0,5 · MJ3,5x0,6 | | 66 | 28 | 23 | 36 | 0,5 | 6 | D10005AT.0300 |
| 3,10 | | | 66 | 28 | 23 | 36 | 0,5 | 6 | D10005AT.0310 |
| 3,20 | MJ3,5x0,35 | | 66 | 28 | 23 | 36 | 0,5 | 6 | D10005AT.0320 |
| 3,30 | M4 | MF3,5x0,5 | 66 | 28 | 23 | 36 | 0,6 | 6 | D10005AT.0330 |
| 3,40 | MJ4x0,7 | | 66 | 28 | 23 | 36 | 0,6 | 6 | D10005AT.0340 |
| 3,50 | MF4x0,5 · #8-32 UNC · #8-36 UNF | | 66 | 28 | 23 | 36 | 0,6 | 6 | D10005AT.0350 |
| 3,60 | MJ4x0,5 | | 66 | 28 | 23 | 36 | 0,6 | 6 | D10005AT.0360 |
| 3,70 | M4,5 | M4 | 66 | 28 | 23 | 36 | 0,6 | 6 | D10005AT.0370 |
| 3,80 | | MF4x0,5 · #8-32 UNC | 74 | 36 | 29 | 36 | 0,6 | 6 | D10005AT.0380 |
| 3,90 | MJ4,5x0,75 · #10-24 UNC | | 74 | 36 | 29 | 36 | 0,7 | 6 | D10005AT.0390 |
| 4,00 | | | 74 | 36 | 29 | 36 | 0,7 | 6 | D10005AT.0400 |
| 4,10 | MJ4,5x0,5 · #10-32 UNF | | 74 | 36 | 29 | 36 | 0,7 | 6 | D10005AT.0410 |
| 4,20 | M5 · MF5x0,75 | M4,5 | 74 | 36 | 29 | 36 | 0,7 | 6 | D10005AT.0420 |
| 4,30 | MJ5x0,8 | MF4,5x0,5 | 74 | 36 | 29 | 36 | 0,7 | 6 | D10005AT.0430 |
| 4,40 | | | 74 | 36 | 29 | 36 | 0,7 | 6 | D10005AT.0440 |
| 4,50 | MF5x0,5 · #12-24 UNC | | 74 | 36 | 29 | 36 | 0,8 | 6 | D10005AT.0450 |
| 4,60 | M5,5 · MJ5x0,5 · #12-28 UNF | | 74 | 36 | 29 | 36 | 0,8 | 6 | D10005AT.0460 |
| 4,65 | | M5 | 74 | 36 | 29 | 36 | 0,8 | 6 | D10005AT.0465 |
| 4,70 | | MF5x0,75 | 74 | 36 | 29 | 36 | 0,8 | 6 | D10005AT.0470 |
| 4,80 | | MF5x0,5 | 82 | 44 | 35 | 36 | 0,8 | 6 | D10005AT.0480 |
| 5,00 | M6 | #12-24 UNC | 82 | 44 | 35 | 36 | 0,8 | 6 | D10005AT.0500 |
| 5,10 | MJ6x1 · 1/4-20 UNC | M5,5 · #12-28 UNF | 82 | 44 | 35 | 36 | 0,9 | 6 | D10005AT.0510 |
| 5,20 | MF6x0,75 | | 82 | 44 | 35 | 36 | 0,9 | 6 | D10005AT.0520 |
| 5,30 | | MF5,5x0,5 | 82 | 44 | 35 | 36 | 0,9 | 6 | D10005AT.0530 |
| 5,40 | | | 82 | 44 | 35 | 36 | 0,9 | 6 | D10005AT.0540 |
| 5,50 | MF6x0,5 · 1/4-28 UNF | | 82 | 44 | 35 | 36 | 0,9 | 6 | D10005AT.0550 |
| 5,55 | | | 82 | 44 | 35 | 36 | 0,9 | 6 | D10005AT.0555 |
| 5,60 | MJ6x0,5 | M6 | 82 | 44 | 35 | 36 | 1 | 6 | D10005AT.0560 |
| 5,70 | | MF6x0,75 | 82 | 44 | 35 | 36 | 1 | 6 | D10005AT.0570 |
| 5,80 | | MF6x0,5 | 82 | 44 | 35 | 36 | 1 | 6 | D10005AT.0580 |
| 5,90 | | | 82 | 44 | 35 | 36 | 1 | 6 | D10005AT.0590 |



5xD · h6 · 140° · m7 · IT9-10 · 4FF · Z2

NORIS DRILLREX
UNI





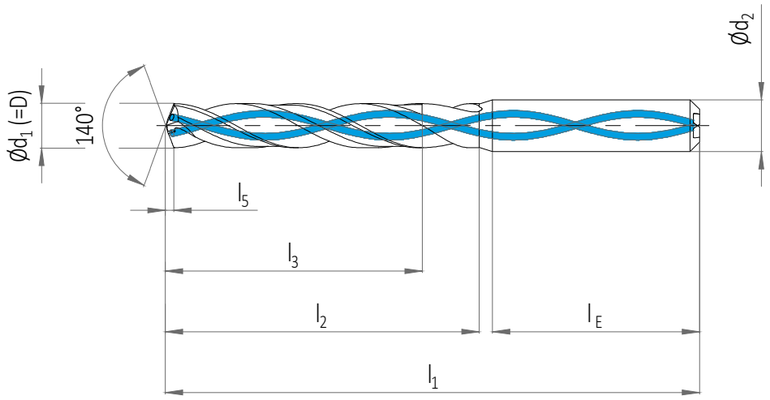

| BOHRTIEFE · DRILL DEPTH · PROFONDEUR DE PERÇAGE · PROFONDITÀ DI FORATURA | 5 X D |
|---|---|
| OBERFLÄCHE · SURFACE · SURFACE · SUPERFICIE | ALTIN |
| SCHNEIDSTOFF · MATERIAL · MATIÈRE · MATERIALE | VHM |

DIN 6537 L

| Ø $d_1$ [mm] | | | $l_1$ [mm] | $l_2$ [mm] | $l_3$ [mm] | $l_E$ [mm] | $l_5$ [mm] | Ø $d_2$ [mm] | |
|---|---|---|---|---|---|---|---|---|---|
| 6,00 | M7 | | 82 | 44 | 35 | 36 | 1 | 6 | D10005AT.0600 |
| 6,20 | MF7x0,75 | | 91 | 53 | 43 | 36 | 1,1 | 8 | D10005AT.0620 |
| 6,30 | | | 91 | 53 | 43 | 36 | 1,1 | 8 | D10005AT.0630 |
| 6,35 | MJ7x0,75 | | 91 | 53 | 43 | 36 | 1,1 | 8 | D10005AT.0635 |
| 6,40 | | | 91 | 53 | 43 | 36 | 1,1 | 8 | D10005AT.0640 |
| 6,50 | MF7x0,5 | | 91 | 53 | 43 | 36 | 1,1 | 8 | D10005AT.0650 |
| 6,60 | 5/16-18 UNC | M7 | 91 | 53 | 43 | 36 | 1,1 | 8 | D10005AT.0660 |
| 6,70 | | MF7x0,75 | 91 | 53 | 43 | 36 | 1,1 | 8 | D10005AT.0670 |
| 6,80 | M8 · G1/16 | MF7x0,5 | 91 | 53 | 43 | 36 | 1,2 | 8 | D10005AT.0680 |
| 6,90 | MJ8x1,25 · 5/16-24 UNF | | 91 | 53 | 43 | 36 | 1,2 | 8 | D10005AT.0690 |
| 7,00 | MF8x1 | | 91 | 53 | 43 | 36 | 1,2 | 8 | D10005AT.0700 |
| 7,20 | MF8x0,75 | | 91 | 53 | 43 | 36 | 1,2 | 8 | D10005AT.0720 |
| 7,40 | | | 91 | 53 | 43 | 36 | 1,3 | 8 | D10005AT.0740 |
| 7,45 | | M8 · 5/16-24 UNF | 91 | 53 | 43 | 36 | 1,3 | 8 | D10005AT.0745 |
| 7,50 | MF8x0,5 | | 91 | 53 | 43 | 36 | 1,3 | 8 | D10005AT.0750 |
| 7,60 | | M8x1 | 91 | 53 | 43 | 36 | 1,3 | 8 | D10005AT.0760 |
| 7,70 | | MF8x0,75 | 91 | 53 | 43 | 36 | 1,3 | 8 | D10005AT.0770 |
| 7,80 | M9 | MF8x0,5 | 91 | 53 | 43 | 36 | 1,3 | 8 | D10005AT.0780 |
| 7,90 | MJ9x1,25 | | 91 | 53 | 43 | 36 | 1,3 | 8 | D10005AT.0790 |
| 8,00 | MF9x1 · 3/8-16 UNC | | 91 | 53 | 43 | 36 | 1,4 | 8 | D10005AT.0800 |
| 8,20 | MF9x0,75 | | 103 | 61 | 49 | 40 | 1,4 | 10 | D10005AT.0820 |
| 8,30 | | | 103 | 61 | 49 | 40 | 1,4 | 10 | D10005AT.0830 |
| 8,40 | | | 103 | 61 | 49 | 40 | 1,4 | 10 | D10005AT.0840 |
| 8,50 | M10 · MF9x0,5 · 3/8-24 UNF | | 103 | 61 | 49 | 40 | 1,4 | 10 | D10005AT.0850 |
| 8,60 | MJ10x1,5 | MF9x1 | 103 | 61 | 49 | 40 | 1,5 | 10 | D10005AT.0860 |
| 8,70 | | MF9x0,75 | 103 | 61 | 49 | 40 | 1,5 | 10 | D10005AT.0870 |
| 8,80 | M10x1,25 · G1/8 | MF9x0,5 · 3/8-16 UNC | 103 | 61 | 49 | 40 | 1,5 | 10 | D10005AT.0880 |
| 9,00 | MF10x1 | | 103 | 61 | 49 | 40 | 1,5 | 10 | D10005AT.0900 |

5xD · h6 · 140° · m7 · IT9-10 · 4FF · Z2

NORIS DRILLREX
UNI





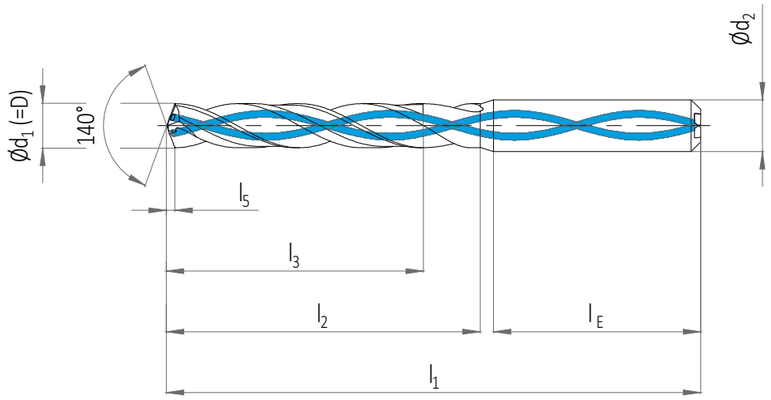

| BOHRTIEFE · DRILL DEPTH · PROFONDEUR DE PERÇAGE · PROFONDITÀ DI FORATURA | 5 X D |
|---|---|
| OBERFLÄCHE · SURFACE · SURFACE · SUPERFICIE | ALTIN |
| SCHNEIDSTOFF · MATERIAL · MATIÈRE · MATERIALE | VHM |

DIN 6537 L

| Ø $d_1$ [mm] | | | $l_1$ [mm] | $l_2$ [mm] | $l_3$ [mm] | $l_E$ [mm] | $l_5$ [mm] | Ø $d_2$ [mm] | |
|---|---|---|---|---|---|---|---|---|---|
| 9,20 | MF10x0,75 | | 103 | 61 | 49 | 40 | 1,6 | 10 | D10005AT.0920 |
| 9,30 | | | 103 | 61 | 49 | 40 | 1,6 | 10 | D10005AT.0930 |
| 9,35 | MJ10x0,75 | M10 | 103 | 61 | 49 | 40 | 1,6 | 10 | D10005AT.0935 |
| 9,40 | 7/16-14 UNC | | 103 | 61 | 49 | 40 | 1,6 | 10 | D10005AT.0940 |
| 9,50 | M11 · MF10x0,5 | | 103 | 61 | 49 | 40 | 1,6 | 10 | D10005AT.0950 |
| 9,60 | MJ10x0,5 · MJ11x1,5 | MF10x1 | 103 | 61 | 49 | 40 | 1,6 | 10 | D10005AT.0960 |
| 9,80 | | MF10x0,5 | 103 | 61 | 49 | 40 | 1,7 | 10 | D10005AT.0980 |
| 9,90 | MJ11x1,25 · 7/16-20 UNF | | 103 | 61 | 49 | 40 | 1,7 | 10 | D10005AT.0990 |
| 10,00 | MF11x1 | | 103 | 61 | 49 | 40 | 1,7 | 10 | D10005AT.1000 |
| 10,10 | MJ11x1 | | 118 | 71 | 56 | 45 | 1,7 | 12 | D10005AT.1010 |
| 10,20 | M12 · MF11x0,75 | | 118 | 71 | 56 | 45 | 1,7 | 12 | D10005AT.1020 |
| 10,30 | | | 118 | 71 | 56 | 45 | 1,7 | 12 | D10005AT.1030 |
| 10,40 | | | 118 | 71 | 56 | 45 | 1,8 | 12 | D10005AT.1040 |
| 10,50 | MF12x1,5 | | 118 | 71 | 56 | 45 | 1,8 | 12 | D10005AT.1050 |
| 10,80 | MF12x1,25 · 1/2-13 UNC | | 118 | 71 | 56 | 45 | 1,8 | 12 | D10005AT.1080 |
| 11,00 | MF12x1 | | 118 | 71 | 56 | 45 | 1,9 | 12 | D10005AT.1100 |
| 11,20 | M12x0,75 | | 118 | 71 | 56 | 45 | 1,9 | 12 | D10005AT.1120 |
| 11,25 | | M12 | 118 | 71 | 56 | 45 | 1,9 | 12 | D10005AT.1125 |
| 11,30 | | | 118 | 71 | 56 | 45 | 1,9 | 12 | D10005AT.1130 |
| 11,35 | | MF12x1,5 | 118 | 71 | 56 | 45 | 1,9 | 12 | D10005AT.1135 |
| 11,50 | | | 118 | 71 | 56 | 45 | 2 | 12 | D10005AT.1150 |
| 11,60 | | MF12x1 | 118 | 71 | 56 | 45 | 2 | 12 | D10005AT.1160 |
| 11,80 | G1/4 | | 118 | 71 | 56 | 45 | 2 | 12 | D10005AT.1180 |

5xD · h6 · 140° · m7 · IT9-10 · 4FF · Z2

NORIS DRILLREX
UNI

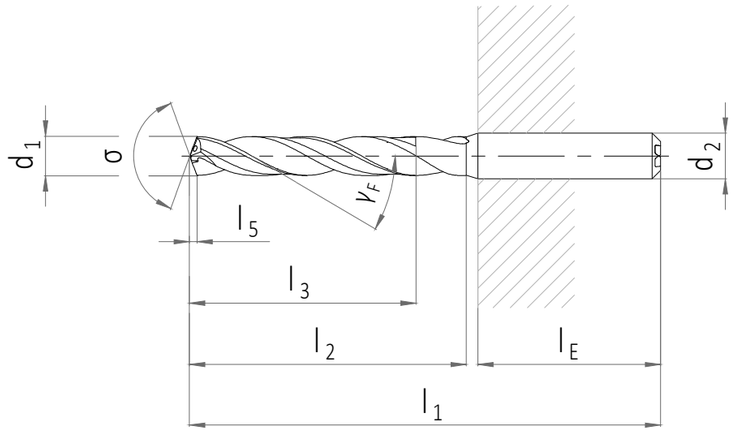





| BOHRTIEFE · DRILL DEPTH · PROFONDEUR DE PERÇAGE · PROFONDITÀ DI FORATURA | 5 X D |
|---|---|
| OBERFLÄCHE · SURFACE · SURFACE · SUPERFICIE | ALTIN |
| SCHNEIDSTOFF · MATERIAL · MATIÈRE · MATERIALE | VHM |

DIN 6537 L

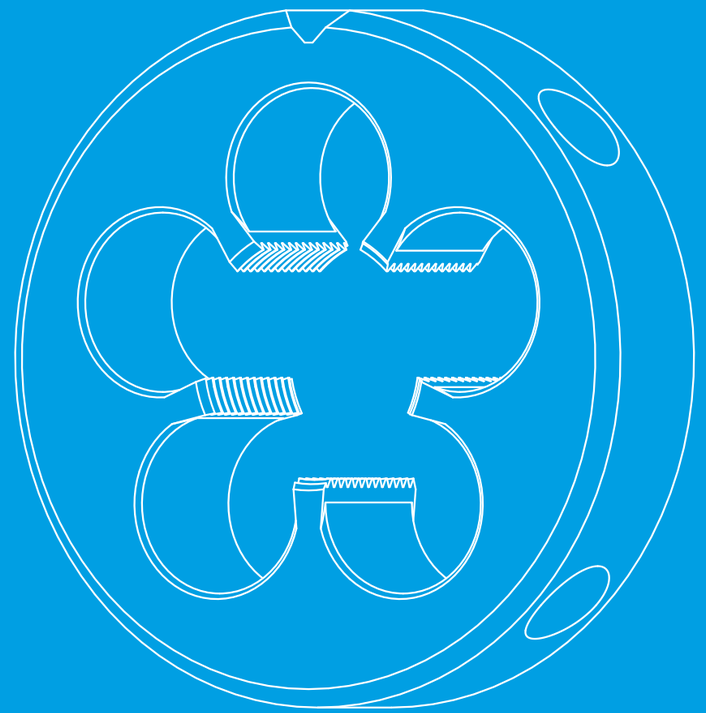
| Ø $d_1$ [mm] | | | $l_1$ [mm] | $l_2$ [mm] | $l_3$ [mm] | $l_E$ [mm] | $l_5$ [mm] | Ø $d_2$ [mm] | |
|---|---|---|---|---|---|---|---|---|---|
| 12,00 | M14 | | 118 | 71 | 56 | 45 | 2 | 12 | D10005AT.1200 |
| 12,10 | MJ13x1 | | 124 | 77 | 60 | 45 | 2,1 | 14 | D10005AT.1210 |
| 12,20 | 9/16-12 UNC | | 124 | 77 | 60 | 45 | 2,1 | 14 | D10005AT.1220 |
| 12,50 | MF14x1,5 | | 124 | 77 | 60 | 45 | 2,1 | 14 | D10005AT.1250 |
| 12,70 | | MF13x0,75 | 124 | 77 | 60 | 45 | 2,2 | 14 | D10005AT.1270 |
| 12,90 | MJ14x1,25 · 9/16-18 UNC | | 124 | 77 | 60 | 45 | 2,2 | 14 | D10005AT.1290 |
| 13,00 | MF14x1 | | 124 | 77 | 60 | 45 | 2,2 | 14 | D10005AT.1300 |
| 13,10 | MJ14x1 | M14 | 124 | 77 | 60 | 45 | 2,2 | 14 | D10005AT.1310 |
| 13,30 | | 9/16-12 UNC | 124 | 77 | 60 | 45 | 2,3 | 14 | D10005AT.1330 |
| 13,35 | | MF14x1,5 | 124 | 77 | 60 | 45 | 2,3 | 14 | D10005AT.1335 |
| 13,50 | | | 124 | 77 | 60 | 45 | 2,3 | 14 | D10005AT.1350 |
| 14,00 | M16 · MF15x1 | | 124 | 77 | 60 | 45 | 2,4 | 14 | D10005AT.1400 |
| 14,10 | MJ15x1 | | 133 | 83 | 63 | 48 | 2,4 | 16 | D10005AT.1410 |
| 14,20 | MF15x0,75 | | 133 | 83 | 63 | 48 | 2,4 | 16 | D10005AT.1420 |
| 14,50 | MF16x1,5 · 5/8-18 UNF | | 133 | 83 | 63 | 48 | 2,5 | 16 | D10005AT.1450 |
| 14,70 | | MF15x0,75 | 133 | 83 | 63 | 48 | 2,5 | 16 | D10005AT.1470 |
| 15,00 | MF16x1 | | 133 | 83 | 63 | 48 | 2,5 | 16 | D10005AT.1500 |
| 15,10 | MJ16x1 | M16 | 133 | 83 | 63 | 48 | 2,6 | 16 | D10005AT.1510 |
| 15,20 | MF16x0,75 | | 133 | 83 | 63 | 48 | 2,6 | 16 | D10005AT.1520 |
| 15,25 | G3/8 | | 133 | 83 | 63 | 48 | 2,6 | 16 | D10005AT.1525 |
| 15,35 | | MF16x1,5 | 133 | 83 | 63 | 48 | 2,6 | 16 | D10005AT.1535 |
| 15,50 | M18 | | 133 | 83 | 63 | 48 | 2,6 | 16 | D10005AT.1550 |
| 15,80 | MJ18x2,5 | | 133 | 83 | 63 | 48 | 2,7 | 16 | D10005AT.1580 |
| 16,00 | MF18x2 | | 133 | 83 | 63 | 48 | 2,7 | 16 | D10005AT.1600 |
| 16,50 | MF18x1,5 · 3/4-10 UNC | | 143 | 93 | 71 | 48 | 2,8 | 18 | D10005AT.1650 |
| 17,00 | MF18x1 | | 143 | 93 | 71 | 48 | 2,9 | 18 | D10005AT.1700 |
| 17,50 | M20 · 3/4-16 UNF | | 143 | 93 | 71 | 48 | 3 | 18 | D10005AT.1750 |
| 18,00 | MF20x2 | | 143 | 93 | 71 | 48 | 3,1 | 18 | D10005AT.1800 |




| | | | | |
|---|---|---|---|---|
| $d_1$ | Bohrungsdurchmesser | Drill hole diameter | Diamètre du trou de forage | Diametro del foro |
| $d_2$ | Schaftdurchmesser | Shank diameter | Diamètre de queue | Gambo |
| $l_1$ | Gesamtlänge | Overall length | Longueur totale | Lunghezza total |
| $l_2$ | Spannutenlänge | Flute length | Longueur de la cannelure | Lunghezza flauto |
| $l_3$ | Nutzbare Länge | Usable length | Longueur utile | Lunghezza utile |
| $l_5$ | Spitze | Point | Pointe | Punta |
| $l_E$ | Einspannlänge | Clamping length | Longueur de serrage | Lunghezza di serraggio |
| $\gamma_F$ | Drallwinkel | Helix angle | Angle d'hélice | Angolo di elica |
| σ | Spitzenwinkel | Point angle | Angle de pointe | Angolo di punta |







# 06

SCHNEIDEISEN
DIES
FILIÉRES
FILIERE

## AUSWAHLÜBERSICHT

DIE ANGEGEBENEN SCHNITTWERTE
SIND RICHTWERTE UND MÜSSEN DEN INDIVIDUELLEN
ARBEITSBEDINGUNGEN ANGEPASST WERDEN.

## GUIDE DE SELECTION

LES VALEURS DE VITESSE DE COUPE INDIQUÉES DANSLES
COLONNES RESPECTIVES NE SONT QU'INDICATIVES ET DOIVENT ÊTRE
ADAPTÉES INDIVIDUELLEMENT AUX CONDITIONS D'USINAGE.

## SUMMARY OF ASSORTMENT

THE LISTED CUTTING DATA ARE STANDARD VALUES.
THIS VALUES HAVE TO BE ADJUSTED TO INDIVIDUAL WORK
CONDITIONS.

## SCELTA DEGLI UTENSILI

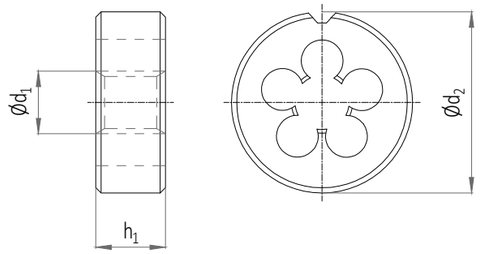
I VALORI DI VELOCITÀ DI TAGLIO QUI ELENCATI SONO
PURAMENTE INDICATIVI E DEVONO ESSERE ADATTATI ALLE
CONDIZIONI D'IMPIEGO.

| | | | | | | NORIS SE | | | | | NORIS GLOCKEN SE | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | ST | | VA | | MS | ST | MS |
| | | | | | | | GEL | | GEL | GEL | GEL | GEL |
| | | | | | | WAC | GEL | WAC | GEL | GEL | GEL | GEL |
| | | | | | | HSS | HSS | HSSE | HSSE | HSS | HSS | HSS |
| | | | | | | 238 | 239 | 240 | 240 | 240 | 241 | |
| | | | | | | 242 | 242 | 244 | | 244 | | |
| | | | | | | 246 | 246 | | | | | |
| | | | | | | 247 | 247 | | | | | |
| | | | | | | 248 | 248 | | | | | |
| | | | | | | 249 | 249 | | | 249 | | 249 |
| | | | | | | 250 | | | | | | |
| | | | | | | 251 | | | | | | |
| | | | | | | 252 | | | | | | |
| | | | | | | 253 | | | | | | |
| | | | | | | 254 | | | | | | |
| P | STAHLWERKSTOFFE | STEEL MATERIALS | ACIERS | ACCIAI | | MAT. | | Vc [m/min] | | | | | | |
| | Un- und niedriglegierte Stähle | Unalloyed and low-alloy steels | Aciers non et faiblement alliés | Acciai non legati e basso legati | ≤ 800N/mm² | P1.1 | | 1-8 | 1-8 | 1-8 | 1-8 | | 1-8 | |
| | | | | | ≤ 1200N/mm² | P1.2 | | | | | | | | |
| | | | | | ≤ 1400N/mm² | P1.3 | | | | | | | | |
| | Hochlegierte Stähle | High alloy steels | Aciers hautement alliés | Acciai alto legati | ≤ 1400N/mm² | P2.1 | | | | | | | | |
| M | ROSTFREIE STÄHLE | CORROSION AND ACID PROOF STEELS | ACIERS INOX/RESIST. ACIDES | ACCIAI INOX E RESISTENTI AGLI ACIDI | | | | Vc [m/min] | | | | | Vc [m/min] | |
| | Rostfreie austenitische Stähle + DUPLEX Stähle | Stainless austenitic steels + DUPLEX steels | Aciers inoxydables austénitiques + Aciers DUPLEX | Acciai inossidabili austenitici + Acciai DUPLEX | ≤ 800N/mm² | M1.1 | | | | 1-4 | 1-4 | | | |
| | | | | | ≤ 1300N/mm² | M1.2 | | | | | | | | |
| K | GUSSWERKSTOFFE | CAST MATERIALS | FONTES | GHISE | | | | Vc [m/min] | | | | | Vc [m/min] | |
| | Grauguss, Kugelgraphitguss, Vermiculargraphitguss, Temperguss | Cast iron, nodular cast iron, Vermicular graphite cast iron, malleable cast iron | Fonte grise, fonte à graphite sphéroïdal, Fonte à graphite vermiculaire, Fonte malléable | Ghisa grigia, ghisa nodulare, Ghisa a grafite vermiculata, ghisa malleabile | ≤ 800N/mm² | K1.1 | | 2-10 | 2-10 | | | | 2-10 | |
| | Gusseisen ausferritisch (ADI) + Hartguss | Ausferritic cast iron (ADI) + Hard casting | Fonte ausferritique (ADI) + Fontes trempées | Ghisa ausferritica (ADI) + Ghise in conchiglia | ≤ 1400N/mm² | K2.1 | | | | | | | | |
| N | NICHTEISEN-WERKSTOFFE | NON FERROUS MATERIALS | MATÉRIAUX NON FERREUX | MATERIALI NON FERROSI | | | | Vc [m/min] | | | | | Vc [m/min] | |
| | Aluminium-Knetlegierungen | Aluminium wrought alloys | Alliages d'aluminium corroyés | Leghe malleabili di alluminio | | N1.1 | | | 10-20 | | | | 10-20 | |
| | Aluminium-Gusslegierungen | Aluminium cast alloys | Fontes d'alu | Leghe fuse di alluminio | ≤ 12%Si | N1.2 | | | 5-20 | | | | 5-20 | |
| | | | | | ≥ 12%Si | N1.3 | | | | | | | | |
| | Kupfer + Kupferlegierungen (langsp.) | Copper + Copper alloys (long-chip.) | Cuivre + Alliages cuivre (cop. longs) | Rame + Leghe rame (truciolo lungo) | | N2.1 | | | 10-20 | | | | | |
| | Kupferlegierungen (kurzsp.) | Copper alloys (short-chip.) | Alliages cuivre (cop. courts) | Leghe rame (truciolo corto) | | N2.2 | | | | | 10-25 | | | 10-25 |
| | Kupferlegierungen hochfest | High-strength copper alloys | Alliages cuivre haute résistance | Leghe rame ad alta resistenza | ≥ 800N/mm² | N2.3 | | | | | | | | |
| | Zinklegierungen | Zinc alloys | Alliages de zinc | Leghe zinco | | N3.1 | | | 10-20 | | | | 10-20 | |
| | Magnesiumlegierungen | Magnesium wrought alloys | Alliages de magnésium corroyés | Leghe malleabili di magnesio | | N4.1 | | | | | | | | |
| | Thermoplaste | Thermoplastics | Thermoplastiques | Resine termoplastiche | | N5.1 | | 6-8 | 6-8 | 6-8 | 6-8 | | 6-8 | |
| | Faserverstärkte Kunststoffe + Duroplaste | Fibre-reinforced synthetics + Duroplastics | Plastiques chargées en fibres + Thermodurcissables | Resine epossidiche + Plastiche termoindurenti | | N5.2 | | | | 8-10 | 8-10 | | | |
| S | SPEZIALWERKSTOFFE | SPECIAL MATERIALS | MATÉRIAUX SPÉCIAUX | MATERIALI SPECIALI | | | | Vc [m/min] | | | | | Vc [m/min] | |
| | Ni-, Fe- oder Co-basierte Superlegierungen | Ni-, Fe- or Co-based superalloys | Superalliages à base de Ni, Fe ou Co | Superleghe a base di Ni, Fe o Co | ≤ 800N/mm² | S1.1 | | | | | | | | |
| | | | | | ≤ 1600N/mm² | S1.2 | | | | | | | | |
| | Titan + Titanlegierungen | Titanium + Titanium alloys | Titane + Alliages de titane | Titanio + Leghe di titanio | ≤ 800N/mm² | S2.1 | | | | | | | | |
| | | | | | ≤ 1300N/mm² | S2.2 | | | | | | | | |
| H | GEHÄRTETE WERKSTOFFE | HARDENED STEELS | ACIERS TRAITÉS | ACCIAI TEMPRATI | | | | Vc [m/min] | | | | | Vc [m/min] | |
| | Gehärtete Stähle | Hardened steels | Aciers traités | Acciai temprati | ≤ 55HRc | H1.1 | | | | | | | | |
| | | | | | ≤ 63HRc | H1.2 | | | | | | | | |
| | | | | | ≤ 65HRc | H1.3 | | | | | | | | |

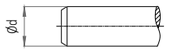
Schmiermittelempfehlung • Lubricant recommendation
Lubrification recommandée • Raccomandazioni per i lubrificanti

SCHNEIDÖL • CUTTING OIL
HUILE DE COUPE • OLIO DA TAGLIO

EMULSION • EMULSION
ÉMULSION • EMULSIONE




VORARBEITSDURCHMESSER d ≈
PREPARATORY DIAMETER d ≈
DIAMÈTRE DE L'EBAUCHE d ≈
DIAMETRO DI PREPARAZIONE d ≈

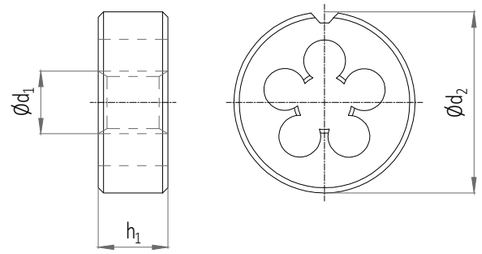



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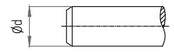
| | NORIS SE ST | NORIS SE ST | NORIS SE ST |
|---|---|---|---|
| OBERFLÄCHE · SURFACE · SURFACE · SUPERFICIE | WAC | WAC | WAC |
| SCHNEIDSTOFF · MATERIAL · MATIÈRE · MATERIALE | HSS | HSS | HSS |
| ANSCHNITTFORM · CHAMFER FORM · FORME D'ENTRÉE · FORMA D'IMBOCCO | 1,5 | 1,5 | 1,5 |
| TOLERANZ · TOLERANCE · TOLÉRANCE · TOLLERANZA | 6h | 6g | 6g |
| | RH | RH | LH |

| $d_1$ [mm] | P [mm] | $h_1$ [mm] | Ø $d_2$ [mm] | Ø d ≈ 6g [mm] | Ø d ≈ 6e [mm] | | | |
|---|---|---|---|---|---|---|---|---|
| M 1 | 0,25 | 5 | 16 | 0,97 | 0,93 | 2020.04000010 | | |
| M 1,2 | 0,25 | 5 | 16 | 1,17 | 1,13 | 2020.04000012 | | |
| M 1,4 | 0,3 | 5 | 16 | 1,36 | 1,32 | 2020.04000014 | | |
| M 1,6 | 0,35 | 5 | 16 | 1,54 | 1,51 | | 2020.0D000016 | |
| M 1,8 | 0,35 | 5 | 16 | 1,74 | 1,71 | | 2020.0D000018 | |
| M 2 | 0,4 | 5 | 16 | 1,93 | 1,9 | | 2020.0D000020 | 2020.4C000020 |
| M 2,2 | 0,45 | 5 | 16 | 2,13 | 2,1 | | 2020.0D000022 | |
| M 2,3 | 0,4 | 5 | 16 | 2,23 | 2,2 | | 2020.0D000023 | |
| M 2,5 | 0,45 | 5 | 16 | 2,43 | 2,4 | | 2020.0D000025 | |
| M 3 | 0,5 | 5 | 20 | 2,92 | 2,89 | | 2020.0D000030 | 2020.4C000030 |
| M 3,5 | 0,6 | 5 | 20 | 3,41 | 3,38 | | 2020.0D000035 | |
| M 4 | 0,7 | 5 | 20 | 3,9 | 3,87 | | 2020.0D000040 | 2020.4C000040 |
| M 5 | 0,8 | 7 | 20 | 4,9 | 4,86 | | 2020.0D000050 | 2020.4C000050 |
| M 6 | 1 | 7 | 20 | 5,88 | 5,85 | | 2020.0D000060 | 2020.4C000060 |
| M 8 | 1,25 | 9 | 25 | 7,86 | 7,83 | | 2020.0D000080 | 2020.4C000080 |
| M 9 | 1,25 | 9 | 25 | 8,86 | 8,83 | | 2020.0D000090 | |
| M 10 | 1,5 | 11 | 30 | 9,85 | 9,81 | | 2020.0D000100 | 2020.4C000100 |
| M 11 | 1,5 | 11 | 30 | 10,85 | 10,81 | | 2020.0D000111 | |
| M 12 | 1,75 | 14 | 38 | 11,83 | 11,81 | | 2020.0D000112 | 2020.4C000112 |
| M 14 | 2 | 14 | 38 | 13,82 | 13,78 | | 2020.0D000114 | 2020.4C000114 |
| M 16 | 2 | 18 | 45 | 15,82 | 15,78 | | 2020.0D000116 | 2020.4C000116 |
| M 18 | 2,5 | 18 | 45 | 17,79 | 17,75 | | 2020.0D000118 | |
| M 20 | 2,5 | 18 | 45 | 19,79 | 19,75 | | 2020.0D000120 | 2020.4C000120 |
| M 22 | 2,5 | 22 | 55 | 21,79 | 21,75 | | 2020.0D000122 | |
| M 24 | 3 | 22 | 55 | 23,76 | 23,72 | | 2020.0D000124 | 2020.4C000124 |
| M 27 | 3 | 25 | 65 | 26,76 | 26,72 | | | |
| M 30 | 3,5 | 25 | 65 | 29,73 | 29,7 | | 2020.0D000130 | |
| M 42 | 4,5 | 30 | 75 | 41,68 | 41,65 | | | |





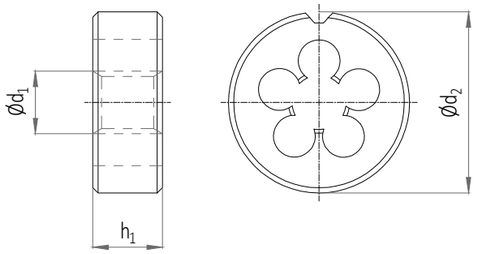

VORARBEITSDURCHMESSER d ≈
PREPARATORY DIAMETER d ≈
DIAMÈTRE DE L'EBAUCHE d ≈
DIAMETRO DI PREPARAZIONE d ≈



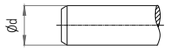

DIN EN 22568

| | NORIS SE ST | NORIS SE ST | NORIS SE ST |
|---|---|---|---|
| OBERFLÄCHE · SURFACE · SURFACE · SUPERFICIE | WAC | GEL | GEL |
| SCHNEIDSTOFF · MATERIAL · MATIÈRE · MATERIALE | HSS | HSS | HSS |
| ANSCHNITTFORM · CHAMFER FORM · FORME D'ENTRÉE · FORMA D'IMBOCCO | 1,5 | 1,5 | 1,5 |
| TOLERANZ · TOLERANCE · TOLÉRANCE · TOLLERANZA | 6e | 6h | 6g |
| | RH | RH | RH |

| $d_1$ [mm] | P [mm] | $h_1$ [mm] | Ø $d_2$ [mm] | Ø d ≈ 6g [mm] | Ø d ≈ 6e [mm] | | | |
|---|---|---|---|---|---|---|---|---|
| M 1 | 0,25 | 5 | 16 | 0,97 | 0,93 | | 2030.04130010 | |
| M 1,2 | 0,25 | 5 | 16 | 1,17 | 1,13 | | 2030.04130012 | |
| M 1,4 | 0,3 | 5 | 16 | 1,36 | 1,32 | | 2030.04130014 | |
| M 1,6 | 0,35 | 5 | 16 | 1,54 | 1,51 | | | 2030.0D130016 |
| M 1,8 | 0,35 | 5 | 16 | 1,74 | 1,71 | | | |
| M 2 | 0,4 | 5 | 16 | 1,93 | 1,9 | | | 2030.0D130020 |
| M 2,2 | 0,45 | 5 | 16 | 2,13 | 2,1 | | | 2030.0D130022 |
| M 2,3 | 0,4 | 5 | 16 | 2,23 | 2,2 | | | 2030.0D130023 |
| M 2,5 | 0,45 | 5 | 16 | 2,43 | 2,4 | | | 2030.0D130025 |
| M 3 | 0,5 | 5 | 20 | 2,92 | 2,89 | 2020.16000030 | | 2030.0D130030 |
| M 3,5 | 0,6 | 5 | 20 | 3,41 | 3,38 | | | 2030.0D130035 |
| M 4 | 0,7 | 5 | 20 | 3,9 | 3,87 | 2020.16000040 | | 2030.0D130040 |
| M 5 | 0,8 | 7 | 20 | 4,9 | 4,86 | 2020.16000050 | | 2030.0D130050 |
| M 6 | 1 | 7 | 20 | 5,88 | 5,85 | 2020.16000060 | | 2030.0D130060 |
| M 8 | 1,25 | 9 | 25 | 7,86 | 7,83 | 2020.16000080 | | 2030.0D130080 |
| M 9 | 1,25 | 9 | 25 | 8,86 | 8,83 | | | 2030.0D130090 |
| M 10 | 1,5 | 11 | 30 | 9,85 | 9,81 | 2020.16000100 | | 2030.0D130100 |
| M 11 | 1,5 | 11 | 30 | 10,85 | 10,81 | | | 2030.0D130111 |
| M 12 | 1,75 | 14 | 38 | 11,83 | 11,81 | 2020.16000112 | | 2030.0D130112 |
| M 14 | 2 | 14 | 38 | 13,82 | 13,78 | | | 2030.0D130114 |
| M 16 | 2 | 18 | 45 | 15,82 | 15,78 | | | 2030.0D130116 |
| M 18 | 2,5 | 18 | 45 | 17,79 | 17,75 | | | 2030.0D130118 |
| M 20 | 2,5 | 18 | 45 | 19,79 | 19,75 | | | 2030.0D130120 |
| M 22 | 2,5 | 22 | 55 | 21,79 | 21,75 | | | 2030.0D130122 |
| M 24 | 3 | 22 | 55 | 23,76 | 23,72 | | | 2030.0D130124 |
| M 27 | 3 | 25 | 65 | 26,76 | 26,72 | | | |
| M 30 | 3,5 | 25 | 65 | 29,73 | 29,7 | | | 2030.0D130130 |
| M 42 | 4,5 | 30 | 75 | 41,68 | 41,65 | | | 2030.0D130142 |




VORARBEITSDURCHMESSER d ≈
PREPARATORY DIAMETER d ≈
DIAMÈTRE DE L'EBAUCHE d ≈
DIAMETRO DI PREPARAZIONE d ≈

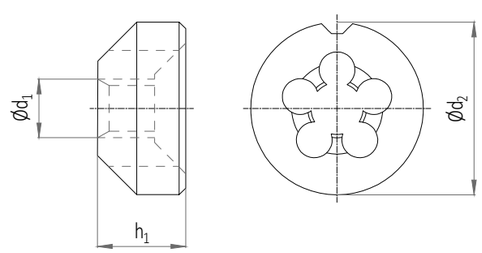



DIN EN 22568

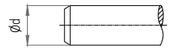
| | NORIS SE VA | NORIS SE VA | NORIS SE MS |
|---|---|---|---|
| OBERFLÄCHE · SURFACE · SURFACE · SUPERFICIE | WAC | GEL | GEL |
| SCHNEIDSTOFF · MATERIAL · MATIÈRE · MATERIALE | HSSE | HSSE | HSS |
| ANSCHNITTFORM · CHAMFER FORM · FORME D'ENTRÉE · FORMA D'IMBOCCO | 2 | 2 | 1 |
| TOLERANZ · TOLERANCE · TOLÉRANCE · TOLLERANZA | 6g | 6g | 6g |
| | RH | RH | RH |

| $d_1$ [mm] | P [mm] | $h_1$ [mm] | Ø $d_2$ [mm] | Ø d ≈ 6g [mm] | Ø d ≈ 6e [mm] | | | |
|---|---|---|---|---|---|---|---|---|
| M 1 | 0,25 | 5 | 16 | 0,97 | 0,93 | | | |
| M 1,2 | 0,25 | 5 | 16 | 1,17 | 1,13 | | | |
| M 1,4 | 0,3 | 5 | 16 | 1,36 | 1,32 | | | |
| M 1,6 | 0,35 | 5 | 16 | 1,54 | 1,51 | | | |
| M 1,8 | 0,35 | 5 | 16 | 1,74 | 1,71 | | | |
| M 2 | 0,4 | 5 | 16 | 1,93 | 1,9 | 2045.0B000020 | 2055.0B130020 | 2080.0E130020 |
| M 2,2 | 0,45 | 5 | 16 | 2,13 | 2,1 | | | |
| M 2,3 | 0,4 | 5 | 16 | 2,23 | 2,2 | | | |
| M 2,5 | 0,45 | 5 | 16 | 2,43 | 2,4 | 2045.0B000025 | 2055.0B130025 | 2080.0E130025 |
| M 3 | 0,5 | 5 | 20 | 2,92 | 2,89 | 2045.0B000030 | 2055.0B130030 | 2080.0E130030 |
| M 3,5 | 0,6 | 5 | 20 | 3,41 | 3,38 | 2045.0B000035 | 2055.0B130035 | 2080.0E130035 |
| M 4 | 0,7 | 5 | 20 | 3,9 | 3,87 | 2045.0B000040 | 2055.0B130040 | 2080.0E130040 |
| M 5 | 0,8 | 7 | 20 | 4,9 | 4,86 | 2045.0B000050 | 2055.0B130050 | 2080.0E130050 |
| M 6 | 1 | 7 | 20 | 5,88 | 5,85 | 2045.0B000060 | 2055.0B130060 | 2080.0E130060 |
| M 8 | 1,25 | 9 | 25 | 7,86 | 7,83 | 2045.0B000080 | 2055.0B130080 | 2080.0E130080 |
| M 9 | 1,25 | 9 | 25 | 8,86 | 8,83 | | | |
| M 10 | 1,5 | 11 | 30 | 9,85 | 9,81 | 2045.0B000100 | 2055.0B130100 | 2080.0E130100 |
| M 11 | 1,5 | 11 | 30 | 10,85 | 10,81 | | | |
| M 12 | 1,75 | 14 | 38 | 11,83 | 11,81 | 2045.0B000112 | 2055.0B130112 | 2080.0E130112 |
| M 14 | 2 | 14 | 38 | 13,82 | 13,78 | 2045.0B000114 | 2055.0B130114 | |
| M 16 | 2 | 18 | 45 | 15,82 | 15,78 | 2045.0B000116 | 2055.0B130116 | |
| M 18 | 2,5 | 18 | 45 | 17,79 | 17,75 | 2045.0B000118 | 2055.0B130118 | |
| M 20 | 2,5 | 18 | 45 | 19,79 | 19,75 | 2045.0B000120 | 2055.0B130120 | |
| M 22 | 2,5 | 22 | 55 | 21,79 | 21,75 | 2045.0B000122 | 2055.0B130122 | |
| M 24 | 3 | 22 | 55 | 23,76 | 23,72 | 2045.0B000124 | 2055.0B130124 | |
| M 27 | 3 | 25 | 65 | 26,76 | 26,72 | 2045.0B000127 | 2055.0B130127 | |
| M 30 | 3,5 | 25 | 65 | 29,73 | 29,7 | 2045.0B000130 | 2055.0B130130 | |
| M 42 | 4,5 | 30 | 75 | 41,68 | 41,65 | | | |





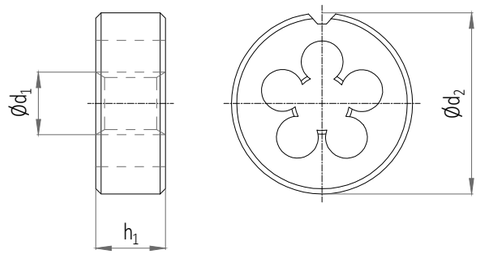

VORARBEITSDURCHMESSER d ≈
PREPARATORY DIAMETER d ≈
DIAMÈTRE DE L'EBAUCHE d ≈
DIAMETRO DI PREPARAZIONE d ≈



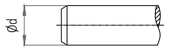

R-NORM

| | NORIS GLOCKEN SE ST |
|---|---|
| OBERFLÄCHE · SURFACE · SURFACE · SUPERFICIE | GEL |
| SCHNEIDSTOFF · MATERIAL · MATIÈRE · MATERIALE | HSS |
| ANSCHNITTFORM · CHAMFER FORM · FORME D'ENTRÉE · FORMA D'IMBOCCO | 1 |
| TOLERANZ · TOLERANCE · TOLÉRANCE · TOLLERANZA | 6g |
| | RH |

| $d_1$ [mm] | P [mm] | $h_1$ [mm] | Ø $d_2$ [mm] | Ø d ≈ 6g [mm] | Ø d ≈ 6e [mm] | |
|---|---|---|---|---|---|---|
| M 2 | 0,4 | 8 | 16 | 1,93 | 1,9 | 2230.0E130020 |
| M 2,5 | 0,45 | 8 | 16 | 2,43 | 2,4 | 2230.0E130025 |
| M 3 | 0,5 | 8 | 16 | 2,92 | 2,89 | 2230.0E130030 |
| M 4 | 0,7 | 9,5 | 16 | 3,9 | 3,87 | 2230.0E130040 |
| M 5 | 0,8 | 9,5 | 20 | 4,9 | 4,86 | 2230.0E130050 |
| M 6 | 1 | 9,5 | 20 | 5,88 | 5,85 | 2230.0E130060 |




VORARBEITSDURCHMESSER d ≈
PREPARATORY DIAMETER d ≈
DIAMÈTRE DE L'EBAUCHE d ≈
DIAMETRO DI PREPARAZIONE d ≈

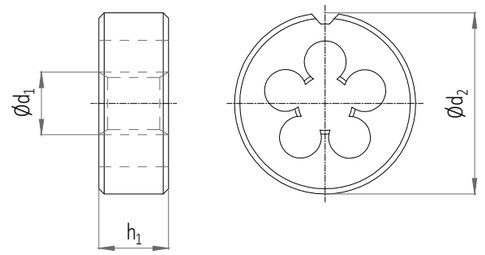



DIN EN 22568

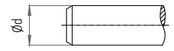
| | NORIS SE ST | NORIS SE ST | NORIS SE ST |
|---|---|---|---|
| |  |  |  |
| | | | GEL |
| OBERFLÄCHE · SURFACE · SURFACE · SUPERFICIE | WAC | WAC | GEL |
| SCHNEIDSTOFF · MATERIAL · MATIÈRE · MATERIALE | HSS | HSS | HSS |
| ANSCHNITTFORM · CHAMFER FORM · FORME D'ENTRÉE · FORMA D'IMBOCCO | 1,5 | 1,5 | 1,5 |
| TOLERANZ · TOLERANCE · TOLÉRANCE · TOLLERANZA | 6g | 6g | 6g |
| | RH | LH | RH |

| $d_1$ | x | P | $h_1$ | Ø $d_2$ | Ø d ≈ | | | |
|---|---|---|---|---|---|---|---|---|
| [mm] | | [mm] | [mm] | [mm] | 6g [mm] | | | |
| MF 2,5 | x | 0,35 | 5 | 16 | 2,44 | 2020.0D000196 | | 2030.0D130196 |
| MF 3 | x | 0,35 | 5 | 20 | 2,94 | | | 2030.0D130202 |
| MF 3,5 | x | 0,35 | 5 | 20 | 3,44 | 2020.0D000205 | | 2030.0D130205 |
| MF 4 | x | 0,35 | 5 | 20 | 3,94 | 2020.0D000209 | | 2030.0D130209 |
| MF 4 | x | 0,5 | 5 | 20 | 3,92 | 2020.0D000210 | 2020.4C000210 | |
| MF 5 | x | 0,5 | 5 | 20 | 4,92 | 2020.0D000218 | 2020.4C000218 | 2030.0D130218 |
| MF 6 | x | 0,5 | 5 | 20 | 5,92 | 2020.0D000228 | 2020.4C000228 | 2030.0D130228 |
| MF 6 | x | 0,75 | 7 | 20 | 5,9 | 2020.0D000229 | 2020.4C000229 | 2030.0D130229 |
| MF 7 | x | 0,75 | 9 | 25 | 6,9 | 2020.0D000239 | | 2030.0D130239 |
| MF 8 | x | 0,5 | 9 | 25 | 7,92 | 2020.0D000249 | | 2030.0D130249 |
| MF 8 | x | 0,75 | 9 | 25 | 7,9 | 2020.0D000250 | 2020.4C000250 | 2030.0D130250 |
| MF 8 | x | 1 | 9 | 25 | 7,88 | 2020.0D000251 | 2020.4C000251 | 2030.0D130251 |
| MF 9 | x | 0,75 | 9 | 25 | 8,9 | 2020.0D000262 | | 2030.0D130262 |
| MF 9 | x | 1 | 9 | 25 | 8,88 | 2020.0D000263 | | 2030.0D130263 |
| MF 10 | x | 0,75 | 11 | 30 | 9,9 | 2020.0D000275 | | 2030.0D130275 |
| MF 10 | x | 1 | 11 | 30 | 9,88 | 2020.0D000276 | 2020.4C000276 | |
| MF 10 | x | 1,25 | 11 | 30 | 9,86 | 2020.0D000277 | | 2030.0D130277 |
| MF 11 | x | 1 | 11 | 30 | 10,88 | 2020.0D000288 | | 2030.0D130288 |
| MF 12 | x | 1 | 10 | 38 | 11,88 | 2020.0D000301 | 2020.4C000301 | 2030.0D130301 |
| MF 12 | x | 1,25 | 10 | 38 | 11,86 | 2020.0D000302 | | 2030.0D130302 |
| MF 12 | x | 1,5 | 10 | 38 | 11,85 | 2020.0D000303 | 2020.4C000303 | 2030.0D130303 |
| MF 13 | x | 1 | 10 | 38 | 12,88 | 2020.0D000315 | | 2030.0D130315 |
| MF 14 | x | 1 | 10 | 38 | 13,88 | 2020.0D000329 | 2020.4C000329 | 2030.0D130329 |
| MF 14 | x | 1,25 | 10 | 38 | 13,96 | 2020.0D000330 | | 2030.0D130330 |
| MF 14 | x | 1,5 | 10 | 38 | 13,85 | 2020.0D000331 | 2020.4C000331 | 2030.0D130331 |
| MF 15 | x | 1 | 10 | 38 | 14,88 | 2020.0D000343 | | 2030.0D130343 |
| MF 15 | x | 1,5 | 10 | 38 | 14,85 | 2020.0D000345 | | 2030.0D130345 |





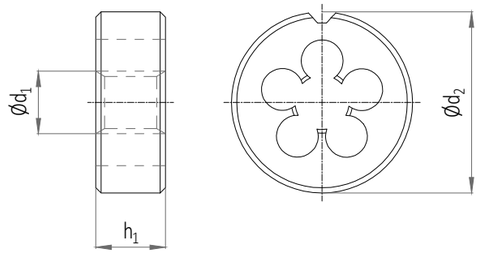

VORARBEITSDURCHMESSER d ≈
PREPARATORY DIAMETER d ≈
DIAMÈTRE DE L'EBAUCHE d ≈
DIAMETRO DI PREPARAZIONE d ≈



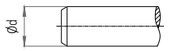

DIN EN 22568

| | NORIS SE ST | NORIS SE ST | NORIS SE ST |
|---|---|---|---|
| |  |  |  |
| | | | GEL |
| OBERFLÄCHE · SURFACE · SURFACE · SUPERFICIE | WAC | WAC | GEL |
| SCHNEIDSTOFF · MATERIAL · MATIÈRE · MATERIALE | HSS | HSS | HSS |
| ANSCHNITTFORM · CHAMFER FORM · FORME D'ENTRÉE · FORMA D'IMBOCCO | 1,5 | 1,5 | 1,5 |
| TOLERANZ · TOLERANCE · TOLÉRANCE · TOLLERANZA | 6g | 6g | 6g |
| | RH | LH | RH |

| $d_1$ | x | P | $h_1$ | Ø $d_2$ | Ø d ≈ | | | |
|---|---|---|---|---|---|---|---|---|
| [mm] | | [mm] | [mm] | [mm] | 6g [mm] | | | |
| MF 16 | x | 1 | 14 | 45 | 15,88 | 2020.0D000357 | | 2030.0D130357 |
| MF 16 | x | 1,5 | 14 | 45 | 15,85 | 2020.0D000359 | 2020.4C000359 | 2030.0D130359 |
| MF 18 | x | 1 | 14 | 45 | 17,88 | 2020.0D000388 | | 2030.0D130388 |
| MF 18 | x | 1,5 | 14 | 45 | 17,85 | 2020.0D000390 | 2020.4C000390 | 2030.0D130390 |
| MF 18 | x | 2 | 14 | 45 | 17,82 | 2020.0D000391 | | 2030.0D130391 |
| MF 20 | x | 1 | 14 | 45 | 19,88 | 2020.0D000420 | | 2030.0D130420 |
| MF 20 | x | 1,5 | 14 | 45 | 19,85 | 2020.0D000422 | 2020.4C000422 | 2030.0D130422 |
| MF 20 | x | 2 | 14 | 45 | 19,82 | 2020.0D000423 | | 2030.0D130423 |
| MF 22 | x | 1 | 16 | 55 | 21,88 | 2020.0D000436 | | 2030.0D130436 |
| MF 22 | x | 1,5 | 16 | 55 | 21,85 | 2020.0D000438 | 2020.4C000438 | 2030.0D130438 |
| MF 22 | x | 2 | 16 | 55 | 21,82 | 2020.0D000439 | | 2030.0D130439 |
| MF 24 | x | 1 | 16 | 55 | 23,88 | 2020.0D000450 | | 2030.0D130450 |
| MF 24 | x | 1,5 | 16 | 55 | 23,85 | 2020.0D000452 | 2020.4C000452 | 2030.0D130452 |
| MF 24 | x | 2 | 16 | 55 | 23,82 | 2020.0D000453 | | 2030.0D130453 |
| MF 25 | x | 1 | 16 | 55 | 24,88 | | | 2030.0D130456 |
| MF 25 | x | 1,5 | 16 | 55 | 24,85 | 2020.0D000458 | | 2030.0D130458 |
| MF 26 | x | 1,5 | 16 | 55 | 25,85 | 2020.0D000464 | | 2030.0D130464 |
| MF 27 | x | 1 | 18 | 65 | 26,88 | 2020.0D000468 | | 2030.0D130468 |
| MF 27 | x | 1,5 | 18 | 65 | 26,85 | 2020.0D000470 | | 2030.0D130470 |
| MF 27 | x | 2 | 18 | 65 | 26,82 | 2020.0D000471 | | 2030.0D130471 |
| MF 28 | x | 1 | 18 | 65 | 27,88 | | | 2030.0D130474 |
| MF 28 | x | 1,5 | 18 | 65 | 27,85 | 2020.0D000476 | | 2030.0D130476 |
| MF 30 | x | 1 | 18 | 65 | 29,88 | 2020.0D000488 | | 2030.0D130488 |
| MF 30 | x | 1,5 | 18 | 65 | 29,85 | 2020.0D000490 | | 2030.0D130490 |
| MF 30 | x | 2 | 18 | 65 | 29,82 | 2020.0D000491 | | 2030.0D130491 |




VORARBEITSDURCHMESSER d ≈
PREPARATORY DIAMETER d ≈
DIAMÈTRE DE L'EBAUCHE d ≈
DIAMETRO DI PREPARAZIONE d ≈

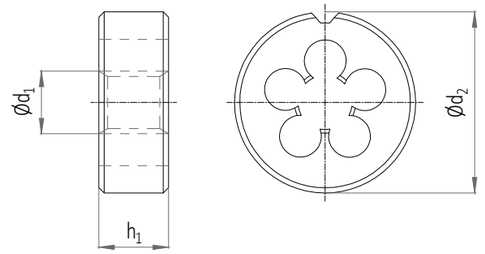



| | NORIS SE VA | NORIS SE MS |
|---|---|---|
| |  |  |
| | | GEL |
| OBERFLÄCHE · SURFACE · SURFACE · SUPERFICIE | WAC | GEL |
| SCHNEIDSTOFF · MATERIAL · MATIÈRE · MATERIALE | HSSE | HSS |
| ANSCHNITTFORM · CHAMFER FORM · FORME D'ENTRÉE · FORMA D'IMBOCCO | 2 | 1 |
| TOLERANZ · TOLERANCE · TOLÉRANCE · TOLLERANZA | 6g | 6g |
| | RH | RH |

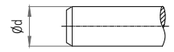
DIN EN 22568

| $d_1$ | | P | $h_1$ | Ø $d_2$ | Ø d ≈ | | |
|---|---|---|---|---|---|---|---|
| [mm] | x | [mm] | [mm] | [mm] | 6g [mm] | | |
| MF 2,5 | x | 0,35 | 5 | 16 | 2,44 | | |
| MF 3 | x | 0,35 | 5 | 20 | 2,94 | | |
| MF 3,5 | x | 0,35 | 5 | 20 | 3,44 | | |
| MF 4 | x | 0,35 | 5 | 20 | 3,94 | | |
| MF 4 | x | 0,5 | 5 | 20 | 3,92 | | |
| MF 5 | x | 0,5 | 5 | 20 | 4,92 | | |
| MF 6 | x | 0,5 | 5 | 20 | 5,92 | | 2080.0E130228 |
| MF 6 | x | 0,75 | 7 | 20 | 5,9 | 2045.0B000229 | 2080.0E130229 |
| MF 7 | x | 0,75 | 9 | 25 | 6,9 | | 2080.0E130239 |
| MF 8 | x | 0,5 | 9 | 25 | 7,92 | | |
| MF 8 | x | 0,75 | 9 | 25 | 7,9 | 2045.0B000250 | 2080.0E130250 |
| MF 8 | x | 1 | 9 | 25 | 7,88 | 2045.0B000251 | 2080.0E130251 |
| MF 9 | x | 0,75 | 9 | 25 | 8,9 | | |
| MF 9 | x | 1 | 9 | 25 | 8,88 | | |
| MF 10 | x | 0,75 | 11 | 30 | 9,9 | | 2080.0E130275 |
| MF 10 | x | 1 | 11 | 30 | 9,88 | 2045.0B000276 | 2080.0E130276 |
| MF 10 | x | 1,25 | 11 | 30 | 9,86 | | |
| MF 11 | x | 1 | 11 | 30 | 10,88 | | |
| MF 12 | x | 1 | 10 | 38 | 11,88 | 2045.0B000301 | 2080.0E130301 |
| MF 12 | x | 1,25 | 10 | 38 | 11,86 | | |
| MF 12 | x | 1,5 | 10 | 38 | 11,85 | 2045.0B000303 | |
| MF 13 | x | 1 | 10 | 38 | 12,88 | | |
| MF 14 | x | 1 | 10 | 38 | 13,88 | | 2080.0E130329 |
| MF 14 | x | 1,25 | 10 | 38 | 13,96 | | |
| MF 14 | x | 1,5 | 10 | 38 | 13,85 | 2045.0B000331 | 2080.0E130331 |
| MF 15 | x | 1 | 10 | 38 | 14,88 | | |
| MF 15 | x | 1,5 | 10 | 38 | 14,85 | | |






VORARBEITSDURCHMESSER d ≈
PREPARATORY DIAMETER d ≈
DIAMÈTRE DE L'EBAUCHE d ≈
DIAMETRO DI PREPARAZIONE d ≈

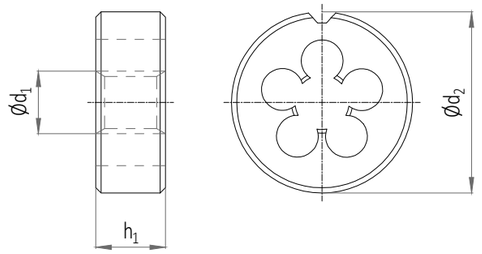



| | NORIS SE VA | NORIS SE MS |
|---|---|---|
| |  |  |
| | | GEL |
| OBERFLÄCHE · SURFACE · SURFACE · SUPERFICIE | WAC | GEL |
| SCHNEIDSTOFF · MATERIAL · MATIÈRE · MATERIALE | HSSE | HSS |
| ANSCHNITTFORM · CHAMFER FORM · FORME D'ENTRÉE · FORMA D'IMBOCCO | 2 | 1 |
| TOLERANZ · TOLERANCE · TOLÉRANCE · TOLLERANZA | 6g | 6g |
| | RH | RH |

DIN EN 22568

| $d_1$ | | P | $h_1$ | Ø $d_2$ | Ø d ≈ | | |
|---|---|---|---|---|---|---|---|
| [mm] | x | [mm] | [mm] | [mm] | 6g [mm] | | |
| MF 16 | x | 1 | 14 | 45 | 15,88 | | 2080.0E130357 |
| MF 16 | x | 1,5 | 14 | 45 | 15,85 | 2045.0B000359 | 2080.0E130359 |
| MF 18 | x | 1 | 14 | 45 | 17,88 | | |
| MF 18 | x | 1,5 | 14 | 45 | 17,85 | 2045.0B000390 | 2080.0E130390 |
| MF 18 | x | 2 | 14 | 45 | 17,82 | | |
| MF 20 | x | 1 | 14 | 45 | 19,88 | | |
| MF 20 | x | 1,5 | 14 | 45 | 19,85 | 2045.0B000422 | 2080.0E130422 |
| MF 20 | x | 2 | 14 | 45 | 19,82 | | |
| MF 22 | x | 1 | 16 | 55 | 21,88 | | 2080.0E130436 |
| MF 22 | x | 1,5 | 16 | 55 | 21,85 | 2045.0B000438 | 2080.0E130438 |
| MF 22 | x | 2 | 16 | 55 | 21,82 | | |
| MF 24 | x | 1 | 16 | 55 | 23,88 | | |
| MF 24 | x | 1,5 | 16 | 55 | 23,85 | 2045.0B000452 | 2080.0E130452 |
| MF 24 | x | 2 | 16 | 55 | 23,82 | | |
| MF 25 | x | 1 | 16 | 55 | 24,88 | | |
| MF 25 | x | 1,5 | 16 | 55 | 24,85 | | |
| MF 26 | x | 1,5 | 16 | 55 | 25,85 | | |
| MF 27 | x | 1 | 18 | 65 | 26,88 | | |
| MF 27 | x | 1,5 | 18 | 65 | 26,85 | | |
| MF 27 | x | 2 | 18 | 65 | 26,82 | | |
| MF 28 | x | 1 | 18 | 65 | 27,88 | | |
| MF 28 | x | 1,5 | 18 | 65 | 27,85 | | |
| MF 30 | x | 1 | 18 | 65 | 29,88 | | |
| MF 30 | x | 1,5 | 18 | 65 | 29,85 | | |
| MF 30 | x | 2 | 18 | 65 | 29,82 | | |

# UNC ASME B1.1





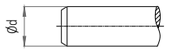

NORIS SE
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NORIS SE
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GEL

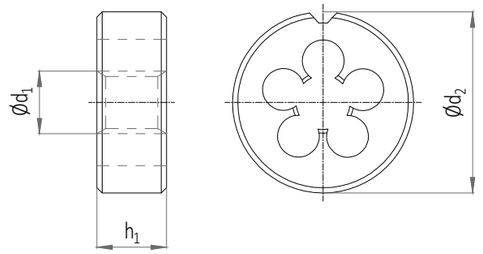
VORARBEITSDURCHMESSER d ≈
PREPARATORY DIAMETER d ≈
DIAMÈTRE DE L'EBAUCHE d ≈
DIAMETRO DI PREPARAZIONE d ≈




| OBERFLÄCHE · SURFACE · SURFACE · SUPERFICIE | | | | | | WAC | GEL |
|---|---|---|---|---|---|---|---|
| SCHNEIDSTOFF · MATERIAL · MATIÈRE · MATERIALE | | | | | | HSS | HSS |
| ANSCHNITTFORM · CHAMFER FORM · FORME D'ENTRÉE · FORMA D'IMBOCCO | | | | | | 1,5 | 1,5 |
| TOLERANZ · TOLERANCE · TOLÉRANCE · TOLLERANZA | | | | | | 2A | 2A |
| | | | | | | RH | RH |
| $d_1$ [inch] | | - | P Gg/1" [tpi] | $h_1$ [mm] | Ø $d_2$ [mm] | Ø d ≈ 2A [mm] | | |
| UNC | Nr. 1 | - | 64 | 5 | 16 | 1,79 | 2020.0D005000 | 2030.0D135000 |
| UNC | Nr. 2 | - | 56 | 5 | 16 | 2,12 | 2020.0D005001 | 2030.0D135001 |
| UNC | Nr. 3 | - | 48 | 5 | 16 | 2,44 | 2020.0D005002 | 2030.0D135002 |
| UNC | Nr. 4 | - | 40 | 5 | 20 | 2,76 | 2020.0D005003 | 2030.0D135003 |
| UNC | Nr. 5 | - | 40 | 5 | 20 | 3,09 | 2020.0D005004 | 2030.0D135004 |
| UNC | Nr. 6 | - | 32 | 7 | 20 | 3,41 | 2020.0D005005 | 2030.0D135005 |
| UNC | Nr. 8 | - | 32 | 7 | 20 | 4,07 | 2020.0D005006 | 2030.0D135006 |
| UNC | Nr. 10 | - | 24 | 7 | 20 | 4,71 | 2020.0D005007 | 2030.0D135007 |
| UNC | Nr. 12 | - | 24 | 7 | 20 | 5,37 | 2020.0D005008 | 2030.0D135008 |
| UNC | 1/4 | - | 20 | 7 | 20 | 6,22 | 2020.0D005009 | 2030.0D135009 |
| UNC | 5/16 | - | 18 | 9 | 25 | 7,8 | 2020.0D005010 | 2030.0D135010 |
| UNC | 3/8 | - | 16 | 11 | 30 | 9,37 | 2020.0D005011 | 2030.0D135011 |
| UNC | 7/16 | - | 14 | 11 | 30 | 10,95 | 2020.0D005012 | 2030.0D135012 |
| UNC | 1/2 | - | 13 | 14 | 38 | 12,52 | 2020.0D005013 | 2030.0D135013 |
| UNC | 9/16 | - | 12 | 14 | 38 | 14,1 | 2020.0D005014 | 2030.0D135014 |
| UNC | 5/8 | - | 11 | 18 | 45 | 15,68 | 2020.0D005015 | 2030.0D135015 |
| UNC | 3/4 | - | 10 | 18 | 45 | 18,84 | 2020.0D005016 | 2030.0D135016 |
| UNC | 7/8 | - | 9 | 22 | 55 | 22 | 2020.0D005017 | 2030.0D135017 |
| UNC | 1 | - | 8 | 22 | 55 | 25,16 | 2020.0D005018 | 2030.0D135018 |
| UNC | 1 1/8 | - | 7 | 25 | 65 | 28,31 | 2020.0D005019 | 2030.0D135019 |
| UNC | 1 1/4 | - | 7 | 25 | 65 | 31,49 | 2020.0D005020 | 2030.0D135020 |
| UNC | 1 3/8 | - | 6 | 25 | 65 | 34,63 | 2020.0D005021 | 2030.0D135021 |
| UNC | 1 1/2 | - | 6 | 30 | 75 | 37,8 | 2020.0D005022 | 2030.0D135022 |
| UNC | 1 3/4 | - | 5 | 36 | 90 | 44,12 | 2020.0D005023 | 2030.0D135023 |
| UNC | 2 | - | 4 1/2 | 36 | 90 | 50,45 | 2020.0D005024 | 2030.0D135024 |

DIN EN 22568

# UNF ASME B1.1





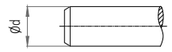

NORIS SE
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NORIS SE
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GEL

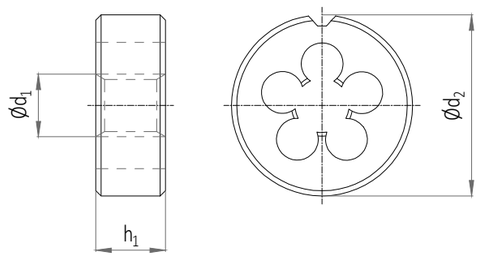
VORARBEITSDURCHMESSER d ≈
PREPARATORY DIAMETER d ≈
DIAMÈTRE DE L'EBAUCHE d ≈
DIAMETRO DI PREPARAZIONE d ≈




| OBERFLÄCHE · SURFACE · SURFACE · SUPERFICIE | | | | | | WAC | GEL |
|---|---|---|---|---|---|---|---|
| SCHNEIDSTOFF · MATERIAL · MATIÈRE · MATERIALE | | | | | | HSS | HSS |
| ANSCHNITTFORM · CHAMFER FORM · FORME D'ENTRÉE · FORMA D'IMBOCCO | | | | | | 1,5 | 1,5 |
| TOLERANZ · TOLERANCE · TOLÉRANCE · TOLLERANZA | | | | | | 2A | 2A |
| | | | | | | RH | RH |
| d1 [inch] | | - | P Gg/1" [tpi] | $h_1$ [mm] | Ø $d_2$ [mm] | Ø d ≈ 2A | | |
| UNF | Nr. 0 | - | 80 | 5 | 16 | 1,47 | 2020.0D005033 | 2030.0D135033 |
| UNF | Nr. 1 | - | 72 | 5 | 16 | 1,8 | 2020.0D005034 | 2030.0D135034 |
| UNF | Nr. 2 | - | 64 | 5 | 16 | 2,12 | 2020.0D005035 | 2030.0D135035 |
| UNF | Nr. 3 | - | 56 | 5 | 16 | 2,44 | 2020.0D005036 | 2030.0D135036 |
| UNF | Nr. 4 | - | 48 | 5 | 16 | 2,77 | 2020.0D005037 | 2030.0D135037 |
| UNF | Nr. 5 | - | 44 | 5 | 20 | 3,1 | 2020.0D005038 | 2030.0D135038 |
| UNF | Nr. 6 | - | 40 | 5 | 20 | 3,42 | 2020.0D005039 | 2030.0D135039 |
| UNF | Nr. 8 | - | 36 | 7 | 20 | 4,08 | 2020.0D005040 | 2030.0D135040 |
| UNF | Nr. 10 | - | 32 | 7 | 20 | 4,73 | 2020.0D005041 | 2030.0D135041 |
| UNF | Nr. 12 | - | 28 | 7 | 20 | 5,38 | 2020.0D005042 | 2030.0D135042 |
| UNF | 1/4 | - | 28 | 7 | 20 | 6,24 | 2020.0D005043 | 2030.0D135043 |
| UNF | 5/16 | - | 24 | 9 | 25 | 7,82 | 2020.0D005044 | 2030.0D135044 |
| UNF | 3/8 | - | 24 | 11 | 30 | 9,41 | 2020.0D005045 | 2030.0D135045 |
| UNF | 7/16 | - | 20 | 11 | 30 | 10,98 | 2020.0D005046 | 2030.0D135046 |
| UNF | 1/2 | - | 20 | 10 | 38 | 12,56 | 2020.0D005047 | 2030.0D135047 |
| UNF | 9/16 | - | 18 | 10 | 38 | 14,14 | 2020.0D005048 | 2030.0D135048 |
| UNF | 5/8 | - | 18 | 14 | 45 | 15,73 | 2020.0D005049 | 2030.0D135049 |
| UNF | 3/4 | - | 16 | 14 | 45 | 18,89 | 2020.0D005050 | 2030.0D135050 |
| UNF | 7/8 | - | 14 | 16 | 55 | 22,05 | 2020.0D005051 | 2030.0D135051 |
| UNF | 1 | - | 12 | 16 | 55 | 25,21 | 2020.0D005052 | 2030.0D135052 |
| UNF | 1 1/8 | - | 12 | 18 | 65 | 28,38 | 2020.0D005053 | 2030.0D135053 |
| UNF | 1 1/4 | - | 12 | 18 | 65 | 31,55 | 2020.0D005054 | 2030.0D135054 |
| UNF | 1 3/8 | - | 12 | 18 | 65 | 34,73 | 2020.0D005055 | 2030.0D135055 |
| UNF | 1 1/2 | - | 12 | 20 | 75 | 37,9 | 2020.0D005056 | 2030.0D135056 |

DIN EN 22568

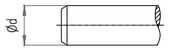
# UNEF ASME B1.1





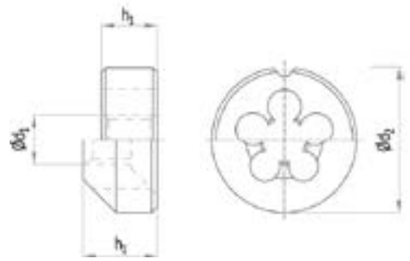



VORARBEITSDURCHMESSER d ≈
PREPARATORY DIAMETER d ≈
DIAMÈTRE DE L'EBAUCHE d ≈
DIAMETRO DI PREPARAZIONE d ≈




| | | | | | | | NORIS SE ST | NORIS SE ST |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | GEL | GEL |
| OBERFLÄCHE · SURFACE · SURFACE · SUPERFICIE | | | | | | | WAC | GEL |
| SCHNEIDSTOFF · MATERIAL · MATIÈRE · MATERIALE | | | | | | | HSS | HSS |
| ANSCHNITTFORM · CHAMFER FORM · FORME D'ENTRÉE · FORMA D'IMBOCCO | | | | | | | 1,5 | 1,5 |
| TOLERANZ · TOLERANCE · TOLÉRANCE · TOLLERANZA | | | | | | | 2A | 2A |
| | | | | | | | RH | RH |
| | $d_1$ | - | P | $h_1$ | Ø $d_2$ | Ø d ≈ | | |
| | [inch] | | Gg/1" [tpi] | [mm] | [mm] | 2A [mm] | | |
| ≈ DIN EN 22568 | UNEF Nr. 12 | - | 32 | 7 | 20 | 5,39 | 2020.0D005057 | 2030.0D135057 |
| | UNEF 1/4 | - | 32 | 7 | 20 | 6,25 | 2020.0D005058 | 2030.0D135058 |
| | UNEF 5/16 | - | 32 | 9 | 25 | 7,84 | 2020.0D005059 | 2030.0D135059 |
| | UNEF 3/8 | - | 32 | 11 | 30 | 9,42 | 2020.0D005060 | 2030.0D135060 |
| | UNEF 7/16 | - | 28 | 11 | 30 | 11 | 2020.0D005061 | 2030.0D135061 |
| | UNEF 1/2 | - | 28 | 10 | 38 | 12,59 | 2020.0D005062 | 2030.0D135062 |
| | UNEF 9/16 | - | 24 | 10 | 38 | 14,17 | 2020.0D005063 | 2030.0D135063 |
| | UNEF 5/8 | - | 24 | 14 | 45 | 15,75 | 2020.0D005064 | 2030.0D135064 |
| | UNEF 3/4 | - | 20 | 14 | 45 | 18,91 | 2020.0D005066 | 2030.0D135066 |
| | UNEF 7/8 | - | 20 | 16 | 55 | 22,09 | 2020.0D005068 | 2030.0D135068 |
| | UNEF 1 | - | 20 | 16 | 55 | 25,26 | 2020.0D005070 | 2030.0D135070 |

# G DIN EN ISO 228

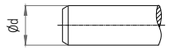









VORARBEITSDURCHMESSER d ≈
PREPARATORY DIAMETER d ≈
DIAMÈTRE DE L'EBAUCHE d ≈
DIAMETRO DI PREPARAZIONE d ≈

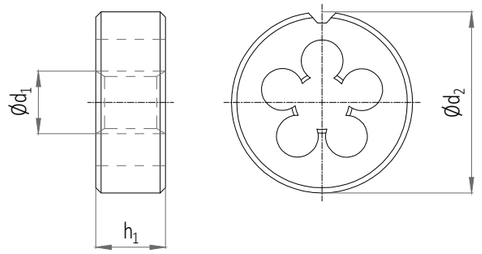



| | | | | | | | | NORIS SE ST | NORIS SE ST | NORIS SE MS | NORIS GLOCKEN SE MS |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | GEL | GEL | GEL |
| OBERFLÄCHE · SURFACE · SURFACE · SUPERFICIE | | | | | | | | WAC | GEL | GEL | GEL |
| SCHNEIDSTOFF · MATERIAL · MATIÈRE · MATERIALE | | | | | | | | HSS | HSS | HSS | HSS |
| ANSCHNITTFORM · CHAMFER FORM · FORME D'ENTRÉE · FORMA D'IMBOCCO | | | | | | | | 1,5 | 1,5 | 1 | 1 |
| TOLERANZ · TOLERANCE · TOLÉRANCE · TOLLERANZA | | | | | | | | CLASS A | CLASS A | CLASS A | CLASS A |
| | | | | | | | | RH | RH | RH | RH |
| | | $d_1$ | - | P | $h_1$ | Ø $d_2$ | Ø d ≈ | | | | |
| | | | | Gg/1" [tpi] | [mm] | [mm] | CLASS A [mm] | | | | |
| DIN EN 24231 | G | 1/8 | - | 28 | 11 | 30 | 9,62 | 2020.0D004035 | 2030.0D134035 | 2080.0E134035 | |
| | G | 1/4 | - | 19 | 10 | 38 | 13,03 | 2020.0D004036 | 2030.0D134036 | 2080.0E134036 | |
| | G | 3/8 | - | 19 | 14 | 45 | 16,54 | 2020.0D004037 | 2030.0D134037 | 2080.0E134037 | |
| | G | 1/2 | - | 14 | 14 | 45 | 20,81 | 2020.0D004038 | 2030.0D134038 | 2080.0E134038 | |
| | G | 5/8 | - | 14 | 16 | 55 | 22,77 | 2020.0D004039 | 2030.0D134039 | | |
| | G | 3/4 | - | 14 | 16 | 55 | 26,3 | 2020.0D004040 | 2030.0D134040 | 2080.0E134040 | |
| | G | 7/8 | - | 14 | 18 | 65 | 30,06 | 2020.0D004041 | 2030.0D134041 | | |
| | G | 1 | - | 11 | 18 | 65 | 33,07 | 2020.0D004042 | 2030.0D134042 | 2080.0E134042 | |
| | G | 1 1/8 | - | 11 | 20 | 75 | 37,72 | 2020.0D004043 | 2030.0D134043 | | |
| | G | 1 1/4 | - | 11 | 20 | 75 | 41,73 | 2020.0D004044 | 2030.0D134044 | 2080.0E134044 | |
| | G | 1 3/8 | - | 11 | 22 | 90 | 44,14 | 2020.0D004045 | 2030.0D134045 | | |
| | G | 1 1/2 | - | 11 | 22 | 90 | 47,62 | 2020.0D004046 | 2030.0D134046 | 2080.0E134046 | |
| | G | 1 3/4 | - | 11 | 22 | 105 | 53,57 | 2020.0D004048 | 2030.0D134048 | | |
| | G | 2 | - | 11 | 22 | 105 | 59,43 | 2020.0D004050 | 2030.0D134050 | | |
| | | $d_1$ | - | P | $h_1$ | Ø $d_2$ | Ø d ≈ | | | | |
| | | | | Gg/1" [tpi] | [mm] | [mm] | CLASS A | | | | |
| R NORM | G | 1/4 | - | 19 | 18 | 30 | 13,03 | | | | 2280.0E134036 |
| | G | 3/8 | - | 19 | 20 | 38 | 16,54 | | | | 2280.0E134037 |
| | G | 1/2 | - | 14 | 24 | 45 | 20,81 | | | | 2280.0E134038 |
| | G | 3/4 | - | 14 | 28 | 55 | 26,3 | | | | 2280.0E134040 |
| | G | 1 | - | 11 | 30 | 65 | 33,07 | | | | 2280.0E134042 |

# BSW BS 84

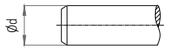
NORIS SE

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VORARBEITSDURCHMESSER d ≈
PREPARATORY DIAMETER d ≈
DIAMÈTRE DE L'EBAUCHE d ≈
DIAMETRO DI PREPARAZIONE d ≈




| | |
|---|---|
| OBERFLÄCHE · SURFACE · SURFACE · SUPERFICIE | WAC |
| SCHNEIDSTOFF · MATERIAL · MATIÈRE · MATERIALE | HSS |
| ANSCHNITTFORM · CHAMFER FORM · FORME D'ENTRÉE · FORMA D'IMBOCCO | 1,5 |
| TOLERANZ · TOLERANCE · TOLÉRANCE · TOLLERANZA | MED |
| | RH |

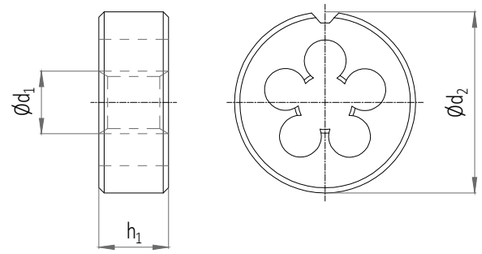
DIN EN 22568

| $d_1$ [inch] | | - | P Gg/1" [tpi] | $h_1$ [mm] | Ø $d_2$ [mm] | Ø d ≈ MED [mm] | |
|---|---|---|---|---|---|---|---|
| BSW | 1/16 | - | 60 | 5 | 16 | 1,51 | 2020.0D003044 |
| BSW | 3/32 | - | 48 | 5 | 16 | 2,3 | 2020.0D003045 |
| BSW | 1/8 | - | 40 | 5 | 20 | 3,09 | 2020.0D003046 |
| BSW | 5/32 | - | 32 | 7 | 20 | 3,88 | 2020.0D003047 |
| BSW | 3/16 | - | 24 | 7 | 20 | 4,66 | 2020.0D003048 |
| BSW | 7/32 | - | 24 | 5 | 20 | 5,46 | 2020.0D003049 |
| BSW | 1/4 | - | 20 | 7 | 20 | 6,24 | 2020.0D003050 |
| BSW | 5/16 | - | 18 | 9 | 25 | 7,82 | 2020.0D003051 |
| BSW | 3/8 | - | 16 | 11 | 30 | 9,4 | 2020.0D003052 |
| BSW | 7/16 | - | 14 | 11 | 30 | 10,98 | 2020.0D003053 |
| BSW | 1/2 | - | 12 | 14 | 38 | 12,56 | 2020.0D003054 |
| BSW | 9/16 | - | 12 | 14 | 38 | 14,14 | 2020.0D003055 |
| BSW | 5/8 | - | 11 | 18 | 45 | 15,72 | 2020.0D003056 |
| BSW | 3/4 | - | 10 | 18 | 45 | 18,86 | 2020.0D003058 |
| BSW | 7/8 | - | 9 | 22 | 55 | 22,1 | 2020.0D003060 |
| BSW | 1 | - | 8 | 22 | 55 | 25,27 | 2020.0D003062 |
| BSW | 1 1/8 | - | 7 | 25 | 65 | 28,44 | 2020.0D003063 |
| BSW | 1 1/4 | - | 7 | 25 | 65 | 31,61 | 2020.0D003064 |
| BSW | 1 3/8 | - | 6 | 25 | 65 | 34,77 | 2020.0D003065 |
| BSW | 1 1/2 | - | 6 | 30 | 75 | 37,95 | 2020.0D003066 |
| BSW | 1 3/4 | - | 5 | 36 | 90 | 44,28 | 2020.0D003068 |
| BSW | 2 | - | 4 1/2 | 36 | 90 | 50,63 | 2020.0D003070 |

# BSF BS 84

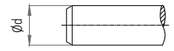
NORIS SE

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VORARBEITSDURCHMESSER d ≈
PREPARATORY DIAMETER d ≈
DIAMÈTRE DE L'EBAUCHE d ≈
DIAMETRO DI PREPARAZIONE d ≈




| | |
|---|---|
| OBERFLÄCHE · SURFACE · SURFACE · SUPERFICIE | WAC |
| SCHNEIDSTOFF · MATERIAL · MATIÈRE · MATERIALE | HSS |
| ANSCHNITTFORM · CHAMFER FORM · FORME D'ENTRÉE · FORMA D'IMBOCCO | 1,5 |
| TOLERANZ · TOLERANCE · TOLÉRANCE · TOLLERANZA | MED |
| | RH |

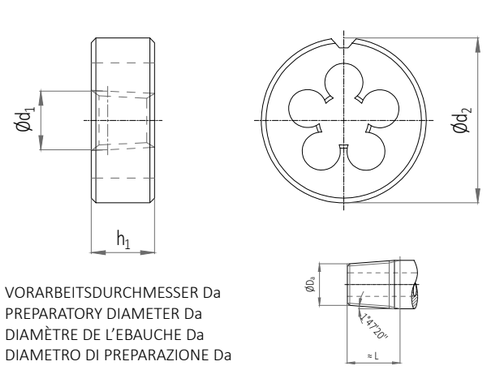
DIN EN 22568

| $d_1$ [inch] | | - | P Gg/1" [tpi] | $h_1$ [mm] | Ø $d_2$ [mm] | Ø d ≈ MED [mm] | |
|---|---|---|---|---|---|---|---|
| BSF | 3/16 | - | 32 | 7 | 20 | 4,67 | 2020.0D003088 |
| BSF | 1/4 | - | 26 | 7 | 20 | 6,25 | 2020.0D003090 |
| BSF | 5/16 | - | 22 | 9 | 25 | 7,83 | 2020.0D003092 |
| BSF | 3/8 | - | 20 | 11 | 30 | 9,41 | 2020.0D003093 |
| BSF | 7/16 | - | 18 | 11 | 30 | 10,99 | 2020.0D003094 |
| BSF | 1/2 | - | 16 | 10 | 38 | 12,57 | 2020.0D003095 |
| BSF | 5/8 | - | 14 | 14 | 45 | 15,73 | 2020.0D003097 |
| BSF | 3/4 | - | 12 | 14 | 45 | 18,89 | 2020.0D003099 |
| BSF | 7/8 | - | 11 | 16 | 55 | 22,11 | 2020.0D003101 |
| BSF | 1 | - | 10 | 22 | 55 | 25,28 | 2020.0D003102 |

# NPT ANSI/ASME B1.20.1

NORIS SE

ST




VORARBEITSDURCHMESSER Da
PREPARATORY DIAMETER Da
DIAMÈTRE DE L'EBAUCHE Da
DIAMETRO DI PREPARAZIONE Da



| | |
|---|---|
| OBERFLÄCHE · SURFACE · SURFACE · SUPERFICIE | WAC |
| SCHNEIDSTOFF · MATERIAL · MATIÈRE · MATERIALE | HSS |
| ANSCHNITTFORM · CHAMFER FORM · FORME D'ENTRÉE · FORMA D'IMBOCCO | 1,5 |
| TOLERANZ · TOLERANCE · TOLÉRANCE · TOLLERANZA | - |
| | RH |

R NORM

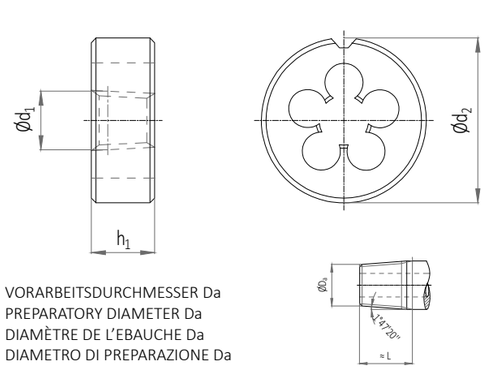
| $d_1$ | - | P Gg/1" [tpi] | $h_1$ [mm] | Ø $d_2$ [mm] | Ø $D_{a\ min.}$ [mm] | Ø $D_{a\ max.}$ [mm] | ≈ L [mm] | |
|---|---|---|---|---|---|---|---|---|
| NPT 1/16 | - | 27 | 9 | 25 | 7,52 | 7,64 | 8,3 | 2020.0D005763 |
| NPT 1/8 | - | 27 | 11 | 30 | 9,87 | 9,99 | 8,4 | 2020.0D005764 |
| NPT 1/4 | - | 18 | 14 | 38 | 13,1 | 13,26 | 12,7 | 2020.0D005765 |
| NPT 3/8 | - | 18 | 14 | 45 | 16,52 | 16,67 | 12,9 | 2020.0D005766 |
| NPT 1/2 | - | 14 | 18 | 45 | 20,55 | 20,71 | 16,8 | 2020.0D005767 |
| NPT 3/4 | - | 14 | 22 | 55 | 25,87 | 26,03 | 17 | 2020.0D005768 |
| NPT 1 | - | 11 1/2 | 25 | 65 | 32,42 | 32,59 | 21,2 | 2020.0D005769 |
| NPT 1 1/4 | - | 11 1/2 | 26 | 75 | 41,14 | 41,23 | 21,9 | 2020.0D005770 |
| NPT 1 1/2 | - | 11 1/2 | 27 | 90 | 47,21 | 47,39 | 22,3 | 2020.0D005771 |
| NPT 2 | - | 11 1/2 | 28 | 105 | 59,25 | 59,42 | 23,1 | 2020.0D005772 |

# NPTF ANSI B1.20.3

NORIS SE

ST






VORARBEITSDURCHMESSER Da
PREPARATORY DIAMETER Da
DIAMÈTRE DE L'EBAUCHE Da
DIAMETRO DI PREPARAZIONE Da

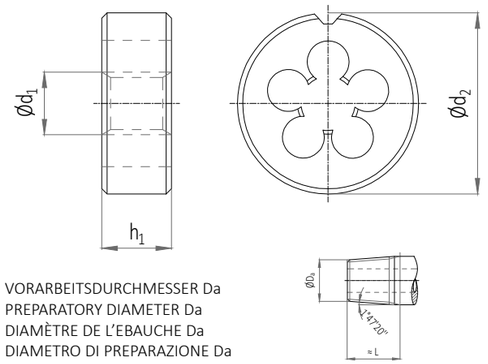
| | |
|---|---|
| OBERFLÄCHE · SURFACE · SURFACE · SUPERFICIE | WAC |
| SCHNEIDSTOFF · MATERIAL · MATIÈRE · MATERIALE | HSS |
| ANSCHNITTFORM · CHAMFER FORM · FORME D'ENTRÉE · FORMA D'IMBOCCO | 1,5 |
| TOLERANZ · TOLERANCE · TOLÉRANCE · TOLLERANZA | - |
| | RH |

R NORM

| $d_1$ | - | P Gg/1" [tpi] | $h_1$ [mm] | Ø $d_2$ [mm] | Ø $D_{a\ min.}$ [mm] | Ø $D_{a\ max.}$ [mm] | ≈ L [mm] | |
|---|---|---|---|---|---|---|---|---|
| NPTF 1/16 | - | 27 | 10 | 25 | 7,52 | 7,62 | 9,2 | 2020.0D005782 |
| NPTF 1/8 | - | 27 | 11 | 30 | 9,87 | 9,96 | 9,3 | 2020.0D005783 |
| NPTF 1/4 | - | 18 | 14 | 38 | 13,13 | 13,21 | 14,1 | 2020.0D005784 |
| NPTF 3/8 | - | 18 | 18 | 45 | 16,55 | 16,63 | 14,3 | 2020.0D005785 |
| NPTF 1/2 | - | 14 | 18 | 45 | 20,62 | 20,7 | 18,6 | 2020.0D005786 |
| NPTF 3/4 | - | 14 | 22 | 55 | 25,93 | 26,02 | 18,9 | 2020.0D005787 |
| NPTF 1 | - | 11 1/2 | 25 | 65 | 32,47 | 32,36 | 23,5 | 2020.0D005788 |

NORIS SE

ST




VORARBEITSDURCHMESSER Da
PREPARATORY DIAMETER Da
DIAMÈTRE DE L'EBAUCHE Da
DIAMETRO DI PREPARAZIONE Da



| | |
|---|---|
| OBERFLÄCHE · SURFACE · SURFACE · SUPERFICIE | WAC |
| SCHNEIDSTOFF · MATERIAL · MATIÈRE · MATERIALE | HSS |
| ANSCHNITTFORM · CHAMFER FORM · FORME D'ENTRÉE · FORMA D'IMBOCCO | 1,5 |
| TOLERANZ · TOLERANCE · TOLÉRANCE · TOLLERANZA | - |
| | RH |

≈ DIN EN 24230

| $d_1$ | - | P | $h_1$ | Ø $d_2$ | Ø $D_a$ | Tol. | ≈ L | |
|---|---|---|---|---|---|---|---|---|
| | | Gg/1" [tpi] | [mm] | [mm] | [mm] | [mm] | [mm] | |
| R 1/8 | - | 28 | 11 | 30 | 9,48 | ± 0,05 | 8,1 | 2020.0D004069 |
| R 1/4 | - | 19 | 14 | 38 | 12,78 | ± 0,08 | 12 | 2020.0D004070 |
| R 3/8 | - | 19 | 14 | 45 | 16,26 | ± 0,08 | 12,4 | 2020.0D004071 |
| R 1/2 | - | 14 | 18 | 45 | 20,44 | ± 0,11 | 16,4 | 2020.0D004072 |
| R 3/4 | - | 14 | 22 | 55 | 25,85 | ± 0,11 | 17,7 | 2020.0D004073 |
| R 1 | - | 11 | 25 | 65 | 32,6 | ± 0,14 | 20,8 | 2020.0D004074 |

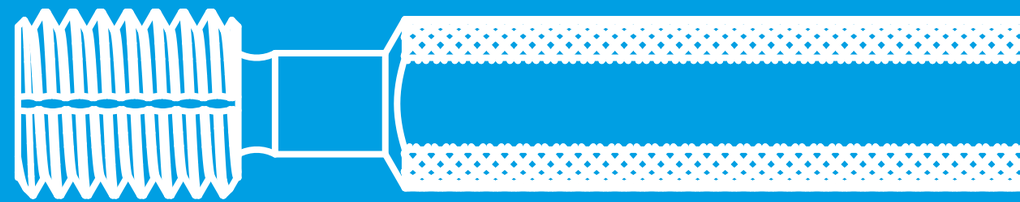
NORIS

SCHNEIDEISENHALTER · DIE STOCKS · PORTE FILIÈRES · PORTAFILIERE



DIN EN 22568

| Nr. | $h_1$ | x | Ø $d_2$ | |
|---|---|---|---|---|
| | [mm] | | [mm] | |
| 0 | 5 | x | 16 | 9990AAMAA |
| 1 | 5 | x | 20 | 9990AANAA |
| 2 | 7 | x | 20 | 9990AAPAA |
| 3 | 9 | x | 25 | 9990AAQAA |
| 4 | 11 | x | 30 | 9990AARAA |
| 5 | 10 | x | 38 | 9990AASAA |
| 6 | 14 | x | 38 | 9990AATAA |
| 7 | 14 | x | 45 | 9990AAUAA |
| 8 | 18 | x | 45 | 9990AAVAA |
| 9 | 16 | x | 55 | 9990AAWAA |
| 10 | 22 | x | 55 | 9990AAXAA |
| 11 | 18 | x | 65 | 9990AAYAA |
| 12 | 25 | x | 65 | 9990AAZAA |
| 13 | 20 | x | 75 | 9990AA0AA |
| 14 | 30 | x | 75 | 9990AA1AA |
| 15 | 22 | x | 90 | 9990AA2AA |
| 16 | 36 | x | 90 | 9990AA3AA |
| 17 | 22 | x | 105 | 9990AA4AA |
| 18 | 36 | x | 105 | 9990AA5AA |



# 07

GEWINDELEHREN
THREAD GAUGES
CALIBRES DE CONTRÔLE
CALIBRI FILETTATI

## NORIS GEW-LD

| | GR | G | A |
|---|---|---|---|
| |  |  |  |
| M | 260 | 260 | 260 |
| MF | 262 | 262 | 262 |
| UNC | 264 | 264 | 264 |
| UNF | 265 | 265 | 265 |
| G | 266 | 266 | 266 |
| NPT | 267 | | |
| NPTF | 268 | | |

## NORIS GEW-LR

| | GR | G | A |
|---|---|---|---|
| |    |  |  |
| #WERT! | | 261 | 261 |
| #WERT! | | 262 | 262 |
| #WERT! | | 264 | 264 |
| #WERT! | | 265 | 265 |
| #WERT! | | 266 | 266 |
| #WERT! | 267 | | |
| #WERT! | 268 | | |









| | NORIS GEW-LD | NORIS GEW-LD | NORIS GEW-LD | NORIS GEW-LD | NORIS GEW-LD | NORIS GEW-LD | NORIS GEW-LD |
|---|---|---|---|---|---|---|---|
| | GR | GR | GR | G | G | A | A |
| TOLERANZ · TOLERANCE · TOLÉRANCE · TOLLERANZA | 5H | 6H | 6G | 5H | 6H | 5H | 6H |
| $d_1$ [mm] | P [mm] | | | | | | |
| M 1 | 0,25 | L100.05000010 | | | L101.05000010 | | L102.05000010 | |
| M 1,1 | 0,25 | L100.05000011 | | | L101.05000011 | | L102.05000011 | |
| M 1,2 | 0,25 | L100.05000012 | | | L101.05000012 | | L102.05000012 | |
| M 1,4 | 0,3 | L100.05000014 | | | L101.05000014 | | L102.05000014 | |
| M 1,6 | 0,35 | | L100.0E000016 | | | L101.0E000016 | | L102.0E000016 |
| M 1,8 | 0,35 | | L100.0E000018 | | | L101.0E000018 | | L102.0E000018 |
| M 2 | 0,4 | | L100.0E000020 | L100.17000020 | | L101.0E000020 | | L102.0E000020 |
| M 2,2 | 0,45 | | L100.0E000022 | L100.17000022 | | L101.0E000022 | | L102.0E000022 |
| M 2,5 | 0,45 | | L100.0E000025 | L100.17000025 | | L101.0E000025 | | L102.0E000025 |
| M 3 | 0,5 | | L100.0E000030 | L100.17000030 | | L101.0E000030 | | L102.0E000030 |
| M 3,5 | 0,6 | | L100.0E000035 | L100.17000035 | | L101.0E000035 | | L102.0E000035 |
| M 4 | 0,7 | | L100.0E000040 | L100.17000040 | | L101.0E000040 | | L102.0E000040 |
| M 4,5 | 0,75 | | L100.0E000045 | | | L101.0E000045 | | L102.0E000045 |
| M 5 | 0,8 | | L100.0E000050 | L100.17000050 | | L101.0E000050 | | L102.0E000050 |
| M 6 | 1 | | L100.0E000060 | L100.17000060 | | L101.0E000060 | | L102.0E000060 |
| M 7 | 1 | | L100.0E000070 | | | L101.0E000070 | | L102.0E000070 |
| M 8 | 1,25 | | L100.0E000080 | L100.17000080 | | L101.0E000080 | | L102.0E000080 |
| M 9 | 1,25 | | L100.0E000090 | | | L101.0E000090 | | L102.0E000090 |
| M 10 | 1,5 | | L100.0E000100 | L100.17000100 | | L101.0E000100 | | L102.0E000100 |
| M 12 | 1,75 | | L100.0E000112 | L100.17000112 | | L101.0E000112 | | L102.0E000112 |
| M 14 | 2 | | L100.0E000114 | L100.17000114 | | L101.0E000114 | | L102.0E000114 |
| M 16 | 2 | | L100.0E000116 | L100.17000116 | | L101.0E000116 | | L102.0E000116 |
| M 18 | 2,5 | | L100.0E000118 | L100.17000118 | | L101.0E000118 | | L102.0E000118 |
| M 20 | 2,5 | | L100.0E000120 | L100.17000120 | | L101.0E000120 | | L102.0E000120 |
| M 22 | 2,5 | | L100.0E000122 | L100.17000122 | | L101.0E000122 | | L102.0E000122 |
| M 24 | 3 | | L100.0E000124 | L100.17000124 | | L101.0E000124 | | L102.0E000124 |
| M 27 | 3 | | L100.0E000127 | | | L101.0E000127 | | L102.0E000127 |
| M 30 | 3,5 | | L100.0E000130 | | | L101.0E000130 | | L102.0E000130 |
| M 33 | 3,5 | | L100.0E000133 | | | L101.0E000133 | | L102.0E000133 |
| M 36 | 4 | | L100.0E000136 | | | L101.0E000136 | | L102.0E000136 |
| M 39 | 4 | | L100.0E000139 | | | L101.0E000139 | | L102.0E000139 |
| M 42 | 4,5 | | | | | L101.0E000142 | | L102.0E000142 |
| M 45 | 4,5 | | | | | L101.0E000145 | | L102.0E000145 |
| M 48 | 5 | | | | | L101.0E000148 | | L102.0E000148 |
| M 52 | 5 | | | | | L101.0E000152 | | L102.0E000152 |
| M 56 | 5,5 | | | | | L101.0E000156 | | L102.0E000156 |
| M 60 | 5,5 | | | | | L101.0E000160 | | L102.0E000160 |
| M 64 | 6 | | | | | L101.0E000164 | | L102.0E000164 |
| M 68 | 6 | | | | | L101.0E000168 | | L102.0E000168 |

DIN ISO 1502

M DIN 13






| | NORIS GEW-LR | NORIS GEW-LR | NORIS GEW-LR | NORIS GEW-LR |
|---|---|---|---|---|
| | G | G | A | A |
| TOLERANZ · TOLERANCE · TOLÉRANCE · TOLLERANZA | 6h | 6g | 6h | 6g |
| $d_1$ [mm] | P [mm] | | | | |
| M 1 | 0,25 | L200.05000010 | | L201.05000010 | |
| M 1,1 | 0,25 | L200.05000011 | | L201.05000011 | |
| M 1,2 | 0,25 | L200.05000012 | | L201.05000012 | |
| M 1,4 | 0,3 | L200.05000014 | | L201.05000014 | |
| M 1,6 | 0,35 | | L200.0E000016 | | L201.0E000016 |
| M 1,8 | 0,35 | | L200.0E000018 | | L201.0E000018 |
| M 2 | 0,4 | | L200.0E000020 | | L201.0E000020 |
| M 2,2 | 0,45 | | L200.0E000022 | | L201.0E000022 |
| M 2,5 | 0,45 | | L200.0E000025 | | L201.0E000025 |
| M 3 | 0,5 | | L200.0E000030 | | L201.0E000030 |
| M 3,5 | 0,6 | | L200.0E000035 | | L201.0E000035 |
| M 4 | 0,7 | | L200.0E000040 | | L201.0E000040 |
| M 4,5 | 0,75 | | L200.0E000045 | | L201.0E000045 |
| M 5 | 0,8 | | L200.0E000050 | | L201.0E000050 |
| M 6 | 1 | | L200.0E000060 | | L201.0E000060 |
| M 7 | 1 | | L200.0E000070 | | L201.0E000070 |
| M 8 | 1,25 | | L200.0E000080 | | L201.0E000080 |
| M 9 | 1,25 | | L200.0E000090 | | L201.0E000090 |
| M 10 | 1,5 | | L200.0E000100 | | L201.0E000100 |
| M 12 | 1,75 | | L200.0E000112 | | L201.0E000112 |
| M 14 | 2 | | L200.0E000114 | | L201.0E000114 |
| M 16 | 2 | | L200.0E000116 | | L201.0E000116 |
| M 18 | 2,5 | | L200.0E000118 | | L201.0E000118 |
| M 20 | 2,5 | | L200.0E000120 | | L201.0E000120 |
| M 22 | 2,5 | | L200.0E000122 | | L201.0E000122 |
| M 24 | 3 | | L200.0E000124 | | L201.0E000124 |
| M 27 | 3 | | L200.0E000127 | | L201.0E000127 |
| M 30 | 3,5 | | L200.0E000130 | | L201.0E000130 |
| M 33 | 3,5 | | L200.0E000133 | | L201.0E000133 |
| M 36 | 4 | | L200.0E000136 | | L201.0E000136 |
| M 39 | 4 | | L200.0E000139 | | L201.0E000139 |
| M 42 | 4,5 | | L200.0E000142 | | L201.0E000142 |
| M 45 | 4,5 | | L200.0E000145 | | L201.0E000145 |
| M 48 | 5 | | L200.0E000148 | | L201.0E000148 |
| M 52 | 5 | | | | |
| M 56 | 5,5 | | | | |
| M 60 | 5,5 | | | | |

DIN ISO 1502

DIN ISO 1502

| | NORIS GEW-LD GR | NORIS GEW-LD G | NORIS GEW-LD A | NORIS GEW-LR G | NORIS GEW-LR A |
|---|---|---|---|---|---|
| |  |  |  |  |  |
| TOLERANZ · TOLERANCE · TOLÉRANCE · TOLLERANZA | 6H | 6H | 6H | 6g | 6g |
| $d_1$ x P [mm] [mm] | | | | | |
| MF 2,5 x 0,35 | L100.0E000196 | L101.0E000196 | L102.0E000196 | L200.0E000196 | L201.0E000196 |
| MF 3 x 0,35 | L100.0E000202 | L101.0E000202 | L102.0E000202 | L200.0E000202 | L201.0E000202 |
| MF 3,5 x 0,35 | L100.0E000205 | L101.0E000205 | L102.0E000205 | L200.0E000205 | L201.0E000205 |
| MF 4 x 0,35 | L100.0E000209 | L101.0E000209 | L102.0E000209 | L200.0E000209 | L201.0E000209 |
| MF 4 x 0,5 | L100.0E000210 | L101.0E000210 | L102.0E000210 | L200.0E000210 | L201.0E000210 |
| MF 4,5 x 0,5 | L100.0E000214 | L101.0E000214 | L102.0E000214 | L200.0E000214 | L201.0E000214 |
| MF 5 x 0,5 | L100.0E000218 | L101.0E000218 | L102.0E000218 | L200.0E000218 | L201.0E000218 |
| MF 6 x 0,5 | L100.0E000228 | L101.0E000228 | L102.0E000228 | L200.0E000228 | L201.0E000228 |
| MF 6 x 0,75 | L100.0E000229 | L101.0E000229 | L102.0E000229 | L200.0E000229 | L201.0E000229 |
| MF 7 x 0,75 | L100.0E000239 | L101.0E000239 | L102.0E000239 | L200.0E000239 | L201.0E000239 |
| MF 8 x 0,5 | L100.0E000249 | L101.0E000249 | L102.0E000249 | L200.0E000249 | L201.0E000249 |
| MF 8 x 0,75 | L100.0E000250 | L101.0E000250 | L102.0E000250 | L200.0E000250 | L201.0E000250 |
| MF 8 x 1 | L100.0E000251 | L101.0E000251 | L102.0E000251 | L200.0E000251 | L201.0E000251 |
| MF 9 x 1 | L100.0E000263 | L101.0E000263 | L102.0E000263 | L200.0E000263 | L201.0E000263 |
| MF 10 x 0,75 | L100.0E000275 | L101.0E000275 | L102.0E000275 | L200.0E000275 | L201.0E000275 |
| MF 10 x 1 | L100.0E000276 | L101.0E000276 | L102.0E000276 | L200.0E000276 | L201.0E000276 |
| MF 10 x 1,25 | L100.0E000277 | L101.0E000277 | L102.0E000277 | L200.0E000277 | L201.0E000277 |
| MF 11 x 1 | L100.0E000288 | L101.0E000288 | L102.0E000288 | L200.0E000288 | L201.0E000288 |
| MF 12 x 1 | L100.0E000301 | L101.0E000301 | L102.0E000301 | L200.0E000301 | L201.0E000301 |
| MF 12 x 1,25 | L100.0E000302 | L101.0E000302 | L102.0E000302 | L200.0E000302 | L201.0E000302 |
| MF 12 x 1,5 | L100.0E000303 | L101.0E000303 | L102.0E000303 | L200.0E000303 | L201.0E000303 |
| MF 13 x 1 | L100.0E000315 | L101.0E000315 | L102.0E000315 | L200.0E000315 | L201.0E000315 |
| MF 13 x 1,5 | L100.0E000317 | L101.0E000317 | L102.0E000317 | L200.0E000317 | L201.0E000317 |
| MF 14 x 1 | L100.0E000329 | L101.0E000329 | L102.0E000329 | L200.0E000329 | L201.0E000329 |
| MF 14 x 1,25 | L100.0E000330 | L101.0E000330 | L102.0E000330 | L200.0E000330 | L201.0E000330 |
| MF 14 x 1,5 | L100.0E000331 | L101.0E000331 | L102.0E000331 | L200.0E000331 | L201.0E000331 |
| MF 15 x 1 | L100.0E000343 | L101.0E000343 | L102.0E000343 | L200.0E000343 | L201.0E000343 |
| MF 15 x 1,5 | L100.0E000345 | L101.0E000345 | L102.0E000345 | L200.0E000345 | L201.0E000345 |
| MF 16 x 1 | L100.0E000357 | L101.0E000357 | L102.0E000357 | L200.0E000357 | L201.0E000357 |
| MF 16 x 1,5 | L100.0E000359 | L101.0E000359 | L102.0E000359 | L200.0E000359 | L201.0E000359 |
| MF 17 x 1 | L100.0E000372 | L101.0E000372 | L102.0E000372 | L200.0E000372 | L201.0E000372 |
| MF 17 x 1,5 | L100.0E000374 | L101.0E000374 | L102.0E000374 | L200.0E000374 | L201.0E000374 |
| MF 18 x 1 | L100.0E000388 | L101.0E000388 | L102.0E000388 | L200.0E000388 | L201.0E000388 |
| MF 18 x 1,5 | L100.0E000390 | L101.0E000390 | L102.0E000390 | L200.0E000390 | L201.0E000390 |
| MF 18 x 2 | L100.0E000391 | L101.0E000391 | L102.0E000391 | L200.0E000391 | L201.0E000391 |
| MF 20 x 1 | L100.0E000420 | L101.0E000420 | L102.0E000420 | L200.0E000420 | L201.0E000420 |
| MF 20 x 1,5 | L100.0E000422 | L101.0E000422 | L102.0E000422 | L200.0E000422 | L201.0E000422 |
| MF 20 x 2 | L100.0E000423 | L101.0E000423 | L102.0E000423 | L200.0E000423 | L201.0E000423 |
| MF 22 x 1 | L100.0E000436 | L101.0E000436 | L102.0E000436 | L200.0E000436 | L201.0E000436 |
| MF 22 x 1,5 | L100.0E000438 | L101.0E000438 | L102.0E000438 | L200.0E000438 | L201.0E000438 |
| MF 22 x 2 | L100.0E000439 | L101.0E000439 | L102.0E000439 | L200.0E000439 | L201.0E000439 |
| MF 24 x 1 | L100.0E000450 | L101.0E000450 | L102.0E000450 | L200.0E000450 | L201.0E000450 |
| MF 24 x 1,5 | L100.0E000452 | L101.0E000452 | L102.0E000452 | L200.0E000452 | L201.0E000452 |
| MF 24 x 2 | L100.0E000453 | L101.0E000453 | L102.0E000453 | L200.0E000453 | L201.0E000453 |
| MF 25 x 1 | L100.0E000456 | L101.0E000456 | L102.0E000456 | L200.0E000456 | L201.0E000456 |
| MF 25 x 1,5 | L100.0E000458 | L101.0E000458 | L102.0E000458 | L200.0E000458 | L201.0E000458 |
| MF 25 x 2 | L100.0E000459 | L101.0E000459 | L102.0E000459 | L200.0E000459 | L201.0E000459 |
| MF 26 x 1 | L100.0E000462 | L101.0E000462 | L102.0E000462 | L200.0E000462 | L201.0E000462 |
| MF 26 x 1,5 | L100.0E000464 | L101.0E000464 | L102.0E000464 | L200.0E000464 | L201.0E000464 |
| MF 26 x 2 | L100.0E000465 | L101.0E000465 | L102.0E000465 | L200.0E000465 | L201.0E000465 |
| MF 27 x 1 | L100.0E000468 | L101.0E000468 | L102.0E000468 | L200.0E000468 | L201.0E000468 |
| MF 27 x 1,5 | L100.0E000470 | L101.0E000470 | L102.0E000470 | L200.0E000470 | L201.0E000470 |
| MF 27 x 2 | L100.0E000471 | L101.0E000471 | L102.0E000471 | L200.0E000471 | L201.0E000471 |

MF DIN 13

DIN ISO 1502

| | NORIS GEW-LD GR | NORIS GEW-LD G | NORIS GEW-LD A | NORIS GEW-LR G | NORIS GEW-LR A |
|---|---|---|---|---|---|
| |  |  |  |  |  |
| TOLERANZ · TOLERANCE · TOLÉRANCE · TOLLERANZA | 6H | 6H | 6H | 6g | 6g |
| $d_1$ x P [mm] [mm] | | | | | |
| MF 28 x 1 | L100.0E000474 | L101.0E000474 | L102.0E000474 | L200.0E000474 | L201.0E000474 |
| MF 28 x 1,5 | L100.0E000476 | L101.0E000476 | L102.0E000476 | L200.0E000476 | L201.0E000476 |
| MF 28 x 2 | L100.0E000477 | L101.0E000477 | L102.0E000477 | L200.0E000477 | L201.0E000477 |
| MF 30 x 1 | L100.0E000488 | L101.0E000488 | L102.0E000488 | L200.0E000488 | L201.0E000488 |
| MF 30 x 1,5 | L100.0E000490 | L101.0E000490 | L102.0E000490 | L200.0E000490 | L201.0E000490 |
| MF 30 x 2 | L100.0E000491 | L101.0E000491 | L102.0E000491 | L200.0E000491 | L201.0E000491 |
| MF 30 x 3 | L100.0E000492 | L101.0E000492 | L102.0E000492 | | |
| MF 32 x 1 | L100.0E000502 | L101.0E000502 | L102.0E000502 | | |
| MF 32 x 1,5 | L100.0E000504 | L101.0E000504 | L102.0E000504 | | |
| MF 32 x 2 | L100.0E000505 | L101.0E000505 | L102.0E000505 | | |
| MF 33 x 1 | L100.0E000509 | L101.0E000509 | L102.0E000509 | | |
| MF 33 x 1,5 | L100.0E000511 | L101.0E000511 | L102.0E000511 | | |
| MF 33 x 2 | L100.0E000512 | L101.0E000512 | L102.0E000512 | | |
| MF 33 x 3 | L100.0E000513 | L101.0E000513 | L102.0E000513 | | |
| MF 34 x 1 | L100.0E000516 | L101.0E000516 | L102.0E000516 | | |
| MF 34 x 1,5 | L100.0E000518 | L101.0E000518 | L102.0E000518 | | |
| MF 34 x 2 | L100.0E000519 | L101.0E000519 | L102.0E000519 | | |
| MF 35 x 1 | L100.0E000523 | L101.0E000523 | L102.0E000523 | | |
| MF 35 x 1,5 | L100.0E000525 | L101.0E000525 | L102.0E000525 | | |
| MF 35 x 2 | L100.0E000526 | L101.0E000526 | L102.0E000526 | | |
| MF 36 x 1 | L100.0E000530 | L101.0E000530 | L102.0E000530 | | |
| MF 36 x 1,5 | L100.0E000532 | L101.0E000532 | L102.0E000532 | | |
| MF 36 x 2 | L100.0E000533 | L101.0E000533 | L102.0E000533 | | |
| MF 36 x 3 | L100.0E000534 | L101.0E000534 | L102.0E000534 | | |
| MF 38 x 1 | L100.0E000544 | L101.0E000544 | L102.0E000544 | | |
| MF 38 x 2 | L100.0E000547 | L101.0E000547 | L102.0E000547 | | |
| MF 39 x 1 | L100.0E000551 | L101.0E000551 | L102.0E000551 | | |
| MF 39 x 1,5 | L100.0E000553 | L101.0E000553 | L102.0E000553 | | |
| MF 39 x 2 | L100.0E000554 | L101.0E000554 | L102.0E000554 | | |
| MF 40 x 1 | L100.0E000558 | L101.0E000558 | L102.0E000558 | | |
| MF 40 x 1,5 | L100.0E000560 | L101.0E000560 | L102.0E000560 | | |
| MF 40 x 2 | L100.0E000561 | L101.0E000561 | L102.0E000561 | | |
| MF 40 x 3 | L100.0E000562 | L101.0E000562 | L102.0E000562 | | |
| MF 42 x 1 | | L101.0E000572 | L102.0E000572 | | |
| MF 42 x 1,5 | | L101.0E000574 | L102.0E000574 | | |
| MF 42 x 2 | | L101.0E000575 | L102.0E000575 | | |
| MF 42 x 3 | | L101.0E000576 | L102.0E000576 | | |
| MF 45 x 1 | | L101.0E000593 | L102.0E000593 | | |
| MF 45 x 1,5 | | L101.0E000595 | L102.0E000595 | | |
| MF 45 x 2 | | L101.0E000596 | L102.0E000596 | | |
| MF 45 x 3 | | L101.0E000597 | L102.0E000597 | | |
| MF 48 x 1 | | L101.0E000614 | L102.0E000614 | | |
| MF 48 x 1,5 | | L101.0E000616 | L102.0E000616 | | |
| MF 48 x 2 | | L101.0E000617 | L102.0E000617 | | |
| MF 48 x 3 | | L101.0E000618 | L102.0E000618 | | |
| MF 50 x 1 | | L101.0E000628 | L102.0E000628 | | |
| MF 50 x 1,5 | | L101.0E000630 | L102.0E000630 | | |
| MF 50 x 2 | | L101.0E000631 | L102.0E000631 | | |
| MF 50 x 3 | | L101.0E000632 | L102.0E000632 | | |
| MF 52 x 1 | | L101.0E000642 | L102.0E000642 | | |
| MF 52 x 1,5 | | L101.0E000644 | L102.0E000644 | | |
| MF 52 x 2 | | L101.0E000645 | L102.0E000645 | | |
| MF 52 x 3 | | L101.0E000646 | L102.0E000646 | | |

# UNC ASME B1.1

| | NORIS GEW-LD GR | NORIS GEW-LD G | NORIS GEW-LD A | NORIS GEW-LR G | NORIS GEW-LR A |
|---|---|---|---|---|---|
| |  |  |  |  |  |
| TOLERANZ · TOLERANCE · TOLÉRANCE · TOLLERANZA | 2B | 2B | 2B | 2A | 2A |
| $d_1$ - P [inch] Gg/1“ [tpi] | | | | | |
| UNC Nr. 1 - 64 | L100.0E005000 | L101.0E005000 | L102.0E005000 | L200.0E005000 | L201.0E005000 |
| UNC Nr. 2 - 56 | L100.0E005001 | L101.0E005001 | L102.0E005001 | L200.0E005001 | L201.0E005001 |
| UNC Nr. 3 - 48 | L100.0E005002 | L101.0E005002 | L102.0E005002 | L200.0E005002 | L201.0E005002 |
| UNC Nr. 4 - 40 | L100.0E005003 | L101.0E005003 | L102.0E005003 | L200.0E005003 | L201.0E005003 |
| UNC Nr. 5 - 40 | L100.0E005004 | L101.0E005004 | L102.0E005004 | L200.0E005004 | L201.0E005004 |
| UNC Nr. 6 - 32 | L100.0E005005 | L101.0E005005 | L102.0E005005 | L200.0E005005 | L201.0E005005 |
| UNC Nr. 8 - 32 | L100.0E005006 | L101.0E005006 | L102.0E005006 | L200.0E005006 | L201.0E005006 |
| UNC Nr. 10 - 24 | L100.0E005007 | L101.0E005007 | L102.0E005007 | L200.0E005007 | L201.0E005007 |
| UNC Nr. 12 - 24 | L100.0E005008 | L101.0E005008 | L102.0E005008 | L200.0E005008 | L201.0E005008 |
| UNC 1/4 - 20 | L100.0E005009 | L101.0E005009 | L102.0E005009 | L200.0E005009 | L201.0E005009 |
| UNC 5/16 - 18 | L100.0E005010 | L101.0E005010 | L102.0E005010 | L200.0E005010 | L201.0E005010 |
| UNC 3/8 - 16 | L100.0E005011 | L101.0E005011 | L102.0E005011 | L200.0E005011 | L201.0E005011 |
| UNC 7/16 - 14 | L100.0E005012 | L101.0E005012 | L102.0E005012 | L200.0E005012 | L201.0E005012 |
| UNC 1/2 - 13 | L100.0E005013 | L101.0E005013 | L102.0E005013 | L200.0E005013 | L201.0E005013 |
| UNC 9/16 - 12 | L100.0E005014 | L101.0E005014 | L102.0E005014 | L200.0E005014 | L201.0E005014 |
| UNC 5/8 - 11 | L100.0E005015 | L101.0E005015 | L102.0E005015 | L200.0E005015 | L201.0E005015 |
| UNC 3/4 - 10 | L100.0E005016 | L101.0E005016 | L102.0E005016 | L200.0E005016 | L201.0E005016 |
| UNC 7/8 - 9 | L100.0E005017 | L101.0E005017 | L102.0E005017 | L200.0E005017 | L201.0E005017 |
| UNC 1 - 8 | L100.0E005018 | L101.0E005018 | L102.0E005018 | L200.0E005018 | L201.0E005018 |
| UNC 1 1/8 - 7 | L100.0E005019 | L101.0E005019 | L102.0E005019 | L200.0E005019 | L201.0E005019 |
| UNC 1 1/4 - 7 | L100.0E005020 | L101.0E005020 | L102.0E005020 | L200.0E005020 | L201.0E005020 |
| UNC 1 3/8 - 6 | L100.0E005021 | L101.0E005021 | L102.0E005021 | L200.0E005021 | L201.0E005021 |
| UNC 1 1/2 - 6 | L100.0E005022 | L101.0E005022 | L102.0E005022 | L200.0E005022 | L201.0E005022 |
| UNC 1 3/4 - 5 | | L101.0E005023 | L102.0E005023 | L200.0E005023 | L201.0E005023 |
| UNC 2 - 4 1/2 | | L101.0E005024 | L102.0E005024 | L200.0E005024 | L201.0E005024 |

ANSI/ASME B1.2

# UNF ASME B1.1

| | NORIS GEW-LD GR | NORIS GEW-LD G | NORIS GEW-LD A | NORIS GEW-LR G | NORIS GEW-LR A |
|---|---|---|---|---|---|
| |  |  |  |  |  |
| TOLERANZ · TOLERANCE · TOLÉRANCE · TOLLERANZA | 2B | 2B | 2B | 2A | 2A |
| $d_1$ - P [inch] Gg/1“ [tpi] | | | | | |
| UNF Nr. 0 - 80 | L100.0E005033 | L101.0E005033 | L102.0E005033 | L200.0E005033 | L201.0E005033 |
| UNF Nr. 1 - 72 | L100.0E005034 | L101.0E005034 | L102.0E005034 | L200.0E005034 | L201.0E005034 |
| UNF Nr. 2 - 64 | L100.0E005035 | L101.0E005035 | L102.0E005035 | L200.0E005035 | L201.0E005035 |
| UNF Nr. 3 - 56 | L100.0E005036 | L101.0E005036 | L102.0E005036 | L200.0E005036 | L201.0E005036 |
| UNF Nr. 4 - 48 | L100.0E005037 | L101.0E005037 | L102.0E005037 | L200.0E005037 | L201.0E005037 |
| UNF Nr. 5 - 44 | L100.0E005038 | L101.0E005038 | L102.0E005038 | L200.0E005038 | L201.0E005038 |
| UNF Nr. 6 - 40 | L100.0E005039 | L101.0E005039 | L102.0E005039 | L200.0E005039 | L201.0E005039 |
| UNF Nr. 8 - 36 | L100.0E005040 | L101.0E005040 | L102.0E005040 | L200.0E005040 | L201.0E005040 |
| UNF Nr. 10 - 32 | L100.0E005041 | L101.0E005041 | L102.0E005041 | L200.0E005041 | L201.0E005041 |
| UNF Nr. 12 - 28 | L100.0E005042 | L101.0E005042 | L102.0E005042 | L200.0E005042 | L201.0E005042 |
| UNF 1/4 - 28 | L100.0E005043 | L101.0E005043 | L102.0E005043 | L200.0E005043 | L201.0E005043 |
| UNF 5/16 - 24 | L100.0E005044 | L101.0E005044 | L102.0E005044 | L200.0E005044 | L201.0E005044 |
| UNF 3/8 - 24 | L100.0E005045 | L101.0E005045 | L102.0E005045 | L200.0E005045 | L201.0E005045 |
| UNF 7/16 - 20 | L100.0E005046 | L101.0E005046 | L102.0E005046 | L200.0E005046 | L201.0E005046 |
| UNF 1/2 - 20 | L100.0E005047 | L101.0E005047 | L102.0E005047 | L200.0E005047 | L201.0E005047 |
| UNF 9/16 - 18 | L100.0E005048 | L101.0E005048 | L102.0E005048 | L200.0E005048 | L201.0E005048 |
| UNF 5/8 - 18 | L100.0E005049 | L101.0E005049 | L102.0E005049 | L200.0E005049 | L201.0E005049 |
| UNF 3/4 - 16 | L100.0E005050 | L101.0E005050 | L102.0E005050 | L200.0E005050 | L201.0E005050 |
| UNF 7/8 - 14 | L100.0E005051 | L101.0E005051 | L102.0E005051 | L200.0E005051 | L201.0E005051 |
| UNF 1 - 12 | L100.0E005052 | L101.0E005052 | L102.0E005052 | L200.0E005052 | L201.0E005052 |
| UNF 1 1/8 - 12 | L100.0E005053 | L101.0E005053 | L102.0E005053 | L200.0E005053 | L201.0E005053 |
| UNF 1 1/4 - 12 | L100.0E005054 | L101.0E005054 | L102.0E005054 | L200.0E005054 | L201.0E005054 |
| UNF 1 3/8 - 12 | L100.0E005055 | L101.0E005055 | L102.0E005055 | L200.0E005055 | L201.0E005055 |
| UNF 1 1/2 - 12 | L100.0E005056 | L101.0E005056 | L102.0E005056 | L200.0E005056 | L201.0E005056 |

ANSI/ASME B1.2

# G DIN EN ISO 228

| | | | | NORIS GEW-LD GR | NORIS GEW-LD G | NORIS GEW-LD A | NORIS GEW-LR G | NORIS GEW-LR A |
|---|---|---|---|---|---|---|---|---|
| | | | |  |  |  |  |  |
| TOLERANZ · TOLERANCE · TOLÉRANCE · TOLLERANZA | | | | - | - | - | A | A |
| | $d_1$ | - | P Gg/1“ [tpi] | | | | | |
| G | 1/16 | - | 28 | L100.0E004034 | L101.0E004034 | L102.0E004034 | | |
| G | 1/8 | - | 28 | L100.0E004035 | L101.0E004035 | L102.0E004035 | L200.0E004035 | L201.0E004035 |
| G | 1/4 | - | 19 | L100.0E004036 | L101.0E004036 | L102.0E004036 | L200.0E004036 | L201.0E004036 |
| G | 3/8 | - | 19 | L100.0E004037 | L101.0E004037 | L102.0E004037 | L200.0E004037 | L201.0E004037 |
| G | 1/2 | - | 14 | L100.0E004038 | L101.0E004038 | L102.0E004038 | L200.0E004038 | L201.0E004038 |
| G | 5/8 | - | 14 | L100.0E004039 | L101.0E004039 | L102.0E004039 | L200.0E004039 | L201.0E004039 |
| G | 3/4 | - | 14 | L100.0E004040 | L101.0E004040 | L102.0E004040 | L200.0E004040 | L201.0E004040 |
| G | 7/8 | - | 14 | L100.0E004041 | L101.0E004041 | L102.0E004041 | L200.0E004041 | L201.0E004041 |
| G | 1 | - | 11 | L100.0E004042 | L101.0E004042 | L102.0E004042 | L200.0E004042 | L201.0E004042 |
| G | 1 1/8 | - | 11 | L100.0E004043 | L101.0E004043 | L102.0E004043 | L200.0E004043 | L201.0E004043 |
| G | 1 1/4 | - | 11 | | L101.0E004044 | L102.0E004044 | L200.0E004044 | L201.0E004044 |
| G | 1 1/2 | - | 11 | | L101.0E004046 | L102.0E004046 | L200.0E004046 | L201.0E004046 |
| G | 1 3/4 | - | 11 | | L101.0E004048 | L102.0E004048 | L200.0E004048 | L201.0E004048 |
| G | 2 | - | 11 | | L101.0E004050 | L102.0E004050 | L200.0E004050 | L201.0E004050 |

DIN EN ISO 228-2

# NPT ANSI/ASME B1.20.1

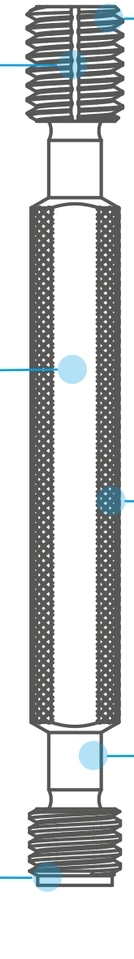
| | | | | NORIS GEW-LD GR | NORIS GEW-LR GR |
|---|---|---|---|---|---|
| | | | |  |  |
| TOLERANZ · TOLERANCE · TOLÉRANCE · TOLLERANZA | | | | - | - |
| | $d_1$ | - | P Gg/1“ [tpi] | | |
| NPT | 1/16 | - | 27 | L100.0E005763 | L202.0E005763 |
| NPT | 1/8 | - | 27 | L100.0E005764 | L202.0E005764 |
| NPT | 1/4 | - | 18 | L100.0E005765 | L202.0E005765 |
| NPT | 3/8 | - | 18 | L100.0E005766 | L202.0E005766 |
| NPT | 1/2 | - | 14 | L100.0E005767 | L202.0E005767 |
| NPT | 3/4 | - | 14 | L100.0E005768 | L202.0E005768 |
| NPT | 1 | - | 11 1/2 | L100.0E005769 | L202.0E005769 |

~ANSI/ASME B1.20.1

# NPTF ANSI B1.20.3

| | | | | NORIS GEW-LD | NORIS GEW-LR |
|---|---|---|---|---|---|
| | | | | GR | GR |
| | | | |  |  |
| TOLERANZ · TOLERANCE · TOLÉRANCE · TOLLERANZA | | | | - | - |
| | $d_1$ | - | P Gg/1“ [tpi] | | |
| ASME B1.20.5 | NPTF 1/16 | - | 27 | L100.0E005782 | L202.0E005782 |
| | NPTF 1/8 | - | 27 | L100.0E005783 | L202.0E005783 |
| | NPTF 1/4 | - | 18 | L100.0E005784 | L202.0E005784 |
| | NPTF 3/8 | - | 18 | L100.0E005785 | L202.0E005785 |
| | NPTF 1/2 | - | 14 | L100.0E005786 | L202.0E005786 |
| | NPTF 3/4 | - | 14 | L100.0E005787 | L202.0E005787 |
| | NPTF 1 | - | 11 1/2 | L100.0E005788 | L202.0E005788 |

## TECHNISCHER TEIL / TECHNICAL PART / PARTIE TECHNIQUE / PARTE TECNICA



**Unvollständige Gewindegänge wurden entfernt**
Incomplete threads removed
Les filetages incomplets sont éliminés
Rimozione delle filettature incomplete

**Ab ø 5,5 mm erhält jeder Gutlehrdorn eine Schmutznut**
From ø 5.5 mm, each plug gauge has a dirt flute
A partir de ø 5,5 mm, chaque jauge de bouchon est dotée d'une cannelure de salissure
A partire da ø 5,5 mm, ogni tampone ha una scanalatura per lo sporco

**Lehrengriff mit 2 Beschriftungsflächen**
Gauge handle with 2 marking surfaces
Poignée de jauge avec 2 surfaces de marquage
Impugnatura del calibro con 2 superfici di marcatura

**Gerändelter Griff**
Knurled handle
Poignée moletée
Impugnatura zigrinata

**Eindeutige Ident-Nr.**
Unique ID no.
Numéro d'identification unique
Numero identificativo univoco

**Farbkennzeichnung**
Color coding
Code couleur
Codifica a colori

**Einführansatz**
Entry neck
Col d'entrée
Collo di ingresso

### Kundennutzen
- Gealterter Lehrenstahl, dadurch sehr maßstabil
- Härte deutlich über dem genormten Mindestwert
- Sonderkonstruktionen auf Anfrage
- Auf Wunsch mit Werkskalibrierschein
- Beschriftung von kundenspezifischen Angaben möglich

### Customer benefits
- Aged gauge steel, therefore very dimensionally stable
- Hardness above the standardized minimum value
- Special designs on request
- With factory calibration certificate on request
- Marking of customer-specific details possible

### Avantages pour le client
- Acier de calibre vieilli, donc très stable sur le plan dimensionnel
- Dureté supérieure à la valeur minimale normalisée
- Modèles spéciaux sur demande
- Avec certificat d'étalonnage d'usine sur demande
- Possibilité de marquage de détails spécifiques au client

### Vantaggi per il cliente
- Acciaio di calibro invecchiato, quindi molto stabile dal punto di vista dimensionale
- Durezza superiore al valore minimo standardizzato
- Design speciali su richiesta
- Con certificato di calibrazione di fabbrica su richiesta
- Possibilità di contrassegnare i dettagli specifici del cliente



# 08

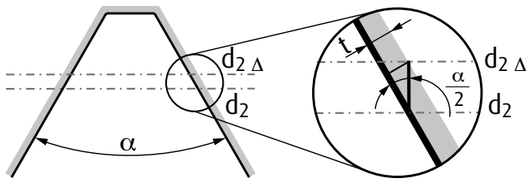
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GENERAL INFORMATIONS
INFORMATIONS GÉNÉRALES
INFORMAZIONI GENERALI

## HERSTELLERTOLERANZEN / MANUFACTURING TOLERANCES / TOLÉRANCES DE FABRICATION / TOLLERANZE DI COSTRUZIONE

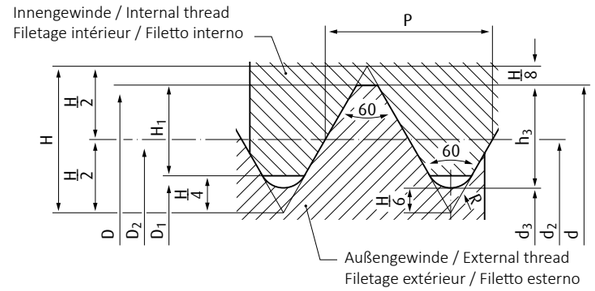
| D | | P | $T_{D2\,(5)}$ | ISO 1 | | | ISO 2 | | | ISO 3 | | | 7G | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | $d_2$ | | d | $d_2$ | | d | $d_2$ | | d | $d_2$ | | d |
| > mm | < mm | | | min | max | min | min | max | min | min | max | min | min | max | min |
| 0,99 | 1,4 | 0,2 | 50 | 5 | 15 | 15 | - | - | - | - | - | - | - | - | - |
| 0,99 | 1,4 | 0,25 | 56 | 6 | 17 | 17 | - | - | - | - | - | - | - | - | - |
| 0,99 | 1,4 | 0,3 | 60 | 6 | 18 | 18 | 18 | 30 | 30 | - | - | - | - | - | - |
| 1,4 | 2,8 | 0,2 | 53 | 5 | 16 | 16 | - | - | - | - | - | - | - | - | - |
| 1,4 | 2,8 | 0,25 | 60 | 6 | 18 | 18 | - | - | - | - | - | - | - | - | - |
| 1,4 | 2,8 | 0,35 | 67 | 7 | 20 | 20 | 20 | 34 | 34 | - | - | - | - | - | - |
| 1,4 | 2,8 | 0,4 | 71 | 7 | 21 | 21 | 21 | 36 | 36 | - | - | - | - | - | - |
| 1,4 | 2,8 | 0,45 | 75 | 8 | 23 | 23 | 23 | 38 | 38 | - | - | - | - | - | - |
| 2,8 | 5,6 | 0,35 | 71 | 7 | 21 | 21 | 21 | 36 | 36 | 36 | 50 | 50 | 50 | 64 | 64 |
| 2,8 | 5,6 | 0,5 | 80 | 8 | 24 | 24 | 24 | 40 | 40 | 40 | 56 | 56 | 56 | 72 | 72 |
| 2,8 | 5,6 | 0,6 | 90 | 9 | 27 | 27 | 27 | 45 | 45 | 45 | 63 | 63 | 63 | 81 | 81 |
| 2,8 | 5,6 | 0,7 | 95 | 10 | 29 | 29 | 29 | 48 | 48 | 48 | 67 | 67 | 67 | 86 | 86 |
| 2,8 | 5,6 | 0,75 | 95 | 10 | 29 | 29 | 29 | 48 | 48 | 48 | 67 | 67 | 67 | 86 | 86 |
| 2,8 | 5,6 | 0,8 | 100 | 10 | 30 | 30 | 30 | 50 | 50 | 50 | 70 | 70 | 70 | 90 | 90 |
| 5,6 | 11,2 | 0,75 | 106 | 11 | 32 | 32 | 32 | 53 | 53 | 53 | 74 | 74 | 74 | 95 | 95 |
| 5,6 | 11,2 | 1 | 118 | 12 | 35 | 35 | 35 | 59 | 59 | 59 | 83 | 83 | 83 | 106 | 106 |
| 5,6 | 11,2 | 1,25 | 125 | 13 | 38 | 38 | 38 | 63 | 63 | 63 | 88 | 88 | 88 | 113 | 113 |
| 5,6 | 11,2 | 1,5 | 140 | 14 | 42 | 42 | 42 | 70 | 70 | 70 | 98 | 98 | 98 | 126 | 126 |
| 11,2 | 22,4 | 1 | 125 | 13 | 38 | 38 | 38 | 63 | 63 | 63 | 88 | 88 | 88 | 113 | 113 |
| 11,2 | 22,4 | 1,25 | 140 | 14 | 42 | 42 | 42 | 70 | 70 | 70 | 98 | 98 | 98 | 126 | 126 |
| 11,2 | 22,4 | 1,5 | 150 | 15 | 45 | 45 | 45 | 75 | 75 | 75 | 105 | 105 | 105 | 135 | 135 |
| 11,2 | 22,4 | 1,75 | 160 | 16 | 48 | 48 | 48 | 80 | 80 | 80 | 112 | 112 | 112 | 144 | 144 |
| 11,2 | 22,4 | 2 | 170 | 17 | 51 | 51 | 51 | 85 | 85 | 85 | 119 | 119 | 119 | 153 | 153 |
| 11,2 | 22,4 | 2,5 | 180 | 18 | 54 | 54 | 54 | 90 | 90 | 90 | 126 | 126 | 126 | 162 | 162 |
| 22,4 | 45 | 1 | 132 | 13 | 40 | 40 | 40 | 66 | 66 | 66 | 92 | 92 | 92 | 119 | 119 |
| 22,4 | 45 | 1,5 | 160 | 16 | 48 | 48 | 48 | 80 | 80 | 80 | 112 | 112 | 112 | 144 | 144 |
| 22,4 | 45 | 2 | 180 | 18 | 54 | 54 | 54 | 90 | 90 | 90 | 126 | 126 | 126 | 162 | 162 |
| 22,4 | 45 | 3 | 212 | 21 | 64 | 64 | 64 | 106 | 106 | 106 | 148 | 148 | 148 | 191 | 191 |
| 22,4 | 45 | 3,5 | 224 | 22 | 67 | 67 | 67 | 112 | 112 | 112 | 157 | 157 | 157 | 202 | 202 |
| 22,4 | 45 | 4 | 236 | 24 | 71 | 71 | 71 | 118 | 118 | 118 | 165 | 165 | 165 | 212 | 212 |
| 22,4 | 45 | 4,5 | 250 | 25 | 75 | 75 | 75 | 125 | 125 | 125 | 175 | 175 | 175 | 225 | 225 |
| 45 | 90 | 1,5 | 170 | 17 | 51 | 51 | 51 | 85 | 85 | 85 | 119 | 119 | 119 | 153 | 153 |
| 45 | 90 | 2 | 190 | 19 | 57 | 57 | 57 | 95 | 95 | 95 | 133 | 133 | 133 | 171 | 171 |
| 45 | 90 | 3 | 224 | 22 | 67 | 67 | 67 | 112 | 112 | 112 | 157 | 157 | 157 | 202 | 202 |
| 45 | 90 | 4 | 250 | 25 | 75 | 75 | 75 | 125 | 125 | 125 | 175 | 175 | 175 | 225 | 225 |
| 45 | 90 | 5 | 265 | 27 | 80 | 80 | 80 | 133 | 133 | 133 | 186 | 186 | 186 | 239 | 239 |
| 45 | 90 | 5,5 | 280 | 28 | 84 | 84 | 84 | 140 | 140 | 140 | 196 | 196 | 196 | 252 | 252 |
| 45 | 90 | 6 | 300 | 30 | 90 | 90 | 90 | 150 | 150 | 150 | 210 | 210 | 210 | 270 | 270 |
| 90 | 180 | 2 | 200 | 20 | 60 | 60 | 60 | 100 | 100 | 100 | 140 | 140 | 140 | 180 | 180 |
| 90 | 180 | 3 | 236 | 24 | 71 | 71 | 71 | 118 | 118 | 118 | 165 | 165 | 165 | 212 | 212 |
| 90 | 180 | 4 | 265 | 27 | 80 | 80 | 80 | 133 | 133 | 133 | 186 | 186 | 186 | 239 | 239 |
| 90 | 180 | 6 | 315 | 32 | 95 | 95 | 95 | 158 | 158 | 158 | 221 | 221 | 221 | 284 | 284 |
| 90 | 180 | 8 | 355 | 36 | 107 | 107 | 107 | 178 | 178 | 178 | 249 | 249 | 249 | 320 | 320 |

Δ- Änderung durch Beschichtung / Δ- Change due to coating / Δ- Modification du revetement / Δ- Cambio del passo grazie al rivestimento

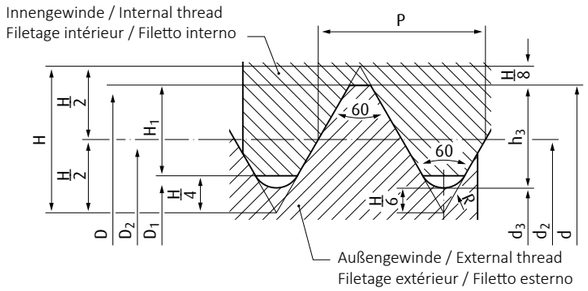
$$\Delta = 2x \frac{t}{\sin\left(\frac{\alpha}{2}\right)}$$




## GEWINDETABELLEN / THREAD TABLES / TABLES DES FILS / TABELLE DELLE FILETTATURE




| D | P | D | $D_2$ | $D_2$ | | | | $D_1$ | $D_1$ | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | min | min | max | max | max | max | min | max | max | max | max |
| | | | | 4H | 5H | 6H | 7H | | 4H | 5H | 6H | 7H |
| M 1 | 0,25 | 1 | 0,838 | 0,883 | 0,894 | - | - | 0,729 | 0,774 | 0,785 | - | - |
| M 1,1 | 0,25 | 1,1 | 0,938 | 0,983 | 0,994 | - | - | 0,829 | 0,874 | 0,885 | - | - |
| M 1,2 | 0,25 | 1,2 | 1,038 | 1,083 | 1,094 | - | - | 0,929 | 0,974 | 0,985 | - | - |
| M 1,4 | 0,3 | 1,4 | 1,205 | 1,253 | 1,265 | - | - | 1,075 | 1,128 | 1,142 | - | - |
| M 1,6 | 0,35 | 1,6 | 1,373 | 1,426 | 1,44 | 1,458 | - | 1,221 | 1,284 | 1,301 | 1,321 | - |
| M 1,8 | 0,35 | 1,8 | 1,573 | 1,626 | 1,64 | 1,658 | - | 1,421 | 1,484 | 1,501 | 1,521 | - |
| M 2 | 0,4 | 2 | 1,74 | 1,796 | 1,811 | 1,83 | - | 1,567 | 1,638 | 1,657 | 1,679 | - |
| M 2,2 | 0,45 | 2,2 | 1,908 | 1,968 | 1,983 | 2,003 | - | 1,713 | 1,793 | 1,813 | 1,838 | - |
| M 2,5 | 0,45 | 2,5 | 2,208 | 2,268 | 2,283 | 2,303 | - | 2,013 | 2,093 | 2,113 | 2,138 | - |
| M 3 | 0,5 | 3 | 2,675 | 2,738 | 2,755 | 2,775 | 2,8 | 2,459 | 2,549 | 2,571 | 2,599 | 2,639 |
| M 3,5 | 0,6 | 3,5 | 3,11 | 3,181 | 3,2 | 3,222 | 3,25 | 2,85 | 2,95 | 2,975 | 3,01 | 3,05 |
| M 4 | 0,7 | 4 | 3,545 | 3,62 | 3,64 | 3,663 | 3,695 | 3,242 | 3,354 | 3,382 | 3,422 | 3,466 |
| M 4,5 | 0,75 | 4,5 | 4,013 | 4,088 | 4,108 | 4,131 | 4,163 | 3,688 | 3,806 | 3,838 | 3,878 | 3,924 |
| M 5 | 0,8 | 5 | 4,48 | 4,56 | 4,58 | 4,605 | 4,64 | 4,134 | 4,259 | 4,294 | 4,334 | 4,384 |
| M 6 | 1 | 6 | 5,35 | 5,445 | 5,468 | 5,5 | 5,54 | 4,917 | 5,067 | 5,107 | 5,153 | 5,217 |
| M 7 | 1 | 7 | 6,35 | 6,445 | 6,468 | 6,5 | 6,54 | 5,917 | 6,067 | 6,107 | 6,153 | 6,217 |
| M 8 | 1,25 | 8 | 7,188 | 7,288 | 7,313 | 7,348 | 7,388 | 6,647 | 6,817 | 6,859 | 6,912 | 6,982 |
| M 9 | 1,25 | 9 | 8,188 | 8,288 | 8,313 | 8,348 | 8,388 | 7,647 | 7,817 | 7,859 | 7,912 | 7,982 |
| M 10 | 1,5 | 10 | 9,026 | 9,138 | 9,166 | 9,206 | 9,25 | 8,376 | 8,566 | 8,612 | 8,676 | 8,751 |
| M 11 | 1,5 | 11 | 10,026 | 10,138 | 10,166 | 10,206 | 10,25 | 9,376 | 9,566 | 9,612 | 9,676 | 9,751 |
| M 12 | 1,75 | 12 | 10,863 | 10,988 | 11,023 | 11,063 | 11,113 | 10,106 | 10,318 | 10,371 | 10,441 | 10,531 |
| M 14 | 2 | 14 | 12,701 | 12,833 | 12,871 | 12,913 | 12,966 | 11,835 | 12,071 | 12,135 | 12,21 | 12,31 |
| M 16 | 2 | 16 | 14,701 | 14,833 | 14,871 | 14,913 | 14,966 | 13,835 | 14,071 | 14,135 | 14,21 | 14,31 |
| M 18 | 2,5 | 18 | 16,376 | 16,516 | 16,556 | 16,6 | 16,656 | 15,294 | 15,574 | 15,649 | 15,744 | 15,854 |
| M 20 | 2,5 | 20 | 18,376 | 18,516 | 18,556 | 18,6 | 18,656 | 17,294 | 17,574 | 17,649 | 17,744 | 17,854 |
| M 22 | 2,5 | 22 | 20,376 | 20,516 | 20,556 | 20,6 | 20,656 | 19,294 | 19,574 | 19,649 | 19,744 | 19,854 |
| M 24 | 3 | 24 | 22,051 | 22,221 | 22,263 | 22,316 | 22,386 | 20,752 | 21,067 | 21,152 | 21,252 | 21,382 |
| M 27 | 3 | 27 | 25,051 | 25,221 | 25,263 | 25,316 | 25,386 | 23,752 | 24,067 | 24,152 | 24,252 | 24,382 |
| M 30 | 3,5 | 30 | 27,727 | 27,907 | 27,951 | 28,007 | 28,082 | 26,211 | 26,566 | 26,661 | 26,771 | 26,921 |
| M 33 | 3,5 | 33 | 30,727 | 30,907 | 30,951 | 31,007 | 31,082 | 29,211 | 29,566 | 29,661 | 29,771 | 29,921 |
| M 36 | 4 | 36 | 33,402 | 33,592 | 33,638 | 33,702 | 33,777 | 31,67 | 32,045 | 32,145 | 32,27 | 32,42 |
| M 39 | 4 | 39 | 36,402 | 36,592 | 36,638 | 36,702 | 36,777 | 34,67 | 35,045 | 35,145 | 35,27 | 35,42 |
| M 42 | 4,5 | 42 | 39,077 | 39,277 | 39,327 | 39,392 | 39,477 | 37,129 | 37,554 | 37,659 | 37,799 | 37,979 |
| M 45 | 4,5 | 45 | 42,077 | 42,277 | 42,327 | 42,392 | 42,477 | 40,129 | 40,554 | 40,659 | 40,799 | 40,979 |
| M 48 | 5 | 48 | 44,752 | 44,964 | 45,017 | 45,087 | 45,177 | 42,587 | 43,037 | 43,147 | 43,297 | 43,487 |
| M 52 | 5 | 52 | 48,752 | 48,964 | 48,017 | 49,087 | 49,177 | 46,587 | 47,037 | 47,147 | 47,297 | 47,487 |
| M 56 | 5,5 | 56 | 52,428 | 52,652 | 52,708 | 52,783 | 52,878 | 50,046 | 50,521 | 50,646 | 50,796 | 50,996 |
| M 60 | 5,5 | 60 | 56,428 | 56,652 | 56,708 | 56,783 | 56,878 | 54,046 | 54,521 | 54,646 | 54,796 | 54,996 |
| M 64 | 6 | 64 | 60,103 | 60,336 | 60,403 | 60,478 | 60,578 | 57,505 | 58,005 | 58,135 | 58,305 | 58,505 |
| M 68 | 6 | 68 | 64,103 | 64,336 | 64,403 | 64,478 | 64,578 | 61,505 | 62,005 | 62,135 | 62,305 | 62,505 |




| D | P | D | $D_2$ | $D_2$ | | | | $D_1$ | $D_1$ | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | min | min | max 4H | max 5H | max 6H | max 7H | min | max 4H | max 5H | max 6H | max 7H |
| M 2,5 x 0,35 | 0,35 | 2,5 | 2,273 | 2,326 | 2,34 | 2,358 | - | 2,121 | 2,184 | 2,201 | 2,221 | - |
| M 3 x 0,35 | 0,35 | 3 | 2,773 | 2,829 | 2,844 | 2,863 | - | 2,621 | 2,684 | 2,701 | 2,721 | - |
| M 3,5 x 0,35 | 0,35 | 3,5 | 3,273 | 3,329 | 3,344 | 3,363 | - | 3,121 | 3,184 | 3,201 | 3,221 | - |
| M 4 x 0,35 | 0,35 | 4 | 3,773 | 3,829 | 3,844 | 3,863 | - | 3,621 | 3,684 | 3,701 | 3,721 | - |
| M 4 x 0,5 | 0,5 | 4 | 3,675 | 3,738 | 3,755 | 3,775 | 3,8 | 3,459 | 3,549 | 3,571 | 3,599 | 3,639 |
| M 4,5 x 0,5 | 0,5 | 4,5 | 4,175 | 4,238 | 4,255 | 4,275 | 4,3 | 3,959 | 4,049 | 4,071 | 4,099 | 4,139 |
| M 5 x 0,5 | 0,5 | 5 | 4,675 | 4,738 | 4,755 | 4,775 | 4,8 | 4,459 | 4,549 | 4,571 | 4,599 | 4,639 |
| M 6 x 0,5 | 0,5 | 6 | 5,675 | 5,746 | 5,765 | 5,787 | - | 5,459 | 5,549 | 5,571 | 5,599 | 5,639 |
| M 6 x 0,75 | 0,75 | 6 | 5,513 | 5,598 | 5,619 | 5,645 | 5,683 | 5,188 | 5,306 | 5,338 | 5,378 | 5,424 |
| M 7 x 0,75 | 0,75 | 7 | 6,513 | 6,598 | 6,619 | 6,645 | 6,683 | 6,188 | 6,306 | 6,338 | 6,378 | 6,424 |
| M 8 x 0,5 | 0,5 | 8 | 7,675 | 7,746 | 7,765 | 7,787 | - | 7,459 | 7,549 | 7,571 | 7,599 | 7,639 |
| M 8 x 0,75 | 0,75 | 8 | 7,513 | 7,598 | 7,619 | 7,645 | 7,683 | 7,188 | 7,306 | 7,338 | 7,378 | 7,424 |
| M 8 x 1 | 1 | 8 | 7,35 | 7,445 | 7,468 | 7,5 | 7,54 | 6,917 | 7,067 | 7,107 | 7,153 | 7,217 |
| M 9 x 1 | 1 | 9 | 8,35 | 8,445 | 8,468 | 8,5 | 8,54 | 7,917 | 8,067 | 8,107 | 8,153 | 8,217 |
| M 10 x 0,75 | 0,75 | 10 | 9,513 | 9,598 | 9,619 | 9,645 | 9,683 | 9,188 | 9,306 | 9,338 | 9,378 | 9,424 |
| M 10 x 1 | 1 | 10 | 9,35 | 9,445 | 9,468 | 9,5 | 9,54 | 8,917 | 9,067 | 9,107 | 9,153 | 9,217 |
| M 10 x 1,25 | 1,25 | 10 | 9,188 | 9,288 | 9,313 | 9,348 | 9,388 | 8,647 | 8,817 | 8,859 | 8,912 | 8,982 |
| M 11 x 1 | 1 | 11 | 10,35 | 10,445 | 10,468 | 10,5 | 10,54 | 9,917 | 10,067 | 10,107 | 10,153 | 10,217 |
| M 12 x 1 | 1 | 12 | 11,35 | 11,45 | 11,475 | 11,51 | 11,55 | 10,917 | 11,067 | 11,107 | 11,153 | 11,217 |
| M 12 x 1,25 | 1,25 | 12 | 11,188 | 11,3 | 11,328 | 11,368 | 11,412 | 10,647 | 10,817 | 10,859 | 10,912 | 10,982 |
| M 12 x 1,5 | 1,5 | 12 | 11,026 | 11,144 | 11,176 | 11,216 | 11,262 | 10,376 | 10,566 | 10,612 | 10,676 | 10,751 |
| M 13 x 1 | 1 | 13 | 12,35 | 12,45 | 12,475 | 12,51 | 12,55 | 11,917 | 12,067 | 12,107 | 12,153 | 12,217 |
| M 14 x 1 | 1 | 14 | 13,35 | 13,45 | 13,475 | 13,51 | 13,55 | 12,917 | 13,067 | 13,107 | 13,153 | 13,217 |
| M 14 x 1,25 | 1,25 | 14 | 13,188 | 13,3 | 13,328 | 13,368 | 13,412 | 12,647 | 12,817 | 12,859 | 12,912 | 12,982 |
| M 14 x 1,5 | 1,5 | 14 | 13,026 | 13,144 | 13,176 | 13,216 | 13,262 | 12,376 | 12,566 | 12,612 | 12,676 | 12,751 |
| M 15 x 1 | 1 | 15 | 14,35 | 14,45 | 14,475 | 14,51 | 14,55 | 13,918 | 14,068 | 14,108 | 14,154 | 14,218 |
| M 15 x 1,5 | 1,5 | 15 | 14,026 | 14,144 | 14,176 | 14,216 | 14,262 | 13,376 | 13,566 | 13,612 | 13,676 | 13,751 |
| M 16 x 1 | 1 | 16 | 15,35 | 15,45 | 15,475 | 15,51 | 15,55 | 14,918 | 15,068 | 15,108 | 15,154 | 15,218 |
| M 16 x 1,5 | 1,5 | 16 | 15,026 | 15,144 | 15,176 | 15,216 | 15,262 | 14,376 | 14,566 | 14,612 | 14,676 | 14,751 |
| M 18 x 1 | 1 | 18 | 17,35 | 17,45 | 17,475 | 17,51 | 17,55 | 16,918 | 17,068 | 17,108 | 17,154 | 17,218 |
| M 18 x 1,5 | 1,5 | 18 | 17,026 | 17,144 | 17,176 | 17,216 | 17,262 | 16,376 | 16,566 | 16,612 | 16,676 | 16,751 |
| M 18 x 2 | 2 | 18 | 16,701 | 16,833 | 16,871 | 16,913 | 16,966 | 15,835 | 16,071 | 16,135 | 16,21 | 16,31 |
| M 20 x 1 | 1 | 20 | 19,35 | 19,45 | 19,475 | 19,51 | 19,55 | 18,918 | 19,068 | 19,108 | 19,154 | 19,218 |
| M 20 x 1,5 | 1,5 | 20 | 19,026 | 19,144 | 19,176 | 19,216 | 19,262 | 18,376 | 18,566 | 18,612 | 18,676 | 18,751 |
| M 20 x 2 | 2 | 20 | 18,701 | 18,833 | 18,871 | 18,913 | 18,966 | 17,835 | 18,071 | 18,135 | 18,21 | 18,31 |
| M 22 x 1 | 1 | 22 | 21,35 | 21,45 | 21,475 | 21,51 | 21,55 | 20,918 | 21,068 | 21,108 | 21,154 | 21,218 |
| M 22 x 1,5 | 1,5 | 22 | 21,026 | 21,144 | 21,176 | 21,216 | 21,262 | 20,376 | 20,566 | 20,612 | 20,676 | 20,751 |
| M 22 x 2 | 2 | 22 | 20,701 | 20,833 | 20,871 | 20,913 | 20,966 | 19,835 | 20,071 | 20,135 | 20,21 | 20,31 |
| M 24 x 1 | 1 | 24 | 23,35 | 23,456 | 23,482 | 23,52 | 23,562 | 22,918 | 23,068 | 23,108 | 23,154 | 23,218 |
| M 24 x 1,5 | 1,5 | 24 | 23,026 | 23,151 | 23,186 | 23,226 | 23,276 | 22,376 | 22,566 | 22,612 | 22,676 | 22,751 |
| M 24 x 2 | 2 | 24 | 22,701 | 22,841 | 22,881 | 22,925 | 22,981 | 21,835 | 22,071 | 22,135 | 22,21 | 22,31 |
| M 25 x 1,5 | 1,5 | 25 | 24,026 | 24,151 | 24,186 | 24,226 | 24,276 | 23,376 | 23,566 | 23,612 | 23,676 | 23,751 |
| M 26 x 1,5 | 1,5 | 26 | 25,026 | 25,151 | 25,186 | 25,226 | 25,276 | 24,376 | 24,566 | 24,612 | 24,676 | 24,751 |
| M 27 x 1,5 | 1,5 | 27 | 26,026 | 26,151 | 26,186 | 26,226 | 26,276 | 25,376 | 25,566 | 25,612 | 25,676 | 25,751 |
| M 27 x 2 | 2 | 27 | 25,701 | 25,841 | 25,881 | 25,925 | 25,981 | 24,835 | 25,071 | 25,135 | 25,21 | 25,31 |

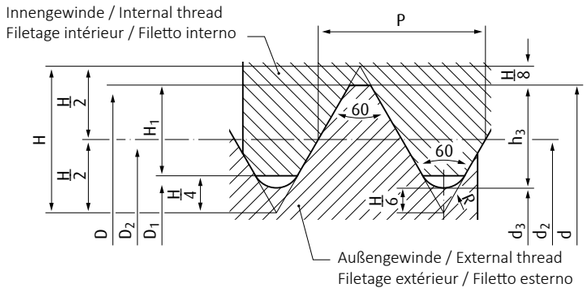




| D | P | D | $D_2$ | $D_2$ | | | | $D_1$ | $D_1$ | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | min | min | max 4H | max 5H | max 6H | max 7H | min | max 4H | max 5H | max 6H | max 7H |
| M 28 x 1,5 | 1,5 | 28 | 27,026 | 27,151 | 27,186 | 27,226 | 27,276 | 26,376 | 26,566 | 26,612 | 26,676 | 26,751 |
| M 30 x 1 | 1 | 30 | 29,35 | 29,456 | 29,482 | 29,52 | 29,562 | 28,918 | 29,068 | 29,108 | 29,154 | 29,218 |
| M 30 x 1,5 | 1,5 | 30 | 29,026 | 29,151 | 29,186 | 29,226 | 29,276 | 28,376 | 28,566 | 28,612 | 28,676 | 28,751 |
| M 30 x 2 | 2 | 30 | 28,701 | 28,841 | 28,881 | 28,925 | 28,981 | 27,835 | 28,071 | 28,135 | 28,21 | 28,31 |
| M 32 x 1,5 | 1,5 | 32 | 31,026 | 31,151 | 31,186 | 31,226 | 31,276 | 30,376 | 30,566 | 30,612 | 30,676 | 30,751 |
| M 33 x 1,5 | 1,5 | 33 | 32,026 | 32,151 | 32,186 | 32,226 | 32,276 | 31,376 | 31,566 | 31,612 | 31,676 | 31,751 |
| M 33 x 2 | 2 | 33 | 31,701 | 31,841 | 31,881 | 31,925 | 31,981 | 30,835 | 31,071 | 31,135 | 31,21 | 31,31 |
| M 34 x 1,5 | 1,5 | 34 | 33,026 | 33,151 | 33,186 | 33,226 | 33,276 | 32,376 | 32,566 | 32,612 | 32,676 | 32,751 |
| M 35 x 1,5 | 1,5 | 35 | 34,026 | 34,151 | 34,186 | 34,226 | 34,276 | 33,376 | 33,566 | 33,612 | 33,676 | 33,751 |
| M 36 x 1,5 | 1,5 | 36 | 35,026 | 35,151 | 35,186 | 35,226 | 35,276 | 34,376 | 34,566 | 34,612 | 34,676 | 34,751 |
| M 36 x 2 | 2 | 36 | 34,701 | 34,841 | 34,881 | 34,925 | 34,981 | 33,835 | 34,071 | 34,135 | 34,21 | 34,31 |
| M 36 x 3 | 3 | 36 | 34,051 | 34,221 | 34,263 | 34,316 | 34,386 | 32,753 | 33,068 | 33,153 | 33,253 | 33,383 |
| M 38 x 1,5 | 1,5 | 38 | 37,026 | 37,151 | 37,186 | 37,226 | 37,276 | 36,376 | 36,566 | 36,612 | 36,676 | 36,751 |
| M 39 x 2 | 2 | 39 | 37,701 | 37,841 | 37,881 | 37,925 | 37,981 | 36,835 | 37,071 | 37,135 | 37,21 | 37,31 |
| M 39 x 3 | 3 | 39 | 37,051 | 37,221 | 37,263 | 37,316 | 37,386 | 35,753 | 36,068 | 36,153 | 36,253 | 36,383 |
| M 40 x 1,5 | 1,5 | 40 | 39,026 | 39,151 | 39,186 | 39,226 | 39,276 | 38,376 | 38,566 | 38,612 | 38,676 | 38,751 |
| M 40 x 2 | 2 | 40 | 38,701 | 38,841 | 38,881 | 38,925 | 38,981 | 37,835 | 38,071 | 38,135 | 38,21 | 38,31 |
| M 40 x 3 | 3 | 40 | 38,051 | 38,221 | 38,263 | 38,316 | 38,386 | 36,753 | 37,068 | 37,153 | 37,253 | 37,383 |
| M 42 x 1,5 | 1,5 | 42 | 41,026 | 41,151 | 41,186 | 41,226 | 41,276 | 40,376 | 40,566 | 40,612 | 40,676 | 40,751 |
| M 42 x 2 | 2 | 42 | 40,701 | 40,841 | 40,881 | 40,925 | 40,981 | 39,835 | 40,071 | 40,135 | 40,21 | 40,31 |
| M 42 x 3 | 3 | 42 | 40,051 | 40,221 | 40,263 | 40,316 | 40,386 | 38,753 | 39,068 | 39,153 | 39,253 | 39,383 |
| M 45 x 1,5 | 1,5 | 45 | 44,026 | 44,151 | 44,186 | 44,226 | 44,276 | 43,376 | 43,566 | 43,612 | 43,676 | 43,751 |
| M 45 x 2 | 2 | 45 | 43,701 | 43,841 | 43,881 | 43,925 | 43,981 | 42,835 | 43,071 | 43,135 | 43,21 | 43,31 |
| M 45 x 3 | 3 | 45 | 43,051 | 43,221 | 43,263 | 43,316 | 43,386 | 41,752 | 42,067 | 42,152 | 42,252 | 42,382 |
| M 48 x 1,5 | 1,5 | 48 | 47,026 | 47,158 | 47,196 | 47,238 | 47,291 | 46,376 | 46,566 | 46,612 | 46,676 | 46,751 |
| M 48 x 2 | 2 | 48 | 46,701 | 46,851 | 46,891 | 46,937 | 47,001 | 45,835 | 46,071 | 46,135 | 46,21 | 46,31 |
| M 48 x 3 | 3 | 48 | 46,051 | 46,231 | 46,275 | 46,331 | 46,406 | 44,752 | 45,067 | 45,152 | 45,252 | 45,382 |
| M 50 x 1,5 | 1,5 | 50 | 49,026 | 49,158 | 49,196 | 49,238 | 49,291 | 48,376 | 48,566 | 48,612 | 48,676 | 48,751 |
| M 50 x 2 | 2 | 50 | 48,701 | 48,851 | 48,891 | 48,937 | 49,001 | 47,835 | 48,071 | 48,135 | 48,21 | 48,31 |
| M 50 x 3 | 3 | 50 | 48,051 | 48,231 | 48,275 | 48,331 | 48,406 | 46,752 | 47,067 | 47,152 | 47,252 | 47,382 |
| M 52 x 1,5 | 1,5 | 52 | 51,026 | 51,158 | 51,196 | 51,238 | 51,291 | 50,376 | 50,566 | 50,612 | 50,676 | 50,751 |
| M 52 x 2 | 2 | 52 | 50,701 | 50,851 | 50,891 | 50,937 | 51,001 | 49,835 | 50,071 | 50,135 | 50,21 | 50,31 |
| M 52 x 3 | 3 | 52 | 50,051 | 50,231 | 50,275 | 50,331 | 50,406 | 48,753 | 49,068 | 49,153 | 49,253 | 49,383 |
| M 56 x 2 | 2 | 56 | 54,701 | 54,851 | 54,891 | 54,937 | 55,001 | 53,835 | 54,071 | 54,135 | 54,21 | 54,31 |
| M 56 x 3 | 3 | 56 | 54,051 | 54,231 | 54,275 | 54,331 | 54,406 | 52,753 | 53,068 | 53,153 | 53,253 | 53,383 |
| M 56 x 4 | 4 | 56 | 53,402 | 53,602 | 53,652 | 53,717 | 53,802 | 51,67 | 52,045 | 52,145 | 52,27 | 52,42 |
| M 60 x 4 | 4 | 60 | 57,402 | 57,602 | 57,652 | 57,717 | 57,802 | 55,67 | 56,045 | 56,145 | 56,27 | 56,42 |
| M 64 x 3 | 3 | 64 | 62,051 | 62,231 | 62,275 | 62,331 | 62,406 | 60,753 | 61,068 | 61,153 | 61,253 | 61,383 |
| M 64 x 4 | 4 | 64 | 61,402 | 61,602 | 61,652 | 61,717 | 61,802 | 59,67 | 60,045 | 60,145 | 60,27 | 60,42 |
| M 68 x 4 | 4 | 68 | 65,402 | 65,602 | 65,652 | 65,717 | 65,802 | 63,67 | 64,045 | 64,145 | 64,27 | 64,42 |
| M 72 x 3 | 3 | 72 | 70,051 | 70,231 | 70,275 | 70,331 | 70,406 | 68,753 | 69,068 | 69,153 | 69,253 | 69,383 |
| M 72 x 4 | 4 | 72 | 69,402 | 69,602 | 69,652 | 69,717 | 69,802 | 67,67 | 68,045 | 68,145 | 68,27 | 68,42 |
| M 72 x 6 | 6 | 72 | 68,103 | 68,339 | 68,403 | 68,478 | 68,578 | 65,505 | 66,005 | 66,135 | 66,305 | 66,505 |
| M 76 x 3 | 3 | 76 | 74,051 | 74,231 | 74,275 | 74,331 | 74,406 | 72,753 | 73,068 | 73,153 | 73,253 | 73,383 |
| M 76 x 4 | 4 | 76 | 73,402 | 73,602 | 73,652 | 73,717 | 73,802 | 71,67 | 72,045 | 72,145 | 72,27 | 72,42 |
| M 76 x 6 | 6 | 76 | 72,103 | 72,339 | 72,403 | 72,478 | 72,578 | 69,505 | 70,005 | 70,135 | 70,305 | 70,505 |
| M 80 x 2 | 2 | 80 | 78,701 | 78,851 | 78,891 | 78,937 | 79,001 | 77,835 | 78,071 | 78,135 | 78,21 | 78,31 |
| M 80 x 4 | 4 | 80 | 77,402 | 77,602 | 77,652 | 77,717 | 77,802 | 75,67 | 76,045 | 76,145 | 76,27 | 76,42 |
| M 80 x 6 | 6 | 80 | 76,103 | 76,339 | 76,403 | 76,478 | 76,578 | 73,505 | 74,005 | 74,135 | 74,305 | 74,505 |
| M 85 x 4 | 4 | 85 | 82,402 | 82,602 | 82,652 | 82,717 | 82,802 | 80,67 | 81,045 | 81,145 | 81,27 | 81,42 |
| M 85 x 6 | 6 | 85 | 81,103 | 81,339 | 81,403 | 81,478 | 81,578 | 78,505 | 79,005 | 79,135 | 79,305 | 79,505 |
| M 90 x 4 | 4 | 90 | 87,402 | 87,602 | 87,652 | 87,717 | 87,802 | 85,67 | 86,045 | 86,145 | 86,27 | 86,42 |
| M 90 x 6 | 6 | 90 | 86,103 | 86,339 | 86,403 | 86,478 | 86,578 | 83,505 | 84,005 | 84,135 | 84,305 | 84,505 |

# UNC

## GEWINDETABELLEN / THREAD TABLES / TABLES DES FILS / TABELLE DELLE FILETTATURE

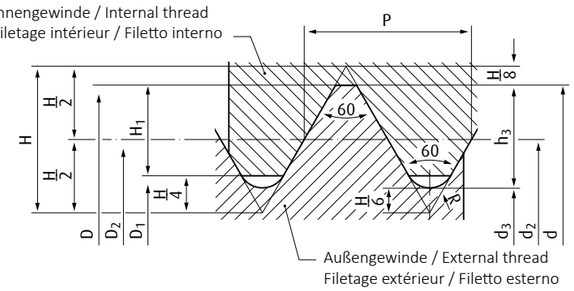



| D- P/1“ | P | D | $D_2$ | $D_2$ | | | $D_1$ | $D_1$ | |
|---|---|---|---|---|---|---|---|---|---|
| | | min | min | max | max | max | min | max | max |
| | | | | 3B | 2B | 1B | | 3B | 2B, 1B |
| Nr. 1- 64 | 0,397 | 1,854 | 1,598 | 1,646 | 1,664 | - | 1,425 | 1,582 | 1,582 |
| Nr. 2- 56 | 0,454 | 2,184 | 1,89 | 1,943 | 1,961 | - | 1,694 | 1,872 | 1,872 |
| Nr. 3- 48 | 0,529 | 2,515 | 2,172 | 2,228 | 2,248 | - | 1,941 | 2,146 | 2,146 |
| Nr. 4- 40 | 0,635 | 2,845 | 2,433 | 2,494 | 2,517 | - | 2,156 | 2,385 | 2,385 |
| Nr. 5- 40 | 0,635 | 3,175 | 2,764 | 2,827 | 2,847 | - | 2,487 | 2,697 | 2,697 |
| Nr. 6- 32 | 0,794 | 3,505 | 2,99 | 3,058 | 3,084 | - | 2,647 | 2,896 | 2,896 |
| Nr. 8- 32 | 0,794 | 4,166 | 3,65 | 3,721 | 3,746 | - | 3,307 | 3,528 | 3,531 |
| Nr. 10- 24 | 1,058 | 4,826 | 4,138 | 4,219 | 4,247 | - | 3,68 | 3,95 | 3,962 |
| Nr. 12- 24 | 1,058 | 5,486 | 4,798 | 4,882 | 4,91 | - | 4,341 | 4,59 | 4,597 |
| 1/4- 20 | 1,27 | 6,35 | 5,524 | 5,616 | 5,648 | 5,71 | 4,976 | 5,25 | 5,258 |
| 5/16- 18 | 1,411 | 7,938 | 7,021 | 7,12 | 7,155 | 7,221 | 6,411 | 6,68 | 6,731 |
| 3/8- 16 | 1,588 | 9,525 | 8,494 | 8,603 | 8,639 | 8,71 | 7,805 | 8,082 | 8,153 |
| 7/16- 14 | 1,814 | 11,112 | 9,934 | 10,051 | 10,089 | 10,168 | 9,149 | 9,441 | 9,55 |
| 1/2- 13 | 1,954 | 12,7 | 11,43 | 11,552 | 11,595 | 11,676 | 10,584 | 10,881 | 11,024 |
| 9/16- 12 | 2,117 | 14,288 | 12,913 | 13,043 | 13,086 | 13,172 | 11,996 | 12,301 | 12,446 |
| 5/8- 11 | 2,309 | 15,875 | 14,376 | 14,514 | 14,559 | 14,648 | 13,376 | 13,693 | 13,868 |
| 3/4- 10 | 2,54 | 19,05 | 17,399 | 17,544 | 17,595 | 17,691 | 16,299 | 16,624 | 16,84 |
| 7/8- 9 | 2,822 | 22,225 | 20,391 | 20,546 | 20,599 | 20,703 | 19,169 | 19,52 | 19,761 |
| 1- 8 | 3,175 | 25,4 | 23,338 | 23,505 | 23,561 | 23,673 | 21,963 | 22,344 | 22,606 |
| 1 1/8- 7 | 3,629 | 28,575 | 26,218 | 26,398 | 26,457 | 26,576 | 24,648 | 25,082 | 25,349 |
| 1 1/4- 7 | 3,629 | 31,75 | 29,393 | 29,576 | 29,637 | 29,759 | 27,823 | 28,258 | 28,524 |
| 1 3/8- 6 | 4,233 | 34,925 | 32,174 | 32,372 | 32,438 | 32,568 | 30,343 | 30,851 | 31,115 |
| 1 1/2- 6 | 4,233 | 38,1 | 35,349 | 35,55 | 35,616 | 35,75 | 33,518 | 34,026 | 34,29 |
| 1 3/4- 5 | 5,08 | 44,45 | 41,151 | 41,372 | 41,445 | 41,592 | 38,951 | 39,56 | 39,827 |
| 2- 4,5 | 5,645 | 50,8 | 47,135 | 47,371 | 47,45 | 47,607 | 44,689 | 45,367 | 45,593 |



# UNF

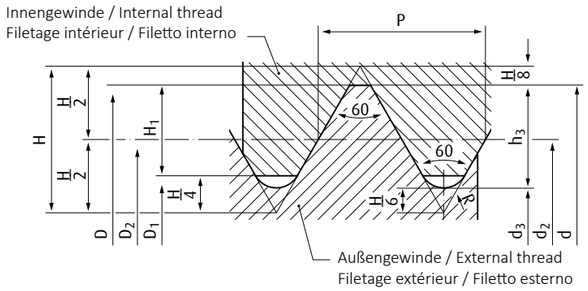
## GEWINDETABELLEN / THREAD TABLES / TABLES DES FILS / TABELLE DELLE FILETTATURE




| D- P/1“ | P | D | $D_2$ | $D_2$ | | | $D_1$ | $D_1$ | |
|---|---|---|---|---|---|---|---|---|---|
| | | min | min | max | max | max | min | max | max |
| | | | | 3B | 2B | 1B | | 3B | 2B, 1B |
| Nr. 1- 72 | 0,353 | 1,854 | 1,626 | 1,674 | 1,689 | - | 1,473 | 1,613 | 1,613 |
| Nr. 2- 64 | 0,397 | 2,184 | 1,928 | 1,979 | 1,996 | - | 1,755 | 1,913 | 1,913 |
| Nr. 3- 56 | 0,454 | 2,515 | 2,22 | 2,273 | 2,291 | - | 2,024 | 2,197 | 2,197 |
| Nr. 4- 48 | 0,529 | 2,845 | 2,502 | 2,56 | 2,581 | - | 2,271 | 2,459 | 2,459 |
| Nr. 5- 44 | 0,577 | 3,175 | 2,799 | 2,86 | 2,88 | - | 2,55 | 2,741 | 2,741 |
| Nr. 6- 40 | 0,635 | 3,505 | 3,094 | 3,157 | 3,18 | - | 2,817 | 3,012 | 3,023 |
| Nr. 8- 36 | 0,706 | 4,166 | 3,708 | 3,777 | 3,8 | - | 3,401 | 3,597 | 3,607 |
| Nr. 10- 32 | 0,794 | 4,826 | 4,31 | 4,384 | 4,409 | - | 3,967 | 4,168 | 4,168 |
| Nr. 12- 28 | 0,907 | 5,486 | 4,897 | 4,976 | 5,004 | - | 4,503 | 4,717 | 4,724 |
| 1/4- 28 | 0,907 | 6,35 | 5,761 | 5,842 | 5,87 | 5,926 | 5,367 | 5,563 | 5,588 |
| 5/16- 24 | 1,058 | 7,938 | 7,249 | 7,341 | 7,371 | 7,43 | 6,792 | 6,995 | 7,036 |
| 3/8- 24 | 1,058 | 9,525 | 8,837 | 8,931 | 8,961 | 9,025 | 8,379 | 8,565 | 8,636 |
| 7/16- 20 | 1,27 | 11,112 | 10,287 | 10,391 | 10,424 | 10,493 | 9,738 | 9,947 | 10,033 |
| 1/2- 20 | 1,27 | 12,7 | 11,874 | 11,981 | 12,017 | 12,088 | 11,326 | 11,524 | 11,608 |
| 9/16- 18 | 1,411 | 14,288 | 13,371 | 13,482 | 13,52 | 13,597 | 12,761 | 12,969 | 13,081 |
| 5/8- 18 | 1,411 | 15,875 | 14,958 | 15,072 | 15,11 | 15,189 | 14,348 | 14,554 | 14,681 |
| 3/4- 16 | 1,588 | 19,05 | 18,019 | 18,143 | 18,184 | 18,268 | 17,33 | 17,546 | 17,678 |
| 7/8- 14 | 1,814 | 22,225 | 21,046 | 21,181 | 21,224 | 21,316 | 20,262 | 20,493 | 20,676 |
| 1- 12 | 2,117 | 25,4 | 24,026 | 24,171 | 24,219 | 24,315 | 23,109 | 23,363 | 23,571 |
| 1 1/8- 12 | 2,117 | 28,575 | 27,201 | 27,351 | 27,399 | 27,498 | 26,284 | 26,538 | 26,746 |
| 1 1/4- 12 | 2,117 | 31,75 | 30,376 | 30,528 | 30,579 | 30,681 | 29,459 | 29,713 | 29,921 |
| 1 3/8- 12 | 2,117 | 34,925 | 33,551 | 33,706 | 33,759 | 33,863 | 32,634 | 32,888 | 33,096 |
| 1 1/2- 12 | 2,117 | 38,1 | 36,726 | 36,886 | 36,937 | 37,043 | 35,809 | 36,063 | 36,271 |

# UNEF

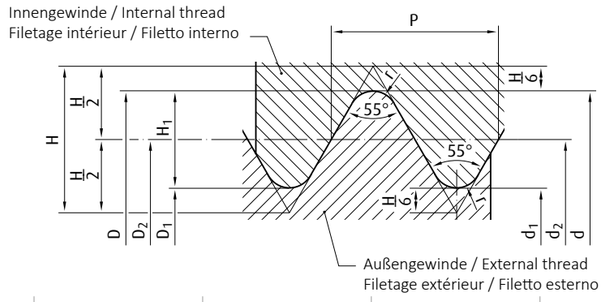
## GEWINDETABELLEN / THREAD TABLES / TABLES DES FILS / TABELLE DELLE FILETTATURE




| D- P/1“ | P | D | $D_2$ | $D_2$ | | $D_1$ | $D_1$ | |
|---|---|---|---|---|---|---|---|---|
| | | min | min | max | max | min | max | max |
| | | | | 3B | 2B | | 3B | 2B |
| Nr. 12- 32 | 0,794 | 5,486 | 4,971 | 5,05 | 5,075 | 4,628 | 4,813 | 4,826 |
| 1/4- 32 | 0,794 | 6,35 | 5,834 | 5,913 | 5,941 | 5,491 | 5,662 | 5,69 |
| 5/16- 32 | 0,794 | 7,938 | 7,422 | 7,501 | 7,529 | 7,079 | 7,231 | 7,264 |
| 3/8- 32 | 0,794 | 9,525 | 9,009 | 9,093 | 9,121 | 8,666 | 8,811 | 8,865 |
| 7/16- 28 | 0,907 | 11,112 | 10,523 | 10,612 | 10,64 | 10,13 | 10,29 | 10,338 |
| 1/2- 28 | 0,907 | 12,7 | 12,111 | 12,202 | 12,233 | 11,717 | 11,877 | 11,938 |
| 9/16- 24 | 1,058 | 14,288 | 13,599 | 13,696 | 13,729 | 13,142 | 13,32 | 13,386 |
| 5/8- 24 | 1,058 | 15,875 | 15,187 | 15,286 | 15,319 | 14,729 | 14,907 | 14,986 |
| 3/4- 20 | 1,27 | 19,05 | 18,224 | 18,334 | 18,369 | 17,676 | 17,874 | 17,958 |
| 7/8- 20 | 1,27 | 22,225 | 21,4 | 21,509 | 21,544 | 20,851 | 21,049 | 21,133 |
| 1- 20 | 1,27 | 25,4 | 24,574 | 24,686 | 24,724 | 24,026 | 24,224 | 24,308 |

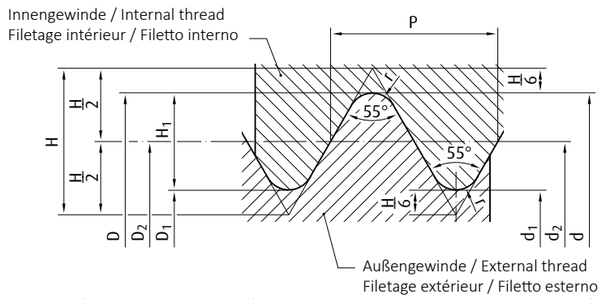
# BSW

## GEWINDETABELLEN / THREAD TABLES / TABLES DES FILS / TABELLE DELLE FILETTATURE




| D- P/1“ | P | D | $D_2$ | $D_2$ | $D_1$ | $D_1$ |
|---|---|---|---|---|---|---|
| | | min | min | max | min | max |
| | | | med. class | 3B | | med. class |
| 1/16- 60 | 0,423 | 1,588 | 1,316 | 1,372 | 1,045 | 1,230 |
| 3/32- 48 | 0,529 | 2,381 | 2,042 | 2,106 | 1,704 | 1,912 |
| 1/8- 40 | 0,635 | 3,175 | 2,768 | 2,842 | 2,362 | 2,591 |
| 5/32- 32 | 0,794 | 3,969 | 3,460 | 3,539 | 2,952 | 3,214 |
| 3/16- 24 | 1,058 | 4,763 | 4,085 | 4,174 | 3,407 | 3,745 |
| 7/32- 24 | 1,058 | 5,556 | 4,879 | 4,970 | 4,201 | 4,539 |
| 1/4- 20 | 1,27 | 6,350 | 5,537 | 5,636 | 4,724 | 5,156 |
| 5/16- 18 | 1,411 | 7,938 | 7,034 | 7,141 | 6,130 | 6,590 |
| 3/8- 16 | 1,588 | 9,525 | 8,508 | 8,622 | 7,492 | 7,987 |
| 7/16- 14 | 1,814 | 11,113 | 9,951 | 10,073 | 8,789 | 9,330 |
| 1/2- 12 | 2,117 | 12,700 | 11,345 | 11,477 | 9,989 | 10,591 |
| 9/16- 12 | 2,117 | 14,288 | 12,932 | 13,067 | 11,577 | 12,179 |
| 5/8- 11 | 2,309 | 15,875 | 14,396 | 14,538 | 12,918 | 13,558 |
| 3/4- 10 | 2,54 | 19,050 | 17,424 | 17,576 | 15,797 | 16,483 |
| 7/8- 9 | 2,822 | 22,225 | 20,418 | 20,581 | 18,611 | 19,353 |
| 1- 8 | 3,175 | 25,400 | 23,367 | 23,540 | 21,334 | 22,147 |
| 1 1/8- 7 | 3,629 | 28,575 | 26,252 | 26,435 | 23,928 | 24,832 |
| 1 1/4- 7 | 3,629 | 31,750 | 29,427 | 29,615 | 27,103 | 28,007 |
| 1 3/8- 6 | 4,233 | 34,925 | 32,214 | 32,412 | 29,504 | 30,528 |
| 1 1/2- 6 | 4,233 | 38,100 | 35,389 | 35,592 | 32,679 | 33,703 |
| 1 5/8- 5 | 5,08 | 41,275 | 38,022 | 38,235 | 34,769 | 35,963 |
| 1 3/4- 5 | 5,08 | 44,450 | 41,197 | 41,415 | 37,944 | 39,138 |
| 1 7/8- 4,5 | 5,644 | 47,625 | 44,011 | 44,237 | 40,396 | 41,702 |
| 2- 4,5 | 5,644 | 50,800 | 47,186 | 47,417 | 43,571 | 44,877 |

## GEWINDETABELLEN / THREAD TABLES / TABLES DES FILS / TABELLE DELLE FILETTATURE




| D- P/1“ | P | D | $D_2$ | | $D_1$ | $D_1$ |
|---|---|---|---|---|---|---|
| | | min | min | max | min | max |
| G 1/16- 28 | 0,907 | 7,723 | 7,142 | 7,249 | 6,561 | 6,843 |
| G 1/8- 28 | 0,907 | 9,728 | 9,147 | 9,254 | 8,566 | 8,848 |
| G 1/4- 19 | 1,337 | 13,157 | 12,301 | 12,426 | 11,445 | 11,89 |
| G 3/8-19 | 1,337 | 16,662 | 15,806 | 15,931 | 14,950 | 15,395 |
| G 1/2- 14 | 1,814 | 20,955 | 19,793 | 19,935 | 18,631 | 19,172 |
| G 5/8- 14 | 1,814 | 22,911 | 21,749 | 21,891 | 20,587 | 21,128 |
| G 3/4- 14 | 1,814 | 26,441 | 25,279 | 25,421 | 24,117 | 24,658 |
| G 7/8- 14 | 1,814 | 30,201 | 29,039 | 29,181 | 27,877 | 28,418 |
| G 1“- 11 | 2,309 | 33,249 | 31,770 | 31,95 | 30,291 | 30,931 |
| G 1 1/8- 11 | 2,309 | 37,897 | 36,418 | 36,598 | 34,939 | 35,579 |
| G 1 1/4- 11 | 2,309 | 41,910 | 40,431 | 40,611 | 38,952 | 39,592 |
| G 1 1/2 11 | 2,309 | 47,803 | 46,324 | 46,504 | 44,845 | 45,485 |
| G 1 3/4- 11 | 2,309 | 53,746 | 52,267 | 52,447 | 50,788 | 51,428 |
| G 2“- 11 | 2,309 | 59,614 | 58,135 | 58,315 | 56,656 | 57,296 |

## VERGLEICHSTABELLE inch- mm

COMPARISON TABLE inch - mm / TABLEAU COMPARATIF inch - mm / TABELLA COMPARATIVA inch - mm

| D- P/1“ | D | UNC | UNF | UNEF | UN-4 | UN-6 | UN-8 | UN-12 | UN-16 | UN-20 | UN-28 | UN-32 | W | BSF | G | D |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | ≈ mm | | | | | | | | | | | | (BSW) | | Rp | mm |
| Nr. 0 | 1,52 | - | 80 | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1/16 | 1,59 | - | - | - | - | - | - | - | - | - | - | - | 60 | - | 28 | 7,72 |
| Nr. 1 | 1,85 | 64 | 72 | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Nr. 2 | 2,18 | 56 | 64 | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 3/32 | 2,38 | - | - | - | - | - | - | - | - | - | - | - | 48 | - | - | - |
| Nr. 3 | 2,51 | 48 | 56 | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Nr. 4 | 2,84 | 40 | 48 | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Nr. 5 | 3,17 | 40 | 44 | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 1/8 | 3,17 | - | - | - | - | - | - | - | - | - | - | - | 40 | - | 28 | 9,72 |
| Nr. 6 | 3,50 | 32 | 40 | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 5/32 | 3,96 | - | - | - | - | - | - | - | - | - | - | - | 32 | - | - | - |
| Nr. 8 | 4,16 | 32 | 36 | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 3/16 | 4,76 | - | - | - | - | - | - | - | - | - | - | - | 24 | 32 | - | - |
| Nr. 10 | 4,82 | 24 | 32 | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Nr. 12 | 5,48 | 24 | 28 | 32 | - | - | - | - | - | - | - | - | - | - | - | - |
| 7/32 | 5,55 | - | - | - | - | - | - | - | - | - | - | - | 24 | 28 | - | - |
| 1/4 | 6,35 | 20 | 28 | 32 | - | - | - | - | - | - | - | - | 20 | 26 | 19 | 13,15 |
| 9/32 | 7,14 | - | - | - | - | - | - | - | - | - | - | - | - | 26 | - | - |
| 5/16 | 7,93 | 18 | 24 | 32 | - | - | - | - | - | 20 | 28 | - | - | - | - | - |
| 3/8 | 9,52 | 16 | 24 | 32 | - | - | - | - | - | 20 | 28 | - | 16 | 20 | 19 | 16,66 |
| 7/16 | 11,11 | 14 | 20 | 28 | - | - | - | - | 16 | - | - | 32 | 14 | 18 | - | - |
| 1/2 | 12,70 | 13 | 20 | 28 | - | - | - | - | 16 | - | - | 32 | 12 | 16 | 14 | 20,95 |
| 9/16 | 14,28 | 12 | 18 | 24 | - | - | - | - | 16 | 20 | 28 | 32 | 12 | 16 | - | - |
| 5/8 | 15,87 | 11 | 18 | 24 | - | - | - | 12 | 16 | 20 | 28 | 32 | 11 | 14 | 14 | 22,91 |
| 11/16 | 17,46 | - | - | 24 | - | - | - | 12 | 16 | 20 | 28 | 32 | - | 14 | - | - |
| 3/4 | 19,05 | 10 | 16 | 20 | - | - | - | 12 | | - | 28 | 32 | 10 | 12 | 14 | 26,44 |
| 13/16 | 20,64 | - | - | 20 | - | - | - | 12 | 16 | - | 28 | 32 | - | 12 | - | - |
| 7/8 | 22,22 | 9 | 14 | 20 | - | - | - | 12 | 16 | - | 28 | 32 | 9 | 11 | 14 | 30,20 |
| 15/16 | 23,81 | - | - | 20 | - | - | - | 12 | 16 | - | 28 | 32 | - | - | - | - |
| 1 | 25,40 | 8 | 12 | 20 | - | - | - | - | 16 | - | 28 | 32 | 8 | 10 | 11 | 33,24 |
| 1 1/16 | 26,99 | - | - | 18 | - | - | 8 | 12 | 16 | 20 | 28 | - | - | - | - | - |
| 1 1/8 | 28,57 | 7 | 12 | 18 | - | - | 8 | - | 16 | 20 | 28 | - | 7 | 9 | 11 | 37,89 |
| 1 3/16 | 30,16 | - | - | 18 | - | - | 8 | 12 | 16 | 20 | 28 | - | - | - | - | - |
| 1 1/4 | 31,75 | 7 | 12 | 18 | - | - | 8 | - | 16 | 20 | 28 | - | 7 | 9 | 11 | 41,91 |
| 1 5/16 | 33,34 | - | - | 18 | - | - | 8 | 12 | 16 | 20 | 28 | - | - | - | - | - |
| 1 3/8 | 34,92 | 6 | 12 | 18 | - | - | 8 | - | 16 | 20 | 28 | - | 6 | 8 | 11 | 44,32 |
| 1 7/16 | 36,51 | - | - | 18 | - | 6 | 8 | 12 | 16 | 20 | 28 | - | - | - | - | - |
| 1 1/2 | 38,10 | 6 | 12 | 18 | - | - | 8 | - | 16 | 20 | 28 | - | 6 | 8 | 11 | 47,80 |
| 1 9/16 | 39,69 | - | - | 18 | - | 6 | 8 | 12 | 16 | 20 | - | - | - | - | - | - |
| 1 5/8 | 41,28 | - | - | 18 | - | 6 | 8 | 12 | 16 | 20 | - | - | 5 | 8 | | |
| 1 11/16 | 42,86 | - | - | 18 | - | 6 | 8 | 12 | 16 | 20 | - | - | - | - | - | - |
| 1 3/4 | 44,45 | 5 | - | - | - | 6 | 8 | 12 | 16 | 20 | - | - | 5 | 7 | 11 | 53,74 |
| 1 13/16 | 46,04 | - | - | - | - | 6 | 8 | 12 | 16 | 20 | - | - | - | - | - | - |
| 1 7/8 | 47,63 | - | - | - | - | 6 | 8 | 12 | 16 | 20 | - | - | 4 1/2 | - | - | - |
| 1 15/16 | 49,21 | - | - | - | - | 6 | 8 | 12 | 16 | 20 | - | - | - | - | - | - |
| 2 | 50,80 | 4 1/2 | - | - | - | 6 | 8 | 12 | 16 | 20 | - | - | 4 1/2 | 7 | 11 | 59,61 |
| 2 1/8 | 53,97 | - | - | - | - | 6 | 8 | 12 | 16 | 20 | - | - | - | - | - | - |
| 2 1/4 | 57,15 | 4 1/2 | - | - | - | 6 | 8 | 12 | 16 | 20 | - | - | 4 | 6 | 11 | 65,71 |
| 2 3/8 | 60,32 | - | - | - | - | 6 | 8 | 12 | 16 | 20 | - | - | - | - | - | - |
| 2 1/2 | 63,50 | 4 | - | - | - | 6 | 8 | 12 | 16 | 20 | - | - | 4 | 6 | 11 | 75,18 |
| 2 5/8 | 66,67 | - | - | - | 4 | 6 | 8 | 12 | 16 | 20 | - | - | - | - | - | - |
| 2 3/4 | 69,85 | 4 | - | - | - | 6 | 8 | 12 | 16 | 20 | - | - | 3 1/2 | 6 | 11 | 81,53 |
| 2 7/8 | 73,02 | - | - | - | 4 | 6 | 8 | 12 | 16 | 20 | - | - | - | - | - | - |
| 3 | 76,20 | 4 | - | - | - | 6 | 8 | 12 | 16 | 20 | - | - | 3 1/2 | 5 | 11 | 87,88 |
| 3 1/8 | 79,37 | - | - | - | 4 | 6 | 8 | 12 | 16 | - | - | - | - | - | - | - |
| 3 1/4 | 82,55 | 4 | - | - | - | 6 | 8 | 12 | 16 | - | - | - | 3 1/4 | 5 | 11 | 93,98 |
| 3 3/8 | 85,72 | - | - | - | 4 | 6 | 8 | 12 | 16 | - | - | - | - | - | - | - |
| 3 1/2 | 88,90 | 4 | - | - | - | 6 | 8 | 12 | 16 | - | - | - | 3 1/4 | 4 1/2 | 11 | 100,33 |
| 3 5/8 | 92,07 | - | - | - | 4 | 6 | 8 | 12 | 16 | - | - | - | - | - | - | - |
| 3 3/4 | 95,25 | 4 | - | - | - | 6 | 8 | 12 | 16 | - | - | - | 3 | 4 1/2 | 11 | 106,68 |
| 3 7/8 | 98,42 | - | - | - | 4 | 6 | 8 | 12 | 16 | - | - | - | - | - | - | - |
| 4 | 101,60 | 4 | - | - | - | 6 | 8 | 12 | 16 | - | - | - | 3 | 4 1/2 | 11 | 113,03 |

# GEWINDEKERNLOCH-VORFERTIGUNGSDURCHMESSER
# THREAD HOLE PREPARATORY DIAMETERS
# DIAMÈTRES DE PERÇAGE RECOMMANDÉS
# DIAMETRI DEI PREFORI DI FILETTATURA



NPT-Gewindebohrer sind für die Lochformen A bis C geeignet. Für Gewinde mit höheren Anforderungen, z.B. NPT-Gewinde für die Luftfahrt, empfehlen wir, das Kernloch nach Form B bzw. C auszuführen.

NPT taps are suited for the hole forms A to C. For threads with higher demands, e.g. NPT threads for the aircraft industry, we recommend preparing the thread hole to form B, resp. C.

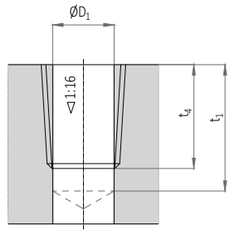
Les tarauds NPT sont appropriés pour les formes A, B et C. Pour taraudages destinés à de hautes exigences techniques, p.ex. le filetage NPT pour l'industrie aéronautique, nous recommandons de percer l'avant-trou selon forme B ou C.

I maschi NPT sono appropriati per le forme di foro A fino a C. Per filettature per elevate esigenze, p.es. filettature NPT per l'aviazione, raccommandiamo realizzare il preforo secondo forma B o C.

## ZYLINDRISCH VORBOHREN OHNE VERWENDUNG EINER REIBAHLE

Drill cylindrically without using a reamer / Perçage cylindrique sans utilisation d'alésoir / Perforare cilindrico senza l'utilizzo di alesatore

A

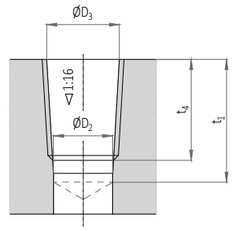



| ø $d_1$ | P | ø $D_1$ | $t_1$ 1) | $t_4$ 1) | $t_4$ |
|---|---|---|---|---|---|
| mm | Gg/1" (tpi) | mm | mm | mm | mm |
| 1/16 | 27 | 6,15 | 11,8 | 9,7 | 8,3 |
| 1/8 | 27 | 8,5 | 11,9 | 9,75 | 8,3 |
| 1/4 | 18 | 11 | 17,4 | 14,25 | 12,15 |
| 3/8 | 18 | 14,4 | 17,7 | 14,55 | 12,45 |
| 1/2 | 14 | 17,8 | 23,1 | 19 | 16,3 |
| 3/4 | 14 | 23,15 | 23,6 | 19,5 | 16,3 |
| 1" | 11 1/2 | 29,05 | 28,4 | 23,4 | 19,55 |
| 1 1/4 | 11 1/2 | 37,8 | 28,9 | 23,9 | 20,05 |
| 1 1/2 | 11 1/2 | 43,85 | 28,9 | 23,9 | 20,05 |
| 2" | 11 1/2 | 55,85 | 29,3 | 24,35 | 20,45 |

## ZYLINDRISCH VORBOHREN UND KEGELIG AUFREIBEN

Drill cylindrically and prepare tapered hole with reamer / Perçage cylindrique et alésage conique / Perforare cilindrico alesare conico

B




| ø $d_1$ | P | ø $D_1$ | ø $D_3$ (+0,05) | $t_1$ 1) | $t_4$ 1) | $t_4$ |
|---|---|---|---|---|---|---|
| mm | Gg/1" (tpi) | mm | mm | mm | mm | mm |
| 1/16 | 27 | 5,95 | 6,39 | 11,8 | 9,7 | 8,3 |
| 1/8 | 27 | 8,3 | 8,74 | 11,9 | 9,75 | 8,3 |
| 1/4 | 18 | 10,75 | 11,36 | 17,4 | 14,25 | 12,15 |
| 3/8 | 18 | 14,15 | 14,80 | 17,7 | 14,55 | 12,45 |
| 1/2 | 14 | 17,45 | 18,32 | 23,1 | 19 | 16,3 |
| 3/4 | 14 | 22,8 | 23,67 | 23,6 | 19,5 | 16,3 |
| 1" | 11 1/2 | 28,65 | 29,69 | 28,4 | 23,4 | 19,55 |
| 1 1/4 | 11 1/2 | 37,35 | 38,45 | 28,9 | 23,9 | 20,05 |
| 1 1/2 | 11 1/2 | 43,45 | 44,52 | 28,9 | 23,9 | 20,05 |
| 2" | 11 1/2 | 55,45 | 56,56 | 29,3 | 24,35 | 20,45 |

1) Die Vorbohrtiefe $t_1$ berücksichtigt die Längen L und $L_3$ nach ASME-Norm, sowie die jeweiligen Faktoren der Bearbeitungsprozesse.

1) The pilot hole depth $t_1$ takes into account the lengths L and $L_3$ according to the ASME standard, as well as the respective factors of the machining processes.

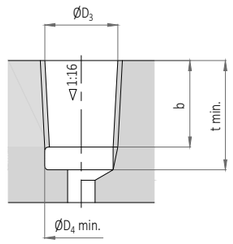
1) La profondeur du trou pilote $t_1$ tient compte des longueurs L et $L_3$ selon la norme ASME, ainsi que des facteurs respectifs des processus d'usinage.

1) La profondità del foro pilota $t_1$ tiene conto delle lunghezze L e $L_3$ secondo lo standard ASME, nonché dei rispettivi fattori dei processi di lavorazione.

## EMPFEHLUNG FÜR DAS VORARBEITEN VON GRUNDLÖCHERN

Recommended preparation of blind holes / Recommandation pour préparation des trous borgnes / Raccommandazione per la preparazione di fori ciechi

C




| ø $d_1$ | P | ø $D_3$ | b | t min 2) | ø $D_4$ min |
|---|---|---|---|---|---|
| mm | Gg/1" (tpi) | mm | mm | mm | mm |
| 1/16 | 27 | 6,39 | 7 | 10 | 7,6 |
| 1/8 | 27 | 8,74 | 7 | 10 | 10 |
| 1/4 | 18 | 11,36 | 10,2 | 14,5 | 13,1 |
| 3/8 | 18 | 14,80 | 10,6 | 15 | 16,5 |
| 1/2 | 14 | 18,32 | 13,8 | 19 | 20,5 |
| 3/4 | 14 | 23,67 | 14,2 | 20 | 25,8 |
| 1" | 11 1/2 | 29,69 | 17 | 24 | 32,2 |
| 1 1/4 | 11 1/2 | 38,45 | 17,5 | 24,5 | 41 |
| 1 1/2 | 11 1/2 | 44,52 | 17,5 | 24,5 | 47,2 |
| 2" | 11 1/2 | 56,56 | 18 | 25 | 59,2 |

2) Die Kernlochmaße sind auf Minimallängen nach ASME-Norm aufgebaut.

2) The core hole dimensions are based on minimum lengths in accordance with the ASME standard.

2) Les dimensions des trous de noyau sont basées sur des longueurs minimales selon la norme ASME.

2) Le dimensioni dei fori di carotaggio si basano su lunghezze minime conformi allo standard ASME.

# NPTF ANSI B 1.20.3

NPTF-Gewindebohrer sind für die Lochformen A bis C geeignet. Für Gewinde mit höheren Anforderungen, z.B. NPT-Gewinde für die Luftfahrt, empfehlen wir, das Kernloch nach Form B bzw. C auszuführen.

NPTF taps are suited for the hole forms A to C. For threads with higher demands, e.g. NPT threads for the aircraft industry, we recommend preparing the thread hole to form B, resp. C.

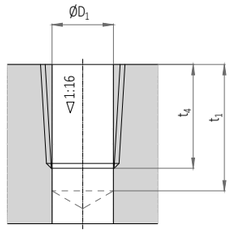
Les tarauds NPTF sont appropriés pour les formes A, B et C. Pour taraudages destinés à de hautes exigences techniques, p.ex. le filetage NPT pour l'industrie aéronautique, nous recommandons de percer l'avant-trou selon forme B ou C.

I maschi NPTF sono appropriati per le forme di foro A fino a C. Per filettature per elevate esigenze, p.es. filettature NPT per l'aviazione, raccommandiamo realizzare il preforo secondo forma B o C.

## ZYLINDRISCH VORBOHREN OHNE VERWENDUNG EINER REIBAHLE

Drill cylindrically without using a reamer / Perçage cylindrique sans utilisation d'alésoir / Perforare cilindrico senza l'utilizzo di alesatore

A

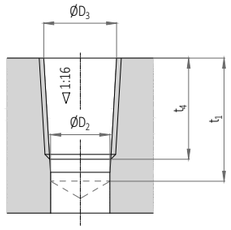



| ø $d_1$ | P | ø $D_1$ | $t_1$ 1) | $t_4$ 1) |
|---|---|---|---|---|
| mm | Gg/1“ (tpi) | mm | mm | mm |
| 1/16 | 27 | 6,1 | 13 | 10,6 |
| 1/8 | 27 | 8,45 | 13 | 10,7 |
| 1/4 | 18 | 10,9 | 19,2 | 15,6 |
| 3/8 | 18 | 14,3 | 19,5 | 16 |
| 1/2 | 14 | 17,6 | 25,4 | 20,8 |
| 3/4 | 14 | 23 | 25,9 | 21,3 |
| 1“ | 11 1/2 | 28,75 | 31,1 | 25,6 |
| 1 1/4 | 11 1/2 | 37,5 | 31,7 | 26,1 |
| 1 1/2 | 11 1/2 | 43,75 | 31,7 | 26,1 |
| 2“ | 11 1/2 | 55,75 | 32,1 | 26,5 |

## ZYLINDRISCH VORBOHREN UND KEGELIG AUFREIBEN

Drill cylindrically and prepare tapered hole with reamer / Perçage cylindrique et alésage conique / Perforare cilindrico alesare conico

B




| ø $d_1$ | P | ø $D_2$ | ø $D_3$ (+0,05) | $t_1$ 1) | $t_4$ |
|---|---|---|---|---|---|
| mm | Gg/1“ (tpi) | mm | mm | mm | mm |
| 1/16 | 27 | 5,95 | 6,41 | 13 | 10,65 |
| 1/8 | 27 | 8,3 | 8,76 | 13 | 10,7 |
| 1/4 | 18 | 10,75 | 11,4 | 19,2 | 15,85 |
| 3/8 | 18 | 14,15 | 14,84 | 19,5 | 16 |
| 1/2 | 14 | 17,45 | 18,33 | 25,4 | 20,85 |
| 3/4 | 14 | 22,8 | 23,68 | 25,9 | 21,3 |
| 1“ | 11 1/2 | 28,65 | 29,72 | 31,1 | 25,6 |
| 1 1/4 | 11 1/2 | 37,35 | 38,48 | 31,7 | 26,1 |
| 1 1/2 | 11 1/2 | 43,45 | 44,55 | 31,7 | 26,1 |
| 2“ | 11 1/2 | 55,45 | 56,59 | 32,1 | 26,5 |

1) Die Vorbohrtiefe $t_1$ berücksichtigt die Längen L und $L_3$ nach ASME-Norm, sowie die jeweiligen Faktoren der Bearbeitungsprozesse.

1) The pilot hole depth $t_1$ takes into account the lengths L and $L_3$ according to the ASME standard, as well as the respective factors of the machining processes.

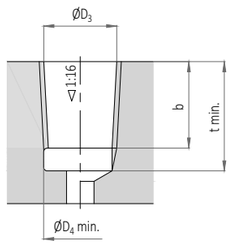
1) La profondeur du trou pilote $t_1$ tient compte des longueurs L et $L_3$ selon la norme ASME, ainsi que des facteurs respectifs des processus d'usinage.

1) La profondità del foro pilota $t_1$ tiene conto delle lunghezze L e $L_3$ secondo lo standard ASME, nonché dei rispettivi fattori dei processi di lavorazione.

## EMPFEHLUNG FÜR DAS VORARBEITEN VON GRUNDLÖCHERN

Recommended preparation of blind holes / Recommandation pour préparation des trous borgnes / Raccommandazione per la preparazione di fori ciechi

C




| ø $d_1$ | P | ø $D_3$ (+0,05) | b | t min 2) | ø $D_4$ min |
|---|---|---|---|---|---|
| mm | Gg/1“ (tpi) | mm | mm | mm | mm |
| 1/16 | 27 | 6,41 | 8 | 11 | 7,4 |
| 1/8 | 27 | 8,76 | 8 | 11 | 9,8 |
| 1/4 | 18 | 11,4 | 11,6 | 15,5 | 12,9 |
| 3/8 | 18 | 14,84 | 12 | 16 | 16,3 |
| 1/2 | 14 | 18,33 | 15,6 | 20,5 | 20,3 |
| 3/4 | 14 | 23,68 | 16 | 21,5 | 25,6 |
| 1“ | 11 1/2 | 29,72 | 19,2 | 26 | 32 |
| 1 1/4 | 11 1/2 | 38,48 | 19,7 | 26,5 | 40,8 |
| 1 1/2 | 11 1/2 | 44,55 | 19,7 | 26,5 | 47 |
| 2“ | 11 1/2 | 56,59 | 20,2 | 27 | 59 |

2) Die Kernlochmaße sind auf Minimallängen nach ASME-Norm aufgebaut.

2) The core hole dimensions are based on minimum lengths in accordance with the ASME standard.

2) Les dimensions des trous de noyau sont basées sur des longueurs minimales selon la norme ASME.

2) Le dimensioni dei fori di carotaggio si basano su lunghezze minime conformi allo standard ASME.



# RC (BSPT) DIN EN 10226-2, ISO 7-1

Rc-Gewindebohrer sind für die Lochformen A bis C geeignet. Für Gewinde mit höheren Anforderungen, z.B. NPT-Gewinde für die Luftfahrt, empfehlen wir, das Kernloch nach Form B bzw. C auszuführen.

Rc taps are suited for the hole forms A to C. For threads with higher demands, e.g. NPT threads for the aircraft industry, we recommend preparing the thread hole to form B, resp. C.

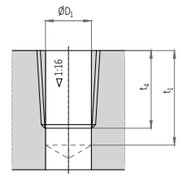
Les tarauds Rc sont appropriés pour les formes A, B et C. Pour taraudages destinés à de hautes exigences techniques, p.ex. le filetage NPT pour l'industrie aéronautique, nous recommandons de percer l'avant-trou selon forme B ou C.

I maschi Rc sono appropriati per le forme di foro A fino a C. Per filettature per elevate esigenze, p.es. filettature NPT per l'aviazione, raccommandiamo realizzare il preforo secondo forma B o C.

## ZYLINDRISCH VORBOHREN OHNE VERWENDUNG EINER REIBAHLE

Drill cylindrically without using a reamer / Perçage cylindrique sans utilisation d'alésoir / Perforare cilindrico senza l'utilizzo di alesatore

A

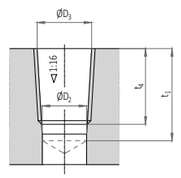



| ø $d_1$ | P | ø $D_1$ | $t_1$ 1) | $t_4$ |
|---|---|---|---|---|
| mm | Gg/1" (tpi) | mm | mm | mm |
| 1/16 | 28 | 6,15 | 11,1 | 9,5 |
| 1/8 | 28 | 8,15 | 11,1 | 9,5 |
| 1/4 | 19 | 10,85 | 16,3 | 14 |
| 3/8 | 19 | 14,3 | 16,7 | 14,4 |
| 1/2 | 14 | 17,8 | 22,3 | 19,1 |
| 3/4 | 14 | 23,2 | 23,6 | 20,4 |
| 1" | 11 | 29,2 | 28,3 | 24,3 |

## ZYLINDRISCH VORBOHREN UND KEGELIG AUFREIBEN

Drill cylindrically and prepare tapered hole with reamer / Perçage cylindrique et alésage conique / Perforare cilindrico alesare conico

B

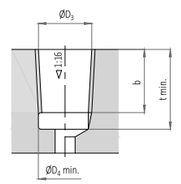



| ø $d_1$ | P | ø $D_2$ | ø $D_3$ (JS11) | $t_1$ 1) | t4 |
|---|---|---|---|---|---|
| mm | Gg/1" (tpi) | mm | mm | mm | mm |
| 1/16 | 28 | 6,1 | 6,56 | 11,1 | 9,5 |
| 1/8 | 28 | 8,1 | 8,57 | 11,1 | 9,5 |
| 1/4 | 19 | 10,75 | 11,45 | 16,3 | 14 |
| 3/8 | 19 | 14,25 | 14,95 | 16,7 | 14,4 |
| 1/2 | 14 | 17,7 | 18,63 | 22,3 | 19,1 |
| 3/4 | 14 | 23,1 | 24,12 | 23,6 | 20,4 |
| 1" | 11 | 29,1 | 30,29 | 28,3 | 24,3 |

## EMPFEHLUNG FÜR DAS VORARBEITEN VON GRUNDLÖCHERN

Recommended preparation of blind holes / Recommandation pour préparation des trous borgnes / Raccommandazione per la preparazione di fori ciechi

C




| ø $d_1$ | P | ø $D_3$ (JS11) | b | t min | ø $D_4$ min |
|---|---|---|---|---|---|
| mm | Gg/1“ (tpi) | mm | mm | mm | mm |
| 1/16 | 28 | 6,56 | 5,6 | 9,9 | 7,6 +0,3 |
| 1/8 | 28 | 8,57 | 5,6 | 9,9 | 9,6 +0,3 |
| 1/4 | 19 | 11,45 | 8,4 | 14,6 | 13 +0,5 |
| 3/8 | 19 | 14,95 | 8,8 | 15 | 16,5 +0,5 |
| 1/2 | 14 | 18,63 | 11,4 | 20 | 20,6 +0,5 |
| 3/4 | 14 | 24,12 | 12,7 | 21,3 | 26 +0,5 |
| 1“ | 11 | 30,29 | 14,5 | 25,4 | 32,8 +0,5 |

1) Die Vorbohrtiefe $t_1$ berücksichtigt die Längen L und $L_3$ nach ASME-Norm, sowie die jeweiligen Faktoren der Bearbeitungsprozesse.

1) The pilot hole depth $t_1$ takes into account the lengths L and $L_3$ according to the ASME standard, as well as the respective factors of the machining processes.

1) La profondeur du trou pilote $t_1$ tient compte des longueurs L et $L_3$ selon la norme ASME, ainsi que des facteurs respectifs des processus d'usinage.

1) La profondità del foro pilota $t_1$ tiene conto delle lunghezze L e $L_3$ secondo lo standard ASME, nonché dei rispettivi fattori dei processi di lavorazione.

INTERNATIONALER WERKSTOFFVERGLEICH
INTERNATIONAL COMPARISON OF MATERIALS
COMPARAISON INTERNATIONALE DES MATÉRIAUX
CONFRONTO INTERNAZIONALE DEI MATERIALI

| | Klasse / Class / Classe / Classe | Rm [N/mm²] | A5 [%] | Rockwell [HRc] | European Standard | Brand name | Mat.-Nr. | DIN | AFNOR | BS | EN | UNI | UNE | JIS | SIS | AISI \| SAE \| ASTM |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| P | MAGNETWEICHEISEN \| SOFT MAGNETIC STEEL \| FER PUR MAGNÉTIQUE \| FERRO DOLCE MAGNETICO | | | | | | | | | | | | | | | |
| | P1.1 | <400 | | | | | 1.1011 | RFe160 | | | | | | | | |
| | P1.1 | <400 | | | | | 1.1013 | RFe100 | | | | | | | | |
| | P1.1 | <400 | | | | | 1.1014 | RFe80 | | | | | | | | |
| | P1.1 | <400 | | | | | 1.1015 | RFe60 | | | | | | | | |
| | P1.1 | <400 | | | | | 1.1017 | RFe20 | | | | | | | | |
| | P1.1 | <400 | | | | | 1.1018 | RFe12 | | | | | | | | |
| P | BAUSTÄHLE UNLEGIERT \| CONSTRUCTION STEELS \| ACIERS DE CONSTRUCTION NON-ALLIÈS \| ACCIAI DA COSTRUZIONE NON LEGATI | | | | | | | | | | | | | | | |
| | P1.1 | 310- 500 | 20 | | S205GT | | 1.0032 | St34-2 | | | | | | | | 1010 |
| | P1.1 | 310- 500 | 20 | | S205 GT | | 1.0034 | RsSt34-2 | | | | | | | | 1010 |
| | P1.1 | 290- 510 | 18 | | S185 | | 1.0035 | St33 | | | | | | | | |
| | P1.1 | 340- 510 | 25 | | S235JRG1+CR | | 1.0036 | USt 37-2 | | | | | | STKM 12 C | | |
| | P1.1 | 340- 510 | 25 | | S235JR | | 1.0037 | St 37-2 | | | | | | STKM 12 C | | |
| | P1.1 | 410- 560 | 21 | | S275JR | | 1.0044 | St 44-2 | E 28-2 | 4360-43 B | | Fe 430 B FN | | SM 41 B | 1412 | A 570.40 |
| | P1.1 | 340- 470 | 25 | | S235J0 | | 1.0114 | St 37-3 | E 24-3; E 24-4 | 4360-40 C | | Fe 360 D FF | | | 1312; 1313 | A 573.58 |
| | P1.1 | 340- 470 | 25 | | S235J2G3 | | 1.0116 | St 37-3 | E 24-3; E 24-4 | 4360-40 C | | Fe 360 D FF | | | 1312; 1313 | A 573.58 |
| | P1.1 | 340- 510 | 25 | | S235JRC | | 1.0120 | St37-1 | | | | | | | | |
| | P1.1 | 410- 560 | 21 | | S275JOC | | 1.0140 | St 44-1 | E 28-3; E 28-4 | 4360-43 C | | Fe 430 D FF | | SM 41 C | 1412; 1414 | A 573.70 |
| | P1.1 | 410- 560 | 21 | | S275J2G3 | | 1.0144 | St 44-3 | E 28-3; E 28-4 | 4360-43 C | | Fe 430 D FF | | SM 41 C | 1412; 1414 | A 573.70 |
| | P1.1 | 470- 610 | 19 | | E295 | | 1.0050 | St 50-2 | A 50-2 | 4360-50 B | | Fe 490 | | SS 50 | 2172 | A 570.50 |
| | P1.1 | 470- 610 | 19 | | S355J0 | | 1.0553 | St 52-3 U | E 36-3; E 36-4 | 4360-50 B | | Fe 510 B; C; D | | SM 50 YA | 2132 | |
| | P1.1 | 490- 630 | 21 | | S355J2G3+CR | | 1.0570 | St 52-3 | E 36-3; E 36-4 | 4360-50 B | | Fe 510 B; C; D | | SM 50 YA | 2132 | |
| | P1.1 | 570- 710 | 15 | | E335 | | 1.0060 | St 60-2 | A 60-2 | 4360-SSE; SS | | Fe 590; Fe 600 | | SM 58 | | |
| | P1.1 | 340- 470 | 25 | | S235JR (RST37-2) | | 1.0038 | RSt37-2 | E24-2 Ne | 4360 40C | 1A | | | STKM 12A;C | 1311 | A570.36 |
| | P1.1 | 670- 830 | 11 | | E360 | | 1.0070 | St 70-2 | A 70-2 | | | Fe690; Fe70 | | | | A572.55 |
| P | FEINKORNBAUSTÄHLE \| FINE-GRAIN CONSTRUCTION STEELS \| ACIERS DE CONSTRUCTION À GRAIN FIN \| ACCIAI DA COSTRUZIONE A GRANA FINE | | | | | | | | | | | | | | | |
| | P1.1 | 310- 450 | 26 | | S255 | | 1.0461 | StE 255 | K 01800 | K 02202 | | | | | | |
| | P1.1 | 310- 470 | 25 | | S275 | | 1.0486 | StE 285 | | | | FeE285 | | | | A 500 A; B; C |
| | P1.1 | 360- 510 | 23 | | S315 | | 1.0505 | StE 315 | | | | | | | | |
| | P1.1 | 490- 630 | 20 | | S380 | | 1.8900 | StE 380 | | | | | | | | |
| | P1.1 | 500- 680 | 19 | | S420 | | 1.8902 | StE 420 | | | | | | | | A 633, A694 |
| | P1.1 | 530- 720 | 19 | | S460 | | 1.8905 | StE 460 | | | | | | | | A 633 C, A 694 |
| | P1.1 | 560- 760 | 17 | | S500 | | 1.8907 | StE 500 | | | | | | | | |
| | P1.2 | 650- 930 | 15 | | S690 | | 1.8928 | | | | | | | | | |
| | P1.2 | 980- 1150 | 10 | | S960 | | 1.8933 | | | | | | | | | |
| P | DRUCKBEHÄLTERSTÄHLE \| PRESSURE VESSEL STEELS \| ACIERS POUR APPAREILS À PRESSION \| ACCIAI PER RECIPIENTI A PRESSIONE | | | | | | | | | | | | | | | |
| | P1.1 | 360- 480 | 26 | | P235S | | 1.0112 | SPH 235 | | | | | | | | |
| | P1.1 | 410- 530 | 22 | | P265S | | 1.0310 | SPH 265 | | | | | | | | |
| | P1.1 | 390- 510 | 24 | | P275SL | | 1.1100 | SPH 275 | | | | | | | | |
| | P1.1 | 360- 480 | 24 | | P235GH | | 1.0345 | HI | | | | | | | | A 285 Gr. C-A |
| | P1.1 | 410- 530 | 22 | | P265GH | | 1.0425 | HII | | | | | | | | |
| | P1.1 | 440- 580 | 21 | | P285NH | | 1.0435 | HIII | | | | | | | | |
| | P1.1 | 460- 580 | 21 | | P295GH | | 1.0481 | 17 Mn 4 | | | | | | | | A 414 Gr. F |
| | P1.1 | 390- 510 | 24 | | P275NH | | 1.0487 | WStE 285 | | 224-400 B | | Fe E 285 KW | | | | A 516 Gr. 60 |
| | P1.1 | 390- 510 | 24 | | P275NL1 | | 1.0488 | | | 224-400 A | | Fe E 285 KT | | | | A 516 Gr. 60 |
| | P1.1 | 390- 510 | 24 | | P275NL2 | | 1.1104 | EStE 285 | | 224-400 A | | | | | | |
| | P1.1 | 510- 650 | 20 | | P355GH | | 1.0473 | 19 Mn 6 | | | | | | | | A 414 Gr. G |
| | P1.1 | 490- 630 | 22 | | P355N | | 1.0562 | StE 355 | A 510 AP | 225-490 A | | Fe E 355 KG | | | | A516 Gr. 70 |
| | P1.1 | 490- 630 | 22 | | P355NH | | 1.0565 | WStE 355 | A 510 AP | 225-490 B | | Fe E 355 KW | | | | A516 Gr. 70 |
| | P1.1 | 490- 630 | 22 | | P355NL1 | | 1.0566 | TtE 355 | A 510 FP | 225-490 A | | Fe E 355 KT | | | | A516 Gr. 70 |
| | P1.1 | 490- 630 | 22 | | P355NL2 | | 1.1106 | EtE 355 | | 225-490 A | | | | | | A707 |
| P | AUTOMATENSTÄHLE \| FREE-MACHINING STEELS \| ACIERS DE DÉCOLLETAGE \| ACCIAI ALTA VELOCITÀ | | | | | | | | | | | | | | | |
| | P1.1 | 360- 530 | 9 | | | | 1.0711 | 9 S 20 | | 220 M 07 | | CF 9 S 22 | | SUM 21 | | 1212 |
| | P1.1 | 380- 570 | 8 | | | | 1.0715 | 9 SMn 28 | S 250 | 230 M 07 | | CF 9 SMn 28 | 11SMn28 | SUM 22 | 1912 | 1213 |
| | P1.1 | 380- 570 | 8 | | | | 1.0718 | 9 SMnPb 28 | S 250 Pb | | | CF 9 SMnPb 2 | 11SMnPb28 | SUM 22 L | 1914 | 12 L 13 |
| | P1.1 | 360- 530 | 9 | | | | 1.0721 | 10 S 20 | 10 F 1 | 210 M 15 | | CF 10 S 20 | 10S20 | | | 1108 |
| | P1.1 | 360- 530 | 9 | | | | 1.0722 | 10 SPb 20 | 10 PbF 2 | | | CF 10 SPb 20 | 10SPb20 | | | 11 L 08 |
| | P1.1 | 380- 570 | 8 | | | | 1.0723 | 15 S 20 | | 210 A 15 | | | F.210.F | SUM 32 | 1922 | |
| | P1.1 | 390- 590 | 7 | | | | 1.0736 | 9 SMn 36 | S 300 | 240 M 07 | 1B | CF 9 SMn 36 | 12SMn36 | | | 1215 |
| | P1.1 | 390- 580 | 7 | | | | 1.0737 | 9 SMnPb 36 | S 300 Pb | | | CF 9 SMnPb 36 | 12SMNPb36 | | 1926 | 12 L 14 |
| | P1.1 | 580- 730 | 8 | | | | 1.0726 | 35 S 20 | 35 MF 4 | 212 M 36 | 8M | | F210G | | 1957 | 1140 |
| | P1.1 | 660- 800 | 7 | | | | 1.0727 | 45 S 20 | 45 MF 4 | 212 M 44 | | | | | 1973 | 1146 |
| | P1.1 | 740- 880 | 7 | | | | 1.0728 | 60 S 20 | 60 MF 4 | | | | | | | |

| Klasse / Class / Classe / Classe | Rm [N/mm²] | A5 [%] | Rockwell [HRc] | European Standard | Brand name | Mat.-Nr. | DIN | AFNOR | BS | EN | UNI | UNE | JIS | SIS | AISI \| SAE \| ASTM |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| P KALTUMFORMSTÄHLE \| COLD FORMING STEELS \| ACIERS FORMÉS À FROID \| ACCIAI PER FORMATURA A FREDDO | | | | | | | | | | | | | | | |
| P1.1 | 390- 510 | 20 | | S315MC | | 1.0972 | | | | | | | | | 045 XLK |
| P1.1 | 420- 540 | 19 | | | | 1.0974 | QStE 340 TM | | | | | | | | HSLAS-F Gr. 50 |
| P1.1 | 420- 580 | 19 | | S340NC | | 1.0975 | QStE 340 N | | | | | | | | |
| P1.1 | 430- 550 | 19 | | S355MC | | 1.0976 | | | | | | | | | |
| P1.1 | 450- 590 | 18 | | | | 1.0978 | QStE 380 TM | | | | | | | | |
| P1.1 | 480- 640 | 16 | | S380NC | | 1.0979 | QStE 380 N | | | | | | | | |
| P1.1 | 480- 620 | 16 | | S420MC | | 1.0980 | QStE 420 TM | | | | | | | | HSLAS-F Gr. 60 |
| P1.1 | 520- 670 | 14 | | S460MC | | 1.0982 | QStE 460 TM | | | | | | | | |
| P1.1 | 560- 700 | 12 | | S460NC | | 1.0983 | QStE 460 N | | | | | | | | |
| P1.1 | 550- 700 | 12 | | S500MC | | 1.0984 | QStE 500 TM | | | | | | | | HSLAS-F Gr. 70 |
| P1.1 | 580- 730 | 12 | | S500NC | | 1.0985 | QStE 500 N | | | | | | | | |
| P1.1 | 600- 760 | 12 | | S550MC | | 1.0986 | QStE 550 TM | | | | | | | | HSLAS-F Gr. 80 |
| P1.1 | 600- 750 | 12 | | S550NC | | 1.0987 | QStE 550 N | | | | | | | | |
| P1.1 | 650- 820 | 11 | | S600MC | | 1.8969 | | | | | | | | | |
| P1.1 | 700- 880 | 10 | | S650MC | | 1.8976 | | | | | | | | | |
| P1.2 | 750- 950 | 10 | | S700MC | | 1.8974 | QStE 690 TM | | | | | | | | |
| P BAUSTÄHLE LEGIERT \| ALLOYED STRUCTURAL STEELS \| ACIERS DE CONSTRUCTION ALLIÈS \| ACCIAI DA COSTRUZIONE | | | | | | | | | | | | | | | |
| P1.1 | 440- 590 | 24 | | | | 1.5415 | 15 Mo 3 | 15 D 3 | 1501-240 | | 16 Mo 3 | 16Mo3 | | 2912 | A 204 Gr. A |
| P1.1 | 450- 590 | 21 | | | | 1.5423 | 16 Mo 5 | | 1503-245-420 | | 16 Mo 5 | 16Mo5 | | | 4520 |
| P1.1 | 490- 640 | 20 | | | | 1.5622 | 14 Ni 6 | 16 N 6 | | | 14 Ni 6 | 15Ni6 | | | A 350-LF 5 |
| P1.1 | 530- 710 | 20 | | | | 1.5680 | 12 Ni 19 | Z 18 N 5 | | | | | | | 2515 |
| P1.1 | 450- 660 | 20 | | | | 1.7335 | 13 CrMo 4 4 | 15 CD 3.5 | 1501-620 Gr. 27 | | 14 CrMo 4 5 | 14CrMo45 | | 2216 | A 182-F11; F12 |
| P1.1 | 540- 690 | 20 | | | | 1.7337 | 16 CrMo 4 4 | 15 CD 4.5 | 1501-620 Gr. 27 | | 15 CrMo 4 5 | | | 2216 | A 387 Gr. 12 C |
| P1.1 | 480- 630 | 18 | | | | 1.7380 | 10 CrMo 9 10 | 10 CD 9.10 | 1501-622 Gr. 31; 45 | | 12 CrMo 9 10 | | | 2218 | A 182-F22 |
| P1.1 | 700- 850 | 16 | | | | 1.7709 | 21 CrMoV 5 7 | | | | | | | | |
| P1.1 | 490- 640 | 20 | | | | 1.7715 | 14 MoV 6 3 | 14 Mo 6 | 1503-660-440 | | | 13MoCrV6 | | | |
| P EINSATZSTÄHLE \| CASE HARDENING STEELS \| ACIERS DE CÉMENTATION \| ACCIAI DA CEMENTAZIONE | | | | | | | | | | | | | | | |
| P1.1 | 340- 520 | 15 | | C10 | | 1.0301 | C 10 | AF 34 C 10; XC 10 | 045 M 10 | | C 10 | | S 10 C | | 1010 |
| P1.1 | 360- 520 | 13 | | C15 | | 1.0401 | C 15 | AF 34 C 12; XC 18 | 080 M 15 | | C 15; C 16 | F.111 | | 1350 | 1015 |
| P1.1 | 480- 690 | 13 | | C22 | | 1.0402 | C22 | CC20 | 050 A 20 | 2C | C20; C21 | F.112 | | 1450 | 1020 |
| P1.1 | 590- 780 | 13 | | C15E | | 1.1141 | Ck 15 | XC 15; XC 18 | 080 M 15 | 32C | C 15; C 16 | F.111 | S 15 C; S 15 CK | 1370 | 1015 |
| P1.1 | 620- 880 | 20 | | C22E | | 1.1151 | Ck 22 | XC 25; XC 18 | 050 A 20 | | C 20 | | S 20 C; S 20 CK | | 1023 |
| P4 | 750- 1530 | 8 | | | | 1.2764 | X 19 NiCrMo 4 | | | | | | | | |
| P1.1 \| P1.2 | 690- 930 | 15 | | | | 1.7012 | 13 Cr 2 | | | | | | | | |
| P1.1 | 650- 880 | 16 | | | EC60 | 1.7015 | 15 Cr 3 | 12 C 3 | 523 M 15 | | | | SCR 415 (H) | | 5015 |
| P1.2 | 830- 1080 | 11 | | | | 1.5732 | 14 NiCr 10 | 14 NC 11 | | | 16 NiCr 11 | 15NiCr11 | SNC 415 (H) | | 3415 |
| P1.2 | 880- 1180 | 10 | | | | 1.5752 | 14 NiCr 14 | 12 NC 15 | 655 M 13 | 36A | | | SNC 815 (H) | | 3310; 9314 |
| P1.2 \| P1.3 | 1080- 1420 | 8 | | | | 1.5860 | 14 NiCr 18 | | | | | | | | |
| P1.2 | 780- 1270 | 8 | | | | 1.5919 | 15 CrNi 6 | 16 NC 6 | S 107 | | 16 CrNi 4 | | | | |
| P1.2 \| P1.3 | 1080- 1320 | 8 | | | | 1.5920 | 18 NiCr 8 | 20 NC 6 | | | | | | | |
| P1.2 | 690- 1270 | 11 | | | | 1.6523 | 21 NiCrMo 2 | 20 NCD 2 | 805 M 20 | 362 | 20 NiCrMo 2 | 20NiCrMo2 | SNCM 220 (H) | 2506 | 8620 |
| P1.2 \| P1.3 | 980- 1420 | 8 | | | | 1.6587 | 17 CrNiMo 6 | 18 NCD 6 | 820 A 16 | | 18 NiCrMo 7 | 14NiCrMo13 | | | |
| P1.1 \| P1.2 | 650- 1000 | 10 | | | EC80 | 1.7131 | 16 MnCr 5 | 16 MC 5 | 527 M 17 | | 16 MnCr 5 | 16MnCr5 | SCR 415 | 2511 | 5115 |
| P1.1 \| P1.2 | 650- 1000 | 10 | | | EC80 | 1.7139 | 16 MnCrS 5 | | | | | | | | |
| P1.2 \| P1.3 | 780- 1350 | 8 | | | EC100 | 1.7147 | 20 MnCr 5 | 20 MC 5 | | | 20 MnCr 5 | | SMnC 420 (H) | | 5120 |
| P1.2 \| P1.3 | 780- 1350 | 8 | | | EC100 | 1.7149 | 20 MnCrS 5 | | | | | | | | |
| P1.1 \| P1.2 | 640- 1180 | 11 | | | | 1.7262 | 15 CrMo 5 | 12 CD 4 | | | 12 CrMo 4 | F.155 | SCM 415 (H) | | |
| P1.2 \| P1.3 | 780- 1370 | 8 | | | | 1.7264 | 20 CrMo 5 | 18 CD 4 | | | | | SCM 421 | | |
| P1.2 \| P1.3 | 780- 1380 | 8 | | | | 1.7271 | 23 CrMoB 3 3 | | | | | | | | |
| P1.2 | 780- 1220 | 10 | | | | 1.7311 | 20 CrMo 2 | | | | | | | | |
| P1.2 | 780- 1180 | 10 | | | | 1.7321 | 20 MoCr 4 | | | | | | | | |
| P1.2 | 780- 1180 | 10 | | | | 1.7323 | 20 MoCrS 4 | | | | | | | | |
| P1.2 \| P1.3 | 780- 1370 | 8 | | | | 1.7325 | 25 MoCr 4 | | | | | | | | |
| P1.2 \| P1.3 | 780- 1370 | 8 | | | | 1.7326 | 25 MoCrS 4 | | | | | | | | |

| Klasse / Class / Classe / Classe | Rm [N/mm²] | A5 [%] | Rockwell [HRc] | European Standard | Brand name | Mat.-Nr. | DIN | AFNOR | BS | EN | UNI | UNE | JIS | SIS | AISI \| SAE \| ASTM |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| P | VERGÜTUNGSSTÄHLE UNLEGIERT \| UNALLOYED HEAT-TREATABLE STEELS \| ACIERS D'AMÉRLIORATION NON-ALLIÉS \| ACCIAI DA BONIFICA NON LEGATI | | | | | | | | | | | | | | |
| P1.1 | 520- 780 | 20 | | C25 | | 1.0406 | C 25 | AF 50 C 30 | 070 M 26 | | C 25 | | | | 1025 |
| P1.1 | 520- 780 | 19 | | C30 | | 1.0528 | C 30 | | | | | | | | |
| P1.1 | 550- 780 | 18 | | C35 | | 1.0501 | C 35 | AF 55 C 35 | 060 A 35 | | C 35 | F.113 | | 1550 | 1035 |
| P1.1 | 550- 820 | 16 | | C40 | | 1.0511 | C 40 | AF 60 C 40 | | | C 40 | | | | 1040 |
| P1.1 | 630- 850 | 16 | | C45 | | 1.0503 | C 45 | AF 65 C 45 | 080 M 46 | | C 45 | F.114 | | 1650 | 1045 |
| P1.1 | 520- 780 | 19 | | C25E | | 1.1158 | Ck 25 | XC 25 | 070 M 26 | | C 25 | | S 25 C | | 1025 |
| P1.1 | 520- 780 | 18 | | C30E | | 1.1178 | Ck 30 | | | | | | | | |
| P1.1 | 550- 780 | 17 | | C35E | | 1.1181 | Ck 35 | XC 38 H1; XC 32 | 080 M 36 | | C 35 | | S 35 C | 1572 | 1035 |
| P1.1 | 550- 820 | 16 | | C40E | | 1.1186 | Ck 40 | XC 42 H1 | 080 M 40 | | C 40 | | S 40 C | | 1040 |
| P1.1 | 630- 850 | 14 | | C45E | | 1.1191 | Ck 45 | XC 42 | 080 M 46 | | C 45 | C45K | S 45 C | 1672 | 1045 |
| P1.1 | 590- 900 | 13 | | C50 | | 1.0540 | C 50 | | | | | | | | |
| P1.1 / P1.2 | 620-950 | 12 | | C55 | | 1.0535 | C 55 | | 070 M 55 | | C 55 | | | 1655 | 1055 |
| P1.1 / P1.2 | 650- 1000 | 11 | | C60 | | 1.0601 | C 60 | CC 55 | 080 A 62 | 43D | C 60 | | | | 1060 |
| P1.1 | 590- 900 | 13 | | C50E | | 1.1206 | Ck 50 | XC 48 H1 | 080 M 50 | | | | | | 1050 |
| P1.1 / P1.2 | 620-950 | 12 | | C55E | | 1.1203 | Ck 55 | XC 55 | 070 M 55 | | C 50 | C55K | S 55 C | | 1055 |
| P1.1 / P1.2 | 650- 1000 | 11 | | C60E | | 1.1221 | Ck 60 | XC 60 | 080 A 62 | 43D | C 60 | | S 58 C | 1665; 1678 | 1060 |
| P | VERGÜTUNGSSTÄHLE LEGIERT \| ALLOYED HEAT-TREATABLE STEELS \| ACIERS D'AMÉRLIORATION ALLIÉS \| ACCIAI DA BONIFICA LEGATI | | | | | | | | | | | | | | |
| P1.1 | 490- 640 | 22 | | | | 1.1133 | 20 Mn 5 | 20 M 5 | 120 M 19 | | G 22 Mn 3 | | | | 1022; 1518 |
| P1.1 | 520- 960 | 11 | | | | 1.7735 | 14 CrMoV 6 9 | 15 CDV 6 | | | | | | | |
| P1.1 \| P1.2 | 650- 1020 | 13 | | | | 1.3505 | 100 Cr 6 | 100 C 6 | 534 A 99 | 31 | 100 Cr 6 | | SUJ 2 | 2258 | 52100 |
| P1.2 | 850- 1130 | 11 | | | | 1.5120 | 38 MnSi 4 | | | | | | | | |
| P1.2 | 830- 1230 | 12 | | | | 1.5121 | 46 MnSi 4 | | | | | | | | |
| P1.2 | 830- 1230 | 12 | | | | 1.5122 | 37 MnSi 5 | | | | | | | | |
| P1.1 \| P1.2 | 650- 1000 | 13 | | | | 1.5131 | 50 MnSi4 | | | | | | | | |
| P1.1 \| P1.2 | 690- 1030 | 13 | | | | 1.5141 | 53 MnSi 4 | | | | | | | | |
| P1.2 | 780- 1180 | 11 | | | | 1.5710 | 36 NiCr 6 | 35 NC 6 | 640 A 35 | 111A | | | SNC 236 | | 3135 |
| P1.1 \| P1.2 \| P1.3 | 630- 1350 | 12 | | | | 1.6546 | 40 NiCrMo 2 2 | 40 NCD 2 | 311-Type7 | | 40 NiCrMo 2 (KB) | 40NiCrMo2 | SNCM 240 | | 8740 |
| P1.1 \| P1.2 \| P1.3 | 720- 1400 | 11 | | | | 1.6565 | 40 NiCrMo 6 | | 311-Type6 | | | | SNCM 439 | | 4340 |
| P1.1 \| P1.2 | 680- 1100 | 13 | | | | 1.7003 | 38 Cr 2 | 38 C 2 | | | 38 Cr 2 | | | | |
| P1.1 \| P1.2 | 720- 1100 | 13 | | | | 1.7006 | 46 Cr 2 | 42 C 2 | | | 45 Cr 2 | | | | 5045 |
| P1.1 \| P1.2 | 560- 1000 | 15 | | | | 1.7020 | 32 Cr 2 | | | | | | | | |
| P1.1 \| P1.2 | 560- 1000 | 14 | | | | 1.7030 | 28 Cr 4 | | 530 A 30 | | | | | | 5130 |
| P1.1 \| P1.2 | 620- 1100 | 14 | | | | 1.7033 | 34 Cr 4 | 32 C 4 | 530 A 32 | 18B | 34 Cr 4 (KB) | 35Cr4 | SCr 430 (H) | | 5132 |
| P1.1 \| P1.2 | 600- 1100 | 15 | | | | 1.7218 | 25 CrMo 4 | 25 CD 4 S | 1717 CDS 110 | | 25 CrMo 4 (KB) | 55Cr3 | SCM 420; SCM 430 | 2225 | 4130 |
| P1.2 \| P1.3 | 700- 1200 | 13 | | | | 1.7220 | 34 CrMo 4 | 35 CD 4 | 708 A 37 | 19B | 35 CrMo4 | 34CrMo4 | SCM 432; SCCrM 3 | 2234 | 4135; 4137 |
| P1.2 \| P1.3 | 740- 1270 | 12 | | | | 1.7223 | 41 CrMo 4 | 42 CD 4 TS | 708 M 40 | 19A | 41 CrMo 4 | 42CrMo4 | SCM 440 | 2244 | 4142; 4140 |
| P1.2 \| P1.3 | 750- 1300 | 12 | | | | 1.7225 | 42 CrMo 4 | 42 CD 4 TS | 708 M 40 | 19A | 42 CrMo 4 | F-1252 | SCM 440 | 2244 | 4140 |
| P1.2 \| P1.3 | 800- 1300 | 12 | | | | 1.7228 | 50 CrMo 4 | | 708 A 47 | | | | SCM 445 (H) | | 4150 |
| P1.1 \| P1.2 | 690- 1080 | 13 | | | | 1.1157 | 40 Mn 4 | 35 M 5 | 150 M 36 | 15 | | | | | 1039 |
| P1.1 \| P1.2 | 690- 930 | 14 | | | | 1.1165 | 30 Mn 5 | 35 M 5 | 120 M 36 | | | | SMn 433 H; SCMn 2 | | 1330 |
| P1.2 | 740- 1080 | 10 | | | | 1.1167 | 36 Mn 5 | 40 M 5 | 150 M 36 | | | 36Mn5 | SMn 438 H; SCMn 3 | 2120 | 1335 |
| P1.1 \| P1.2 | 700- 950 | 13 | | | | 1.1170 | 28 Mn 5 | 20 M 5 | 150 M 28 | 14A | C 28 Mn | | SCMn 1 | | 1330 |
| P1.2 | 780- 1080 | 13 | | | | 1.3561 | 44 Cr 2 | | | | | | | | |
| P1.2 \| P1.3 | 780- 1270 | 12 | | | | 1.3563 | 43 CrMo 4 | | | | | | | | |
| P1.2 \| P1.3 | 880- 1270 | 11 | | | | 1.3565 | 48 CrMo 4 | | 817 M 40 | | | | SNC 836 | | |
| P1.2 \| P1.3 | 880- 1270 | 11 | | | | 1.5223 | 42 MnV 7 | | | | | | | | |
| P1.2 \| P1.3 | 880- 1180 | 11 | | | | 1.5736 | 36 NiCr 10 | 30 NC 11 | | | 35 NiCr 9 | | SNC 631 (H) | | 3435 |
| P1.2 | 830- 1080 | 11 | | | | 1.5755 | 31 NiCr 14 | 18 NC 13 | 653 M 31 | | | | SNC 836 | | |
| P1.2 \| P1.3 | 900- 1300 | 11 | | | | 1.6511 | 36 CrNiMo 4 | 40 NCD 3 | 816 M 40 | 110 | 38 NiCrMo 4 (KB) | 33NiCrMo4 | SNC 836 | | 9840 |
| P1.2 | 740- 1030 | 13 | | | | 1.6513 | 28 NiCrMo 4 | | | | | | | | |
| P1.1 \| P1.2 | 630- 1150 | 13 | | | | 1.7034 | 37 Cr 4 | 38 C 4 | 530 A 36 | | 38 Cr 4 | | SCr 435 (H) | | 5135 |
| P1.2 | 760- 1200 | 12 | | | | 1.7035 | 41 Cr 4 | 42 C 4 | 530 M 40 | 18 | 41 Cr 4 | 42Cr4 | SCr 440 (H) | | 5140 |
| P1.2 \| P1.3 | 880- 1270 | 11 | | | | 1.7561 | 42 CrV 6 | | | | | | | | |
| P1.2 \| P1.3 | 800- 1300 | 11 | | | | 1.8159 | 50 CrV 4 | 50 CV 4 | 735 A 50 | 47 | 51 CrV 4 | 51CrV4 | SUP 10 | 2230 | 6150 |
| P1.3 | 1240- 1470 | 7 | | | | 1.5864 | 35 NiCr 18 | | | | | | | | |
| P1.2 \| P1.3 | 900- 1450 | 9 | | | | 1.6580 | 30 CrNiMo 8 | 30 CND 8 | 823 M 30 | | 30 NiCrMo 8 | | SNCM 431 | | |
| P1.2 \| P1.3 | 800- 1400 | 11 | | | | 1.6582 | 34 CrNiMo 6 | 35 NCD 6 | 817 M 40 | 24 | 35 NiCrMo 6 (KW) | | SNCM 447 | 2541 | 4340 |
| P1.2 | 780- 1180 | 12 | | | | 1.7045 | 42 Cr 4 | 42 C 4 TS | 530 A 40 | | 41 Cr 4 | 42Cr4 | SCr 440 | 2245 | 5140 |
| P1.2 \| P1.3 | 840- 1420 | 11 | | | | 1.7361 | 32 CrMo 12 | 30 CD 12 | 722 M 24 | 40B | 31 CrMo 12 | F.124.A | | 2240 | |
| P1.2 \| P1.3 | 830- 1450 | 10 | | | | 1.7707 | 30 CrMoV 9 | | | | | | | | |
| P1.2 \| P1.3 | 830- 1600 | 10 | | | | 1.8161 | 58 CrV 4 | | | | | | | | |
| P1.3 | 1250- 1400 | 10 | | | Hardox 400 | | | | | | | | | | |

| Klasse / Class / Classe / Classe | Rm [N/mm²] | A5 [%] | Rockwell [HRc] | European Standard | Brand name | Mat.-Nr. | DIN | AFNOR | BS | EN | UNI | UNE | JIS | SIS | AISI \| SAE \| ASTM |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| P WERKZEUGSTÄHLE UNLEGIERT \| UNALLOYED TOOL STEELS \| ACIERS À OUTILS NON-ALLIÉS \| ACCIAI LAVORAZINE NON LEGATO | | | | | | | | | | | | | | | |
| P1.1 \| P1.2 | 670- 900 | 11 | | C70U | | 1.1520 | C 70 W1 | | | | | | | | |
| P1.1 \| P1.2 | 680- 900 | 11 | | C80U | | 1.1525 | C 80 W1 | Y1 90; Y1 80 | | | C 80 KU | | | | W 108 |
| P1.1 \| P1.2 | 700- 950 | 10 | | C105U | | 1.1545 | C 105 W1 | Y1 105 | | | C 100 KU | | | | W 110 |
| P1.1 \| P1.2 | 670- 900 | 11 | | | | 1.1620 | C 70 W2 | | | | | | | | |
| P1.1 \| P1.2 | 680- 900 | 11 | | | | 1.1625 | C 80 W2 | Y1 80 | BW 1B | | C 80 KU | | SKC 3; SK 5; SK 6 | | W 1 |
| P1.1 \| P1.2 | 700- 950 | 10 | | | | 1.1645 | C105 W2 | Y1 105 | | | C 100 KU | | SK 3 | | |
| P1.1 \| P1.2 | 700- 950 | 10 | | | | 1.1654 | C 110 W | | | | | | | | |
| P1.1 \| P1.2 | 710- 1000 | 9 | | | | 1.1663 | C 125 W | Y2 120 | | | C 120 KU | | SK 2 | | W 112 |
| P1.1 \| P1.2 | 760- 1000 | 9 | | | | 1.1673 | C 135 W | Y2 140 | | | C 140 KU | | SK 1 | | |
| P1.1 \| P1.2 | 630- 850 | 16 | | C45U | | 1.1730 | C 45 W | Y3 42 | | | | | | | |
| P1.1 \| P1.2 | 670- 900 | 14 | | C60U | | 1.1740 | C 60 W | Y3 55 | | | | | SK 7 | | |
| P1.1 \| P1.2 | 650- 900 | 14 | | | | 1.1744 | C 67 W | | | | | | | | |
| P1.1 \| P1.2 | 670- 900 | 11 | | | | 1.1750 | C 75 W | | BW 1A | | | | | | W 1 |
| P1.1 \| P1.2 | 640- 870 | 13 | | | | 1.1820 | C 55 W | | | | | | | | |
| P1.1 \| P1.2 | 680- 900 | 11 | | C85U | | 1.1830 | C 85 W | Y3 90 | | | | | SK 5 | | |
| P WERKZEUGSTÄHLE FÜR KALTARBEIT \| COLD WORK TOOL STEELS \| ACIERS À OUTILS POUR TRAVAIL À FROID \| ACCIAI DA LAVORAZIONE A FREDDO | | | | | | | | | | | | | | | |
| P1.2- P1.3 \| ≤H1.3 | ≥ 750 | | < 64 | 102 Cr 6 | | 1.2067 | 100 Cr 6 | Y 100 C 6 | 534A99 | | 100Cr6 | 100Cr6 | SUJ2 | 2258 | 52100 |
| P1.2 \| P1.3 \| ≤H1.2 | ≥ 790 | | < 61 | | | 1.2101 | 62 SiMnCr 4 | | | | | | | | |
| P1.1- P1.3 \| ≤H1.2 | ≥ 620 | | < 61 | | | 1.2103 | 58 SiCr 8 | | | | | | | | |
| P1.1- P1.3 \| ≤H1.2 | ≥ 710 | | < 62 | | | 1.2162 | 21 MnCr 5 | 20 NC 5 | | | | | SCR 420 H | | |
| P1.2 \| P1.3 \| ≤H1.2 | ≥ 740 | | < 62 | | | 1.2210 | 115 CrV 3 | 100 C 3 | | | 107 CrV 3 KU | | | | L2 |
| P1.1- P1.3 \| ≤H1.2 | ≥ 720 | | < 61 | | | 1.2330 | 35 CrMo 4 | 34 CD 4 | 708 A 37 | | 35 CrMo4 | | | 2234 | 4135 |
| P1.2 \| P1.3 \| ≤H1.2 | ≥ 750 | | < 62 | | | 1.2332 | 47 CrMo 4 | 42 CD 4 | 709 M 40 | | 40 CrMo 4 | | | 2244 | 4142 |
| P1.2 \| P1.3 \| ≤H1.2 | ≥ 760 | | < 63 | | | 1.2419 | 105 WCr 6 | 105 WC 13 | | | 107 WVr 5 KU | 105WCr5 | SKS 31 | | |
| P1.1- P1.3 \| ≤H1.3 | ≥ 720 | | < 65 | | | 1.2510 | 100 MnCrW 4 | 90 MWCV 5 | BO 1 | | 95 MnWCr 5 KU | | SKS 3 | 2140 | O 1 |
| P1.1- P1.3 \| ≤H1.3 | ≥ 730 | | < 66 | | | 1.2516 | 120 W 4 | 110 WC 20 | BF 1 | | 110 W 4 KU | | | | |
| P1.2 \| P1.3 \| ≤H1.3 | ≥ 750 | | < 64 | | | 1.2542 | 45 WCrV 7 | | BS 1 | | 45 WCrV 8 KU | 45WCrSi8 | | 2710 | S 1 |
| P1.2 \| P1.3 \| ≤H1.2 | ≥ 750 | | < 63 | | | 1.2550 | 60 WCrV 7 | 55 WC 20 | | | 55 WCrV 8 KU | | | | |
| P1.1- P1.3 \| ≤H1.2 | ≥ 720 | | < 57 | | | 1.2711 | 54 NiCrMoV 6 | 55 NCDV 6 | | | | | | | |
| P1.2 \| P1.3 \| ≤H1.1 | ≥ 830 | | < 55 | | | 1.2713 | 55 NiCrMoV 6 | 55 NCDV 7 | Bh 224 | | | F.520.S | SKT 4 | | L 6 |
| P1.2 \| P1.3 \| ≤H1.2 | ≥ 830 | | < 59 | | | 1.2721 | 50 NiCr 13 | | | | | | | | |
| P1.1- P1.3 \| ≤H1.2 | ≥ 670 | | < 62 | | | 1.2735 | 15 NiCr 14 | 10 NC 12 | | | | | SNC 22 | | |
| P1.2 \| P1.3 \| ≤H1.1 | ≥ 790 | | < 53 | | | 1.2738 | 40 CrMnNiMo 8 | | | | | | | | P20 |
| P1.2 \| P1.3 \| ≤H1.2 | ≥ 740 | | < 63 | | | 1.2762 | 75 CrMoNiW 6 7 | | | | | | | | |
| P1.2 \| P1.3 \| ≤H1.2 | ≥ 750 | | < 60 | | | 1.2826 | 60 MnSiCr 4 | | | | | | | | |
| P1.2 \| P1.3 \| ≤H1.3 | ≥ 760 | | < 65 | | | 1.2833 | 100 V 1 | Y1 105 V | BW 2 | | 102 V 2 KU | | SKS 43 | | W 210 |
| P1.1- P1.3 \| ≤H1.3 | ≥ 720 | | < 65 | | | 1.2842 | 90 MnCrV 8 | 90 MV 8 | BO 2 | | 90 MnVCr 8 KU | | | | O 2 |
| P2.1 \| ≤H1.2 | ≥ 710 | | < 62 | | | 1.2080 | X 210 Cr 12 | Z 200 C 12 | BD 3 | | X 210 Cr 13 KU | X210Cr12 | SKD 1 | | D 3 |
| P2.1 \| ≤H1.2 | ≥ 710 | | < 62 | | | 1.2341 | X 6 CrMo 4 | | | | | | | | |
| P2.1 \| ≤H1.3 | ≥ 710 | | < 64 | | | 1.2363 | X 100 CrMoV 5 1 | Z 100 CDV 5 | BA 2 | | X 100 CrMoV 5 1 KU | | SKD 12 | 2260 | A 2 |
| P2.1 \| ≤H1.3 | ≥ 760 | | < 66 | | | 1.2379 | X 155 CrVMo12 1 | Z 160 CDV 12 | BD 2 | | X 155 CrVMo 12 1 KU | | SKD 11 | | D 2 |
| P2.1 \| ≤H1.3 | ≥ 740 | | < 66 | | | 1.2436 | X 210 CrW 12 | | | | X 215 CrW 12 1 KU | X210CrW12 | SKD 2 | 2312 | |
| P2.1 \| ≤H1.3 | ≥ 760 | | < 66 | | | 1.2601 | X 165 CrMoV 12 | | | | X 165 CrMoV 12 KU | X160crMoV12 | | 2310 | |
| P1.2 | 860- 1010 | 11 | 33- 35 | | Toolox 33 | | | | | | | | | | |
| P1.3 \| ≤H1.1 | 1320- 1530 | 7 | 44- 48 | | Toolox 44 | | | | | | | | | | |
| P WERKZEUGSTÄ≤HLE FÜR WARMARBEIT \| ≤HOT WORK TOOL STEELS \| ACIERS À OUTILS POUR TRAVAIL À C≤HAUD \| ACCIAI DA LAVORAZIONE A CALDO | | | | | | | | | | | | | | | |
| P1.2 \| P1.3 \| ≤H1.2 | ≥ 840 | | < 59 | | | 1.2744 | 57 NiCrMoV 77 | | | | | | | | |
| P2.1 \| ≤H1.2 | ≥ 760 | | < 58 | | | 1.2767 | X 45 NiCrMo 4 | Y 35 NCD 16 | | | 42 NiCrMo 15 7 | | | | |
| P2.1 \| ≤H1.2 | ≥ 710 | | < 56 | | | 1.2083 | X 42 Cr 13 | Z 40 C 14 | | | X 41 Cr 13 KU | F-5263 | SUS 420 J 2 | | |
| P2.1 \| ≤H1.1 | ≥ 710 | | < 55 | | | 1.2343 | X 38 CrMoV 5 1 | Z 38 CDV 5 | BH 11 | | X 37 CrMoV 5 1 KU | F-5317 | SKD 6 | | H 11 |
| P2.1 \| ≤H1.1 | ≥ 720 | | < 55 | | | 1.2344 | X 40 CrMoV 5 1 | Z 40 CDV 5 | BH 13 | | X 40 CrMoV 5 1 1 KU | F-5318 | SKD 61 | | H 13 |
| P2.1 \| ≤H1.1 | ≥ 710 | | < 52 | | | 1.2365 | X 32 CrMoV 3 3 | Z 32 CDV 28 | BH 10 | | X 30 CrMoV 12 27 KU | F-5313 | SKD 7 | | H 10 |
| P2.1 \| ≤H1.1 | ≥ 760 | | < 52 | | | 1.2567 | X 30 WCrV 5 3 | Z 32 WCV 5 | | | X 30 WCrV 5 3 KU | | SKD 4 | | |
| P2.1 \| ≤H1.1 | ≥ 760 | | < 52 | | | 1.2581 | X 30 WCrV 9 3 | Z 30 WCV 9 | BH 21 | | X 30 WCrV 9 3 KU | X30WCrV9 | SKD 5 | | H 21 |
| P2.1 \| ≤H1.1 | ≥ 760 | | < 52 | | | 1.2885 | X 32 CrMoV 3 3 3 | | BH 10 A | | | F-5314 | | | |
| P2.1 \| ≤H1.1 | ≥ 760 | | < 52 | | | 1.2316 | X 36 CrMo 17 | | | | X 38 CrMo 16 1 KU | F-5267 | | | |
| P1.2 \| P1.3 \| ≤H1.1 | ≥ 740 | | < 52 | | | 1.2311 | 40 CrMnMo 7 | | | | 35 CrMo8 | | | | |
| P1.2 \| P1.3 \| ≤H1.1 | ≥ 740 | | < 52 | | | 1.2312 | 40 CrMnMoS 8 6 | | | | 40 CrMnMo 7 | F-5302 | | | |

| | Klasse / Class / Classe / Classe | Rm [N/mm²] | A5 [%] | Rockwell [HRc] | European Standard | Brand name | Mat.-Nr. | DIN | AFNOR | BS | EN | UNI | UNE | JIS | SIS | AISI \| SAE \| ASTM |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| P | NITRIERSTÄHLE \| NITRIDING STEELS \| ACIERS NITRURÉS \| ACCIAI DA NITRURAZIONE | | | | | | | | | | | | | | | |
| | P1.2 | 800- 1200 | 14 | | | | 1.8504 | 34 CrAl 6 | | | | | | | | |
| | P1.2 | 800- 1200 | 12 | | | | 1.8506 | 34 CrAlS 5 | | | | | | | | |
| | P1.2 | 800- 1200 | 14 | | | | 1.8507 | 34 CrAlMo 5 | 30 CAD 6.12 | 905 M 31 | | 34 CrAlMo 7 | | | | A 355 Cl. D |
| | P1.2 | 800- 1200 | 12 | | | | 1.8509 | 41 CrAlMo 7 | 40 CAD 6.12 | 905 M 39 | 41B | 41 CrAlMo 7 | 41CrAlMo7 | SACM 645 | 2940 | A 355 Cl. A |
| | P1.2 | 800- 1200 | 10 | | | | 1.8515 | 31 CrMo 12 | 30 CD 12 | 722 M 24 | | 31 CrMo 12 | | | 2240 | |
| | P1.2 | 800- 1200 | 9 | | | | 1.8519 | 31 CrMoV 9 | | | | | | | | |
| | P1.2 | 800- 1200 | 10 | | | | 1.8521 | 15 CrMoV 5 9 | | | | | | | | |
| | P1.2 | 800- 1200 | 8 | | | | 1.8523 | 39 CrMoV 13 9 | | 897 M 39 | 40C | 39 CrMoV 13 9 | | | | |
| | P1.2 | 800- 1200 | 12 | | | | 1.8550 | 34 CrAlNi 7 | | - | | | | | | |
| P | STAHLGUSS \| STEEL CASTINGS \| FONTE D'ACIERS \| GHISA D'ACCIAIO | | | | | | | | | | | | | | | |
| | P1.1 | 380- 480 | 25 | | | | 1.0420 | GS-38 | | AM 1 | | | | | | A 27 |
| | P1.1 | 700- 800 | 15 | | | | 1.1118 | GS-24 Mn 6 | | | | | | | | |
| | P1.1 | 480- 620 | 20 | | | | 1.1120 | GS-20 Mn 5 | | | | | F.8310 | | | |
| | P1.1 | 490- 590 | 22 | | | | 1.5419 | GS-22 Mo 4 | | 245 | | | | SCPH 11 | | |
| | P1.1 | 590- 740 | 18 | | | | 1.5633 | GS-24 Ni 8 | | | | | | | | |
| | P1.1 | 550- 700 | 18 | | | | 1.5681 | GS-10 Ni 19 | | | | | | | | A 757 |
| | P1.1 | 700- 800 | 12 | | | | 1.6309 | GS-20 Mn MoNi 5 5 | | | | | | | | |
| | P1.2 | 850- 950 | 12 | | | | 1.6579 | GS-34 CrNiMo 6 | | | 24 | | | SNCM 9 | 2541 | |
| | P1.2 | 800- 900 | 13 | | | | 1.6748 | GS-40 NiCrMo 6 5 6 | | | | | | | | |
| | P1.1 | 570- 720 | 16 | | | | 1.6750 | GS-20 NiCrMo 3 7 | | | | | | | | |
| | P1.1 | 570- 720 | 21 | | | | 1.6760 | GS-22 NiMoCr 5 6 | | | | | | | | |
| | P1.1 | 490- 640 | 20 | | | | 1.7357 | GS-17 CrMo 5 5 | | 621 | | | F-8383 | SCPH 21 | | A 217 |
| | P1.1 | 520- 670 | 21 | | | | 1.7379 | GS-18 CrMo 9 10 | | 622 | | | | SCPH 32 | | |
| P | ROST-/SÄUREBESTÄNDIGE STÄHLE FERRITISCH \| FERRITIC CORROSION AND ACID PROOF STEELS \| ACIERS INOX ET RÉSIST. ACIDES FERRITIQUES \| ACCIAI INOSSIDABILI, RESISTENTI A ACIDI FERRITICI | | | | | | | | | | | | | | | |
| | P2.1 | 400- 600 | 17 | | | | 1.4002 | X 6 CrAl 13 | Z 6 CA 13 | 405 S 17 | | X 6 CrAl 13 | | SUS 405 | 2302 | 405 |
| | P2.1 | 380- 560 | 25 | | | | 1.4512 | X 5 CrTi 12 | Z 6 CT 12 | 409 S 19 | | X 6 CrTi 12 | | SUH 409 | | 409 |
| | P2.1 | 400- 600 | 19 | | | | 1.4000 | X 6 Cr 13 | Z 6 C 13 | 403 S 17 | | X 6 Cr 13 | F.3110 | SUS 403 | 2301 | 403 |
| | P2.1 | 450- 600 | 18 | | | | 1.4016 | X 6 Cr 17 | Z 8 C 17 | 430 S 15 | 960 | X 8 Cr 17 | F.3113 | SUS 430 | 2320 | 430 |
| | P2.1 | 500- 700 | 12 | | | | 1.4742 | X 10 CrAlSi 18 | Z 10 CAS 18 | 430 S 15 | 60 | X 8 Cr 17 | F-3153 | SUS 430; SUH 21 | | 430 |
| | P2.1 | 450- 630 | 18 | | | | 1.4113 | X 6 CrMo 17 | Z 8 CD 17.01 | 434 S 17 | | X 8 CrMo 17 | F.3116 | SUS 434 | 2325 | 434 |
| | P2.1 | 420- 600 | 23 | | | | 1.4510 | X 3 CrTi 17 | Z 8 CT 17 | | | X 6 CrTi 17 | | SUS 430 LX | | XM 8; 430 Ti |
| | P2.1 | 400- 600 | 20 | | | | 1.4521 | X 2 CrMoTi 18-2 | Z 3 CDT 18-02 | | | | F-3123 | SUS 444 | 2326 | 444 |
| | P2.1 | 450- 650 | 15 | | | | 1.4724 | X 10 CrAlSi 13 | Z 13 C 13 | | | | F-3152 | | | |
| | P2.1 | 500- 700 | 15 | | | | 1.4749 | X 18 CrN28 | | | | | | | | 446 |
| | P2.1 | 520- 720 | 15 | | | | 1.4762 | X 10 CrAl 24 | Z 10 CAS 24 | | | X 16 Cr 26 | F.3154 | SUH 446 | | 446 |
| P | ROST-/SÄUREBESTÄNDIGE STÄHLE MARTENSITISCH \| CORROSION AND ACID PROOF STEELS - MARTENSITIC \| ACIERS INOX/RESIST. ACIDES - MARTENSITIQUE \| ACCIAI INOX E RESISTENTI AGLI ACIDI - MARTENSITICA | | | | | | | | | | | | | | | |
| | P2.1 | 650- 850 | 12 | | | | 1.4006 | X 10 Cr 13 | Z 12 C 13 | 410 S 21 | 56A | X 12 Cr 13 | F.3401 | SUS 410 | 2302 | 410; CA-15 |
| | P2.1 | 650- 850 | 12 | | | | 1.4005 | X 12 CrS 13 | Z 12 CF 13 | 416 S 21 | | X 12 CrS 13 | | SUS 416 | 2380 | 416 |
| | P2.1 | 650- 950 | 15 | | | | 1.4021 | X 20 Cr 13 | Z 20 C 13 | 420 S 37 | | X 20 Cr 13 | | SUS 420 J 1 | 2303 | 420 |
| | P2.1 | 650- 950 | 15 | | | | 1.4028 | X 30 Cr 13 | Z 30 C 13 | 420 S 45 | | X 30 Cr 13 | | SUS 420 J 2 | 2304 | 420 |
| | P2.1 | 650- 950 | 12 | | | | 1.4031 | X 38 Cr 13 | Z 40 C 14 | | | X 40 Cr 14 | | SUS 420 J 2 | 2304 | 420 |
| | P2.1 | 650- 950 | 10 | | | | 1.4034 | X 46 Cr 13 | Z 40 CM | 420 S 45 | 56D | X 40 Cr 14 | F.3405 | SUS 420 J 2 | 2304 | 420 |
| | P2.1 | 850- 1100 | 12 | | | | 1.4116 | X 50 CrMoV 15 | Z 50 CD 15 | | | | F-3422 | | | |
| | P2.1 | 750- 950 | 12 | | | | 1.4122 | X 39 CrMo 17-1 | Z 38 CD 16-01 | | | | | | | |
| | P2.1 | 780- 1100 | 11 | | | | 1.4313 | X 5 CrNi 13 4 | Z 5 CN 13.4 | 425 C 11 | | X 6 CrNi 13 04 | | SCS 5 | 2385 | CA 6-NM |
| | P2.1 | 840- 1100 | 14 | | | | 1.4418 | X 4 CrNiMo 6-5-1 | Z 6 CND 16-05-01 | | | | | | 2387 | |
| | P2.1 | 650- 850 | 14 | | | | 1.4024 | X15Cr13 | Z 12 C 13 M | 420 S 29 | 56B | | | SUS 410J1 | | 420 |
| | P2.1 | 640- 840 | 11 | | | | 1.4104 | X 14 CrMoS 17 | Z 13 CF 17 | | | X 14 CrS 17 | F-3431 | SUS 430 F | 2383 | 430 F |
| | P2.1 | 750- 950 | 14 | | | | 1.4057 | X 17 CrNi 16 2 | Z 15 CN 16.02 | 431 S 29 | 57 | X 16 CrNi 16 | F-3427 | SUS 431 | 2321 | 431 |
| | P2.1 | 650- 950 | 12 | | | | 1.4747 | X 80 CrNiSi 20 | Z 80 CSN 20.02 | 443 S 65 | 59 | X 80 CrSiNi 20 | F.320.B | SUH 4 | | HNV 6 |
| | P2.1 | 750- 950 | 12 | | | | 1.4125 | X 105 CrMo 17 | Z 100 CD 17 | | | X 105 CrMo 17 | | SUS 440 C | | 440 C |
| | P2.1 | 950- 1150 | 13 | | | Jethete | 1.4939 | X 12 CrNiMo 12 | Z 12 CND 12 | M152 | | | | | | XM-32 |
| P | ROST-/SÄUREBESTÄNDIGE STÄHLE AUSSCHEIDUNGSHÄRTEND \| CORROSION AND ACID PROOF STEELS PRECIPITATION-HARDENED \| ACIERS INOX/RESIST. ACIDES - DURCI PAR PRÉCIPITATION \| ACCIAI INOX E RESISTENTI AGLI ACIDI - INDURITI PER PRECIPITAZIONE | | | | | | | | | | | | | | | |
| | P2.1 | 860- 1400 | 13 | | | PH 13-8 Mo | 1.4534 | | | | | | | | | 5629 |
| | P2.1 | 950- 1400 | 13 | | | 15-5 PH | 1.4545 | X4CrNiCuNb16-4 | | | | | | | | 5659 |
| | P2.1 | 800- 1400 | 14 | | | 17-4 PH | 1.4542 | X5CrNiCuNb16-4 | Z 7 CNU 15-05 | | | | | SCS 630 | | 630 |
| | P2.1 | 800- 1200 | 12 | | | 17-7 PH | 1.4568 | X7CrNiAl17-7 | Z 9 CNA 17-07 | 301 S 81 | | | | SUS 631 | 2388 | 631 |

| Klasse / Class / Classe / Classe | Rm [N/mm²] | A5 [%] | Rockwell [HRc] | European Standard | Brand name | Mat.-Nr. | DIN | AFNOR | BS | EN | UNI | UNE | JIS | SIS | AISI \| SAE \| ASTM |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| M ROST-/SÄUREBESTÄNDIGE STÄHLE AUSTENITISCH \| CORROSION AND ACID PROOF STEELS AUSTENITIC \| ACIERS INOX/RESIST. ACIDES - AUSTÉNITIQUE \| ACCIAI INOX E RESISTENTI AGLI ACIDI - AUSTENITICO | | | | | | | | | | | | | | | |
| M1.1 | 750- 950 | 40 | | | | 1.4372 | X 12 CrMnNiN 17-7-5 | Z 12 CMN 17-07 Az | | | | | | | 201 |
| M1.1 | 680- 880 | 35 | | | | 1.4373 | X 12 CrMnNiN 18-9-5 | | 284 S 16 | | | | | | 202 |
| M1.1 | 600- 950 | 40 | | | | 1.4310 | X 10 CrNi 18-8; X 12 CrNi 17 7 | Z 11 CN 17-08 | 301 S 21 | | X10CrNi18-8 | F-3517 | SUS 301 | 2331 | 301 |
| M1.1 | 630- 850 | 35 | | | | 1.4318 | X 2 CrNiN 18-7 | Z 3 CN 18-07 Az | | | | | | | 301LN |
| M1.1 | 500- 700 | 35 | | | | 1.4305 | X 10 CrNiS 18 9 | Z 10 CNF 18.09 | 303 S 21 | 58M | X 10 CrNi 18 9 | F.3508 | SUS 303 | 2346 | 303 |
| M1.1 | 600- 951 | 36 | | | | 1.4350 | X 5 CrNi18 9 | Z 6 CN 18.09 | 304 S 31 | 58E | X 5 CrNi 18 10 | F.3551 | SUS 302 | | 304 |
| M1.1 | 520- 720 | 45 | | | | 1.4301 | X 5 CrNi 18 9 | Z 6 CN 18.09 | 304 S 15 | 58E | X 5 CrNi 18 10 | F.3551 | SUS 304 | 2332; 2333 | 304; 304 H |
| M1.1 | 460- 680 | 45 | | | | 1.4306 | X 2 CrNi 19 11 | Z 2 CN 18.10 | 304 S 12 | | X 2 CrNi 18 11 | F.3503 | SCS 19 | 2352; 2333 | 304 L |
| M1.1 | 550- 750 | 40 | | | | 1.4311 | X 2 CrNiN 18 10 | Z 2 CN 18.10 | 304 S 62 | | X 2 CrNiN 18 11 | | SUS 304 LN | 2371 | 304 LN |
| M1.1 | 510- 710 | 45 | | | | 1.4948 | X 6 CrNi 18-11 | | 304 S 50 | | | | | | 304H |
| M1.1 | 520- 700 | 45 | | | | 1.4307 | X 2 CrNi 18-9 | Z 2 CN 19-09 | | | | | | | 304 L |
| M1.1 | 500- 750 | 40 | | | | 1.4315 | X 5 CrNiN 19-9 | | | | | | | | 304 N |
| M1.1 | 500- 650 | 45 | | | | 1.4303 | X 5 CrNi 18 12 | Z 8 CN 18.12 | 305 S 19 | | X 8 CrNi 19 10 | | SUS 305 | | 308; 305 |
| M1.1 | 500- 700 | 33 | | | | 1.4833 | X 12 CrNi 23-13 | Z 15 CN 23-13 | 309 S 24 | | X 6 CrNi 23 14 | | SUS 309S | | 309 S |
| M1.1 | 500- 700 | 33 | | | | 1.4845 | X 8 CrNi 25-21 | Z 8 CN 25-20 | 310 S 24 | | X 6 CrNi 25 20 | F.331 | SUS 310S | 2361 | 310 S |
| M1.1 | 550- 750 | 30 | | | | 1.4841 | X 15 CrNiSi 25-21 | Z 15 CNS 25-20 | 314 S 25 | | | F.3310 | SUH 310 | | 314 |
| M1.1 | 520- 680 | 40 | | | | 1.4401 | X 5 CrNiMo 18 10 | Z 6 CND 17.11 | 316 S 16 | 58J | X 5 CrNiMo 17 12 | F.3543 | SUS 316 | 2347 | 316 |
| M1.1 | 530- 730 | 40 | | | | 1.4436 | X 5 CrNiMo 17 13 3 | Z 6 CND 17.12 | 316 S 16 | | X 5 CrNiMo 17 13 | F.3538 | SUS 316 | 2343 | 316 |
| M1.1 | 520- 680 | 40 | | | | 1.4404 | X 2 CrNiMo 17 13 2 | Z 2 CND 17.12 | 316 S 11 | | X 2 CrNiMo 17 12 | F.3533 | SUS 316 L | 2348 | 316 L |
| M1.1 | 520- 700 | 40 | | | | 1.4435 | X 2 CrNiMo 18 14 3 | Z 2 CND 17.13 | 317 S 12 | | X 2 CrNiMo 17 13 | | SCS 16; SUS 316 L | 2353 | 316 L |
| M1.1 | 520- 700 | 40 | | | | 1.4432 | X 2 CrNiMo 17-12-3 | Z 3 CND 17-02-03 | 316 S 13 | | X 2 CrNiMo 17-12-3 | F-3537 | | | 316 L |
| M1.1 | 580- 780 | 40 | | | | 1.4406 | X 2 CrNiMoN 17 12 2 | Z 2 CND 17.12 AZ | 316 S 61 | 58C | X 2 CrNiMoN 17 12 | F-3542 | SUS 316 LN | | 316 LN |
| M1.1 | 580- 780 | 35 | | | | 1.4429 | X 2 CrNiMoN 17 13 3 | Z 2 CND 17.13 AZ | 316 S 62 | | X 2 CrNiMoN 17 13 | F-3543 | SUS 316 LN | 2375 | 316 LN |
| M1.1 | 490- 740 | 40 | | | | 1.4573 | X 10 CrNiMoTi 18 12 | | 320 S 33 | | X 6 CrNiMoTi 17 13 | | SUS 316 Ti | | 316 Ti |
| M1.1 | 520- 690 | 40 | | | | 1.4571 | X 6 CrNiMoTi 17 12 2 | Z 6 CNT 17.12 | 320 S 31 | 58J | X 6 CrNiMoTi 17 12 | F.3535 | SUS 316 Ti | 2350 | 316 Ti |
| M1.1 | 520- 720 | 40 | | | | 1.4580 | X 6 CrNiMoNb 17 12 2 | Z 6 CNDNb 17.12 | 318 S 17 | | X 6 CrNiMoNb 17 12 | F.3536 | | | 316 Cb |
| M1.1 | 550- 700 | 35 | | | | 1.4438 | X 2 CrNiMo 18 16 4 | Z 2 CND 19.15 | 317 S 12 | | X 2 CrNiMo 18 15 | F-3539 | SUS 317 L | 2367 | 317 L |
| M1.1 | 580- 780 | 35 | | | | 1.4439 | X 2 CrNiMoN 17-13-5 | Z 3 CND 18-14-05 Az | | | | F-3544 | | | 317 LMN |
| M1.1 | 490- 740 | 40 | | | | 1.4583 | X 10 CrNiMoNb 18 12 | | | | X 6 CrNiMoNb 17 13 | | | | 318 |
| M1.1 | 500- 720 | 40 | | | | 1.4541 | X 6 CrNiTi 18 10 | Z 6 CNT 18.10 | 321 S 12 | 58B | X 6 CrNiTi 18 11 | F.3553; F.3523 | SUS 321 | 2337 | 321 |
| M1.1 | 500- 720 | 40 | | | | 1.4878 | X 8 CrNiTi 18-10 | Z 6 CNT 18-10 | 321 S 31 | | | | SUS 321 | | 321 H |
| M1.1 | 500- 720 | 40 | | | | 1.4550 | X 6 CrNiNb 18 10 | Z 6 CNNb 18.10 | 347 S 17 | 58F | X 6 CrNiNb 18 11 | F.3552; F.3524 | SUS 347 | 2338 | 347 |
| M1.1 | 500- 700 | 40 | | | | 1.4563 | X 1 NiCrMoCu 31-27-4 | Z 2 NCDU 31-27 | | | | | | 2584 | B 668 |
| M1.1 | 520- 730 | 35 | | | | 1.4539 | X 1 NiCrMoCu 25-20-5 | Z 2 NCDU 25-20 | 904 S 13 | | | | | 2562 | 904 L |
| M1.1 | 550- 750 | 30 | | | | 1.4864 | X12NiCrSi35-16 | Z 20 NCS 33-16 | NA 17 | | | F.3313 | SUH 330 | | 330 |
| M1.1 | 500- 740 | 30 | | | | 1.4546 | X 5 CrNiNb 18 10 | Z 6 CNNb 18.10 | 347 S 18 | 58F | X 6 CrNiNb 18 11 | F-3524 | SUS 347 | 2338 | 348 |
| M1.2 | 900- 1100 | 14 | | | | 1.4718 | X 45 CrSi 9 3 | Z 45 CS 9 | 401 S 45 | 52 | X 45 CrSi 8 | | SUH 1 | | HNV 3 |
| M1.1 | 500- 750 | 30 | | | | 1.4828 | X 15 CrNiSi 20 12 | Z 15 CNS 20.12 | 309 S 24 | | | | SUH 309 | | 309 |
| M1.3 | 950- 1200 | 8 | | | | 1.4871 | X 53 CrMnNiN 21 9 | Z 52 CMN 21.09 | 349 S 54 | | X 53 CrMnNiN 21 9 | | SUH 35; SUH 36 | | EV 8 |
| M1.1 | 500- 750 | 30 | | | | 1.4876 | X 10 NiCrAlTi 33 20 | Z 8 NC 32.21 | NA 15 (H) | | | | NCF 800 | | B 163 |
| M ROST-/SÄUREBESTÄNDIGE STÄHLE DUPLEX \| CORROSION AND ACID PROOF STEELS DUPLEX \| ACIERS INOX/RESIST. ACIDES - DUPLEX \| ACCIAI INOX E RESISTENTI AGLI ACIDI - DUPLEX | | | | | | | | | | | | | | | |
| M1.1 \| M1.2 | 650- 880 | 25 | | | Alloy 2205 | 1.4462 | X 2 CrNiMoN 22-5-3 | Z 3 CND 22-05 AZ | 318 S 13 | | | | SUS 329J3L | 2377 | 318 LN |
| M1.1 | 600- 830 | 25 | | | Alloy 2304 | 1.4362 | X 2 CrNiN 23-4 | Z 3 CN 23-04 AZ | | | | | | 2327 | |
| M1.1 \| M1.2 | 730- 930 | 25 | | | Alloy 2507 | 1.4410 | X 2 CrNiMoN 25-7-4 | Z 3 CND 25-06 | | | | | SCS 14A | 2328 | |
| M1.1 \| M1.2 | 700- 900 | 25 | | | Alloy F255 | 1.4507 | X 2 CrNiMoCuN 25-6-3 | Z 3 CNDU 25-06 | | | | | | | |
| M1.1 | 620- 800 | 25 | | | | 1.4460 | X 3 CrNiMoN 27-5-2 | Z 5 CND 27-05 AZ | | | | | | 2324 | 329 |
| M1.1 \| M1.2 | 650- 900 | 30 | | | | 1.4062 | X 2 CrNiN 22-2 | | | | | | | | 2202 |
| M1.1 \| M1.2 | 650- 900 | 25 | | | | 1.4669 | X 2 CrCuNiN 23-2-2 | | | | | | | | |
| M1.1 \| M1.2 | 680- 900 | 25 | | | | 1.4424 | X 2 CrNiMoSi 18-5-3 | | | | | | | | |
| M1.1 \| M1.2 | 650- 900 | 25 | | | | 1.4162 | X 2 CrMnNiN 22-5-2 | | | | | | | | |
| M1.1 \| M1.2 | 650- 900 | 25 | | | | 1.4482 | X 2 CrMnNiMoN 21-5-3 | | | | | | | | |
| M1.1 \| M1.2 | 650- 900 | 25 | | | Alloy 2205 | 1.4662 | X 2 CrNiMnMoCuN 24-4-3-2 | | | | | | | | 318 LN |
| M1.1 \| M1.2 | 730- 930 | 25 | | | Alloy 100 | 1.4501 | X 2 CrNiMoCuWN 25-7-4 | | | | | | | | |
| M1.2 | 750- 1000 | 25 | | | | 1.4477 | X 2 CrNiMoN 29-7-2 | | | | | | | | |
| M1.2 | 800- 1000 | 25 | | | | 1.4658 | X 2 CrNiMoCoN 28-8-5-1 | | | | | | | | |

| Klasse / Class / Classe | Rm [N/mm²] | A5 [%] | Rockwell [HRc] | European Standard | Brand name | Mat.-Nr. | DIN | AFNOR | BS | EN | UNI | UNE | JIS | SIS | AISI \| SAE \| ASTM |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| K GUSSEISEN MIT LAMELLENGRAPHIT \| CAST IRON WITH LAMELLAR GRAPHITE \| FONTES GRAPHITE LAMELLAIRE \| GHISE CON GRAFITE LAMELLARE | | | | | | | | | | | | | | | |
| K1.1 | 100- 200 | | | EN-GJL 100 | | 0.6010 | GG 10 | Ft 10 D | | | G 10 | | FC 10 | 01 10-00 | A48-20 B |
| K1.1 | 150- 250 | | | EN-GJL 150 | | 0.6015 | GG 15 | Ft 15 D | Grade 150 | | G 15 | FG 15 | FC 15 | 01 15-00 | A48-25 B |
| K1.1 | 200- 300 | | | EN-GJL 200 | | 0.6020 | GG 20 | Ft 20 D | Grade 220 | | G 20 | FG 20 | FC 20 | 01 200 | A48-30 B |
| K1.1 | 250- 350 | | | EN-GJL 250 | | 0.6025 | GG 25 | Ft 25 D | Grade 260 | | G 25 | FG 25 | FC 25 | 01 250 | A48-40 B |
| K1.1 | 300- 400 | | | EN-GJL 300 | | 0.6030 | GG 30 | Ft 30 D | Grade 300 | | G 30 | FG 30 | FC 30 | 1 300 | A48-45 B |
| K1.1 | 350- 450 | | | EN-GJL 350 | | 0.6035 | GG 35 | Ft 35 D | Grade 350 | | G 35 | FG 35 | FC 35 | 1 350 | A48-50 B |
| K1.1 | 400- 500 | | | EN-GJL 400 | | 0.6040 | GG 40 | Ft 40 D | Grade 400 | | | | | 1 400 | A48-60 B |
| K1.1 | 170- 210 | | | EN-JL3011 | | 0.6655 | GGL-NiCuCr 15 6 2 | L-NUC 15 6 2 | L-NUC 15 6 2 | | | | | | A-436 Type 1 |
| K1.1 | 170- 210 | | | | | 0.6660 | GGL-NiCr 20-2 | L-NC 20 2 | L-NC 20 2 | | | | | | A-436 Type 2 |
| K1.1 | 190- 220 | | | | | 0.6676 | GGL-NiCr 30-3 | L-NC 30 3 | L-NC 30 3 | | | | | | A-436 Type 3 |
| K1.1 | 170- 210 | | | | | 0.6680 | GGL-NiSiCr 30-5-5 | L-NSC 30 5 5 | L-NSC 30 5 5 | | | | | | A-436 Type 4 |
| K GUSSEISEN MIT KUGELGRAPHIT \| CAST IRON WITH NODULAR GRAPHITE \| FONTES GRAPHITE SPHÉROÏDAL \| GHISE CON GRAFITE NODULARE | | | | | | | | | | | | | | | |
| K1.1 | 370- 400 | 14 | | EN-GJS-400-15 | | 0.7040 | GGG 40 | FGS 400-12 | SNG 420/12 | | GS 400-12 | GGG 40 | FCD 40 | 0717-02 | 60-40-18 |
| K1.1 | 420- 500 | 7 | | EN-GJS-500-7 | | 0.7050 | GGG 50 | FGS 500-7 | SNG 500/7 | | GS 500/7 | GGG 50 | FCD 50 | 0727-02 | 65-45-12 |
| K1.1 | 550- 600 | 3 | | EN-GJS-600-3 | | 0.7060 | GGG 60 | FGS 600-3 | SNG 600/3 | | GS 600/3 | | FCD 60 | 0732-03 | 80-55-06 |
| K1.1 | 660- 700 | 2 | | EN-GJS-700-2 | | 0.7070 | GGG 70 | FGS 700-2 | SNG 700/2 | | GS 700/2 | GGG 70 | FCD 70 | 0737-01 | 100-70-03 |
| K1.1 | 770- 800 | 2 | | EN-GJS-800-2 | | 0.7080 | GGG 80 | FGS 800-2 | SNG 800/2 | | GS 800/2 | | | | 120-90-02 |
| K1.1 | 370- 480 | 7 | | | | 0.7660 | GGG-NiCr 20 2 | S-NC 20 2 | S-NiCr 20 2 | | | F 43000 | | | A 439 Type D-2 |
| K1.1 | 390- 480 | 7 | | | | 0.7661 | GGG-NiCr 20 3 | S-NC 20 3 | S-NiCr 20 3 | | | F 43001 | | | A 439 Type D-2B |
| K1.1 | 370- 450 | 20 | | EN-GJSA-XNi22 | | 0.7670 | EN-GJSA-XNi22 | S-N 22 | S-Ni 22 | | | F 43002 | | | A 439 Type D-2C |
| K1.1 | 440- 480 | 25 | | EN-GJSA-XNiMn23-4 | | 0.7673 | EN-GJSA-XNiMn23-4 | S-NM 23 4 | S-NiMn 23 4 | | | F 43003 | | | A 439 Type D-2M |
| K1.1 | 370- 480 | 7 | | EN-GJSA-XNiCr30-3 | | 0.7676 | EN-GJSA-XNiCr30-3 | S-NC 30 3 | S-NiCr 30 3 | | | | | | A 439 Type D-3 |
| K1.1 | 370- 420 | 13 | | | | 0.7677 | GGG-NiCr 30 1 | S-NC 30 1 | S-NiCr 30 1 | | | F 43004 | | | A 439 Type D-3A |
| K1.1 | 390- 500 | 1 | | EN-GJSA-XNiSiCr30-5-5 | | 0.7680 | EN-GJSA-XNiSiCr30-5-5 | S-NSC 30 5 5 | S-NiSiCr 30 5 5 | | | F 43005 | | | A 439 Type D-4 |
| K1.1 | 370- 420 | 20 | | EN-GJSA-XNi35 | | 0.7683 | EN-GJSA-XNi35 | S-N 35 | S-Ni 35 | | | F 43006 | | | A 439 Type D-5 |
| K1.1 | 370- 450 | 7 | | EN-GJSA-XNiCr35-3 | | 0.7685 | EN-GJSA-XNiCr35-3 | S-NC 35 3 | S-NiCr 35 3 | | | | | | A 439 Type D-5B |
| K GUSSEISEN MIT VERMICULARGRAPHIT \| CAST IRON WITH VERMICULAR GRAPHITE \| FONTES VERMICULAIRES \| GHISE CON GRAFITE VERMICOLARE | | | | | | | | | | | | | | | |
| K1.1 | 300- 375 | 2 | | EN-GJV 300 | | | GGV 300 | | | | | | | | |
| K1.1 | 350- 425 | 2 | | EN-GJV 350 | | | GGV 350 | | | | | | | | |
| K1.1 | 400- 475 | 1 | | EN-GJV 400 | | | GGV 400 | | | | | | | | |
| K1.1 | 450- 525 | 1 | | EN-GJV 450 | | | GGV 450 | | | | | | | | |
| K1.1 | 500- 575 | 1 | | EN-GJV 500 | | | GGV 500 | | | | | | | | |
| K TEMPERGUSS \| MALLEABLE CAST IRON \| FONTES MALLÉABLES \| GHISE MALLEABILI | | | | | | | | | | | | | | | |
| K1.1 | 300- 350 | 10 | | EN-GJMB 350-10 | | 0.8135 | GTB-35-10 | MN35-10 | B340/12 | | | GTS 35 | | 0810 | 32510 |
| K1.1 | 420- 450 | 6 | | EN-GJMB 450-6 | | 0.8145 | GTB-45-06 | | P440/7 | | | GTS 45 | | 0852 | 40010 |
| K1.1 | 480- 550 | 4 | | EN-GJMB 550-4 | | 0.8155 | GTB-55-04 | MP50-5 | P510/4 | | | GTS 55 | | 0854 | 50005 |
| K1.1 | 620- 650 | 2 | | EN-GJMB 650-2 | | 0.8165 | GTB-65-02 | MP60-3 | P570/3 | | | GTS 65 | | 0856 | 70003 |
| K1.1 | 660- 700 | 2 | | EN-GJMB 700-2 | | 0.8170 | GTB-70-02 | M870-2 | P690/2 | | | GTS 70 | | 0862; 0864 | 90001 |
| K1.1 | 270- 360 | 3 | | EN-GJMW-350-4 | | 0.8035 | GTW-35-04 | MB35-7 | W340/3 | | | GTW 35 | FCMW 330 | | MB 350-4 |
| K1.1 | 300- 420 | 4 | | EN-GJMW-400-5 | | 0.8040 | GTW-40-05 | MB40-10 | W410/4 | | GMB 40 | GTW 40 | FCMW 370 | | MB 400-5 |
| K1.1 | 330- 480 | 4 | | EN-GJMW-450-7 | | 0.8045 | GTW-45-07 | | | | GMB 45 | GTW 45 | FCMWP 440 | | MB 450-7 |
| K1.1 | 490- 570 | 3 | | EN-GJMW-550-4 | | 0.8055 | GTW-55-04 | | | | | GTW 55 | | | |
| K HARTGUSS \| HARD CASTING \| FONTES TREMPÉES \| GHISE IN CONCHIGLIA | | | | | | | | | | | | | | | |
| K2.1 | ≥ 1400 | | < 55 | | | 0.9620 | GJH-X 260 NiCr 4-2 | | Grade 2 A | | | | | 0512-00 | A532 I B |
| K2.1 | ≥ 1400 | | < 55 | | | 0.9625 | GJH-X 330 NiCr 4-2 | | Grade 2 B | | | | | 0513-00 | A532 I A |
| K2.1 | ≥ 1260 | | < 64 | | | 0.9630 | GJH-X 300 CrNiSi 9-5-2 | | Grade 2 C | | | | | | A532 I D |
| K2.1 | ≥ 1400 | | < 65 | | | 0.9635 | GJH-X 300 CrMo 15-3 | | Grade 3 A | | | | | | A532 IIC 15% |
| K2.1 | 800 | 10 | | EN-GJS-800-10 | ADI 800 | 5.3400 | | | | | | | | | |
| K2.1 | 900 | 8 | | EN-GJS-900-8 | ADI 900 | 5.3402 | | | | | | | | | |
| K2.1 | 1050 | 6 | | EN-GJS-1050-6 | ADI 1000 | 5.3403 | | | | | | | | | |
| K2.1 | 1200 | 3 | | EN-GJS-1200-3 | ADI 1200 | 5.3404 | | | | | | | | | |
| K2.1 | 1400 | 1 | | EN-GJS-1400-1 | ADI 1400 | 5.3405 | | | | | | | | | |

| | Klasse / Class / Classe / Classe | Rm [N/mm²] | A5 [%] | Rockwell [HRc] | European Standard | Brand name | Mat.-Nr. | DIN | AFNOR | BS | EN | UNI | UNE | JIS | SIS | AISI \| SAE \| ASTM |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| N | ALUMINIUM UNLEGIERT \| ALUMINIUM UNALLOYED \| ALUMINIUM NON ALLIÉ \| ALLUMINIO NON LEGATO | | | | | | | | | | | | | | | |
| | N1.1 | 40- 100 | 33 | | EN-AW-1090 | | 3.0305 | Al99.9 | A9 | | | | | | | |
| | N1.1 | 40- 100 | 27 | | EN-AW-1080A | | 3.0128 | Al99.8 | A8 | | | 4509 | | | | |
| | N1.1 | 40- 100 | 27 | | EN-AW-1070A | | 3.0275 | Al99.7 | A7 | | | 4508 | | | | |
| | N1.1 | 65- 150 | 33 | | EN-AW-1050A | | 3.0225 | Al99.5 | A5 | 1B | | 4507 | L-3051 | A1x1 | | |
| | N1.1 | 65- 150 | 33 | | EN-AW-1200 | | 3.0205 | Al99 | A4 | 1C | | 3567 | | | | |
| N | ALUMINIUM-KNETLEGIERUNGEN NICHT AUSHÄRTBAR\| ALUMINIUM WROUGHT ALLOYS – NOT HARDENABLE \| ALLIAGES D'ALUMINIUM CORROYÉS – NON DURCISSABLE \| LEGHE MALLEABILI DI ALLUMINIO – NON CURABILE | | | | | | | | | | | | | | | |
| | N1.1 | 100- 125 | 1 | | EN-AW-3105 | | 3.0505 | AlMn0.5Mg0.5 | | N31 | | | | | | 3105 |
| | N1.1 | 80- 230 | 2 | | EN-AW-3103 | | 3.0515 | AlMn1 | | N3 | | 3568 | L-3810 | 144054 | | |
| | N1.1 | 210- 330 | 4 | | EN-AW-3003 | | 3.0517 | AlMnCu | | | | | | | | 3568 |
| | N1.1 | 115- 250 | 1 | | EN-AW-3005 | | 3.0525 | AlMn1Mg0,5 | A-M1G0,5 | | | | | | | |
| | N1.1 | 100- 205 | 4 | | EN-AW-5005 | | 3.3315 | AlMg1 | A-G0,6 | N41 | | 5764 | L-3350 | A2x8 | 144106 | 5005 |
| | N1.1 | 130- 360 | 13 | | EN-AW-5019 | | 3.3555 | AlMg5 | A-G5 | N6 | | 3576 | | | | |
| | N1.1 | 150- 300 | 3 | | EN-AW-5052 | | 3.3523 | AlMg2,5 | A-G2,5C | 2L56 | | 4574 | | | | 5052 |
| | N1.1 | 180- 310 | 3 | | EN-AW-5754 | | 3.3535 | AlMg3 | A-G3M | N5 | | 3575 | L-3390 | | | |
| | N1.1 | 120- 350 | 15 | | EN-AW-5083 | | 3.3547 | AlSiMg4,5Mn | A-G4,5MC | N8 | | 7790 | | | | 5083 |
| N | ALUMINIUM-KNETLEGIERUNGEN AUSHÄRTBAR \| ALUMINIUM WROUGHT ALLOYS - HARDENABLE\| ALLIAGES D'ALUMINIUM CORROYÉS - DURCISSABLE \| LEGHE MALLEABILI DI ALLUMINIO - CURABILE | | | | | | | | | | | | | | | |
| | N1.1 | 180- 460 | 8 | | EN-AW-2011 | | 3.1655 | AlCuBiPb | A-U5PbBi | FC1 | | 6362 | | | | |
| | N1.1 | 180- 310 | 8 | | EN-AW-2014 | | 3.1255 | AlCuSiMn | A-U4SG | H15 | | | | | | 3581 |
| | N1.1 | 150- 400 | 2 | | EN-AW-2017A | | 3.1325 | AlCuMg1 | A-U4G | H14 | | 3579 | L-3120 | | | 2017 |
| | N1.1 | 180- 460 | 3 | | EN-AW-2024 | | 3.1355 | AlCuMg2 | A-U4G1 | 2L97 | | 3579 | L-3140 | A3x4 | | 2024 |
| | N1.1 | 330- 370 | 8 | | EN-AW-2030 | | 3.1645 | AlCu4PbMg | AU4Pb | | | | | | | |
| | N1.1 | 120- 300 | 2 | | EN-AW-6061 | | 3.3211 | AlMg1SiCu | | H20 | | | | | | |
| | N1.1 | 130- 360 | 2 | | EN-AW-6082 | | 3.2315 | AlMgSi1 | A-SGM0,7 | H30 | | 3571 | L-3451 | | 144212 | |
| | N1.1 | 130- 270 | 8 | | EN-AW-6060 | | 3.3206 | AlMgSi0.5 | | H9 | | 3569 | L-3441 | A2x5 | 144103 | |
| | N1.1 | 410- 490 | 3 | | EN-AW-7022 | | 3.4345 | AlZnMgCu0.5 | AZ 4 GU/9051 | L86 | | 811-04 | | | | 7050 |
| | N1.1 | 180- 560 | 1 | | EN-AW-7075 | | 3.4365 | AlZnMgCu1.5 | A-Z5GU | 2L95 | | 3735 | | | | 7175 |
| N | ALUMINIUM-GUSS-LEGIERUNGEN SI < 5% \| ALUMINIUM CAST ALLOYS SI < 5% \| FONTES D'ALU SI < 5% \| LEGHE FUSE DI ALLUMINIO CON SI < 5% | | | | | | | | | | | | | | | |
| | N1.2 | 280- 300 | 1 | | EN-AC-45300 | | 3.2134 | G-AlSi5Cu1Mg | | | | | | | | |
| | N1.2 | 320- 360 | 5 | | EN-AC-21000 | | 3.1371 | G-AlCu4MgTi | A-U5GT | | | | | | | |
| | N1.2 | 140- 300 | 2 | | | | 3.3241 | G-AlMg3Si | | | | | | | | |
| | N1.2 | 170- 200 | 1 | | EN-AC-51200 | | 3.3292 | GD-AlMg9 | A-G10S | | | 5080 | | | | |
| | N1.2 | 140- 210 | 4 | | EN-AC-51000 | | 3.3541 | GD-AlMg3 | A-G3T | | | 3059 | | ADC6 | | |
| N | ALUMINIUM-GUSS-LEGIERUNGEN SI 5 - 12% \| ALUMINIUM CAST ALLOYS SI 5 - 12% \| FONTES D'ALU SI 5 - 12% \| LEGHE FUSE DI ALLUMINIO CON SI 5 - 12% | | | | | | | | | | | | | | | |
| | N1.2 | 210- 250 | 3 | | EN-AC-42000 | | 3.2371 | G-AlSi7Mg | A-S7G | LM25 | | G-AlSi7Mg | | AC4C | | |
| | N1.2 | 230- 360 | 2 | | EN-AC-43300 | | 3.2373 | G-AlSi9Mg | A-S9G | | | 3051 | | AC4A | | |
| | N1.2 | 240- 350 | 3 | | EN-AC-46000 | | 3.2163 | G-AlSi9Cu3 | A-S9U3 | LM24 | | 5075 | | | | |
| | N1.2 | 150- 340 | 1 | | EN-AC-43400 | | 3.2381 | G-AlSi10Mg | A-S10G | LM9 | | 3051 | L-2560 | | 4253 | |
| | N1.2 | 140- 160 | 1 | | EN-AC-43200 | | 3.2383 | G-AlSi10Mg(Cu) | A-S10GU | LM 9 | | | | | 4253 | A 360.2 |
| | N1.2 | 150- 170 | 5 | | EN-AC-44200 | | 3.2581 | G-AlSi12 | A-S13 | LM 6 | | 3051 | | AC3 | 4261 | A 413.2 |
| | N1.2 | 150- 290 | 1 | | EN-AB-47000 | | 3.2583 | G-AlSi12(Cu) | A-S12U | LM 20 | | 3048 | | | 4260 | A 413.1 |
| N | ALUMINIUM-GUSS-LEGIERUNGEN SI > 12% \| ALUMINIUM CAST ALLOYS SI > 12% \| FONTES D'ALU SI > 12% \| LEGHE FUSE DI ALLUMINIO CON SI > 12% | | | | | | | | | | | | | | | |
| | N1.3 | 280- 380 | 5 | | EN-AC-4032 | | | AlSi12,5MgCuNi | A-S 12 UGN | | | | | | | 4032 |
| | N1.3 | 165- 370 | 1 | | EN-AC-48100 | | | G-AlSi17Cu4Mg | | | | | | | | |
| | N1.3 | 180- 220 | 1 | | | | | G-AlSi18CuNiMg | | | | | | | | |
| | N1.3 | 200- 240 | 1 | | | | | G-AlSi21CuNiMg | | | | | | | | |
| | N1.3 | 230- 300 | 3 | | | | | G-AlSi25CuNiMg | | | | | | | | |
| N | REINKUPFER, NIEDRIGLEGIERTES KUPFER \| PURE COPPER, LOW ALLOYED COPPER \| CUIVRE PUR, CUIVRE FAIBLEMENT ALLIÉ \| RAME PURO, RAME POCO LEGATO | | | | | | | | | | | | | | | |
| | N2.1 | 260- 550 | 25 | | EN-CW-502 L | | 2.0240 | CuZn15 (MS85) | CuZn15 | CZ 102 | | | | C2300 | | C23000 |
| | N2.1 | 270- 490 | 25 | | EN-CW-505 L | | 2.0265 | CuZn30 (MS70) | CuZn30 | CZ 106 | | | | C2600 | | C26000 |
| | N2.1 | 200- 360 | 20 | | EN-CW-005 A | Cu-ETP | 2.0065 | E-Cu58 | | | | | | | | |
| | N2.1 | 410- 620 | 20 | | EN-CW-102 C | | 2.1248 | CuBe2Pb | CuBe1,9Pb | | | | | | | |
| | N2.1 | 400- 600 | 15 | | EN-CW-101 C | AMCOLOY 83 | 2.1247 | CuBe2 | CuBe1,9Pb | | | CuBe2 | | | | |
| | N2.1 | 480- 650 | 15 | | EN-CW-110 C | | 2.0850 | CuNi2Be | | | | | | | | |
| | N2.1 | 200- 570 | 25 | | EN-CW-120 C | | 2.1580 | CuZr | | | | CuZr | | | | |
| N | KUPFER-ZINK-LEGIERUNGEN (MESSING) LANGSPANEND \| COPPER-ZINC ALLOYS (BRASS) (LONG-CHIPPING) \| ALLIAGES CUIVRE-ZINC (LAITONS) (COP. LONGS) \| LEGHE RAME-ZINCO (OTTONE) (TRUCIOLO LUNGO) | | | | | | | | | | | | | | | |
| | N2.1 | 200- 440 | 20 | | EN-CW-508 L | | 2.0321 | CuZn37 | CuZn37 | CZ 108 | | | | C2700 | | C27200 |
| | N2.1 | 290- 540 | 30 | | EN-CW-600 N | | 2.0335 | CuZn36Pb1,5 (Ms63) | CuZn35Pb2 | CZ 108 | | P-CuZn35 | | C2700 | | C27000 |
| | N2.1 | 340- 480 | 25 | | EN-CW-509 L | | 2.0360 | CuZn40 (Ms60) | | DCB1 | | | | | | C28000 |
| | N2.1 | 250- 340 | 30 | | EN-CW-602 N | | | CuZn36Pb2As | | CZ 132 | | | | | | C35330 |
| | N2.1 | 360- 400 | 25 | | EN-CW-603 N | | 2.0401 | CuZn36Pb3 | CuZn36Pb3 | CZ 124 | | | | | | |
| | N2.1 | 290- 480 | 30 | | EN-CW-604 N | | 2.0332 | CuZn37Pb0,5 (Ms63) | | | | | | | | |

| Klasse / Class / Classe / Classe | Rm [N/mm²] | A5 [%] | Rockwell [HRc] | European Standard | Brand name | Mat.-Nr. | DIN | AFNOR | BS | EN | UNI | UNE | JIS | SIS | AISI \| SAE \| ASTM |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| N | KUPFER-ZINK-LEGIERUNGEN (MESSING) KURZSPANEND \| COPPER-ZINC ALLOYS (BRASS) (SHORT-CHIPPING) \| ALLIAGES CUIVRE-ZINC (LAITONS) (COP. COURTS) \| LEGHE RAME-ZINCO (OTTONE) (TRUCIOLO CORTO) | | | | | | | | | | | | | | |
| N2.2 | 600- 820 | 12 | | EN-CW-724 R | ECOBRASS | | CuZn21Si3P | | | | | | | | |
| N2.2 | 360- 560 | 25 | | EN-CW-612 N | | 2.0380 | CuZn39Pb2 (Ms58) | CuZn39Pb2 | | | P-CuZn39Pb2 (P-OT59Pb) | | | | |
| N2.2 | 450- 620 | 18 | | EN-CW-720 R | | 2.0580 | CuZn40Mn1Pb | | CZ 136 | | | | | | |
| N2.2 | 370- 410 | 25 | | EN-CW-617 N | | 2.0402 | CuZn40Pb2 (Ms58) | | CZ 122 | | CuZn40Pb2Sn (P-OT58Pb) | | | | |
| N | KUPFER-ALU-LEGIERUNGEN LANGSPANEND \| COPPER-ALUM. ALLOYS (LONG-CHIPPING) \| ALLIAGES CUIVRE-ALU. (COP. COURTS) / LEGHE RAME-ALLUM. (TRUCIOLO LUNGO) | | | | | | | | | | | | | | |
| N2.1 | 480- 590 | 30 | | EN-CW-303 G | | 2.0932 | CuAl8Fe3 | CuAl7Fe2 | CA 106 | | P-CuAl8Fe3 | | | | |
| N2.1 | 300- 500 | 12 | | EN-CW-352 H | | 2.0872 | CuNi10Fe1Mn | | | | | | CNP1 | | C70600 |
| N2.1 | 480- 550 | 40 | | | Ampco 8 | | | | | | | | | | |
| N | KUPFER-ALU-LEGIERUNGEN KURZSPANEND \| COPPER-ALUM. ALLOYS (SHORT-CHIPPING) \| ALLIAGES CUIVRE-ALU. (COP. LONGS) / LEGHE RAME-ALLUM. (TRUCIOLO CORTO) | | | | | | | | | | | | | | |
| N2.3 | 730- 760 | 1 | | | Ampco 21 | | | | | | | | | | |
| N2.3 | 1500-1600 | 0 | 40 | | Ampco 25 | | | | | | | | | | |
| N2.3 | 900- 1000 | 4 | | | Ampco M-4 | | | | | | | | | | |
| N2.2 | 600- 650 | 15 | | EN-CC-333 G | | 2.0975 | CuAl10Fe5Ni5-C | CuAl10Fe5Ni5 | AB2 | | G-CuAl11Fe4Ni4 | CuAl110Fe5Ni5, C-4220 | AlBC3 | Aluminiumbrons | C95800 |
| N2.2 | 600- 640 | 15 | | EN-CW-307 G | | 2.0966 | CuAl10Ni5Fe4 | CuAl9Ni5Fe3M1 | CA 104 | | P-CuAl10Fe5Ni5 | | | | C6300 |
| N2.2 | 340- 650 | 25 | | EN-CW-351 H | | 2.0875 | CuNi9Sn2 | | | | | | | | C72500 |
| N | KUPFER-ZINN-LEGIERUNGEN (BRONZE) LANGSPANEND \| COPPER-TIN ALLOYS (BRONZE) (LONG-CHIPPING) \| ALLIAGES CUIVRE-ÉTAIN (BRONZE) (COP. LONGS) \| LEGHE RAME-STAGNO (BRONZO) (TRUCIOLO LUNGO) | | | | | | | | | | | | | | |
| N2.1 | 290- 630 | 25 | | EN-CW-450 K | | 2.1016 | CuSn4 | | | | | | C 5111 | | C51100 |
| N2.1 | 390- 620 | 15 | | EN-CW-459 K | | 2.1030 | CuSn8P | | | | | | C5210 | | C52100 |
| N2.1 | 230- 320 | 12 | | EN-CC-492 K | | 2.1093 | CuSn7Zn2Pb3 | CuSn7Zn3Pb3 | CuSn7Pb3Zn3 | | | | PBC2 | | C92410 |
| N2.1 | 230- 320 | 12 | | EN-CC-493 K | | 2.1090.01 | CuSn7Zn4Pb7 (Rg7) | CuSn7Pb6Zn4 | | | CuSn7Zn4Pb6 | | | | C93200 |
| N2.1 | 280- 340 | 18 | | EN-CC-494 K | | 2.1086.01 | G-CuSn10Zn (Rg10) | | | | | | | | |
| N2.3 | 770- 820 | 18 | | | Ampco 45 | | | | | | | | | | |
| N | KUPFER-ZINN-LEGIERUNGEN (BRONZE) KURZSPANEND \| COPPER-ALUMINIUM ALLOYS (BRONZE) (SHORT-CHIP.) \| ALLIAGES CUIVRE-ALU. (BRONZE) (COP. COURTS) \| LEGHE RAME-ALLUMINIO (BRONZO) (TRUCIOLO CORTO) | | | | | | | | | | | | | | |
| N2.2 | 180- 220 | 12 | | EN-CC-490 K | | 2.1098 | CuSn3Zn8Pb5 | | LG1 | | | | | | C83810 |
| N2.2 | 200- 250 | 6 | | EN-CC-491 K | | 2.1097 | CuSn5Zn5Pb5 (Rg5) | CuSn5Pb5Zn5 | LG2 | | CuSn5Zn5Pb5 (BS ZN 5) | | H 5111 | | C83600 |
| N2.2 | 250- 280 | 10 | | EN-CC-480 K | | 2.1050 | CuSn10-C | | CuSn10P (PB4) | | CuSn10 (10 G-B 10) | | PBC2 | 5443 | C90700 |
| N2.2 | 260- 300 | 6 | | EN-CC-483K | | 2.1052 | CuSn12-C | | | | | | | | |
| N2.2 | 280- 300 | 8 | | EN-CC-484 K | | 2.1060 | CuSn12Ni2-C | | CuSn12Ni2 (CT2) | | | | | | C91700 |
| N | ZINK-LEGIERUNGEN \| ZINC ALLOYS \| CUIVRE-ZINC \| LEGHE ZINCO | | | | | | | | | | | | | | |
| N3.1 | 300 | 6 | | | ZAMAK | | ZnAl4 (Z400) | Z-A4 | Alloy A | | ZA4 | | | | AG40A |
| N3.1 | 330 | 4 | | | ZAMAK | | ZnAl4Cu1 (Z410) | Z-A4UI | Alloy B | | ZA4Cu1 | | | | AG41A |
| N3.1 | 400 | 6 | | | ZAMAK | | ZnAl4Cu3 (Z430) | Z-A4U3 | | | ZA4Cu3 | | | | AG43A |
| N | MAGNESIUM-LEGIERUNGEN \| MAGNESIUM WROUGHT ALLOYS \| ALLIAGES DE MAGNÉSIUM CORROYÉS \| LEGHE MALLEABILI DI MAGNESIO | | | | | | | | | | | | | | |
| N4.1 | 260- 280 | 9 | | EN-MG-P-63 | | 3.5612 | MgAl6Zn | | | | | | | | |
| N4.1 | 200- 260 | 4 | | EN-MB-21120 | | 3.5912 | G-MgAl9Zn1 | | | | | | | | |
| N4.1 | 230- 250 | 10 | | EN-MG-P-62 | | 3.5314 | MgAl3Zn | G-A3 Z1 | MAG-E-111 | | | | | | |
| N4.1 | 200- 230 | 8 | | EN-MG-P-43 | | | MgZn3Zr | G-A7 Z1 | | | | | | | |
| N4.1 | 220- 250 | 8 | | | | 3.5161 | MgZn6Zr | | MAG-E-151 | | | | | | |
| N | KUNSTSTOFFE \| SYNTHETICS \| PLASTIQUES \| MATERIE PLASTICHE | | | | | | | | | | | | | | |
| N5.1 | | | | | PMMA | | | | | | | | | | |
| N5.1 | | | | | POM | | | | | | | | | | |
| N5.1 | | | | | PVC | | | | | | | | | | |
| N5.2 | | | | | Bakelit | | | | | | | | | | |
| N5.2 | | | | | Pertinax | | | | | | | | | | |
| N | FASERVERSTÄRKTE KUNSTSTOFFE \| FIBRE-REINFORCED SYNTHETICS \| PLASTIQUES CHARGÉES EN FIBRES \| RESINE EPOSSIDICHE | | | | | | | | | | | | | | |
| N5.2 | 155- 365 | | | | | GFK | | | | | | | | | |
| N5.2 | 190- 210 | | | | | CFK uni. | | | | | | | | | |
| N5.2 | 190- 210 | | | | | CFK milti. | | | | | | | | | |
| N5.2 | | | | | | AFK | | | | | | | | | |

| Klasse / Class / Classe / Classe | Rm [N/mm²] | A5 [%] | Rockwell [HRc] | European Standard | Brand name | Mat.-Nr. | DIN | AFNOR | BS | EN | UNI | UNE | JIS | SIS | AISI \| SAE \| ASTM |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| S | NICKEL- /KOBALT- /EISEN-LEGIERUNGEN \| NICKEL- /COBALT- /IRON - ALLOYS \| ALLIAGES NICKEL/COBALT RÉFRACTAIRES \| LEGHE NICHEL/COBALTO RESISTENTI AL COLORE | | | | | | | | | | | | | | |
| S1.1 | 490- 560 | 30 | | | Invar 36 | 1.3912 | Ni36 | | | | | | | | K93600 |
| S1.1 | 500- 600 | 30 | | | Invar 42 | 1.3917 | Ni42 | | | | | | | | K94100 |
| S1.1 | 500- 700 | 35 | | | Monel 400 | 2.4360 | NiCu30Fe | Nu 30 | NA 13 | | | | | | |
| S1.1 | 620- 850 | 17 | | | Monel K-500 | 2.4375 | NiCu30Al | Nu 30 AT | NA 18 | | | | | | |
| S1.2 | 1100- 1300 | 15 | | | Nimonic 901 | 2.4662 | NiCr13Mo6Ti3 | | HR 53 | | | | | | |
| S1.2 | 850- 1700 | 30 | | | Hastelloy C276 | 2.4819 | NiMo16Cr15 | | | | | | | | SB575 |
| S1.2 | 700- 1000 | 40 | | | Hastelloy B | 2.4685 | G-NiMo28 | | | | | | | | |
| S1.2 | 800- 1700 | 40 | | | Hastelloy C-4 | 2.4610 | NiMo16Cr16Ti | | | | | | | | |
| S1.2 | 700- 1000 | 40 | | | Hastelloy B-2 | 2.4617 | G-NiMo30 | | | | | | | | |
| S1.2 | 700- 1500 | 26 | | | Nimonic 75 | 2.4630, 2.4951 | NiCr20Ti | NC 20 T | HR 5 | | | | | | |
| S1.2 | 980- 1150 | 8 | | | Alloy X-750 | 2.4669 | NiCr15Fe7TiAl | | | | | | | | N07750 |
| S1.2 | 890- 1600 | 30 | | | Inconel 625 | 2.4856 | NiCr22Mo9Nb | NC 22 FeDNb | NA 21 | | | | | | |
| S1.2 | 800- 1000 | 12 | | | Nimonic 80 A | 2.4631 | NiCr20TiAl | | HR 401; 601 | | | | NCF 80 A | | |
| S1.2 | 1100- 1600 | 12 | | | Inconel 718 | 2.4668 | NiCr19FeNbMo | NC 19Fe Nb | | | | | | | |
| S1.2 | 1100- 1300 | 21 | | | René 41 | 2.4973 | NICr19Co11MoTi | NC19KDT | | | | | | | 5712 |
| S1.2 | 800- 1600 | 20 | | | Waspaloy | 2.4654 | NiCr20Co14MoTi | NC20K14 | | | | | | | 5544 |
| S1.2 | 1100- 1300 | 17 | | | Nimonic 90 | 2.4632 | NiCr20Co18Ti | NC20ATV | HR2 | | | | | | |
| S1.2 | 1000- 1200 | 22 | | | Nimonic 105 | 2.4634 | NiCo20Cr15MoAlTi | NCKD20ATV | HR3 | | | | | | |
| S1.2 | 830- 1130 | 25 | | | Alloy L-605 / L25 | 2.4964 | CoCr20W15Ni | | | | | | | | 5759 |
| S1.2 | 900- 1200 | 12 | | | | 2.4979 | CoCr28Mo6 | | | | | | | | F75 |
| S | REINTITAN, TITANLEGIERUNGEN \| PURE TITANIUM, TITANIUM ALLOYS \| TITANE PUR, ALLIAGES DE TITANE \| TITANIO PURO, LEGHE DI TITANIO | | | | | | | | | | | | | | |
| S2.1 | 290- 410 | 30 | | | | 3.7025 | Ti99.5 \| Ti Gr.1 | AIR:9182T60 | | | | | | | |
| S2.1 | 380- 540 | 20 | | | | 3.7035 | Ti99.4 \| Ti Gr.2 | | TA 1 | | | | | | |
| S2.1 | 460- 590 | 18 | | | | 3.7055 | Ti99.3 \| Ti Gr.3 | | TA 2 | | | | | | |
| S2.1 | 540- 740 | 16 | | | | 3.7065 | Ti99.2 \| Ti Gr.4 | | TA 3 | | | | | | |
| S2.1 | 390- 540 | 20 | | | | 3.7235 | Ti 2 Pd \| Ti Gr.2Pd | | | | | | | | |
| S2.2 | 800- 1000 | 10 | | | | 3.7165 | TiAl6V4 \| Ti Gr. 5 | T-A6V | TA 28 | | | | | | R56400 |
| S2.2 | 860- 1100 | 18 | | | Tikrutan | 3.7110 | TiAl5Fe2.5 | | | | | | | | |
| S2.2 | 900- 1100 | 13 | | | | | Ti8Al1Mo1V | | | | | | | | R54810 |
| S2.2 | 800- 1000 | 18 | | | | 3.7115 | TiAl5Sn2,5 | T-A5E | TA 14, 17 | | | | | | B 265 |
| S2.2 | 1100- 1250 | 10 | | | | | Ti-6Al-2Sn-4Zr-6Mo | | | | | | | | 4981 |
| S2.2 | 1200- 1300 | 11 | | | | | Ti-6Al-2Sn-2Zr-2Mo-2Cr-0.25Si | | | | | | | | |
| S2.2 | 1050- 1200 | 9 | | | | 3.7185 | TiAl4Mo4Sn2 | | | | | | | | |
| H | GEHÄRTETE STÄHLE \| HARDENED STEELS \| ACIERS TRAITÉS \| ACCIAI TEMPRATI | | | | | | | | | | | | | | |
| H1.1 | | | 44- 50 | | Strenx 1300 | | | | | | | | | | |
| H1.1 | | | 49- 51 | | Hardox 500 Tuf | | | | | | | | | | |
| H1.1 | | | 47- 52 | | Hardox 500 | | | | | | | | | | |
| H1.1 | | | 53- 55 | | Hardox 550 | | | | | | | | | | |
| H1.2 | | | 54- 60 | | Hardox 600 | | | | | | | | | | |
| H1.2 | | | 57- 63 | | Hardox Extreme | | | | | | | | | | |
| H1.3 | | | 62- 64 | | FeTiC Nikro | | | | | | | | | | |

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