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## WNT \ Performance

Utensili di qualità premium per la massima performance.

Gli utensili di qualità premium della linea prodotti **WNT Performance** sono stati sviluppati per applicazioni speciali e sono caratterizzati da eccellenti prestazioni. Se nella vostra produzione avete massime esigenze in termini di prestazione e desiderate ottenere ottimi risultati, vi consigliamo gli utensili premium di questa linea prodotti.

## WNT \ Standard

Utensili di qualità per applicazioni standard

Gli utensili di qualità della linea prodotti **WNT Standard** uniscono elevate prestazioni e affidabilità, caratteristiche molto apprezzate dai nostri clienti in tutto il mondo. Gli utensili di questa linea prodotti sono la scelta preferenziale per numerose applicazioni standard e garantiscono ottimi risultati.

## Legenda

### Forma d'imbocco



Forma B  
(con imbocco corretto, imbocco 4 – 5 filetti)



Forma C  
(senza imbocco corretto, imbocco 2 – 3 filetti)



Forma D  
(senza imbocco corretto, imbocco 4 – 5 filetti)



Forma E  
(senza imbocco corretto, imbocco 1,5 – 2 filetti)

### Angolo dell'elica



Esempio: angolo dell'elica 42°

### Tolleranze



Per informazioni sulle tolleranze vedere  
→ pag. 114.

### Resistenza alla trazione del materiale da lavorare



Esempio fino a 1.100 N/mm²

### Materiale da taglio



Acciaio rapido



Acciaio superrapido ad elevate prestazioni



Acciaio superrapido sinterizzato  
ad elevate prestazioni



Metallo duro integrale

### Anelli colorati

WNT \ Performance

Per informazioni riguardo agli anelli colorati  
identificativi vedere → pag. 117.

### Tipi di filetti



Per informazioni sui tipi di filetti vedere  
→ pag. 3.

### Tipo



Refrig. interna



## Tipi di maschi

## Tipo di utensile

WNT \ Performance

|               |                                                    |                 |                                                                                            |                |                                                                          |
|---------------|----------------------------------------------------|-----------------|--------------------------------------------------------------------------------------------|----------------|--------------------------------------------------------------------------|
| <b>Stabil</b> | Per filetti passanti fino a 4xD                    | <b>Salo-Rex</b> | Per filetti ciechi fino a ca. 3xD, con elica accentuata per un'evacuazione truciolo sicura | <b>TWIN</b>    | Con scanalature diritte per filetti passanti e filetti ciechi fino a 2xD |
| <b>DL</b>     | Con elica sinistra per filetti passanti fino a 4xD | <b>SL</b>       | Per filetti ciechi fino a 2xD, con elica con 15°, 25° o 30°                                | <b>Spanlos</b> | Maschi a rullare per filetti passanti e filetti ciechi 3xD               |

Per informazioni più dettagliate sui tipi di utensili vedere → **pag. 113.**

## Campo d'impiego

WNT \ Performance

|             |                                                                                                   |                  |                                                                                 |              |                                                                                  |
|-------------|---------------------------------------------------------------------------------------------------|------------------|---------------------------------------------------------------------------------|--------------|----------------------------------------------------------------------------------|
| <b>UNI</b>  | Per l'impiego universale                                                                          | <b>ST</b>        | Per acciai di buona lavorabilità                                                | <b>VG</b>    | Per acciai bonificati e resistenti al calore < 1100 N/mm²                        |
| <b>HR</b>   | Per acciai ad elevata resistenza fino a < 1400 N/mm²                                              | <b>GG</b>        | Per ghisa                                                                       | <b>VA</b>    | Per qualità di acciaio resistenti alla corrosione e agli acidi fino a 1100 N/mm² |
| <b>NW</b>   | Per alluminio                                                                                     | <b>Soft</b>      | Per materiali teneri                                                            | <b>Ms</b>    | Per ottone a truciolo corto                                                      |
| <b>Ti</b>   | Per titanio e leghe di titanio                                                                    | <b>Ni</b>        | Specifico per Inconel 718                                                       | <b>AMPCO</b> | Per leghe Ampco                                                                  |
| <b>HT</b>   | Per acciai temprati e getti in ghisa fino a 55 HRC                                                | <b>EC</b>        | Maschi a rullare Spanlos per l'impiego universale                               | <b>NEO</b>   | Maschi a rullare Spanlos per leghe resistenti al calore                          |
| <b>ERGO</b> | Maschi a mano per acciai inossidabili, resistenti al calore e acciai bonificati fino a 1100 N/mm² | <b>ERGO F.T.</b> | Maschi a mano per acciai fino a 1400 N/mm², acciai al tungsteno, getti in ghisa | <b>FE</b>    | Filiere per acciaio                                                              |
| <b>UNI</b>  | Per applicazioni fino a 1000 N/mm²                                                                | <b>FE</b>        | Per acciai fino a 850 N/mm²                                                     | <b>FE-HF</b> | Per acciai ad elevata resistenza fino a 1100 N/mm²                               |
| <b>VA</b>   | Per acciai inossidabili e acciai resistenti agli acidi                                            | <b>GG</b>        | Per ghisa                                                                       | <b>AL</b>    | Per alluminio e leghe di alluminio                                               |

WNT \ Standard

## Caratteristiche particolari

|            |                                                                             |                        |                                                                             |            |                                                                                         |
|------------|-----------------------------------------------------------------------------|------------------------|-----------------------------------------------------------------------------|------------|-----------------------------------------------------------------------------------------|
| <b>CNC</b> | Per maschiatura rigida su macchine CNC con mandrino a compensazione assiale | <b>NC</b>              | Per maschiatura rigida su macchine CNC con mandrino a compensazione assiale | <b>NCW</b> | Con attacco Weldon per la maschiatura rigida CNC senza mandrino a compensazione assiale |
| <b>AZ</b>  | Con denti alternati, riduce l'attrito                                       | <b>S</b>               | Con rastremazione conica posteriore, per filetti profondi                   | <b>DRY</b> | Per lavorazione a secco o con refrigerazione minima                                     |
| <b>TS</b>  | Per lavorazione ad elevate velocità, fino a 100 m/min.                      | <b>LH</b>              | Per filetti sinistri                                                        | <b>EL</b>  | Serie extralunga con lunghezza totale doppia                                            |
| <b>AUT</b> | Esecuzione corta per lavorazione su macchine automatiche                    | <b>SN</b>              | Maschi a rullare con scanalature di lubrificazione                          | <b>ES</b>  | Extracorto                                                                              |
| <b>MMB</b> | Maschi a macchina per dadi                                                  | <b>R<sub>z</sub>=1</b> | Filiere lappate                                                             |            |                                                                                         |

## Tipi di filetti

|               |                                                                   |               |                                                                         |             |                                                                         |
|---------------|-------------------------------------------------------------------|---------------|-------------------------------------------------------------------------|-------------|-------------------------------------------------------------------------|
| <b>M</b>      | Filetto ISO metrico standard DIN 13                               | <b>UNF</b>    | Filetto unificato fine ASME – B1.1                                      | <b>NPTF</b> | Filetto gas conico americano con guarnizione (1:16) ANSI/ASME – B1.20.3 |
| <b>EG M</b>   | Filetto ISO metrico standard per filetti riportati DIN 8140-2     | <b>EG UNF</b> | EG Filetto unificato grosso per filetti riportati ASME – B18.29.1       | <b>Rp</b>   | Filetto Whitworth cilindrico per tubi DIN EN 10226-1 (ISO7-1)           |
| <b>MF</b>     | Filetto ISO metrico fine DIN 13                                   | <b>UNJC</b>   | Filetto unificato grosso ASME – B1.15 e ISO 3161                        | <b>Rc</b>   | Filetto Whitworth conico per tubi (1:16) DIN EN 10226-2 (ISO7-1)        |
| <b>G</b>      | Filetto Whitworth per tubi DIN-EN-ISO 228                         | <b>UNJF</b>   | Filetto unificato extrafine ASME – B1.15 und ISO 3161                   | <b>Tr</b>   | Filetto ISO metrico trapezoidale DIN 103                                |
| <b>UNC</b>    | Filetto unificato grosso ASME – B1.1                              | <b>BSW</b>    | Filetto Whitworth BS84                                                  |             |                                                                         |
| <b>EG UNC</b> | EG Filetto unificato grosso per filetti riportati ASME – B18.29.1 | <b>NPT</b>    | Filetto gas conico americano con guarnizione (1:16) ANSI/ASME – B1.20.1 |             |                                                                         |



I maschi per filetti BSW, NPTF, Rp, Rc, i maschi a mano e le filiere sono disponibili nello shop online.



## Toolfinder – WNT Performance

## Maschi a rullare

 Per materiali adatti alla deformazione a freddo

  foro passante e foro cieco

## Maschi HSS

 Per impiego universale fino a 1100 N/mm<sup>2</sup>

  foro passante  
 foro cieco

 Per acciaio fino a 750 N/mm<sup>2</sup>

  foro passante  
 foro cieco  
 foro passante e foro cieco

 Per acciaio ad alta resistenza fino a 1400 N/mm<sup>2</sup>

  foro passante  
 foro cieco  
 foro passante e foro cieco

 Per acciai inossidabili e acciai resistenti agli acidi

  foro passante  
 foro cieco

 Per ghisa

  foro passante e foro cieco

 Per materiali resistenti al calore

  foro passante  
 foro cieco  
 foro passante e foro cieco

 Per alluminio e metalli non ferrosi

  foro passante  
 foro cieco

 Per materiali duri

  foro passante e foro cieco

 Utensili per altre applicazioni si trovano nella panoramica dei maschi a → **pagg. 8–20.**

 Per prolunghe per maschi e oli da taglio vedere lo shop online all'indirizzo [cuttingtools.ceratizit.com](http://cuttingtools.ceratizit.com)

| Tipo di utensile | Campo d'impiego | WNT \ Performance |      |       |    |     |        |      |     |        |      |     |     |      |    |    |     |
|------------------|-----------------|-------------------|------|-------|----|-----|--------|------|-----|--------|------|-----|-----|------|----|----|-----|
|                  |                 | M                 | EG M | MF    | G  | UNC | EG UNC | UNJC | UNF | EG UNF | UNJF | BSW | NPT | NPTF | Rp | Rc | Tr  |
| Spanlos          | EC              | 59-61             |      | 81    | 89 | 94  |        |      | 103 |        |      |     |     |      |    |    |     |
| Stabil           | UNI             | 21-23             | 63   | 65+66 | 83 | 90  | 95     |      | 98  | 104    |      |     |     |      |    |    |     |
| Salo-Rex         | UNI             | 35-38             | 64   | 69    | 85 | 92  | 96     |      | 100 | 105    |      |     |     |      |    |    |     |
| Stabil           | ST              | 24+25             |      | 66    | 83 |     |        |      |     |        |      |     |     |      |    |    | 109 |
| Salo-Rex         | ST              | 39-41             |      | 71+72 | 86 |     |        |      |     |        |      |     |     |      |    |    |     |
| TWIN             | ST              | 52+53<br>56       |      | 78-80 | 88 |     |        |      |     |        |      |     | 108 |      |    |    |     |
| Stabil           | HR              | 25                |      |       |    |     |        |      |     |        |      |     |     |      |    |    |     |
| Salo-Rex         | HR              | 39-41             |      |       |    |     |        |      |     |        |      |     |     |      |    |    |     |
| TWIN             | HR              | 52+53             |      | 78+79 | 88 |     |        |      |     |        |      |     |     |      |    |    |     |
| Stabil           | VA              | 26                |      |       | 83 | 90  |        |      |     |        |      |     |     |      |    |    |     |
| Salo-Rex         | VA              | 42                |      | 74    | 86 | 92  |        |      | 100 |        |      |     | 106 |      |    |    |     |
| TWIN             | GG              | 54                |      | 79    |    |     |        |      |     |        |      |     |     |      |    |    |     |
| Stabil           | Ti              | 27                |      |       |    | 90  |        |      | 98  |        |      |     |     |      |    |    |     |
| SL               | Ti              | 44                |      |       |    |     |        | 97   | 101 |        |      |     |     |      |    |    |     |
| TWIN             | AMPCO           | 52                |      |       |    |     |        |      |     |        |      |     |     |      |    |    |     |
| Stabil           | NW              | 26                |      |       |    |     |        |      |     |        |      |     |     |      |    |    |     |
| Salo-Rex         | NW              | 43                |      | 74    |    |     |        |      |     |        |      |     |     |      |    |    |     |
| TWIN             | HT              | 55                |      | 78    |    |     |        |      |     |        |      |     |     |      |    |    |     |

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## Toolfinder – WNT Standard

## Maschi a rullare

 Per materiali adatti alla deformazione a freddo

  foro passante e foro cieco

## Maschi HSS

 Per applicazioni fino a 1000 N/mm<sup>2</sup>

  foro passante  
 foro cieco

 Per acciai fino a 850 N/mm<sup>2</sup>

  foro passante  
 foro cieco

 Per acciaio ad alta resistenza fino a 1100 N/mm<sup>2</sup>

  foro passante  
 foro cieco

 Per acciai inossidabili e acciai resistenti agli acidi

  foro passante  
 foro cieco

 Per ghisa

  foro passante e foro cieco

 Per alluminio e metalli non ferrosi

  foro passante  
 foro cieco

| WNT \ Standard     |       |       |    |     |     |
|--------------------|-------|-------|----|-----|-----|
| Campo<br>d'impiego | M     | MF    | G  | UNC | UNF |
| UNI                | 62    | 82    |    |     |     |
| UNI                | 31+32 | 67+68 | 84 | 91  | 99  |
| UNI                | 49+50 | 75+76 | 87 | 93  | 102 |
| FE                 | 32+34 | 68    |    | 91  | 99  |
| FE                 | 50    | 76    |    | 93  | 102 |
| FE-HF              | 32    | 68    |    | 91  |     |
| FE-HF              | 50    | 76    |    | 93  |     |
| VA                 | 33    | 68    |    | 91  | 99  |
| VA                 | 50+51 | 77    |    | 93  | 102 |
| GG                 | 58    |       |    |     |     |
| AL                 | 33    |       |    |     |     |
| AL                 | 51    |       |    |     |     |

## Panoramica maschi

| Campo d'impiego | foro passante                                                                     | foro cieco                                                                        | foro passante e<br>foro cieco                                                     | Tipo di utensile | Campo d'impiego /<br>caratteristiche specifiche | Tolleranza | Materiale da taglio | rivestito<br>■<br>non rivestito<br>□ | Commento | WNT \ Performance | WNT \ Standard |
|-----------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------------------|-------------------------------------------------|------------|---------------------|--------------------------------------|----------|-------------------|----------------|
|                 |  |  |  |                  |                                                 |            |                     |                                      |          |                   |                |

## M – filetto ISO metrico

|            |                                                                                     |        |            |                                 |                 |   |                                                                                               |                                                                                       |
|------------|-------------------------------------------------------------------------------------|--------|------------|---------------------------------|-----------------|---|-----------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
| Universale |    | Stabil | UNI        | ISO 2 6H<br>ISO 3 6G<br>7G      | HSS-E           | ■ |                                                                                               | 21+22                                                                                 |
|            |    |        | UNI        | ISO 2 6H                        | HSS-E<br>HSS-PM | ■ |                                                                                               | 31                                                                                    |
|            |    | Stabil | UNI<br>NCW | ISO 2 6H                        | HSS-PM          | ■ | Con attacco Weldon per la<br>maschiatura rigida CNC senza<br>mandrino a compensazione assiale | 23                                                                                    |
|            |    |        | UNI<br>NCW | ISO 2 6H                        | HSS-PM          | ■ | Con attacco Weldon per la<br>maschiatura rigida CNC senza<br>mandrino a compensazione assiale | 32                                                                                    |
|            |    | Stabil | UNI<br>DRY | ISO 2X 6HX                      | HSS-E           | ■ | Per lavorazione a secco o con<br>refrigerazione minimale                                      |    |
|            |    | Stabil | UNI<br>CNC | ISO 2X 6HX<br>ISO 3X 6GX<br>7GX | HSS-E           | ■ | Per maschiatura rigida su macchine<br>CNC con mandrino a compensazione<br>assiale             | 23                                                                                    |
|            |   |        | UNI<br>NC  | ISO 2 6H                        | HSS-E           | ■ | Per maschiatura rigida su macchine<br>CNC con mandrino a compensazione<br>assiale             | 32                                                                                    |
|            |  | Stabil | UNI<br>EL  | ISO 2 6H                        | HSS-E           | ■ | Serie extralunga con lunghezza totale<br>doppia                                               | 29                                                                                    |
| Acciaio    |  | Stabil | ST         | ISO 2 6H                        | HSS-E           | □ |                                                                                               | 24                                                                                    |
|            |  | Stabil | ST         | ISO 1 4H<br>ISO 3 6G            | HSS-E           | □ |                                                                                               |  |
|            |  |        | FE         | ISO 2 6H                        | HSS-E           | □ |                                                                                               | 32                                                                                    |
|            |  |        | FE<br>ES   | ISO 2 6H                        | HSS-E           | □ | Extracorto                                                                                    | 34                                                                                    |
|            |  | Stabil | ST<br>AZ   | ISO 2 6H                        | HSS-E           | □ | Con denti alternati, riduce l'attrito                                                         | 24                                                                                    |
|            |  | Stabil | ST<br>LH   | ISO 2 6H                        | HSS-E           | □ | Per filetti sinistri                                                                          | 24                                                                                    |
|            |  | Stabil | ST<br>TS   | ISO 2X 6HX                      | HSS-E           | ■ | Per lavorazione ad elevate velocità,<br>fino a 100 m/min.                                     | 25                                                                                    |
|            |  | Stabil | HR         | ISO 2X 6HX                      | HSS-PM          | ■ |                                                                                               | 25                                                                                    |
|            |  | Stabil | VG         | ISO 2X 6HX                      | HSS-E           | ■ |                                                                                               | 25                                                                                    |
|            |  |        | FE-HF      | ISO 2 6H                        | HSS-E           | ■ |                                                                                               | 32                                                                                    |
|            |  | Stabil | VG<br>AZ   | ISO 2 6H                        | HSS-E           | ■ | Con denti alternati, riduce l'attrito                                                         |  |

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## Panoramica maschi

| Campo d'impiego | foro passante | foro cieco | foro passante e<br>foro cieco | Tipo di utensile | Campo d'impiego /<br>Caratteristiche specifiche | Tolleranza | Materiale da taglio | rivestito<br><input checked="" type="checkbox"/> non rivestito<br><input type="checkbox"/> | Commento | WNT \ Performance | WNT \ Standard |
|-----------------|---------------|------------|-------------------------------|------------------|-------------------------------------------------|------------|---------------------|--------------------------------------------------------------------------------------------|----------|-------------------|----------------|
|-----------------|---------------|------------|-------------------------------|------------------|-------------------------------------------------|------------|---------------------|--------------------------------------------------------------------------------------------|----------|-------------------|----------------|

## M – filetto ISO metrico

|                            |                                                                                     |                 |                |                          |                 |                                                              |                                                                                                             |                                                                                       |
|----------------------------|-------------------------------------------------------------------------------------|-----------------|----------------|--------------------------|-----------------|--------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
| Acciaio                    |    | <b>Stabil</b>   | <b>ST EL</b>   | ISO 2 6H                 | HSS-E           | <input type="checkbox"/>                                     | Serie extralunga con lunghezza totale doppia                                                                | <b>29</b>                                                                             |
|                            |    |                 | <b>ST MMB</b>  | ISO 2 6H                 | HSS-E           | <input type="checkbox"/>                                     | Maschi a macchina per dadi                                                                                  | <b>30</b>                                                                             |
| Acciaio inossidabile       |    | <b>Stabil</b>   | <b>VA</b>      | ISO 2 6H                 | HSS-E           | <input checked="" type="checkbox"/>                          |                                                                                                             | <b>26</b>                                                                             |
|                            |    |                 | <b>VA</b>      | ISO 2 6H                 | HSS-PM<br>HSS-E | <input checked="" type="checkbox"/> <input type="checkbox"/> |                                                                                                             | <b>33</b>                                                                             |
| Metalli non ferrosi        |    | <b>Stabil</b>   | <b>NW</b>      | ISO 2 6H                 | HSS-E           | <input checked="" type="checkbox"/>                          |                                                                                                             | <b>26</b>                                                                             |
|                            |    |                 | <b>AL</b>      | ISO 2 6H                 | HSS-E           | <input checked="" type="checkbox"/> <input type="checkbox"/> |                                                                                                             | <b>33</b>                                                                             |
|                            |   | <b>Stabil</b>   | <b>Soft</b>    | ISO 2 6H                 | HSS-E           | <input checked="" type="checkbox"/>                          |                                                                                                             |   |
| Leghe resistenti al calore |  | <b>Stabil</b>   | <b>Ti</b>      | ISO 1X 4HX<br>ISO 2X 6HX | HSS-PM          | <input checked="" type="checkbox"/>                          |                                                                                                             | <b>27</b>                                                                             |
|                            |  | <b>DL</b>       | <b>Ti</b>      | ISO 2X 6HX               | HSS-E           | <input checked="" type="checkbox"/>                          |                                                                                                             | <b>28</b>                                                                             |
|                            |  | <b>DL</b>       | <b>Ni</b>      | ISO 2X 6HX               | HSS-E           | <input checked="" type="checkbox"/>                          |                                                                                                             | <b>28</b>                                                                             |
| Universale                 |  | <b>Salo-Rex</b> | <b>UNI</b>     | ISO 2 6H<br>7G           | HSS-E           | <input checked="" type="checkbox"/>                          | Con refrigerazione interna                                                                                  | <b>35+36</b>                                                                          |
|                            |  | <b>Salo-Rex</b> | <b>UNI</b>     | ISO 1 4H<br>ISO 3 6G     | HSS-E           | <input checked="" type="checkbox"/>                          |                                                                                                             |  |
|                            |  |                 | <b>UNI</b>     | ISO 2 6H                 | HSS-E<br>HSS-PM | <input checked="" type="checkbox"/>                          |                                                                                                             | <b>49</b>                                                                             |
|                            |  | <b>Salo-Rex</b> | <b>UNI NCW</b> | ISO 2 6H                 | HSS-PM          | <input checked="" type="checkbox"/>                          | Con attacco Weldon per la maschiatura rigida CNC senza mandrino a compensazione assiale                     | <b>36</b>                                                                             |
|                            |  |                 | <b>UNI NCW</b> | ISO 2 6H                 | HSS-PM          | <input checked="" type="checkbox"/>                          | Con attacco Weldon per la maschiatura rigida CNC senza mandrino a compensazione assiale                     | <b>50</b>                                                                             |
|                            |  | <b>Salo-Rex</b> | <b>UNI CNC</b> | ISO 2X 6HX<br>ISO 2 6H   | HSS-E           | <input checked="" type="checkbox"/>                          | Per maschiatura rigida su macchine CNC con mandrino a minima compensazione assiale (refrigerazione interna) | <b>37</b>                                                                             |
|                            |  | <b>Salo-Rex</b> | <b>UNI CNC</b> | ISO 3 6G, 7G             | HSS-E           | <input checked="" type="checkbox"/>                          | Per maschiatura rigida su macchine CNC con mandrino a compensazione assiale                                 |  |
|                            |  |                 | <b>UNI NC</b>  | ISO 2 6H                 | HSS-E           | <input checked="" type="checkbox"/>                          | Per maschiatura rigida su macchine CNC con mandrino a compensazione assiale                                 | <b>49</b>                                                                             |
|                            |  | <b>Salo-Rex</b> | <b>UNI DRY</b> | ISO 2 6H                 | HSS-E           | <input checked="" type="checkbox"/>                          | Per lavorazione a secco o con refrigerazione minima (refrigerazione interna)                                | <b>38</b>                                                                             |

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## Panoramica maschi

| Campo d'impiego | foro passante | foro cieco | foro passante e foro cieco | Tipo di utensile | Campo d'impiego / caratteristiche specifiche | Tolleranza           | Materiale da taglio | rivestito<br>■<br>□ | non rivestito<br>□ | Commento                                                                                                    | WNT \ Performance | WNT \ Standard |
|-----------------|---------------|------------|----------------------------|------------------|----------------------------------------------|----------------------|---------------------|---------------------|--------------------|-------------------------------------------------------------------------------------------------------------|-------------------|----------------|
| Universale      |               |            |                            | Salo-Rex         | UNI S                                        | ISO 2 6H             | HSS-E               | ■                   |                    | Con rastremazione conica posteriore, per filetti profondi                                                   |                   |                |
|                 |               |            |                            | Salo-Rex         | UNI ES                                       | ISO 2 6H             | HSS-E               | ■                   |                    | Extracorto                                                                                                  | 45                |                |
|                 |               |            |                            | Salo-Rex         | UNI EL                                       | ISO 2 6H             | HSS-E               | ■                   |                    | Serie extralunga con lunghezza totale doppia                                                                | 47                |                |
|                 |               |            |                            | SL               | UNI                                          | ISO 2 6H             | HSS-E               |                     | □                  |                                                                                                             |                   |                |
| Acciaio         |               |            |                            | SL               | ST                                           | ISO 2 6H             | HSS-E               |                     | □                  |                                                                                                             |                   |                |
|                 |               |            |                            | SL               | ST CNC                                       | ISO 2X 6HX           | HSS-E               | ■                   |                    | Per maschiatura rigida su macchine CNC con mandrino a minima compensazione assiale (refrigerazione interna) | 39                |                |
|                 |               |            |                            | SL               | ST TS                                        | ISO 2 6H             | HSS-PM              | ■                   |                    | Per lavorazione ad elevate velocità, fino a 100 m/min.                                                      |                   |                |
|                 |               |            |                            | SL               | ST TS                                        | ISO 2X 6HX           | HSS-E               | ■                   |                    | Per lavorazione ad elevate velocità, fino a 100 m/min.                                                      | 39                |                |
|                 |               |            |                            | SL               | ST ES                                        | ISO 2 6H             | HSS-E               |                     | □                  | Extracorto                                                                                                  | 46                |                |
|                 |               |            |                            | SL               | ST AUT/ES                                    | ISO 2 6H             | HSS-E               |                     | □                  | Esecuzione corta per lavorazione su macchine automatiche; extracorta                                        | 46                |                |
|                 |               |            |                            | SL               | ST EL                                        | ISO 2 6H             | HSS-E               |                     | □                  | Serie extralunga con lunghezza totale doppia                                                                | 48                |                |
|                 |               |            |                            | SL               | HR                                           | ISO 2 6H             | HSS-PM              |                     | □                  |                                                                                                             | 39                |                |
|                 |               |            |                            | Salo-Rex         | ST                                           | ISO 2 6H             | HSS-E               | ■                   | □                  |                                                                                                             | 40                |                |
|                 |               |            |                            | Salo-Rex         | ST                                           | ISO 1 4H<br>ISO 3 6G | HSS-E               | ■                   | □                  |                                                                                                             |                   |                |
|                 |               |            |                            |                  | FE                                           | ISO 2 6H             | HSS-E               |                     | □                  |                                                                                                             | 50                |                |
|                 |               |            |                            |                  | FE-HF                                        | ISO 2 6H             | HSS-E               | ■                   |                    |                                                                                                             | 50                |                |
|                 |               |            |                            | Salo-Rex         | ST LH                                        | ISO 2 6H             | HSS-E               |                     | □                  | Per filetti sinistri                                                                                        | 40                |                |
|                 |               |            |                            | Salo-Rex         | ST ES                                        | ISO 2 6H             | HSS-E               |                     | □                  | Extracorto                                                                                                  |                   |                |
|                 |               |            |                            | Salo-Rex         | ST EL                                        | ISO 2 6H             | HSS-E               |                     | □                  | Serie extralunga con lunghezza totale doppia                                                                | 47                |                |

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## Panoramica maschi

| Campo d'impiego            | foro passante                                                                       | foro cieco                                                                          | foro passante e foro cieco                                                          | Tipo di utensile | Campo d'impiego / caratteristiche specifiche | Tolleranza         | Materiale da taglio | rivestito<br>■ □ | non rivestito<br>■ □ | Commento                                                  | WNT \ Performance | WNT \ Standard                                                                        |
|----------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|------------------|----------------------------------------------|--------------------|---------------------|------------------|----------------------|-----------------------------------------------------------|-------------------|---------------------------------------------------------------------------------------|
| Acciaio                    |    |    |    | Salo-Rex         | HR                                           | ISO 2 6H           | HSS-PM              | ■                | □                    |                                                           | 41                |                                                                                       |
|                            |    |    |    | Salo-Rex         | ST TS                                        | ISO 2 6H           | HSS-E               | ■                |                      | Con refrigerazione interna                                | 41                |                                                                                       |
| Acciaio inossidabile       |    |    |    | Salo-Rex         | VA                                           | ISO 2 6H           | HSS-E               | ■                |                      | Con refrigerazione interna                                | 42                |                                                                                       |
|                            |    |    |    |                  | VA                                           | ISO 2 6H           | HSS-E<br>HSS-PM     | ■                | □                    |                                                           | 50+51             |                                                                                       |
|                            |    |    |    | Salo-Rex         | VA S                                         | ISO 2 6H           | HSS-E               | ■                |                      | Con rastremazione conica posteriore, per filetti profondi |                   |    |
|                            |    |    |    | Salo-Rex         | Soft                                         | ISO 2 6H           | HSS-E               | ■                | □                    |                                                           | 43                |                                                                                       |
| Metalli non ferrosi        |  |  |  | Salo-Rex         | NW                                           | ISO 2 6H           | HSS-E               | ■                |                      |                                                           | 43                |                                                                                       |
|                            |  |  |  |                  | AL                                           | ISO 2 6H           | HSS-E               | ■                | □                    |                                                           | 51                |                                                                                       |
|                            |  |  |  | SL               | Ti                                           | ISO 2X             | HSS-PM              | ■                |                      |                                                           | 44                |                                                                                       |
| Leghe resistenti al calore |  |  |  | SL               | Ni                                           | ISO 2X<br>ISO 2 6H | HSS-PM              | ■                |                      |                                                           | 44                |                                                                                       |
|                            |  |  |  | TWIN             | ST                                           | ISO 2X 6HX         | HSS-E               |                  | □                    |                                                           | 52                |                                                                                       |
| Acciaio                    |  |  |  | TWIN             | ST AZ                                        | ISO 2X 6HX         | HSS-E               |                  | □                    | Con denti alternati, riduce l'attrito                     |                   |  |
|                            |  |  |  | TWIN             | ST ES                                        | ISO 2X 6HX         | HSS-E               |                  | □                    | Extracorto                                                | 56                |                                                                                       |
|                            |  |  |  | TWIN             | ST LH/ES                                     | ISO 2X 6HX         | HSS-E               |                  | □                    | Per filetti sinistri, extracorti                          |                   |  |
|                            |  |  |  | TWIN             | HR                                           | ISO 2X 6HX         | HSS-E               | ■                |                      |                                                           |                   |  |
|                            |  |  |  | TWIN             | HR EL                                        | ISO 2X 6HX         | HSS-E               | ■                |                      | Serie extralunga con lunghezza totale doppia              | 57                |                                                                                       |
| Ghisa                      |  |  |  | TWIN             | GG                                           | ISO 2X 6HX         | HSS-E               | ■                |                      | Con refrigerazione interna                                | 54                |                                                                                       |
|                            |  |  |  |                  | GG                                           | ISO 2X 6HX         | HSS-E               | ■                |                      |                                                           | 58                |                                                                                       |
| Metalli non ferrosi        |  |  |  | TWIN             | Ms                                           | ISO 2X 6HX         | HSS-E               |                  | □                    |                                                           |                   |  |

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## Panoramica maschi

| Campo d'impiego | foro passante                                                                     | foro cieco                                                                        | foro passante e<br>foro cieco                                                     | Tipo di utensile | Campo d'impiego /<br>caratteristiche specifiche | Tolleranza | Materiale da taglio | rivestito<br>non rivestito                                   | Commento | WNT \ Performance | WNT \ Standard |
|-----------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------------------|-------------------------------------------------|------------|---------------------|--------------------------------------------------------------|----------|-------------------|----------------|
|                 |  |  |  |                  |                                                 |            |                     | <input checked="" type="checkbox"/> <input type="checkbox"/> |          |                   |                |

## M – filetto ISO metrico

|                                  |                                                                                     |         |                         |                          |                 |                                     |                                                                                |                                                                                       |
|----------------------------------|-------------------------------------------------------------------------------------|---------|-------------------------|--------------------------|-----------------|-------------------------------------|--------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
| Leghe<br>resistenti<br>al calore |    | TWIN    | AMPCO                   | ISO 2X 6HX               | HSS-PM          | <input type="checkbox"/>            |                                                                                | 52                                                                                    |
| Acciaio<br>temperato             |    | TWIN    | HT                      | ISO 2X 6HX               | VHM<br>HSS-PM   | <input checked="" type="checkbox"/> |                                                                                | 55                                                                                    |
| Maschi a rullare a macchina      |    | Spanlos | EC                      | ISO 2X 6HX               | HSS-E<br>HSS-PM | <input checked="" type="checkbox"/> |                                                                                | 59                                                                                    |
|                                  |    | Spanlos | EC<br>SN                | ISO 2X 6HX<br>ISO 3X 6GX | HSS-E<br>HSS-PM | <input checked="" type="checkbox"/> | Maschi a rullare con scanalature di<br>lubrificazione e refrigerazione interna | 60+61                                                                                 |
|                                  |    | Spanlos | NEO<br>SN               | ISO 2X 6HX               | HSS-PM          | <input checked="" type="checkbox"/> | Maschi a rullare con scanalature di<br>lubrificazione e refrigerazione interna | 61                                                                                    |
|                                  |    |         | UNI                     | ISO 2X 6HX               | HSS-E           | <input checked="" type="checkbox"/> |                                                                                | 62                                                                                    |
|                                  |  |         | UNI<br>SN               | ISO 2X 6HX               | HSS-E           | <input checked="" type="checkbox"/> | Maschi a rullare con scanalature<br>di lubrificazione                          | 62                                                                                    |
| Maschi a mano                    |                                                                                     |         | ST                      | ISO 2X 6HX               | HSS-E<br>VHM    | <input type="checkbox"/>            |                                                                                |  |
|                                  |                                                                                     |         | ERGO                    | ISO 2X 6HX               | HSS-E           | <input type="checkbox"/>            |                                                                                |  |
|                                  |                                                                                     |         | ERGO<br>F.T.            | ISO 2X 6HX               | HSS-E           | <input checked="" type="checkbox"/> |                                                                                |  |
| Filire                           |                                                                                     |         | FE                      | ISO 6g<br>ISO 6e         | HSS             | <input type="checkbox"/>            |                                                                                |  |
|                                  |                                                                                     |         | FE                      | ISO 6g                   | HSS             | <input type="checkbox"/>            |                                                                                |  |
|                                  |                                                                                     |         | FE<br>R <sub>z</sub> =1 | ISO 6g                   | HSS             | <input type="checkbox"/>            | Filire lappate                                                                 |  |
|                                  |                                                                                     |         | FE<br>LH                | ISO 6g                   | HSS             | <input type="checkbox"/>            | Per filetti sinistri                                                           |  |
|                                  |                                                                                     |         | VA                      | ISO 6g                   | HSS-E           | <input type="checkbox"/>            |                                                                                |  |
|                                  |                                                                                     |         | VA<br>R <sub>z</sub> =1 | ISO 6g                   | HSS-E           | <input type="checkbox"/>            | Filire lappate                                                                 |  |
|                                  |                                                                                     |         | Ms<br>R <sub>z</sub> =1 | ISO 6g                   | HSS             | <input type="checkbox"/>            | Filire lappate                                                                 |  |

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## Panoramica maschi

| Campo d'impiego | foro passante | foro cieco | foro passante e<br>foro cieco | Tipo di utensile | Campo d'impiego /<br>caratteristiche specifiche | Tolleranza | Materiale da taglio | rivestito<br>■ non rivestito □ | Commento | WNT \ Performance | WNT \ Standard |
|-----------------|---------------|------------|-------------------------------|------------------|-------------------------------------------------|------------|---------------------|--------------------------------|----------|-------------------|----------------|
|-----------------|---------------|------------|-------------------------------|------------------|-------------------------------------------------|------------|---------------------|--------------------------------|----------|-------------------|----------------|

## EG M – Filetto ISO standard per filetti riportati (elicoil)

|                     |                                                                                   |                 |             |        |       |   |  |  |  |    |
|---------------------|-----------------------------------------------------------------------------------|-----------------|-------------|--------|-------|---|--|--|--|----|
| Universale          |  | <b>Stabil</b>   | <b>UNI</b>  | 6H mod | HSS-E | ■ |  |  |  | 63 |
|                     |  | <b>Salo-Rex</b> | <b>UNI</b>  | 6H mod | HSS-E | ■ |  |  |  | 64 |
| Metalli non ferrosi |  | <b>Salo-Rex</b> | <b>Soft</b> | 6H mod | HSS-E | ■ |  |  |  | 64 |

## MF – Filetto ISO metrico fine

|                      |                                                                                     |          |         |                      |                 |   |                                                                             |                                                                                       |
|----------------------|-------------------------------------------------------------------------------------|----------|---------|----------------------|-----------------|---|-----------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
| Universale           |    | Stabil   | UNI     | ISO 2 6H             | HSS-E           | ■ |                                                                             | 65+66                                                                                 |
|                      |    | Stabil   | UNI     | ISO 3 6G             | HSS-E           | ■ |                                                                             |    |
|                      |   |          | UNI     | ISO 2 6H             | HSS-PM<br>HSS-E | ■ |                                                                             | 67+68                                                                                 |
|                      |  | Stabil   | UNI DRY | ISO 2X 6HX           | HSS-E           | ■ | Per lavorazione a secco o con refrigerazione minimale                       |  |
| Acciaio              |  | Stabil   | ST      | ISO 2 6H             | HSS-E           | □ |                                                                             |  |
|                      |  |          | FE      | ISO 2 6H             | HSS-E           | □ |                                                                             | 68                                                                                    |
|                      |  |          | FE-HF   | ISO 2 6H             | HSS-E           | ■ |                                                                             | 68                                                                                    |
|                      |  | Stabil   | ST TS   | ISO 2X 6HX           | HSS-E           | ■ | Per lavorazione ad elevate velocità, fino a 100 m/min.                      | 66                                                                                    |
|                      |  | Stabil   | ST LH   | ISO 2 6H             | HSS-E           | □ | Per filetti sinistri                                                        | 66                                                                                    |
|                      |  | Stabil   | VG      | ISO 2X 6HX           | HSS-E           | ■ |                                                                             | 65+66                                                                                 |
| Acciaio inossidabile |  | Stabil   | VA      | ISO 2 6H             | HSS-E           | ■ |                                                                             |  |
|                      |  |          | VA      | ISO 2 6H             | HSS-E           | ■ |                                                                             | 68                                                                                    |
| Universale           |  | Salo-Rex | UNI     | ISO 2 6H<br>ISO 3 6G | HSS-E           | ■ | Con refrigerazione interna                                                  | 69+70                                                                                 |
|                      |  |          | UNI     | ISO 2 6H             | HSS-E<br>HSS-PM | ■ |                                                                             | 75+76                                                                                 |
|                      |  | Salo-Rex | UNI CNC | ISO 3 6G             | HSS-E           | ■ | Per maschiatura rigida su macchine CNC con mandrino a compensazione assiale |  |

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## Panoramica maschi

| Campo d'impiego | foro passante | foro cieco | foro passante e foro cieco | Tipo di utensile | Campo d'impiego / caratteristiche specifiche | Tolleranza | Materiale da taglio | rivestito<br>■ non rivestito □ | Commento | WNT \ Performance | WNT \ Standard |
|-----------------|---------------|------------|----------------------------|------------------|----------------------------------------------|------------|---------------------|--------------------------------|----------|-------------------|----------------|
|-----------------|---------------|------------|----------------------------|------------------|----------------------------------------------|------------|---------------------|--------------------------------|----------|-------------------|----------------|

## MF – Filetto ISO metrico fine

|                      |                                                                                     |                 |                 |                |                 |     |                                                                             |                                                                                       |
|----------------------|-------------------------------------------------------------------------------------|-----------------|-----------------|----------------|-----------------|-----|-----------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
| Universale           |    | <b>Salo-Rex</b> | <b>UNI CNC</b>  | 7G<br>ISO 2 6H | HSS-E           | ■   | Per maschiatura rigida su macchine CNC con mandrino a compensazione assiale | <b>70</b>                                                                             |
|                      |    |                 | <b>UNI NC</b>   | ISO 2 6H       | HSS-E           | ■   | Per maschiatura rigida su macchine CNC con mandrino a compensazione assiale | <b>76</b>                                                                             |
| Acciaio              |    | <b>Salo-Rex</b> | <b>ST</b>       | ISO 2 6H       | HSS-E           | □   |                                                                             | <b>71</b>                                                                             |
|                      |    | <b>Salo-Rex</b> | <b>ST</b>       | ISO 1 4H       | HSS-E           | □   |                                                                             |    |
|                      |    |                 | <b>FE</b>       | ISO 2 6H       | HSS-E           | □   |                                                                             | <b>76</b>                                                                             |
|                      |    |                 | <b>FE-HF</b>    | ISO 2 6H       | HSS-E           | ■   |                                                                             | <b>76</b>                                                                             |
|                      |   | <b>Salo-Rex</b> | <b>ST TS</b>    | ISO 2 6H       | HSS-E           | ■   | Per lavorazione ad elevate velocità, fino a 100 m/min.                      |   |
|                      |  | <b>Salo-Rex</b> | <b>ST LH</b>    | ISO 2 6H       | HSS-E           | □   | Per filetti sinistri                                                        | <b>71</b>                                                                             |
|                      |  | <b>SL</b>       | <b>ST</b>       | ISO 2 6H       | HSS-E           | □   |                                                                             | <b>72</b>                                                                             |
|                      |  | <b>SL</b>       | <b>ST CNC</b>   | ISO 2X 6HX     | HSS-E           | ■   | Per maschiatura rigida su macchine CNC con mandrino a compensazione assiale |  |
| Acciaio inossidabile |  | <b>Salo-Rex</b> | <b>VA</b>       | ISO 2 6H       | HSS-E           | ■   |                                                                             | <b>74</b>                                                                             |
|                      |  |                 | <b>VA</b>       | ISO 2 6H       | HSS-E<br>HSS-PM | ■ □ |                                                                             | <b>77</b>                                                                             |
| Metalli non ferrosi  |  | <b>Salo-Rex</b> | <b>NW</b>       | ISO 2 6H       | HSS-E           | ■   |                                                                             | <b>74</b>                                                                             |
| Acciaio              |  | <b>TWIN</b>     | <b>ST</b>       | ISO 2X 6HX     | HSS-E           | □   |                                                                             | <b>78</b>                                                                             |
|                      |  | <b>TWIN</b>     | <b>ST ES</b>    | ISO 2X 6HX     | HSS-E           | □   | Extracorto                                                                  | <b>80</b>                                                                             |
|                      |  | <b>TWIN</b>     | <b>ST LH/ES</b> | ISO 2X 6HX     | HSS-E           | □   | Per filetti sinistri                                                        | <b>80</b>                                                                             |
|                      |  | <b>TWIN</b>     | <b>HR</b>       | ISO 2X 6HX     | HSS-E           | ■   |                                                                             | <b>78+79</b>                                                                          |
| Ghisa                |  | <b>TWIN</b>     | <b>GG</b>       | ISO 2X 6HX     | HSS-E           | ■   |                                                                             | <b>79</b>                                                                             |
| Acciaio temprato     |  | <b>TWIN</b>     | <b>HT</b>       | ISO 2X 6HX     | VHM             | ■   |                                                                             | <b>78</b>                                                                             |

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## Panoramica maschi

| Campo d'impiego | foro passante | foro cieco | foro passante e foro cieco | Tipo di utensile | Campo d'impiego / caratteristiche specifiche | Tolleranza | Materiale da taglio | rivestito<br>■ non rivestito □ | Commento | WNT \ Performance | WNT \ Standard |
|-----------------|---------------|------------|----------------------------|------------------|----------------------------------------------|------------|---------------------|--------------------------------|----------|-------------------|----------------|
|-----------------|---------------|------------|----------------------------|------------------|----------------------------------------------|------------|---------------------|--------------------------------|----------|-------------------|----------------|

## MF – Filetto ISO metrico fine

|                             |                                                                                   |         |        |            |       |   |                                                    |  |                                                                                       |
|-----------------------------|-----------------------------------------------------------------------------------|---------|--------|------------|-------|---|----------------------------------------------------|--|---------------------------------------------------------------------------------------|
| Maschi a rullare a macchina |  | Spanlos | EC     | ISO 2X 6HX | HSS-E | ■ |                                                    |  | 81                                                                                    |
|                             |  | Spanlos | EC SN  | ISO 2X 6HX | HSS-E | ■ | Maschi a rullare con scanalature di lubrificazione |  | 81                                                                                    |
|                             |  |         | UNI    | ISO 2X 6HX | HSS-E | ■ |                                                    |  | 82                                                                                    |
|                             |  |         | UNI SN | ISO 2X 6HX | HSS-E | ■ | Maschi a rullare con scanalature di lubrificazione |  | 82                                                                                    |
| Maschi a mano               |                                                                                   |         | ST     | ISO 2X 6HX | HSS-E | □ |                                                    |  |    |
| Filere                      |                                                                                   |         | FE     | ISO 6g     | HSS   | □ |                                                    |  |    |
|                             |                                                                                   |         | FE     | ISO 6g     | HSS   | □ |                                                    |  |  |
|                             |                                                                                   |         | FE LH  | ISO 6g     | HSS   | □ | Per filetti sinistri                               |  |  |
|                             |                                                                                   |         | VA     | ISO 6g     | HSS-E | □ |                                                    |  |  |

## G – Filetto Gas – Whitworth per tubi

|                      |                                                                                     |          |         |                          |       |   |                                                                             |  |                                                                                       |
|----------------------|-------------------------------------------------------------------------------------|----------|---------|--------------------------|-------|---|-----------------------------------------------------------------------------|--|---------------------------------------------------------------------------------------|
| Universale           |  | Stabil   | UNI     | ISO 228                  | HSS-E | ■ |                                                                             |  | 83                                                                                    |
|                      |  |          | UNI     | ISO 228                  | HSS-E | ■ |                                                                             |  | 84                                                                                    |
| Acciaio              |  | Stabil   | ST      | ISO 228                  | HSS-E | □ |                                                                             |  | 83                                                                                    |
|                      |  |          | FE      | ISO 228                  | HSS-E | □ |                                                                             |  |  |
| Acciaio inossidabile |  | Stabil   | VA      | ISO 228                  | HSS-E | ■ |                                                                             |  | 83                                                                                    |
| Universale           |  | Salo-Rex | UNI     | ISO 228<br>ISO 228 +0,05 | HSS-E | ■ |                                                                             |  | 85                                                                                    |
|                      |  |          | UNI     | ISO 228                  | HSS-E | ■ |                                                                             |  | 87                                                                                    |
|                      |  | Salo-Rex | UNI CNC | ISO 228                  | HSS-E | ■ | Per maschiatura rigida su macchine CNC con mandrino a compensazione assiale |  | 86                                                                                    |

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## Panoramica maschi

| Campo d'impiego | foro passante | foro cieco | foro passante e foro cieco | Tipo di utensile | Campo d'impiego / caratteristiche specifiche | Tolleranza | Materiale da taglio | rivestito<br>non rivestito                                   | Commento | WNT \ Performance | WNT \ Standard |
|-----------------|---------------|------------|----------------------------|------------------|----------------------------------------------|------------|---------------------|--------------------------------------------------------------|----------|-------------------|----------------|
|                 |               |            |                            |                  |                                              |            |                     | <input checked="" type="checkbox"/> <input type="checkbox"/> |          |                   |                |

## G – Filetto Gas – Whitworth per tubi

|                             |  |          |       |          |       |                                     |                                                          |
|-----------------------------|--|----------|-------|----------|-------|-------------------------------------|----------------------------------------------------------|
| Acciaio                     |  | Salo-Rex | ST    | ISO 228  | HSS-E | <input type="checkbox"/>            | 86                                                       |
|                             |  | SL       | ST    | ISO 228  | HSS-E | <input type="checkbox"/>            |                                                          |
| Acciaio inossidabile        |  | Salo-Rex | VA    | ISO 228  | HSS-E | <input checked="" type="checkbox"/> | 86                                                       |
| Acciaio                     |  | TWIN     | ST    | ISO 228X | HSS-E | <input type="checkbox"/>            | 88                                                       |
|                             |  | TWIN     | HR    | ISO 228X | HSS-E | <input checked="" type="checkbox"/> | 88                                                       |
| Ghisa                       |  | TWIN     | GG    | ISO 228X | HSS-E | <input checked="" type="checkbox"/> |                                                          |
| Maschi a rullare a macchina |  | Spanlos  | EC    | ISO 228  | HSS-E | <input checked="" type="checkbox"/> | 89                                                       |
|                             |  | Spanlos  | EC SN | ISO 228  | HSS-E | <input checked="" type="checkbox"/> | Maschi a rullare con scanalature di lubrificazione<br>89 |
| Maschi a mano               |  |          | ERGO  | ISO 228  | HSS-E | <input type="checkbox"/>            |                                                          |
| Fillere                     |  |          | FE    | ISO 228A | HSS   | <input type="checkbox"/>            |                                                          |

## UNC – Filetto unificato grosso

|                      |  |        |       |    |       |                                     |    |
|----------------------|--|--------|-------|----|-------|-------------------------------------|----|
| Universale           |  | Stabil | UNI   | 3B | HSS-E | <input checked="" type="checkbox"/> |    |
|                      |  | Stabil | UNI   | 2B | HSS-E | <input checked="" type="checkbox"/> | 90 |
|                      |  |        | UNI   | 2B | HSS-E | <input checked="" type="checkbox"/> | 91 |
| Acciaio              |  | Stabil | ST    | 2B | HSS-E | <input type="checkbox"/>            |    |
|                      |  |        | FE    | 2B | HSS-E | <input type="checkbox"/>            | 91 |
|                      |  |        | FE-HF | 2B | HSS-E | <input checked="" type="checkbox"/> | 91 |
| Acciaio inossidabile |  | Stabil | VA    | 2B | HSS-E | <input checked="" type="checkbox"/> | 90 |
|                      |  |        | VA    | 2B | HSS-E | <input checked="" type="checkbox"/> | 91 |

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## Panoramica maschi

| Campo d'impiego | foro passante | foro cieco | foro passante e foro cieco | Tipo di utensile | Campo d'impiego / caratteristiche specifiche | Tolleranza | Materiale da taglio | rivestito<br>■<br>□ | non rivestito | Commento | WNT \ Performance | WNT \ Standard |
|-----------------|---------------|------------|----------------------------|------------------|----------------------------------------------|------------|---------------------|---------------------|---------------|----------|-------------------|----------------|
|-----------------|---------------|------------|----------------------------|------------------|----------------------------------------------|------------|---------------------|---------------------|---------------|----------|-------------------|----------------|

## UNC – Filetto unificato grosso

|                             |                                                                                     |                                                                                     |          |       |          |        |   |  |  |                                                    |                                                                                       |  |
|-----------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|----------|-------|----------|--------|---|--|--|----------------------------------------------------|---------------------------------------------------------------------------------------|--|
| Leghe resistenti al calore  |    |                                                                                     | Stabil   | Ti    | 2BX      | HSS-PM | ■ |  |  |                                                    | 90                                                                                    |  |
| Universale                  |    |                                                                                     | Salo-Rex | UNI   | 2B       | HSS-E  | ■ |  |  |                                                    | 92                                                                                    |  |
|                             |    |                                                                                     | Salo-Rex | UNI   | 2B +0,05 | HSS-E  | ■ |  |  |                                                    |    |  |
|                             |    |                                                                                     |          | UNI   | 2B       | HSS-E  | ■ |  |  |                                                    | 93                                                                                    |  |
| Acciaio                     |    |                                                                                     | Salo-Rex | ST    | 2B       | HSS-E  | □ |  |  |                                                    |    |  |
|                             |    |                                                                                     |          | FE    | 2B       | HSS-E  | □ |  |  |                                                    | 93                                                                                    |  |
|                             |   |                                                                                     |          | FE-HF | 2B       | HSS-E  | ■ |  |  |                                                    | 93                                                                                    |  |
| Acciaio inossidabile        |  |                                                                                     | Salo-Rex | VA    | 2B       | HSS-E  | ■ |  |  |                                                    | 92                                                                                    |  |
|                             |  |                                                                                     |          | VA    | 2B       | HSS-E  | □ |  |  |                                                    | 93                                                                                    |  |
| Leghe resistenti al calore  |  |                                                                                     | SL       | Ti    | 2BX      | HSS-PM | ■ |  |  |                                                    |  |  |
| Ghisa                       |                                                                                     |  | TWIN     | GG    | 2BX      | HSS-E  | ■ |  |  |                                                    |  |  |
| Maschi a rullare a macchina |                                                                                     |  | Spanlos  | EC    | 2BX      | HSS-E  | ■ |  |  |                                                    | 94                                                                                    |  |
|                             |                                                                                     |  | Spanlos  | EC SN | 2BX      | HSS-E  | ■ |  |  | Maschi a rullare con scanalature di lubrificazione | 94                                                                                    |  |
| Maschi a mano               |                                                                                     |  |          | ERGO  | 2BX      | HSS-E  | □ |  |  |                                                    |  |  |
| Fillere                     |                                                                                     |  |          | FE    | 2A       | HSS-E  | □ |  |  |                                                    |  |  |

## EG UNC – Filetto unificato grosso EG per filettiriportati (elicoil)

|            |                                                                                     |  |          |     |    |       |   |  |  |  |    |  |
|------------|-------------------------------------------------------------------------------------|--|----------|-----|----|-------|---|--|--|--|----|--|
| Universale |  |  | Stabil   | UNI | 2B | HSS-E | ■ |  |  |  | 95 |  |
|            |  |  | Salo-Rex | UNI | 2B | HSS-E | ■ |  |  |  | 96 |  |

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## Panoramica maschi

| Campo d'impiego | foro passante                                                                     | foro cieco                                                                        | foro passante e<br>foro cieco                                                     | Tipo di utensile | Campo d'impiego /<br>caratteristiche specifiche | Tolleranza | Materiale da taglio | rivestito<br>non rivestito                                   | Commento | WNT \ Performance | WNT \ Standard |
|-----------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------------------|-------------------------------------------------|------------|---------------------|--------------------------------------------------------------|----------|-------------------|----------------|
|                 |  |  |  |                  |                                                 |            |                     | <input checked="" type="checkbox"/> <input type="checkbox"/> |          |                   |                |

## UNJC – Filetto unificato grosso

|                                  |                                                                                   |    |    |     |       |                                     |  |  |    |
|----------------------------------|-----------------------------------------------------------------------------------|----|----|-----|-------|-------------------------------------|--|--|----|
| Leghe<br>resistenti<br>al calore |  | SL | Ti | 3BX | HSS-E | <input checked="" type="checkbox"/> |  |  | 97 |
|----------------------------------|-----------------------------------------------------------------------------------|----|----|-----|-------|-------------------------------------|--|--|----|

## UNF – Filetto unificato fine

|                                  |                                                                                     |          |          |                |        |                                     |                                                       |                                                                                       |
|----------------------------------|-------------------------------------------------------------------------------------|----------|----------|----------------|--------|-------------------------------------|-------------------------------------------------------|---------------------------------------------------------------------------------------|
| Universale                       |    | Stabil   | UNI      | 2B             | HSS-E  | <input checked="" type="checkbox"/> |                                                       | 98                                                                                    |
|                                  |    |          | UNI      | 2B             | HSS-E  | <input checked="" type="checkbox"/> |                                                       | 99                                                                                    |
| Acciaio                          |    | Stabil   | ST       | 2B             | HSS-E  | <input type="checkbox"/>            |                                                       |    |
|                                  |    |          | FE       | 2B             | HSS-E  | <input type="checkbox"/>            |                                                       | 99                                                                                    |
| Acciaio<br>inossidabile          |   |          | VA       | 2B             | HSS-E  | <input checked="" type="checkbox"/> |                                                       | 99                                                                                    |
| Leghe<br>resistenti<br>al calore |  | Stabil   | Ti       | 2BX            | HSS-PM | <input checked="" type="checkbox"/> |                                                       | 98                                                                                    |
| Universale                       |  | Salo-Rex | UNI      | 2B<br>2B +0,05 | HSS-E  | <input checked="" type="checkbox"/> |                                                       | 100                                                                                   |
|                                  |  |          | UNI      | 2B             | HSS-E  | <input checked="" type="checkbox"/> |                                                       | 102                                                                                   |
| Acciaio                          |  |          | FE       | 2B             | HSS-E  | <input type="checkbox"/>            |                                                       | 102                                                                                   |
| Acciaio<br>inossidabile          |  | Salo-Rex | VA       | 2B             | HSS-E  | <input checked="" type="checkbox"/> |                                                       | 100                                                                                   |
|                                  |  |          | VA       | 2B             | HSS-E  | <input type="checkbox"/>            |                                                       | 102                                                                                   |
| Leghe<br>resistenti<br>al calore |  | SL       | Ti       | 2BX<br>3BX     | HSS-PM | <input checked="" type="checkbox"/> |                                                       | 101                                                                                   |
| Ghisa                            |  | TWIN     | GG       | 2BX            | HSS-E  | <input checked="" type="checkbox"/> |                                                       |  |
| Maschi<br>a rullare              |  | Spanlos  | EC<br>SN | 2BX            | HSS-E  | <input checked="" type="checkbox"/> | Maschi a rullare con scanalature<br>di lubrificazione | 103                                                                                   |
| Fillere                          |  |          | FE       | 2A             | HSS    | <input type="checkbox"/>            |                                                       |  |

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## Panoramica maschi

| Campo d'impiego | foro passante                                                                     | foro cieco                                                                        | foro passante e foro cieco                                                        | Tipo di utensile | Campo d'impiego / caratteristiche specifiche | Tolleranza | Materiale da taglio | rivestito<br>non rivestito                                   | Commento | WNT \ Performance | WNT \ Standard |
|-----------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------------------|----------------------------------------------|------------|---------------------|--------------------------------------------------------------|----------|-------------------|----------------|
|                 |  |  |  |                  |                                              |            |                     | <input checked="" type="checkbox"/> <input type="checkbox"/> |          |                   |                |

## Filetto unificato fine EG per filetti riportati

|            |                                                                                   |                 |            |    |       |                                     |  |     |
|------------|-----------------------------------------------------------------------------------|-----------------|------------|----|-------|-------------------------------------|--|-----|
| Universale |  | <b>Stabil</b>   | <b>UNI</b> | 2B | HSS-E | <input checked="" type="checkbox"/> |  | 104 |
|            |  | <b>Salo-Rex</b> | <b>UNI</b> | 2B | HSS-E | <input checked="" type="checkbox"/> |  | 105 |

## UNJF – Filetto unificato extrafine

|                            |                                                                                   |           |           |     |       |                                     |  |                                                                                     |
|----------------------------|-----------------------------------------------------------------------------------|-----------|-----------|-----|-------|-------------------------------------|--|-------------------------------------------------------------------------------------|
| Leghe resistenti al calore |  | <b>DL</b> | <b>Ti</b> | 3BX | HSS-E | <input checked="" type="checkbox"/> |  |  |
|                            |  | <b>SL</b> | <b>Ti</b> | 3BX | HSS-E | <input checked="" type="checkbox"/> |  |  |

## BSW – Filetto British Standard Whitworth

|            |                                                                                     |                 |            |      |       |                                     |  |                                                                                       |
|------------|-------------------------------------------------------------------------------------|-----------------|------------|------|-------|-------------------------------------|--|---------------------------------------------------------------------------------------|
| Universale |  | <b>Stabil</b>   | <b>UNI</b> | med. | HSS-E | <input checked="" type="checkbox"/> |  |  |
|            |  | <b>Salo-Rex</b> | <b>UNI</b> | med. | HSS-E | <input checked="" type="checkbox"/> |  |  |

## NPT – Filetto gas conico americano

|                      |                                                                                     |                 |              |  |       |                                     |                                       |                                                                                       |
|----------------------|-------------------------------------------------------------------------------------|-----------------|--------------|--|-------|-------------------------------------|---------------------------------------|---------------------------------------------------------------------------------------|
| Acciaio inossidabile |  | <b>Salo-Rex</b> | <b>VA</b>    |  | HSS-E | <input checked="" type="checkbox"/> |                                       | 106                                                                                   |
| Acciaio              |  | <b>TWIN</b>     | <b>ST AZ</b> |  | HSS-E | <input type="checkbox"/>            | Con denti alternati, riduce l'attrito |  |
|                      |  | <b>TWIN</b>     | <b>VG</b>    |  | HSS-E | <input type="checkbox"/>            |                                       | 107                                                                                   |
|                      |  | <b>TWIN</b>     | <b>VG AZ</b> |  | HSS-E | <input type="checkbox"/>            | Con denti alternati, riduce l'attrito |  |
|                      |  | <b>TWIN</b>     | <b>ST ES</b> |  | HSS-E | <input type="checkbox"/>            | Extracorto                            | 108                                                                                   |
| Filliere             |                                                                                     |                 | <b>FE</b>    |  | HSS-E | <input type="checkbox"/>            |                                       |  |

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## Panoramica maschi

| Campo d'impiego | foro passante                                                                     | foro cieco                                                                        | foro passante e<br>foro cieco                                                     | Tipo di utensile | Campo d'impiego /<br>caratteristiche specifiche | Tolleranza | Materiale da taglio | rivestito<br><input type="checkbox"/> non rivestito | Commento | WNT \ Performance | WNT \ Standard |
|-----------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------------------|-------------------------------------------------|------------|---------------------|-----------------------------------------------------|----------|-------------------|----------------|
|                 |  |  |  |                  |                                                 |            |                     | <input type="checkbox"/>                            |          |                   |                |

## NPTF – Filetto gas conico americano fine (senza guarnizione)

|         |                                                                                   |      |       |  |       |                          |            |                                                                                     |
|---------|-----------------------------------------------------------------------------------|------|-------|--|-------|--------------------------|------------|-------------------------------------------------------------------------------------|
| Acciaio |  | TWIN | ST    |  | HSS-E | <input type="checkbox"/> |            |  |
|         |  | TWIN | VG    |  | HSS-E | <input type="checkbox"/> |            |  |
|         |  | TWIN | ST ES |  | HSS-E | <input type="checkbox"/> | Extracorto |  |

## Rp – Filetto Whitworth cilindrico per tubi

|         |                                                                                   |      |    |   |       |                          |  |                                                                                     |
|---------|-----------------------------------------------------------------------------------|------|----|---|-------|--------------------------|--|-------------------------------------------------------------------------------------|
| Acciaio |  | TWIN | ST | X | HSS-E | <input type="checkbox"/> |  |  |
|---------|-----------------------------------------------------------------------------------|------|----|---|-------|--------------------------|--|-------------------------------------------------------------------------------------|

## Rc – Filetto gas conico americano (BSPT)

|         |                                                                                     |      |    |  |       |                          |  |                                                                                       |
|---------|-------------------------------------------------------------------------------------|------|----|--|-------|--------------------------|--|---------------------------------------------------------------------------------------|
| Acciaio |  | TWIN | ST |  | HSS-E | <input type="checkbox"/> |  |  |
|---------|-------------------------------------------------------------------------------------|------|----|--|-------|--------------------------|--|---------------------------------------------------------------------------------------|

## Tr – Filetto ISO metrico trapezoidale

|         |                                                                                     |  |    |    |       |                          |  |     |
|---------|-------------------------------------------------------------------------------------|--|----|----|-------|--------------------------|--|-----|
| Acciaio |  |  | ST | 7H | HSS-E | <input type="checkbox"/> |  | 109 |
|---------|-------------------------------------------------------------------------------------|--|----|----|-------|--------------------------|--|-----|

## Accessori

|                            |  |  |  |  |  |  |  |                                                                                       |
|----------------------------|--|--|--|--|--|--|--|---------------------------------------------------------------------------------------|
| Prolunghe per maschi       |  |  |  |  |  |  |  |  |
| Oli da taglio, senza cloro |  |  |  |  |  |  |  |  |

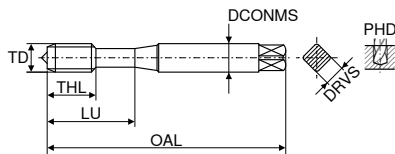
Questo articolo è disponibile nel nostro shop online all'indirizzo [cuttingtools.ceratizit.com](https://cuttingtools.ceratizit.com)



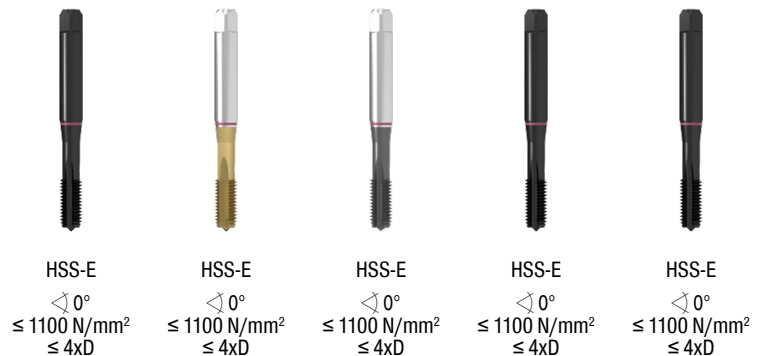
## Foro passante – Maschi a macchina destri



|              |          |          |              |              |
|--------------|----------|----------|--------------|--------------|
| UNI          | UNI      | UNI      | UNI          | UNI          |
|              |          |          |              |              |
| ISO 2 6H     | ISO 2 6H | ISO 2 6H | ISO 3 6G     | 7G           |
| nitr. + vap. | TiN      | TiCN     | nitr. + vap. | nitr. + vap. |



DIN 371 con codolo rinforzato



| TD   | TP   | OAL | DCONMS | DRVS | PHD   | THL | LU | Scanalatura | Codice UO               | Codice UO  | Codice UO  | Codice UO  | Codice UO  |
|------|------|-----|--------|------|-------|-----|----|-------------|-------------------------|------------|------------|------------|------------|
|      | mm   | mm  | mm     | mm   | mm    | mm  | mm |             | 22 501 ...              | 22 503 ... | 22 505 ... | 22 508 ... | 22 510 ... |
| M1   | 0,25 | 40  | 2,5    | 2,1  | 0,75  | 5   | 13 | 2           | 99,83 010 <sup>1)</sup> |            |            |            |            |
| M1,2 | 0,25 | 40  | 2,5    | 2,1  | 0,95  | 5   | 13 | 2           | 94,74 012 <sup>1)</sup> |            |            |            |            |
| M1,4 | 0,30 | 40  | 2,5    | 2,1  | 1,10  | 7   | 13 | 3           | 85,74 014 <sup>1)</sup> |            |            |            |            |
| M1,6 | 0,35 | 40  | 2,5    | 2,1  | 1,25  | 8   | 11 | 3           | 60,20 016               |            |            |            |            |
| M1,7 | 0,35 | 40  | 2,5    | 2,1  | 1,35  | 6   | 11 | 2           | 92,62 017               |            |            |            |            |
| M1,8 | 0,35 | 40  | 2,5    | 2,1  | 1,45  | 6   | 11 | 2           | 127,20 018              |            |            |            |            |
| M2   | 0,40 | 45  | 2,8    | 2,1  | 1,60  | 7   | 12 | 2           |                         | 41,43 020  |            | 43,76 020  | 50,87 020  |
| M2   | 0,40 | 45  | 2,8    | 2,1  | 1,60  | 8   | 8  | 3           | 43,76 020               |            |            |            |            |
| M2,2 | 0,45 | 45  | 2,8    | 2,1  | 1,75  | 7   | 12 | 2           | 46,63 022               |            |            |            |            |
| M2,5 | 0,45 | 50  | 2,8    | 2,1  | 2,05  | 9   | 14 | 2           | 43,02 025               |            |            | 43,02 025  | 49,81 025  |
| M3   | 0,50 | 56  | 3,5    | 2,7  | 2,50  | 11  | 18 | 3           | 32,22 030               | 34,98 030  | 34,98 030  | 34,98 030  | 40,27 030  |
| M3,5 | 0,60 | 56  | 4,0    | 3,0  | 2,90  | 12  | 20 | 3           | 35,39 035               |            |            | 35,61 035  |            |
| M4   | 0,70 | 63  | 4,5    | 3,4  | 3,30  | 13  | 21 | 3           | 29,24 040               | 36,45 040  | 36,45 040  | 35,39 040  | 40,49 040  |
| M5   | 0,80 | 70  | 6,0    | 4,9  | 4,20  | 15  | 25 | 3           | 29,99 050               | 36,98 050  | 36,98 050  | 35,61 050  | 41,43 050  |
| M6   | 1,00 | 80  | 6,0    | 4,9  | 5,00  | 17  | 30 | 3           | 30,42 060               | 41,76 060  | 41,76 060  | 36,45 060  | 42,49 060  |
| M7   | 1,00 | 80  | 7,0    | 5,5  | 6,00  | 17  | 30 | 3           | 42,49 070               |            |            |            |            |
| M8   | 1,25 | 90  | 8,0    | 6,2  | 6,80  | 20  | 35 | 3           | 34,44 080               | 46,84 080  | 46,84 080  | 41,23 080  | 46,63 080  |
| M10  | 1,50 | 100 | 10,0   | 8,0  | 8,50  | 22  | 39 | 3           | 41,33 100               | 65,28 100  | 65,28 100  | 49,81 100  | 56,91 100  |
| M12  | 1,75 | 110 | 12,0   | 9,0  | 10,20 | 24  | 44 | 3           | 60,83 120               |            |            |            |            |

|                            |      |       |       |      |      |
|----------------------------|------|-------|-------|------|------|
| Acciaio                    | 6-20 | 6-25  | 6-25  | 6-20 | 6-20 |
| Acciaio inossidabile       | 4-8  | 5-10  | 5-10  | 4-8  | 4-8  |
| Ghisa                      | 6-15 | 10-20 | 10-20 | 6-15 | 6-15 |
| Metalli non ferrosi        |      | 12-25 | 12-25 |      |      |
| Leghe resistenti al calore |      |       |       |      |      |
| Materiali duri             |      |       |       |      |      |

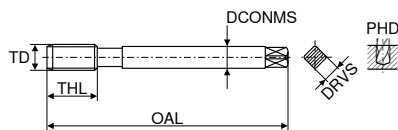
1) Tol. ISO 1 4H ≤ M1,4

**i** Per versione DIN 376 vedere pagina successiva.

## Foro passante – Maschi a macchina destri

M

Stabil



DIN 376 con codolo rastremato

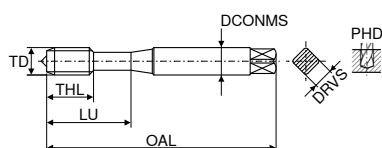
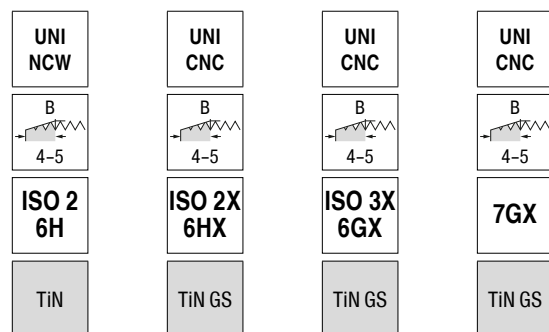
| TD                         | TP   | OAL | DCONMS | DRVS | PHD  | THL | Scanalatura | U0                | U0                | U0                | U0                |
|----------------------------|------|-----|--------|------|------|-----|-------------|-------------------|-------------------|-------------------|-------------------|
| mm                         | mm   | mm  | mm     | mm   | mm   | mm  |             | Codice 22 502 ... | Codice 22 504 ... | Codice 22 509 ... | Codice 22 511 ... |
|                            |      |     |        |      |      |     |             | EUR               | EUR               | EUR               | EUR               |
| M3                         | 0,50 | 56  | 2,2    |      | 2,5  | 11  | 3           | 59,66 030         |                   |                   |                   |
| M4                         | 0,70 | 63  | 2,8    | 2,1  | 3,3  | 13  | 3           | 39,74 040         |                   |                   |                   |
| M5                         | 0,80 | 70  | 3,5    | 2,7  | 4,2  | 15  | 3           | 37,94 050         |                   |                   |                   |
| M6                         | 1,00 | 80  | 4,5    | 3,4  | 5,0  | 17  | 3           | 37,20 060         |                   |                   |                   |
| M8                         | 1,25 | 90  | 6,0    | 4,9  | 6,8  | 20  | 3           | 40,80 080         |                   |                   |                   |
| M10                        | 1,50 | 100 | 7,0    | 5,5  | 8,5  | 22  | 3           | 47,27 100         |                   |                   |                   |
| M12                        | 1,75 | 110 | 9,0    | 7,0  | 10,2 | 24  | 3           | 46,21 120         | 75,14 120         | 57,23 120         | 64,65 120         |
| M14                        | 2,00 | 110 | 11,0   | 9,0  | 12,0 | 26  | 3           | 66,66 140         | 111,30 140        |                   | 95,91 140         |
| M16                        | 2,00 | 110 | 12,0   | 9,0  | 14,0 | 27  | 3           | 67,40 160         | 96,75 160         | 84,04 160         | 97,93 160         |
| M18                        | 2,50 | 125 | 14,0   | 11,0 | 15,5 | 30  | 3           | 132,50 180        | 174,80 180        |                   |                   |
| M20                        | 2,50 | 140 | 16,0   | 12,0 | 17,5 | 32  | 3           | 103,10 200        | 180,10 200        | 128,20 200        |                   |
| M22                        | 2,50 | 140 | 18,0   | 14,5 | 19,5 | 32  | 3           | 165,40 220        | 267,10 220        |                   |                   |
| M24                        | 3,00 | 160 | 18,0   | 14,5 | 21,0 | 34  | 3           | 134,60 240        | 227,90 240        |                   |                   |
| M27                        | 3,00 | 160 | 20,0   | 16,0 | 24,0 | 36  | 3           | 187,60 270        |                   |                   |                   |
| M30                        | 3,50 | 180 | 22,0   | 18,0 | 26,5 | 40  | 4           | 220,50 300        |                   |                   |                   |
| M33                        | 3,50 | 180 | 25,0   | 20,0 | 29,5 | 40  | 4           | 508,70 330        |                   |                   |                   |
| M36                        | 4,00 | 200 | 28,0   | 22,0 | 32,0 | 50  | 4           | 606,20 360        |                   |                   |                   |
| M42                        | 4,50 | 200 | 32,0   | 24,0 | 37,5 | 56  | 4           | 1.154,00 420      |                   |                   |                   |
| M48                        | 5,00 | 250 | 36,0   | 29,0 | 43,0 | 65  | 4           | 1.165,00 480      |                   |                   |                   |
| Acciaio                    |      |     |        |      |      |     |             | 6-20              | 6-25              | 6-20              | 6-20              |
| Acciaio inossidabile       |      |     |        |      |      |     |             | 4-8               | 5-10              | 4-8               | 4-8               |
| Ghisa                      |      |     |        |      |      |     |             | 6-15              | 10-20             | 6-15              | 6-15              |
| Metalli non ferrosi        |      |     |        |      |      |     |             |                   | 12-25             |                   |                   |
| Leghe resistenti al calore |      |     |        |      |      |     |             |                   |                   |                   |                   |
| Materiali duri             |      |     |        |      |      |     |             |                   |                   |                   |                   |

|                                                                       |                                                                       |                                                                       |                                                                       |
|-----------------------------------------------------------------------|-----------------------------------------------------------------------|-----------------------------------------------------------------------|-----------------------------------------------------------------------|
| UNI                                                                   | UNI                                                                   | UNI                                                                   | UNI                                                                   |
| B<br>4-5                                                              | B<br>4-5                                                              | B<br>4-5                                                              | B<br>4-5                                                              |
| ISO 2<br>6H                                                           | ISO 2<br>6H                                                           | ISO 3<br>6G                                                           | 7G                                                                    |
| nitr. +<br>vap.                                                       | TiN                                                                   | nitr. +<br>vap.                                                       | nitr. +<br>vap.                                                       |
|                                                                       |                                                                       |                                                                       |                                                                       |
| HSS-E<br>$\angle 0^\circ$<br>$\leq 1100 \text{ N/mm}^2$<br>$\leq 4xD$ | HSS-E<br>$\angle 0^\circ$<br>$\leq 1100 \text{ N/mm}^2$<br>$\leq 4xD$ | HSS-E<br>$\angle 0^\circ$<br>$\leq 1100 \text{ N/mm}^2$<br>$\leq 4xD$ | HSS-E<br>$\angle 0^\circ$<br>$\leq 1100 \text{ N/mm}^2$<br>$\leq 4xD$ |
| U0<br>Codice 22 502 ...                                               | U0<br>Codice 22 504 ...                                               | U0<br>Codice 22 509 ...                                               | U0<br>Codice 22 511 ...                                               |
| EUR                                                                   | EUR                                                                   | EUR                                                                   | EUR                                                                   |

## Foro passante – Maschi a macchina destri

▲ CNC = per maschiatura rigida su macchine CNC con mandrino a minima compensazione assiale

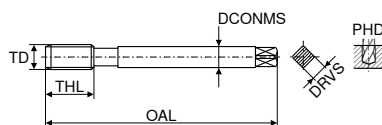
▲ NCW = con attacco Weldon per la maschiatura rigida CNC senza mandrino a compensazione assiale



DIN 371 con codolo rinforzato



| TD  | TP   | OAL | DCONMS | DRVS | PHD  | THL | LU | Scanala-<br>ture | U0<br>Codice<br>22 148 ...<br>EUR | U0<br>Codice<br>22 542 ...<br>EUR | U0<br>Codice<br>22 596 ...<br>EUR | U0<br>Codice<br>22 592 ...<br>EUR |
|-----|------|-----|--------|------|------|-----|----|------------------|-----------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|
| M3  | 0,50 | 70  | 6,0    | 4,9  | 2,5  | 6   | 18 | 3                | 50,02                             | 030                               |                                   |                                   |
| M3  | 0,50 | 56  | 3,5    | 2,7  | 2,5  | 6   | 18 | 3                |                                   | 37,94                             | 030                               |                                   |
| M4  | 0,70 | 70  | 6,0    | 4,9  | 3,3  | 7   | 21 | 3                | 52,03                             | 040                               |                                   |                                   |
| M4  | 0,70 | 63  | 4,5    | 3,4  | 3,3  | 7   | 21 | 3                |                                   | 40,27                             | 040                               | 48,54                             |
| M5  | 0,80 | 70  | 6,0    | 4,9  | 4,2  | 8   | 25 | 3                | 52,56                             | 050                               | 50,02                             | 50,02                             |
| M6  | 1,00 | 80  | 6,0    | 4,9  | 5,0  | 10  | 30 | 3                | 66,13                             | 060                               | 54,79                             | 61,15                             |
| M8  | 1,25 | 90  | 8,0    | 6,2  | 6,8  | 14  | 35 | 3                | 73,86                             | 080                               |                                   |                                   |
| M8  | 1,25 | 90  | 8,0    | 6,2  | 6,8  | 14  | 35 | 4                |                                   | 57,23                             | 080                               | 66,77                             |
| M10 | 1,50 | 100 | 10,0   | 8,0  | 8,5  | 16  | 39 | 3                | 90,72                             | 100                               |                                   |                                   |
| M10 | 1,50 | 100 | 10,0   | 8,0  | 8,5  | 16  | 39 | 4                |                                   | 71,22                             | 100                               | 80,23                             |
| M12 | 1,75 | 110 | 10,0   | 8,0  | 10,2 | 18  |    | 3                | 110,20                            | 120                               |                                   |                                   |
| M16 | 2,00 | 110 | 12,0   | 9,0  | 14,0 | 22  |    | 3                | 153,70                            | 160                               |                                   |                                   |



DIN 376 con codolo rastremato

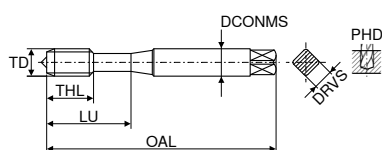
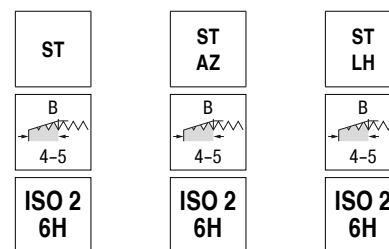
| TD  | TP   | OAL | DCONMS | DRVS | PHD  | THL | Scanala-<br>ture | U0<br>Codice<br>22 543 ...<br>EUR | U0<br>Codice<br>22 597 ...<br>EUR | U0<br>Codice<br>22 593 ...<br>EUR |
|-----|------|-----|--------|------|------|-----|------------------|-----------------------------------|-----------------------------------|-----------------------------------|
| M12 | 1,75 | 110 | 9      | 7    | 10,2 | 18  | 4                | 82,88                             | 120                               | 97,18                             |
| M14 | 2,00 | 110 | 11     | 9    | 12,0 | 20  | 4                | 233,20                            | 140                               |                                   |
| M16 | 2,00 | 110 | 12     | 9    | 14,0 | 22  | 4                | 118,70                            | 160                               |                                   |
| M20 | 2,50 | 140 | 16     | 12   | 17,5 | 25  | 4                | 201,30                            | 200                               |                                   |

|                            |       |       |       |       |
|----------------------------|-------|-------|-------|-------|
| Acciaio                    | 6-25  | 6-25  | 6-25  | 6-25  |
| Acciaio inossidabile       | 5-10  | 5-10  | 5-10  | 5-10  |
| Ghisa                      | 10-20 | 10-20 | 10-20 | 10-20 |
| Metalli non ferrosi        | 12-25 | 12-25 | 12-25 | 12-25 |
| Leghe resistenti al calore |       |       |       |       |
| Materiali duri             |       |       |       |       |

# Foro passante – Maschi a macchina destri/sinistri

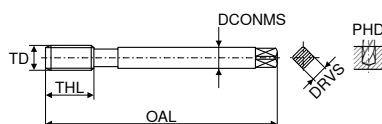
▲ AZ = con denti alternati, riduce l'attrito

▲ LH = per filetti sinistri



DIN 371 con codolo rinforzato

| TD   | TP   | OAL | DCONMS | DRVS | PHD   | THL | LU | Scanalatura | U0                | U0                | U0                |
|------|------|-----|--------|------|-------|-----|----|-------------|-------------------|-------------------|-------------------|
|      | mm   | mm  | mm     | mm   | mm    | mm  | mm |             | Codice 22 020 ... | Codice 22 022 ... | Codice 22 127 ... |
| M2   | 0,40 | 45  | 2,8    | 2,1  | 1,60  | 7   | 12 | 2           | EUR 28,61 020     | EUR 40,80 020     |                   |
| M2,3 | 0,40 | 45  | 2,8    | 2,1  | 1,90  | 7   | 12 | 2           | EUR 31,47 023     |                   |                   |
| M2,5 | 0,45 | 50  | 2,8    | 2,1  | 2,05  | 9   | 14 | 2           | EUR 28,61 025     |                   |                   |
| M2,6 | 0,45 | 50  | 2,8    | 2,1  | 2,15  | 9   | 14 | 2           | EUR 31,47 026     |                   |                   |
| M3   | 0,50 | 56  | 3,5    | 2,7  | 2,50  | 11  | 18 | 3           | EUR 23,21 030     | EUR 38,57 030     | EUR 36,98 030     |
| M3,5 | 0,60 | 56  | 4,0    | 3,0  | 2,90  | 12  | 20 | 3           | EUR 24,79 035     |                   |                   |
| M4   | 0,70 | 63  | 4,5    | 3,4  | 3,30  | 13  | 21 | 3           | EUR 23,52 040     | EUR 38,57 040     | EUR 38,57 040     |
| M5   | 0,80 | 70  | 6,0    | 4,9  | 4,20  | 15  | 25 | 3           | EUR 24,79 050     | EUR 35,61 050     | EUR 39,74 050     |
| M6   | 1,00 | 80  | 6,0    | 4,9  | 5,00  | 17  | 30 | 3           | EUR 24,79 060     | EUR 36,45 060     | EUR 39,74 060     |
| M8   | 1,25 | 90  | 8,0    | 6,2  | 6,80  | 20  | 35 | 3           | EUR 29,78 080     | EUR 40,27 080     | EUR 44,72 080     |
| M10  | 1,50 | 100 | 10,0   | 8,0  | 8,50  | 22  | 39 | 3           | EUR 35,71 100     | EUR 48,74 100     | EUR 56,91 100     |
| M12  | 1,75 | 110 | 12,0   | 9,0  | 10,20 | 24  | 44 | 3           | EUR 40,49 120     |                   |                   |



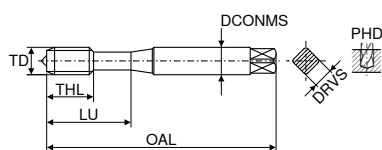
DIN 376 con codolo rastremato

| TD  | TP   | OAL | DCONMS | DRVS | PHD  | THL | Scanalatura | U0                | U0                | U0                |
|-----|------|-----|--------|------|------|-----|-------------|-------------------|-------------------|-------------------|
|     | mm   | mm  | mm     | mm   | mm   | mm  |             | Codice 22 021 ... | Codice 22 023 ... | Codice 22 147 ... |
| M3  | 0,50 | 56  | 2,2    |      | 2,5  | 11  | 3           | EUR 28,83 030     |                   |                   |
| M4  | 0,70 | 63  | 2,8    | 2,1  | 3,3  | 13  | 3           | EUR 28,61 040     |                   |                   |
| M5  | 0,80 | 70  | 3,5    | 2,7  | 4,2  | 15  | 3           | EUR 29,36 050     |                   |                   |
| M6  | 1,00 | 80  | 4,5    | 3,4  | 5,0  | 17  | 3           | EUR 30,10 060     |                   |                   |
| M8  | 1,25 | 90  | 6,0    | 4,9  | 6,8  | 20  | 3           | EUR 32,00 080     |                   |                   |
| M10 | 1,50 | 100 | 7,0    | 5,5  | 8,5  | 22  | 3           | EUR 36,45 100     |                   |                   |
| M12 | 1,75 | 110 | 9,0    | 7,0  | 10,2 | 24  | 3           | EUR 44,29 120     | EUR 67,51 120     | EUR 68,04 120     |
| M14 | 2,00 | 110 | 11,0   | 9,0  | 12,0 | 26  | 3           | EUR 60,20 140     |                   |                   |
| M16 | 2,00 | 110 | 12,0   | 9,0  | 14,0 | 27  | 3           | EUR 62,95 160     | EUR 101,70 160    | EUR 103,80 160    |
| M18 | 2,50 | 125 | 14,0   | 11,0 | 15,5 | 30  | 3           | EUR 92,62 180     |                   |                   |
| M20 | 2,50 | 140 | 16,0   | 12,0 | 17,5 | 32  | 3           | EUR 93,89 200     | EUR 146,20 200    | EUR 152,60 200    |
| M22 | 2,50 | 140 | 18,0   | 14,5 | 19,5 | 32  | 3           | EUR 145,20 220    |                   |                   |
| M24 | 3,00 | 160 | 18,0   | 14,5 | 21,0 | 34  | 3           | EUR 124,00 240    |                   |                   |
| M27 | 3,00 | 160 | 20,0   | 16,0 | 24,0 | 36  | 3           | EUR 169,50 270    |                   |                   |
| M30 | 3,50 | 180 | 22,0   | 18,0 | 26,5 | 40  | 4           | EUR 201,30 300    |                   |                   |

|                            |       |       |       |
|----------------------------|-------|-------|-------|
| Acciaio                    | 10-20 | 10-20 | 10-20 |
| Acciaio inossidabile       |       |       |       |
| Ghisa                      |       |       |       |
| Metalli non ferrosi        | 10-20 | 10-20 | 10-20 |
| Leghe resistenti al calore |       |       |       |
| Materiali duri             |       |       |       |

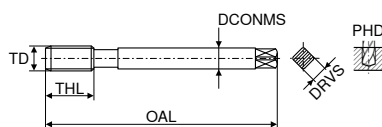
# Foro passante – Maschi a macchina destri

▲ TS = per lavorazione ad elevate velocità, fino a 100 m/min



DIN 371 con codolo rinforzato

| TD   | TP   | OAL | DCONMS | DRVS | PHD   | THL | LU   | Scanala-<br>ture |
|------|------|-----|--------|------|-------|-----|------|------------------|
|      | mm   | mm  | mm     | mm   | mm    | mm  | mm   |                  |
| M2   | 0,40 | 45  | 2,8    | 2,1  | 1,60  | 8   | 9,5  | 2                |
| M2   | 0,40 | 45  | 2,8    | 2,1  | 1,60  | 4   | 12,0 | 2                |
| M2,2 | 0,45 | 45  | 2,8    | 2,1  | 1,75  | 7   | 12,0 | 2                |
| M2,5 | 0,45 | 50  | 2,8    | 2,1  | 2,05  | 9   | 14,0 | 2                |
| M2,5 | 0,45 | 50  | 2,8    | 2,1  | 2,05  | 5   | 15,0 | 2                |
| M3   | 0,50 | 56  | 3,5    | 2,7  | 2,50  | 11  | 18,0 | 2                |
| M3   | 0,50 | 56  | 3,5    | 2,7  | 2,50  | 6   | 18,0 | 3                |
| M3,5 | 0,60 | 56  | 4,0    | 3,0  | 2,90  | 12  | 20,0 | 2                |
| M4   | 0,70 | 63  | 4,5    | 3,4  | 3,30  | 13  | 21,0 | 2                |
| M4   | 0,70 | 63  | 4,5    | 3,4  | 3,30  | 7   | 21,0 | 3                |
| M5   | 0,80 | 70  | 6,0    | 4,9  | 4,20  | 15  | 25,0 | 2                |
| M5   | 0,80 | 70  | 6,0    | 4,9  | 4,20  | 8   | 25,0 | 3                |
| M6   | 1,00 | 80  | 6,0    | 4,9  | 5,00  | 17  | 30,0 | 3                |
| M6   | 1,00 | 80  | 6,0    | 4,9  | 5,00  | 10  | 30,0 | 3                |
| M8   | 1,25 | 90  | 8,0    | 6,2  | 6,80  | 20  | 35,0 | 3                |
| M8   | 1,25 | 90  | 8,0    | 6,2  | 6,80  | 14  | 35,0 | 4                |
| M10  | 1,50 | 100 | 10,0   | 8,0  | 8,50  | 22  | 39,0 | 3                |
| M10  | 1,50 | 100 | 10,0   | 8,0  | 8,50  | 16  | 39,0 | 4                |
| M12  | 1,75 | 110 | 12,0   | 9,0  | 10,20 | 24  | 44,0 | 3                |



DIN 376 con codolo rastremato

| TD  | TP   | OAL | DCONMS | DRVS | PHD  | THL | Scanala-<br>ture |
|-----|------|-----|--------|------|------|-----|------------------|
|     | mm   | mm  | mm     | mm   | mm   | mm  |                  |
| M12 | 1,75 | 110 | 9      | 7    | 10,2 | 18  | 4                |
| M16 | 2,00 | 110 | 12     | 9    | 14,0 | 22  | 4                |
| M20 | 2,50 | 140 | 16     | 12   | 17,5 | 25  | 4                |

|                                                                       |                                                                        |                                                                        |                                                                       |
|-----------------------------------------------------------------------|------------------------------------------------------------------------|------------------------------------------------------------------------|-----------------------------------------------------------------------|
| ST<br>TS                                                              | HR                                                                     | HR                                                                     | VG                                                                    |
| B<br>4-5                                                              | B<br>4-5                                                               | B<br>4-5                                                               | B<br>4-5                                                              |
| ISO 2X<br>6HX                                                         | ISO 2X<br>6HX                                                          | ISO 2X<br>6HX                                                          | ISO 2X<br>6HX                                                         |
| TiN                                                                   | nitr.                                                                  | TiN                                                                    | TiN                                                                   |
|                                                                       |                                                                        |                                                                        |                                                                       |
| HSS-E<br>$\angle 0^\circ$<br>$\leq 1100 \text{ N/mm}^2$<br>$\leq 4xD$ | HSS-PM<br>$\angle 0^\circ$<br>$\leq 1400 \text{ N/mm}^2$<br>$\leq 4xD$ | HSS-PM<br>$\angle 0^\circ$<br>$\leq 1400 \text{ N/mm}^2$<br>$\leq 4xD$ | HSS-E<br>$\angle 0^\circ$<br>$\leq 1100 \text{ N/mm}^2$<br>$\leq 4xD$ |

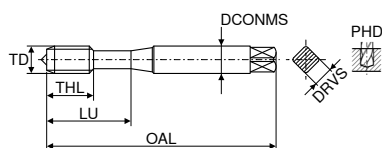
| U0<br>Codice<br>22 092 ...<br>EUR | U0<br>Codice<br>22 053 ...<br>EUR | U0<br>Codice<br>22 055 ...<br>EUR | U0<br>Codice<br>22 120 ...<br>EUR |
|-----------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|
| 49,17 020                         | 64,32 020                         |                                   | 43,02 020                         |
|                                   | 64,32 022                         |                                   |                                   |
|                                   | 63,06 025                         |                                   |                                   |
| 49,17 025                         |                                   |                                   | 43,02 025                         |
|                                   | 33,06 030                         | 43,02 030                         |                                   |
| 38,57 030                         |                                   |                                   | 31,69 030                         |
|                                   | 51,50 035                         |                                   |                                   |
|                                   | 33,81 040                         | 61,46 040                         |                                   |
| 42,07 040                         |                                   |                                   | 34,02 040                         |
|                                   | 35,92 050                         | 45,68 050                         |                                   |
| 45,99 050                         |                                   |                                   | 36,24 050                         |
|                                   | 35,92 060                         | 52,03 060                         |                                   |
| 55,95 060                         |                                   |                                   | 44,09 060                         |
|                                   | 42,49 080                         | 57,23 080                         |                                   |
| 70,58 080                         |                                   |                                   | 46,63 080                         |
|                                   | 52,03 100                         | 81,07 100                         |                                   |
| 76,51 100                         |                                   |                                   | 66,77 100                         |
|                                   | 86,27 120                         |                                   |                                   |

|                            |        |     |     |       |
|----------------------------|--------|-----|-----|-------|
| Acciaio                    | 20-100 | 2-6 | 2-6 | 6-15  |
| Acciaio inossidabile       |        |     |     | 5-10  |
| Ghisa                      | 20-60  |     |     |       |
| Metalli non ferrosi        | 20-100 |     |     | 10-20 |
| Leghe resistenti al calore | 10-25  | 3-5 | 3-5 |       |
| Materiali duri             |        |     |     |       |

## Foro passante – Maschi a macchina destri

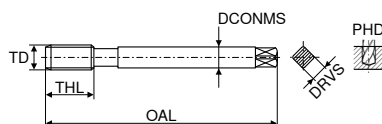
M

Stabil



DIN 371 con codolo rinforzato

| TD   | TP   | OAL | DCONMS | DRVS | PHD  | THL | LU | Scanalatura | U0  | Codice     | EUR | U0  | Codice     | EUR | U0  | Codice     | EUR | U0  | Codice     | EUR |
|------|------|-----|--------|------|------|-----|----|-------------|-----|------------|-----|-----|------------|-----|-----|------------|-----|-----|------------|-----|
| M1,6 | 0,35 | 40  | 2,5    | 2,1  | 1,25 | 6   | 11 | 2           | U0  | 22 056 ... |     | U0  | 22 038 ... |     | U0  | 22 058 ... |     | U0  | 22 060 ... |     |
| M2   | 0,40 | 45  | 2,8    | 2,1  | 1,60 | 7   | 12 | 2           | EUR | 32,43      | 020 | EUR | 56,91      | 016 | EUR | 31,47      | 020 | EUR | 38,57      | 020 |
| M2,3 | 0,40 | 45  | 2,8    | 2,1  | 1,90 | 7   | 12 | 2           |     |            |     |     | 46,63      | 020 |     | 36,24      | 023 |     | 40,80      | 023 |
| M2,5 | 0,45 | 50  | 2,8    | 2,1  | 2,05 | 9   | 14 | 2           |     | 32,00      | 025 |     | 45,25      | 025 |     | 31,47      | 025 |     | 38,57      | 025 |
| M2,6 | 0,45 | 50  | 2,8    | 2,1  | 2,15 | 9   | 14 | 2           |     |            |     |     |            |     |     | 35,92      | 026 |     | 40,80      | 026 |
| M3   | 0,50 | 56  | 3,5    | 2,7  | 2,50 | 11  | 18 | 3           |     | 25,97      | 030 |     | 38,79      | 030 |     | 25,01      | 030 |     | 31,69      | 030 |
| M3,5 | 0,60 | 56  | 4,0    | 3,0  | 2,90 | 12  | 20 | 3           |     | 29,14      | 035 |     |            |     |     | 25,97      | 035 |     | 33,81      | 035 |
| M4   | 0,70 | 63  | 4,5    | 3,4  | 3,30 | 13  | 21 | 3           |     | 27,24      | 040 |     | 40,80      | 040 |     | 25,01      | 040 |     | 32,43      | 040 |
| M5   | 0,80 | 70  | 6,0    | 4,9  | 4,20 | 15  | 25 | 3           |     | 28,19      | 050 |     | 42,07      | 050 |     | 25,97      | 050 |     | 33,06      | 050 |
| M6   | 1,00 | 80  | 6,0    | 4,9  | 5,00 | 17  | 30 | 3           |     | 29,36      | 060 |     | 52,35      | 060 |     | 25,97      | 060 |     | 33,06      | 060 |
| M8   | 1,25 | 90  | 8,0    | 6,2  | 6,80 | 20  | 35 | 3           |     | 32,65      | 080 |     | 57,97      | 080 |     | 30,94      | 080 |     | 38,79      | 080 |
| M10  | 1,50 | 100 | 10,0   | 8,0  | 8,50 | 22  | 39 | 3           |     | 40,27      | 100 |     | 71,96      | 100 |     | 36,98      | 100 |     | 48,74      | 100 |



DIN 376 con codolo rastremato

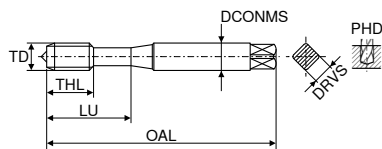
| TD  | TP   | OAL | DCONMS | DRVS | PHD  | THL | Scanalatura | U0  | Codice     | EUR | U0  | Codice     | EUR | U0  | Codice     | EUR | U0  | Codice     | EUR |
|-----|------|-----|--------|------|------|-----|-------------|-----|------------|-----|-----|------------|-----|-----|------------|-----|-----|------------|-----|
| M12 | 1,75 | 110 | 9      | 7,0  | 10,2 | 24  | 3           | U0  | 22 057 ... |     | U0  | 22 039 ... |     | U0  | 22 059 ... |     | U0  | 22 061 ... |     |
| M14 | 2,00 | 110 | 11     | 9,0  | 12,0 | 26  | 3           | EUR | 51,19      | 120 | EUR | 85,74      | 120 | EUR | 46,63      | 120 | EUR | 58,50      | 120 |
| M16 | 2,00 | 110 | 12     | 9,0  | 14,0 | 27  | 3           |     | 70,58      | 140 |     | 122,90     | 140 |     |            |     |     |            |     |
| M18 | 2,50 | 125 | 14     | 11,0 | 15,5 | 30  | 3           |     | 73,12      | 160 |     | 120,90     | 160 |     | 66,13      | 160 |     | 72,59      | 160 |
| M20 | 2,50 | 140 | 16     | 12,0 | 17,5 | 32  | 3           |     | 140,90     | 180 |     |            |     |     |            |     |     |            |     |
| M22 | 2,50 | 140 | 18     | 14,5 | 19,5 | 32  | 3           |     | 105,00     | 200 |     | 203,50     | 200 |     |            |     |     |            |     |
| M24 | 3,00 | 160 | 18     | 14,5 | 21,0 | 34  | 3           |     | 222,60     | 220 |     |            |     |     |            |     |     |            |     |
| M27 | 3,00 | 160 | 20     | 16,0 | 24,0 | 36  | 3           |     | 143,10     | 240 |     |            |     |     |            |     |     |            |     |
| M30 | 3,50 | 180 | 22     | 18,0 | 26,5 | 40  | 4           |     | 240,60     | 270 |     |            |     |     |            |     |     |            |     |
|     |      |     |        |      |      |     |             |     | 231,00     | 300 |     |            |     |     |            |     |     |            |     |

|                            |       |
|----------------------------|-------|
| Acciaio                    | 5-12  |
| Acciaio inossidabile       | 5-10  |
| Ghisa                      | 5-10  |
| Metalli non ferrosi        | 10-20 |
| Leghe resistenti al calore | 12-25 |
| Materiali duri             |       |

## Foro passante – Maschi a macchina destri

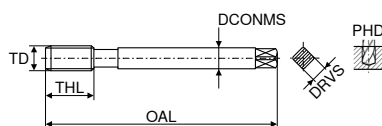
M

Stabil



DIN 371 con codolo rinforzato

| TD   | TP   | OAL | DCONMS | DRVS | PHD  | THL | LU   | Scanalatura | U0<br>Codice<br>22 081 ...<br>EUR | U0<br>Codice<br>22 075 ...<br>EUR | U0<br>Codice<br>22 077 ...<br>EUR |
|------|------|-----|--------|------|------|-----|------|-------------|-----------------------------------|-----------------------------------|-----------------------------------|
| M1   | 0,25 | 40  | 2,5    | 2,1  | 0,75 | 5   | 6,5  | 2           | 122,90                            | 010                               |                                   |
| M1,6 | 0,35 | 40  | 2,5    | 2,1  | 1,25 | 8   | 9,5  | 3           |                                   | 105,00                            | 016                               |
| M2   | 0,40 | 45  | 2,8    | 2,1  | 1,60 | 8   | 9,5  | 3           | 75,67                             | 020                               | 84,04                             |
| M2,5 | 0,45 | 50  | 2,8    | 2,1  | 2,05 | 9   | 14,0 | 3           |                                   | 82,35                             | 025                               |
| M3   | 0,50 | 56  | 3,5    | 2,7  | 2,50 | 11  | 18,0 | 3           | 52,03                             | 030                               | 57,65                             |
| M3,5 | 0,60 | 56  | 4,0    | 3,0  | 2,90 | 12  | 20,0 | 3           |                                   | 65,92                             | 035                               |
| M4   | 0,70 | 63  | 4,5    | 3,4  | 3,30 | 13  | 21,0 | 3           | 53,52                             | 040                               | 60,51                             |
| M5   | 0,80 | 70  | 6,0    | 4,9  | 4,20 | 15  | 25,0 | 3           | 55,11                             | 050                               | 60,51                             |
| M6   | 1,00 | 80  | 6,0    | 4,9  | 5,00 | 17  | 30,0 | 3           | 61,46                             | 060                               | 62,21                             |
| M8   | 1,25 | 90  | 8,0    | 6,2  | 6,80 | 20  | 35,0 | 3           | 73,86                             | 080                               | 71,22                             |
| M10  | 1,50 | 100 | 10,0   | 8,0  | 8,50 | 22  | 39,0 | 3           |                                   | 82,88                             | 100                               |



DIN 376 con codolo rastremato

| TD  | TP   | OAL | DCONMS | DRVS | PHD  | THL | Scanalatura | U0<br>Codice<br>22 140 ...<br>EUR | U0<br>Codice<br>22 142 ...<br>EUR |
|-----|------|-----|--------|------|------|-----|-------------|-----------------------------------|-----------------------------------|
| M12 | 1,75 | 110 | 9      | 7    | 10,2 | 24  | 3           | 100,40                            | 120                               |

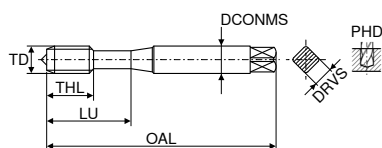
|                            |     |     |     |
|----------------------------|-----|-----|-----|
| Acciaio                    | 2-5 | 2-5 | 2-5 |
| Acciaio inossidabile       |     |     |     |
| Ghisa                      |     |     |     |
| Metalli non ferrosi        |     |     |     |
| Leghe resistenti al calore | 2-6 | 2-6 | 2-6 |
| Materiali duri             |     |     |     |



## Foro passante – Maschi a macchina destri

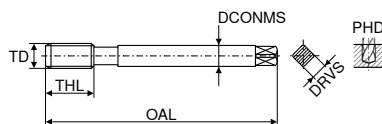
M

DL



DIN 371 con codolo rinforzato

| TD  | TP   | OAL | DCONMS | DRVS | PHD | THL | LU | Scanalatura | 00                   |     | 00                   |     |
|-----|------|-----|--------|------|-----|-----|----|-------------|----------------------|-----|----------------------|-----|
|     |      |     |        |      |     |     |    |             | Codice<br>22 159 ... |     | Codice<br>22 297 ... |     |
|     | mm   | mm  | mm     | mm   | mm  | mm  | mm |             | EUR                  |     | EUR                  |     |
| M3  | 0,50 | 56  | 3,5    | 2,7  | 2,5 | 11  | 18 | 2           | 46,10                | 030 | 55,11                | 030 |
| M4  | 0,70 | 63  | 4,5    | 3,4  | 3,3 | 13  | 21 | 3           | 50,44                | 040 | 57,54                | 040 |
| M5  | 0,80 | 70  | 6,0    | 4,9  | 4,2 | 15  | 25 | 3           | 50,76                | 050 | 58,93                | 050 |
| M6  | 1,00 | 80  | 6,0    | 4,9  | 5,0 | 17  | 30 | 3           | 67,83                | 060 | 74,51                | 060 |
| M8  | 1,25 | 90  | 8,0    | 6,2  | 6,8 | 20  | 35 | 3           | 74,51                | 080 | 82,66                | 080 |
| M10 | 1,50 | 100 | 10,0   | 8,0  | 8,5 | 22  | 39 | 3           | 91,67                | 100 | 103,50               | 100 |



DIN 376 con codolo rastremato

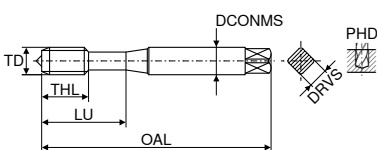
| SIN 675 con codolo rastriato |      |     |        |      |      |     |             | UO                   |     | UO                   |     |
|------------------------------|------|-----|--------|------|------|-----|-------------|----------------------|-----|----------------------|-----|
| TD                           | TP   | OAL | DCONMS | DRVS | PHD  | THL | Scanalatura | Codice<br>22 160 ... |     | Codice<br>22 298 ... |     |
|                              | mm   | mm  | mm     | mm   | mm   | mm  |             | EUR                  |     | EUR                  |     |
| M12                          | 1,75 | 110 | 9      | 7,0  | 10,2 | 24  | 3           | 105,80               | 120 | 119,80               | 120 |
| M14                          | 2,00 | 110 | 11     | 9,0  | 12,0 | 26  | 3           |                      |     | 179,10               | 140 |
| M16                          | 2,00 | 110 | 12     | 9,0  | 14,0 | 27  | 3           | 149,50               | 160 | 167,40               | 160 |
| M20                          | 2,50 | 140 | 16     | 12,0 | 17,5 | 32  | 3           | 258,50               | 200 | 286,10               | 200 |
| M24                          | 3,00 | 160 | 18     | 14,5 | 21,0 | 34  | 3           | 303,10               | 240 |                      |     |

|                            |       |
|----------------------------|-------|
| Acciaio                    | 6-8   |
| Acciaio inossidabile       | 4-10  |
| Ghisa                      |       |
| Metalli non ferrosi        | 10-12 |
| Leghe resistenti al calore | 4-6   |
| Materiali duri             | 2-20  |



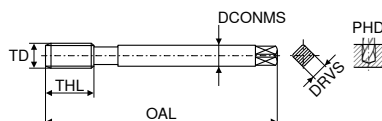
# Foro passante – Maschi a macchina destri

▲ EL = extralungo con lunghezza totale doppia



DIN 371 con codolo rinforzato

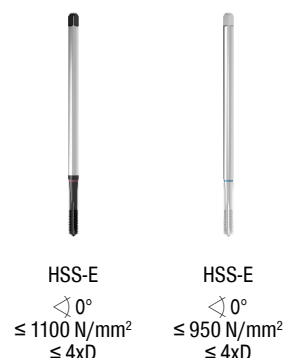
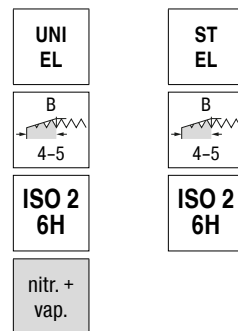
| TD | TP   | OAL | DCONMS | DRVS | PHD | THL | LU | Scanala-<br>ture |
|----|------|-----|--------|------|-----|-----|----|------------------|
|    | mm   | mm  | mm     | mm   | mm  | mm  | mm |                  |
| M3 | 0,50 | 100 | 3,5    | 2,7  | 2,5 | 11  | 18 | 3                |
| M4 | 0,70 | 125 | 4,5    | 3,4  | 3,3 | 13  | 21 | 3                |
| M5 | 0,80 | 140 | 6,0    | 4,9  | 4,2 | 15  | 25 | 3                |
| M6 | 1,00 | 160 | 6,0    | 4,9  | 5,0 | 17  | 30 | 3                |
| M8 | 1,25 | 180 | 8,0    | 6,2  | 6,8 | 20  | 35 | 3                |



DIN 376 con codolo rastremato

| TD  | TP   | OAL | DCONMS | DRVS | PHD  | THL | Scanala-<br>ture |
|-----|------|-----|--------|------|------|-----|------------------|
|     | mm   | mm  | mm     | mm   | mm   | mm  |                  |
| M6  | 1,00 | 160 | 4,5    | 3,4  | 5,0  | 17  | 3                |
| M8  | 1,25 | 180 | 6,0    | 4,9  | 6,8  | 20  | 3                |
| M10 | 1,50 | 200 | 7,0    | 5,5  | 8,5  | 22  | 3                |
| M12 | 1,75 | 224 | 9,0    | 7,0  | 10,2 | 24  | 3                |
| M14 | 2,00 | 224 | 11,0   | 9,0  | 12,0 | 26  | 3                |
| M16 | 2,00 | 224 | 12,0   | 9,0  | 14,0 | 27  | 3                |
| M18 | 2,50 | 250 | 14,0   | 11,0 | 15,5 | 30  | 3                |
| M20 | 2,50 | 280 | 16,0   | 12,0 | 17,5 | 32  | 3                |

|                            |      |       |
|----------------------------|------|-------|
| Acciaio                    | 6-20 | 5-25  |
| Acciaio inossidabile       | 4-8  |       |
| Ghisa                      | 6-15 | 10-20 |
| Metalli non ferrosi        |      | 10-40 |
| Leghe resistenti al calore |      |       |
| Materiali duri             |      |       |



| U0                | U0                |
|-------------------|-------------------|
| Codice 22 514 ... | Codice 22 233 ... |
| EUR               | EUR               |
| 61,46 030         | 59,99 030         |
| 61,46 040         | 57,54 040         |
| 68,04 050         | 62,85 050         |
| 75,04 060         | 65,60 060         |
| 80,23 080         | 78,21 080         |

# Foro passante – Maschi a macchina destri

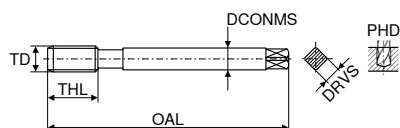
▲ MMB = maschi a macchina per dadi

M

ST  
MMB

≈ 20

ISO 2  
6H



DIN 357 con codolo rastremato

HSS-E

0°  
≤ 850 N/mm²  
≤ 1xD

U0

Codice  
22 098 ...

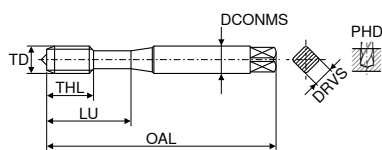
EUR

| TD  | TP   | OAL | DCONMS | DRVS | PHD  | THL | Scanala-<br>ture |        |     |
|-----|------|-----|--------|------|------|-----|------------------|--------|-----|
| mm  | mm   | mm  | mm     | mm   | mm   | mm  |                  |        |     |
| M3  | 0,50 | 70  | 2,2    |      | 2,5  | 16  | 3                | 45,25  | 030 |
| M4  | 0,70 | 90  | 2,8    | 2,1  | 3,3  | 22  | 3                | 45,25  | 040 |
| M5  | 0,80 | 100 | 3,5    | 2,7  | 4,2  | 24  | 3                | 47,37  | 050 |
| M6  | 1,00 | 110 | 4,5    | 3,4  | 5,0  | 30  | 3                | 47,37  | 060 |
| M8  | 1,25 | 125 | 6,0    | 4,9  | 6,8  | 38  | 3                | 58,50  | 080 |
| M10 | 1,50 | 140 | 7,0    | 5,5  | 8,5  | 45  | 3                | 66,77  | 100 |
| M12 | 1,75 | 180 | 9,0    | 7,0  | 10,2 | 50  | 3                | 89,44  | 120 |
| M16 | 2,00 | 200 | 12,0   | 9,0  | 14,0 | 63  | 3                | 127,20 | 160 |

|                            |       |
|----------------------------|-------|
| Acciaio                    | 10-25 |
| Acciaio inossidabile       |       |
| Ghisa                      |       |
| Metalli non ferrosi        | 10-25 |
| Leghe resistenti al calore |       |
| Materiali duri             |       |

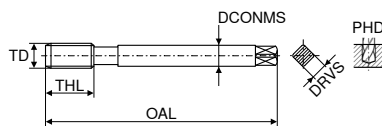
## Foro passante – Maschi a macchina destri

M



DIN 371 con codolo rinforzato

| TD   | TP   | OAL | DCONMS | DRVS | PHD  | THL | LU   | Scanalatura |
|------|------|-----|--------|------|------|-----|------|-------------|
|      | mm   | mm  | mm     | mm   | mm   | mm  | mm   |             |
| M2   | 0,40 | 45  | 2,8    | 2,1  | 1,60 | 7   | 12,0 | 2           |
| M2   | 0,40 | 45  | 2,8    | 2,1  | 1,60 | 4   | 13,5 | 2           |
| M2,5 | 0,45 | 50  | 2,8    | 2,1  | 2,05 | 9   | 14,0 | 2           |
| M3   | 0,50 | 56  | 3,5    | 2,7  | 2,50 | 11  | 18,0 | 3           |
| M4   | 0,70 | 63  | 4,5    | 3,4  | 3,30 | 13  | 21,0 | 3           |
| M5   | 0,80 | 70  | 6,0    | 4,9  | 4,20 | 15  | 25,0 | 3           |
| M6   | 1,00 | 80  | 6,0    | 4,9  | 5,00 | 17  | 30,0 | 3           |
| M8   | 1,25 | 90  | 8,0    | 6,2  | 6,80 | 20  | 35,0 | 3           |
| M10  | 1,50 | 100 | 10,0   | 8,0  | 8,50 | 22  | 39,0 | 3           |



DIN 376 con codolo rastremato

| TD  | TP   | OAL | DCONMS | DRVS | PHD  | THL | Scanalatura |
|-----|------|-----|--------|------|------|-----|-------------|
|     | mm   | mm  | mm     | mm   | mm   | mm  |             |
| M3  | 0,50 | 56  | 2,2    | 2,5  | 11   | 3   |             |
| M4  | 0,70 | 63  | 2,8    | 2,1  | 3,3  | 13  | 3           |
| M5  | 0,80 | 70  | 3,5    | 2,7  | 4,2  | 15  | 3           |
| M6  | 1,00 | 80  | 4,5    | 3,4  | 5,0  | 17  | 3           |
| M8  | 1,25 | 90  | 6,0    | 4,9  | 6,8  | 20  | 3           |
| M10 | 1,50 | 100 | 7,0    | 5,5  | 8,5  | 22  | 3           |
| M12 | 1,75 | 110 | 9,0    | 7,0  | 10,2 | 24  | 3           |
| M14 | 2,00 | 110 | 11,0   | 9,0  | 12,0 | 26  | 3           |
| M14 | 2,00 | 110 | 11,0   | 9,0  | 12,0 | 20  | 4           |
| M16 | 2,00 | 110 | 12,0   | 9,0  | 14,0 | 27  | 3           |
| M18 | 2,50 | 125 | 14,0   | 11,0 | 15,5 | 30  | 3           |
| M18 | 2,50 | 125 | 14,0   | 11,0 | 15,5 | 25  | 4           |
| M20 | 2,50 | 140 | 16,0   | 12,0 | 17,5 | 32  | 3           |
| M22 | 2,50 | 140 | 18,0   | 14,5 | 19,5 | 32  | 3           |
| M24 | 3,00 | 160 | 18,0   | 14,5 | 21,0 | 34  | 3           |
| M27 | 3,00 | 160 | 20,0   | 16,0 | 24,0 | 36  | 3           |
| M30 | 3,50 | 180 | 22,0   | 18,0 | 26,5 | 40  | 4           |
| M33 | 3,50 | 180 | 25,0   | 20,0 | 29,5 | 40  | 4           |
| M36 | 4,00 | 200 | 28,0   | 22,0 | 32,0 | 50  | 4           |

| UNI             | UNI         | UNI         |
|-----------------|-------------|-------------|
| B<br>4-5        | B<br>4-5    | B<br>4-5    |
| ISO 2<br>6H     | ISO 2<br>6H | ISO 2<br>6H |
| nitr. +<br>vap. | TiN         | TiN         |

HSS-E  
≤ 0°  
≤ 1000 N/mm²  
≤ 3xDHSS-E  
≤ 0°  
≤ 1000 N/mm²  
≤ 3xDHSS-PM  
≤ 0°  
≤ 1000 N/mm²  
≤ 3xD

| T9                   | T9                   | T9                   |
|----------------------|----------------------|----------------------|
| Codice<br>23 110 ... | Codice<br>23 112 ... | Codice<br>23 010 ... |
| EUR                  | EUR                  | EUR                  |
| 12,13 020            | 14,27 020            | 9,88 020             |
| 11,92 025            | 15,90 025            |                      |
| 8,08 030             | 10,29 030            | 12,33 030            |
| 8,24 040             | 11,21 040            | 11,31 040            |
| 8,24 050             | 11,31 050            | 12,64 050            |
| 8,39 060             | 14,37 060            | 15,08 060            |
| 9,72 080             | 15,59 080            | 16,81 080            |
| 11,62 100            | 19,26 100            | 22,21 100            |

| T9                   | T9                   | T9                   |
|----------------------|----------------------|----------------------|
| Codice<br>23 111 ... | Codice<br>23 113 ... | Codice<br>23 021 ... |
| EUR                  | EUR                  | EUR                  |
| 8,75 030             |                      |                      |
| 8,61 040             |                      |                      |
| 8,61 050             |                      |                      |
| 9,04 060             |                      |                      |
| 10,60 080            |                      |                      |
| 12,23 100            |                      |                      |
| 14,67 120            | 22,83 120            | 26,49 120            |
| 21,20 140            | 39,72 14000          |                      |
|                      |                      | 40,15 140            |
| 21,70 160            | 32,30 160            | 37,30 160            |
|                      | 63,02 18000          |                      |
|                      |                      | 65,32 180            |
| 34,54 200            | 55,54 200            | 67,46 200            |
|                      | 93,33 22000          |                      |
|                      | 83,66 240            |                      |
|                      | 116,70 27000         |                      |
|                      | 130,90 30000         |                      |
|                      | 171,70 33000         |                      |
|                      | 210,30 36000         |                      |

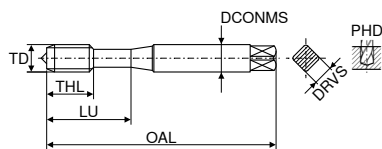
|                            |       |       |       |
|----------------------------|-------|-------|-------|
| Acciaio                    | 2-25  | 5-45  | 10-20 |
| Acciaio inossidabile       | 2-8   | 5-15  | 8-15  |
| Ghisa                      | 5-20  | 10-25 | 20-25 |
| Metalli non ferrosi        | 10-20 | 15-40 | 20-25 |
| Leghe resistenti al calore |       |       |       |
| Materiali duri             |       |       |       |

## Foro passante – Maschi a macchina destri

▲ NCW = con attacco Weldon per la maschiatura rigida CNC senza mandrino a compensazione assiale

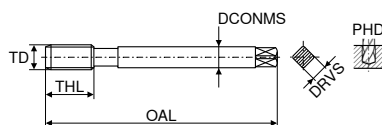
▲ NC = per maschiatura rigida su macchine CNC con mandrino a minima compensazione assiale

M



DIN 371 con codolo rinforzato

| TD   | TP   | OAL | DCONMS | DRVS | PHD  | THL | LU | Scanalatura | T9<br>Codice<br>23 114 ...<br>EUR | T9<br>Codice<br>23 116 ...<br>EUR | T9<br>Codice<br>23 212 ...<br>EUR | T9<br>Codice<br>23 310 ...<br>EUR |
|------|------|-----|--------|------|------|-----|----|-------------|-----------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|
| M1,6 | 0,35 | 40  | 2,5    | 2,1  | 1,25 | 6   | 11 | 2           |                                   |                                   | 25,17 016                         |                                   |
| M2   | 0,40 | 45  | 2,8    | 2,1  | 1,60 | 7   | 12 | 2           |                                   |                                   | 17,02 020                         |                                   |
| M2,5 | 0,45 | 50  | 2,8    | 2,1  | 2,05 | 9   | 14 | 2           |                                   |                                   | 14,27 025                         |                                   |
| M3   | 0,50 | 70  | 6,0    | 4,9  | 2,50 | 6   | 18 | 3           |                                   | 20,89 030                         |                                   |                                   |
| M3   | 0,50 | 56  | 3,5    | 2,7  | 2,50 | 11  | 18 | 3           | 17,42 030                         |                                   | 11,31 030                         | 16,51 030                         |
| M3,5 | 0,60 | 56  | 4,0    | 3,0  | 2,90 | 12  | 20 | 3           |                                   |                                   | 12,74 035                         |                                   |
| M4   | 0,70 | 70  | 6,0    | 4,9  | 3,30 | 7   | 21 | 3           |                                   | 23,84 040                         |                                   |                                   |
| M4   | 0,70 | 63  | 4,5    | 3,4  | 3,30 | 13  | 21 | 3           | 18,95 040                         |                                   | 11,31 040                         | 17,53 040                         |
| M5   | 0,80 | 70  | 6,0    | 4,9  | 4,20 | 15  | 25 | 3           | 19,06 050                         |                                   | 11,72 050                         | 17,73 050                         |
| M5   | 0,80 | 70  | 6,0    | 4,9  | 4,20 | 8   | 25 | 3           |                                   | 24,25 050                         |                                   |                                   |
| M6   | 1,00 | 80  | 6,0    | 4,9  | 5,00 | 17  | 30 | 3           | 27,92 060                         |                                   | 11,72 060                         | 24,25 060                         |
| M6   | 1,00 | 80  | 6,0    | 4,9  | 5,00 | 10  | 30 | 3           |                                   | 24,25 060                         |                                   |                                   |
| M8   | 1,25 | 90  | 8,0    | 6,2  | 6,80 | 20  | 35 | 3           | 29,55 080                         |                                   | 15,18 080                         | 26,19 080                         |
| M8   | 1,25 | 90  | 8,0    | 6,2  | 6,80 | 14  | 35 | 3           |                                   | 30,67 080                         |                                   |                                   |
| M10  | 1,50 | 100 | 10,0   | 8,0  | 8,50 | 22  | 39 | 3           | 37,19 100                         |                                   | 18,14 100                         | 32,91 100                         |
| M10  | 1,50 | 100 | 10,0   | 8,0  | 8,50 | 16  | 39 | 3           |                                   | 36,99 100                         |                                   |                                   |



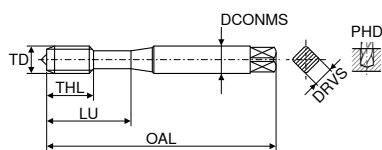
DIN 376 con codolo rastremato

| TD  | TP   | OAL | DCONMS | DRVS | PHD  | THL | Scanalatura | T9<br>Codice<br>23 115 ...<br>EUR | T9<br>Codice<br>23 117 ...<br>EUR | T9<br>Codice<br>23 213 ...<br>EUR | T9<br>Codice<br>23 311 ...<br>EUR |
|-----|------|-----|--------|------|------|-----|-------------|-----------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|
| M12 | 1,75 | 110 | 10     | 8    | 10,2 | 18  | 3           |                                   |                                   |                                   |                                   |
| M12 | 1,75 | 110 | 9      | 7    | 10,2 | 24  | 3           | 42,90 120                         | 46,26 120                         | 24,46 120                         | 38,11 120                         |
| M14 | 2,00 | 110 | 11     | 9    | 12,0 | 26  | 3           |                                   |                                   | 29,45 140                         |                                   |
| M16 | 2,00 | 110 | 12     | 9    | 14,0 | 22  | 3           |                                   | 62,26 160                         |                                   |                                   |
| M16 | 2,00 | 110 | 12     | 9    | 14,0 | 27  | 3           | 58,18 160                         |                                   | 37,09 160                         | 52,89 160                         |
| M20 | 2,50 | 140 | 16     | 12   | 17,5 | 32  | 3           | 106,00 200                        |                                   | 57,98 200                         | 93,44 200                         |

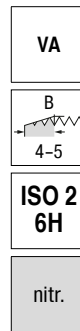
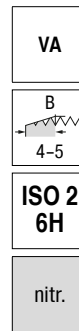
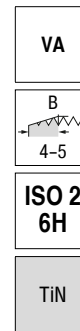
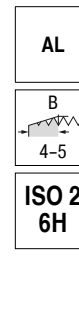
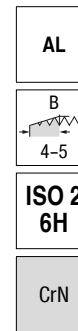
|                            |       |       |      |      |
|----------------------------|-------|-------|------|------|
| Acciaio                    | 5-45  | 5-45  | 5-25 | 5-45 |
| Acciaio inossidabile       | 5-15  | 5-15  |      |      |
| Ghisa                      | 10-25 | 10-25 |      |      |
| Metalli non ferrosi        | 15-40 | 15-40 |      |      |
| Leghe resistenti al calore |       | 5-8   |      |      |
| Materiali duri             |       |       |      |      |

## Foro passante – Maschi a macchina destri

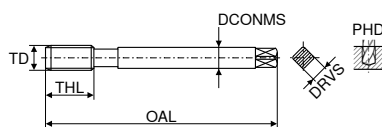
M



DIN 371 con codolo rinforzato

HSS-PM  
 $\angle 0^\circ$   
 $\leq 1200 \text{ N/mm}^2$   
 $\leq 3xD$ HSS-E  
 $\angle 0^\circ$   
 $\leq 1200 \text{ N/mm}^2$   
 $\leq 3xD$ HSS-E  
 $\angle 0^\circ$   
 $\leq 1200 \text{ N/mm}^2$   
 $\leq 3xD$ HSS-E  
 $\angle 0^\circ$   
 $\leq 500 \text{ N/mm}^2$   
 $\leq 3xD$ HSS-E  
 $\angle 0^\circ$   
 $\leq 500 \text{ N/mm}^2$   
 $\leq 3xD$ 

| TD   | TP   | OAL | DCONMS | DRVS | PHD  | THL | LU | Scanalatura | T9<br>Codice<br>23 450 ...<br>EUR | T9<br>Codice<br>23 410 ...<br>EUR | T9<br>Codice<br>23 412 ...<br>EUR | T9<br>Codice<br>23 610 ...<br>EUR | T9<br>Codice<br>23 612 ...<br>EUR |
|------|------|-----|--------|------|------|-----|----|-------------|-----------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|
| M2   | 0,40 | 45  | 2,8    | 2,1  | 1,60 | 7   | 12 | 2           |                                   | 12,53 020                         | 23,03 020                         |                                   |                                   |
| M2,5 | 0,45 | 50  | 2,8    | 2,1  | 2,05 | 9   | 14 | 2           |                                   | 14,47 025                         | 19,36 025                         |                                   |                                   |
| M3   | 0,50 | 56  | 3,5    | 2,7  | 2,50 | 11  | 18 | 3           | 11,51 030                         | 8,24 030                          | 15,29 030                         | 11,31 030                         | 12,84 030                         |
| M4   | 0,70 | 63  | 4,5    | 3,4  | 3,30 | 13  | 21 | 3           | 11,62 040                         | 8,24 040                          | 17,02 040                         | 11,31 040                         | 13,25 040                         |
| M5   | 0,80 | 70  | 6,0    | 4,9  | 4,20 | 15  | 25 | 3           | 12,53 050                         | 8,58 050                          | 17,42 050                         | 11,72 050                         | 13,65 050                         |
| M6   | 1,00 | 80  | 6,0    | 4,9  | 5,00 | 17  | 30 | 3           | 12,74 060                         | 8,58 060                          | 22,83 060                         | 11,72 060                         | 13,65 060                         |
| M8   | 1,25 | 90  | 8,0    | 6,2  | 6,80 | 20  | 35 | 3           | 14,27 080                         | 11,01 080                         | 24,35 080                         | 15,18 080                         | 15,59 080                         |
| M10  | 1,50 | 100 | 10,0   | 8,0  | 8,50 | 22  | 39 | 3           | 16,20 100                         | 13,35 100                         | 33,53 100                         | 18,14 100                         | 19,16 100                         |



DIN 376 con codolo rastremato

| TD  | TP   | OAL | DCONMS | DRVS | PHD  | THL | Scanalatura | T9<br>Codice<br>23 451 ...<br>EUR | T9<br>Codice<br>23 411 ...<br>EUR | T9<br>Codice<br>23 413 ...<br>EUR | T9<br>Codice<br>23 611 ...<br>EUR | T9<br>Codice<br>23 613 ...<br>EUR |
|-----|------|-----|--------|------|------|-----|-------------|-----------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|
| M12 | 1,75 | 110 | 9      | 7,0  | 10,2 | 24  | 3           | 28,84 120                         | 17,73 120                         | 36,99 120                         | 24,46 120                         | 24,05 120                         |
| M14 | 2,00 | 110 | 11     | 9,0  | 12,0 | 26  | 3           | 38,21 140                         |                                   |                                   |                                   |                                   |
| M16 | 2,00 | 110 | 12     | 9,0  | 14,0 | 27  | 3           | 40,45 160                         | 27,31 160                         | 46,16 160                         |                                   |                                   |
| M20 | 2,50 | 140 | 16     | 12,0 | 17,5 | 32  | 3           | 60,43 200                         | 41,78 200                         | 80,70 200                         |                                   |                                   |
| M24 | 3,00 | 160 | 18     | 14,5 | 21,0 | 34  | 3           |                                   | 55,23 240                         |                                   |                                   |                                   |

|                            |  |  |  |  |  |  |  |  |  |  |  |  |
|----------------------------|--|--|--|--|--|--|--|--|--|--|--|--|
| Acciaio                    |  |  |  |  |  |  |  |  |  |  |  |  |
| Acciaio inossidabile       |  |  |  |  |  |  |  |  |  |  |  |  |
| Ghisa                      |  |  |  |  |  |  |  |  |  |  |  |  |
| Metalli non ferrosi        |  |  |  |  |  |  |  |  |  |  |  |  |
| Leghe resistenti al calore |  |  |  |  |  |  |  |  |  |  |  |  |
| Materiali duri             |  |  |  |  |  |  |  |  |  |  |  |  |

# Foro passante – Maschi a macchina destri

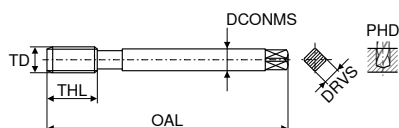
▲ ES = extracorto

M

FE  
ES

B  
4-5

ISO 2  
6H



DIN 376 con codolo rastremato



HSS-E  
 $\angle 0^\circ$   
 $\leq 850 \text{ N/mm}^2$   
 $\leq 3xD$

| TD   | TP   | OAL | DCONMS | DRVS | PHD   | THL | Scana-<br>lature |                      | T9  |
|------|------|-----|--------|------|-------|-----|------------------|----------------------|-----|
|      | mm   | mm  | mm     | mm   | mm    | mm  |                  | Codice<br>23 210 ... |     |
|      |      |     |        |      |       |     |                  | EUR                  |     |
| M2   | 0,40 | 36  | 2,8    | 2,1  | 1,60  | 8   | 2                | 13,25                | 020 |
| M2,5 | 0,45 | 40  | 2,8    | 2,1  | 2,05  | 9   | 2                | 10,29                | 025 |
| M3   | 0,50 | 40  | 3,5    | 2,7  | 2,50  | 10  | 3                | 7,36                 | 030 |
| M4   | 0,70 | 45  | 4,5    | 3,4  | 3,30  | 12  | 3                | 7,36                 | 040 |
| M5   | 0,80 | 50  | 6,0    | 4,9  | 4,20  | 14  | 3                | 7,88                 | 050 |
| M6   | 1,00 | 56  | 6,0    | 4,9  | 5,00  | 16  | 3                | 7,94                 | 060 |
| M8   | 1,25 | 63  | 6,0    | 4,9  | 6,80  | 20  | 3                | 10,29                | 080 |
| M10  | 1,50 | 70  | 7,0    | 5,5  | 8,50  | 22  | 3                | 13,55                | 100 |
| M12  | 1,75 | 75  | 9,0    | 7,0  | 10,20 | 24  | 3                | 17,53                | 120 |
| M16  | 2,00 | 80  | 12,0   | 9,0  | 14,00 | 27  | 3                | 30,57                | 160 |

Acciaio

5-25

Acciaio inossidabile

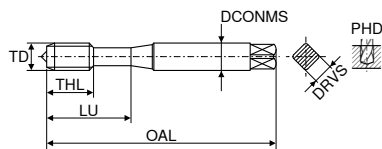
Ghisa

Metalli non ferrosi

Leghe resistenti al calore

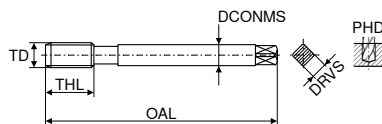
Materiali duri

## Foro cieco – Maschi a macchina destri



DIN 371 con codolo rinforzato

| TD   | TP   | OAL | DCONMS | DRVS | PHD   | THL  | LU | Scanalatura | U0<br>Codice<br>22 518 ...<br>EUR | U0<br>Codice<br>22 532 ...<br>EUR | U0<br>Codice<br>22 520 ...<br>EUR | U0<br>Codice<br>22 522 ...<br>EUR |
|------|------|-----|--------|------|-------|------|----|-------------|-----------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|
| M2   | 0,40 | 45  | 2,8    | 2,1  | 1,60  | 4,0  | 12 | 2           | 33,81                             | 020                               | 48,54                             | 020                               |
| M2,2 | 0,45 | 45  | 2,8    | 2,1  | 1,75  | 4,5  | 12 | 2           | 38,26                             | 022                               |                                   |                                   |
| M2,3 | 0,40 | 45  | 2,8    | 2,1  | 1,90  | 4,5  | 12 | 2           | 40,49                             | 023                               |                                   |                                   |
| M2,5 | 0,45 | 50  | 2,8    | 2,1  | 2,05  | 5,0  | 15 | 2           | 32,43                             | 025                               |                                   |                                   |
| M2,6 | 0,45 | 50  | 2,8    | 2,1  | 2,15  | 5,0  | 15 | 2           | 38,57                             | 026                               |                                   |                                   |
| M3   | 0,50 | 56  | 3,5    | 2,7  | 2,50  | 6,0  | 18 | 3           | 28,83                             | 030                               | 36,45                             | 030                               |
| M3,5 | 0,60 | 56  | 4,0    | 3,0  | 2,90  | 7,0  | 20 | 3           | 31,16                             | 035                               |                                   |                                   |
| M4   | 0,70 | 63  | 4,5    | 3,4  | 3,30  | 7,0  | 21 | 3           | 30,42                             | 040                               | 39,00                             | 040                               |
| M5   | 0,80 | 70  | 6,0    | 4,9  | 4,20  | 8,0  | 25 | 3           | 30,73                             | 050                               | 39,31                             | 050                               |
| M6   | 1,00 | 80  | 6,0    | 4,9  | 5,00  | 10,0 | 30 | 3           | 31,69                             | 060                               | 46,31                             | 060                               |
| M7   | 1,00 | 80  | 7,0    | 5,5  | 6,00  | 10,0 | 30 | 3           | 46,63                             | 070                               |                                   |                                   |
| M8   | 1,25 | 90  | 8,0    | 6,2  | 6,80  | 14,0 | 35 | 3           | 37,30                             | 080                               | 51,08                             | 080                               |
| M10  | 1,50 | 100 | 10,0   | 8,0  | 8,50  | 16,0 | 39 | 3           | 44,72                             | 100                               | 60,83                             | 100                               |
| M12  | 1,75 | 110 | 12,0   | 9,0  | 10,20 | 18,0 | 44 | 3           | 49,17                             | 120                               | 74,51                             | 120                               |



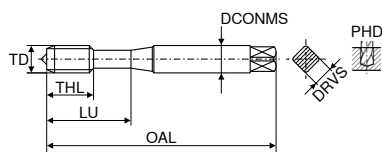
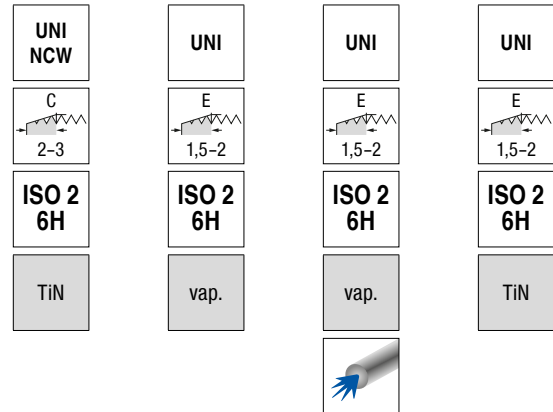
DIN 376 con codolo rastremato

| TD  | TP   | OAL | DCONMS | DRVS | PHD  | THL | Scanalatura | U0<br>Codice<br>22 519 ...<br>EUR | U0<br>Codice<br>22 533 ...<br>EUR | U0<br>Codice<br>22 521 ...<br>EUR | U0<br>Codice<br>22 523 ...<br>EUR |
|-----|------|-----|--------|------|------|-----|-------------|-----------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|
| M3  | 0,50 | 56  | 2,2    |      | 2,5  | 6   | 3           | 50,34                             | 030                               |                                   |                                   |
| M4  | 0,70 | 63  | 2,8    | 2,1  | 3,3  | 7   | 3           | 47,58                             | 040                               |                                   |                                   |
| M5  | 0,80 | 70  | 3,5    | 2,7  | 4,2  | 8   | 3           | 33,81                             | 050                               |                                   |                                   |
| M6  | 1,00 | 80  | 4,5    | 3,4  | 5,0  | 10  | 3           | 35,61                             | 060                               |                                   |                                   |
| M8  | 1,25 | 90  | 6,0    | 4,9  | 6,8  | 14  | 3           | 39,74                             | 080                               |                                   |                                   |
| M10 | 1,50 | 100 | 7,0    | 5,5  | 8,5  | 16  | 3           | 50,02                             | 100                               |                                   |                                   |
| M12 | 1,75 | 110 | 9,0    | 7,0  | 10,2 | 18  | 3           | 52,46                             | 120                               | 63,26                             | 120                               |
| M14 | 2,00 | 110 | 11,0   | 9,0  | 12,0 | 20  | 3           | 70,47                             | 140                               |                                   |                                   |
| M16 | 2,00 | 110 | 12,0   | 9,0  | 14,0 | 22  | 3           | 75,04                             | 160                               | 98,56                             | 160                               |
| M18 | 2,50 | 125 | 14,0   | 11,0 | 15,5 | 25  | 3           | 114,50                            | 180                               |                                   |                                   |
| M20 | 2,50 | 140 | 16,0   | 12,0 | 17,5 | 25  | 3           | 114,50                            | 200                               | 152,60                            | 200                               |
| M22 | 2,50 | 140 | 18,0   | 14,5 | 19,5 | 27  | 4           | 159,00                            | 220                               |                                   |                                   |
| M24 | 3,00 | 160 | 18,0   | 14,5 | 21,0 | 30  | 4           | 143,10                            | 240                               |                                   |                                   |
| M27 | 3,00 | 160 | 20,0   | 16,0 | 24,0 | 30  | 4           | 188,70                            | 270                               |                                   |                                   |
| M30 | 3,50 | 180 | 22,0   | 18,0 | 26,5 | 35  | 4           | 242,70                            | 300                               |                                   |                                   |
| M33 | 3,50 | 180 | 25,0   | 20,0 | 29,5 | 35  | 4           | 465,20                            | 330                               |                                   |                                   |
| M36 | 4,00 | 200 | 28,0   | 22,0 | 32,0 | 40  | 4           | 385,70                            | 360                               |                                   |                                   |

|                            |      |      |       |       |
|----------------------------|------|------|-------|-------|
| Acciaio                    | 6-20 | 6-20 | 6-25  | 6-25  |
| Acciaio inossidabile       | 4-8  | 4-8  | 5-10  | 5-10  |
| Ghisa                      | 6-15 | 6-15 | 10-20 | 10-20 |
| Metalli non ferrosi        |      |      | 12-25 | 12-25 |
| Leghe resistenti al calore |      |      |       |       |
| Materiali duri             |      |      |       |       |

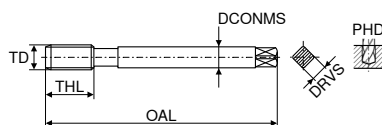
## Foro cieco – Maschi a macchina destri

▲ NCW = con attacco Weldon per la maschiatura rigida CNC senza mandrino a compensazione assiale



DIN 371 con codolo rinforzato

| TD  | TP   | OAL | DCONMS | DRVS | PHD | THL | LU | Scanalatura | HSS-PM<br>$\angle 42^\circ$<br>$\leq 1100 \text{ N/mm}^2$<br>$\leq 3xD$ | HSS-E<br>$\angle 42^\circ$<br>$\leq 1100 \text{ N/mm}^2$<br>$\leq 3xD$ | HSS-E<br>$\angle 42^\circ$<br>$\leq 1100 \text{ N/mm}^2$<br>$\leq 3xD$ | HSS-E<br>$\angle 42^\circ$<br>$\leq 1100 \text{ N/mm}^2$<br>$\leq 3xD$ |
|-----|------|-----|--------|------|-----|-----|----|-------------|-------------------------------------------------------------------------|------------------------------------------------------------------------|------------------------------------------------------------------------|------------------------------------------------------------------------|
| mm  | mm   | mm  | mm     | mm   | mm  | mm  | mm |             | U0<br>Codice 22 149 ...<br>EUR                                          | U0<br>Codice 22 524 ...<br>EUR                                         | U0<br>Codice 22 534 ...<br>EUR                                         | U0<br>Codice 22 526 ...<br>EUR                                         |
| M3  | 0,50 | 70  | 6,0    | 4,9  | 2,5 | 6   | 18 | 3           | 51,19 030                                                               | 30,10 030                                                              |                                                                        | 34,02 030                                                              |
| M3  | 0,50 | 56  | 3,5    | 2,7  | 2,5 | 6   | 18 | 3           |                                                                         | 30,10 040                                                              |                                                                        | 37,20 040                                                              |
| M4  | 0,70 | 63  | 4,5    | 3,4  | 3,3 | 7   | 21 | 3           | 55,95 040                                                               |                                                                        |                                                                        |                                                                        |
| M4  | 0,70 | 70  | 6,0    | 4,9  | 3,3 | 7   | 21 | 3           | 57,97 050                                                               | 31,47 050                                                              | 47,37 050                                                              | 37,94 050                                                              |
| M5  | 0,80 | 70  | 6,0    | 4,9  | 4,2 | 8   | 25 | 3           | 71,22 060                                                               | 31,47 060                                                              | 47,37 060                                                              | 44,94 060                                                              |
| M6  | 1,00 | 80  | 6,0    | 4,9  | 5,0 | 10  | 30 | 3           | 79,59 080                                                               | 35,92 080                                                              | 52,56 080                                                              | 49,17 080                                                              |
| M8  | 1,25 | 90  | 8,0    | 6,2  | 6,8 | 14  | 35 | 3           | 97,93 100                                                               | 43,76 100                                                              | 63,26 100                                                              | 59,03 100                                                              |
| M10 | 1,50 | 100 | 10,0   | 8,0  | 8,5 | 16  | 39 | 3           |                                                                         |                                                                        |                                                                        |                                                                        |



DIN 376 con codolo rastremato

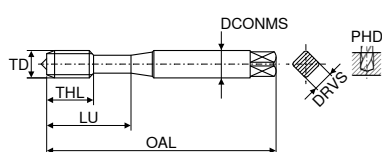
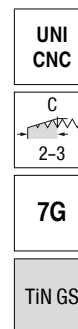
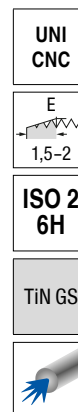
| TD  | TP   | OAL | DCONMS | DRVS | PHD  | THL | Scanalatura | U0<br>Codice 22 149 ...<br>EUR | U0<br>Codice 22 525 ...<br>EUR | U0<br>Codice 22 535 ...<br>EUR | U0<br>Codice 22 527 ...<br>EUR |
|-----|------|-----|--------|------|------|-----|-------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|
| mm  | mm   | mm  | mm     | mm   | mm   | mm  |             |                                |                                |                                |                                |
| M12 | 1,75 | 110 | 10     | 8,0  | 10,2 | 18  | 3           | 117,60 120                     | 55,64 120                      | 71,96 120                      | 71,22 120                      |
| M12 | 1,75 | 110 | 9      | 7,0  | 10,2 | 18  | 4           |                                | 90,72 140                      | 105,00 140                     |                                |
| M14 | 2,00 | 110 | 11     | 9,0  | 12,0 | 20  | 4           |                                |                                |                                |                                |
| M16 | 2,00 | 110 | 12     | 9,0  | 14,0 | 22  | 3           | 157,90 160                     | 77,78 160                      | 103,80 160                     | 102,40 160                     |
| M16 | 2,00 | 110 | 12     | 9,0  | 14,0 | 22  | 4           |                                | 142,10 180                     |                                |                                |
| M18 | 2,50 | 125 | 14     | 11,0 | 15,5 | 25  | 4           |                                | 120,90 200                     | 154,80 200                     | 173,80 200                     |
| M20 | 2,50 | 140 | 16     | 12,0 | 17,5 | 25  | 4           |                                | 194,00 220                     |                                |                                |
| M22 | 2,50 | 140 | 18     | 14,5 | 19,5 | 27  | 5           |                                | 169,50 240                     |                                |                                |
| M24 | 3,00 | 160 | 18     | 14,5 | 21,0 | 30  | 5           |                                |                                |                                |                                |

|                            |       |      |      |       |
|----------------------------|-------|------|------|-------|
| Acciaio                    | 6-25  | 6-20 | 6-20 | 6-25  |
| Acciaio inossidabile       | 5-10  | 4-8  | 4-8  | 5-10  |
| Ghisa                      | 10-20 | 6-15 | 6-15 | 10-20 |
| Metalli non ferrosi        | 12-25 |      |      | 12-25 |
| Leghe resistenti al calore |       |      |      |       |
| Materiali duri             |       |      |      |       |



## Foro cieco – Maschi a macchina destri

▲ CNC = per maschiatura rigida su macchine CNC con mandrino a minima compensazione assiale



**DIN 371** con codolo rinforzato



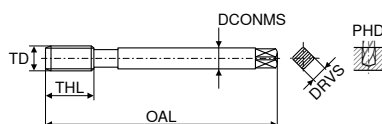
HSS-E  
 $\angle 50^\circ$   
 $1100 \text{ N/mm}^2$   
 $\leq 3 \times D$

HSS-E  
 45°  
 $\leq 1100 \text{ N/mm}^2$   
 $\leq 3 \times D$

HSS-E  
 45°  
 $\leq 1100 \text{ N/mm}^2$   
 $\leq 3 \times D$

HSS-E  
 45°  
 $\leq 1100 \text{ N/mm}^2$   
 $\leq 3 \times D$

| TD  | TP   | OAL | DCONMS | DRVS | PHD | THL | LU | Scanala-<br>ture | U0     |     | U0     |     | U0     |     | U0     |     |
|-----|------|-----|--------|------|-----|-----|----|------------------|--------|-----|--------|-----|--------|-----|--------|-----|
|     |      |     |        |      |     |     |    |                  | Codice | ... | Codice | ... | Codice | ... | Codice | ... |
|     |      |     |        |      |     |     |    |                  | 22 416 |     | 22 544 |     | 22 546 |     | 22 594 |     |
|     | mm   | mm  | mm     | mm   | mm  | mm  | mm |                  | EUR    |     | EUR    |     | EUR    |     | EUR    |     |
| M3  | 0,50 | 56  | 3,5    | 2,7  | 2,5 | 6   | 18 | 3                | 49,49  | 030 | 43,76  | 030 |        |     | 50,34  | 030 |
| M4  | 0,70 | 63  | 4,5    | 3,4  | 3,3 | 7   | 21 | 3                | 51,82  | 040 | 44,72  | 040 |        |     | 50,87  | 040 |
| M5  | 0,80 | 70  | 6,0    | 4,9  | 4,2 | 8   | 25 | 3                | 53,20  | 050 | 46,31  | 050 | 66,13  | 050 | 52,35  | 050 |
| M6  | 1,00 | 80  | 6,0    | 4,9  | 5,0 | 10  | 30 | 3                | 64,32  | 060 | 47,90  | 060 | 66,77  | 060 | 57,23  | 060 |
| M8  | 1,25 | 90  | 8,0    | 6,2  | 6,8 | 14  | 35 | 3                | 71,53  | 080 | 59,87  | 080 | 85,74  | 080 | 70,58  | 080 |
| M10 | 1,50 | 100 | 10,0   | 8,0  | 8,5 | 16  | 39 | 3                | 88,60  | 100 | 68,04  | 100 | 98,56  | 100 | 78,31  | 100 |



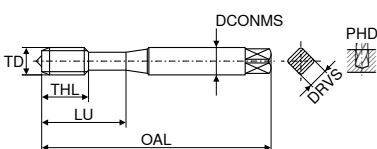
**DIN 376** con codolo rastremato

| IN OTTO con codice rastriato |      |     |        |      |      |     |                  | U0                          |     | U0                          |     | U0                          |     |
|------------------------------|------|-----|--------|------|------|-----|------------------|-----------------------------|-----|-----------------------------|-----|-----------------------------|-----|
| TD                           | TP   | OAL | DCONMS | DRVS | PHD  | THL | Scanala-<br>ture | Codice<br>22 417 ...<br>EUR |     | Codice<br>22 545 ...<br>EUR |     | Codice<br>22 595 ...<br>EUR |     |
|                              | mm   | mm  | mm     | mm   | mm   | mm  |                  |                             |     |                             |     |                             |     |
| M12                          | 1,75 | 110 | 9      | 7    | 10,2 | 18  | 3                | 104,40                      | 120 |                             |     |                             |     |
| M12                          | 1,75 | 110 | 9      | 7    | 10,2 | 18  | 4                |                             |     | 92,62                       | 120 | 105,00                      | 120 |
| M14                          | 2,00 | 110 | 11     | 9    | 12,0 | 20  | 3                | 149,50                      | 140 |                             |     |                             |     |
| M14                          | 2,00 | 110 | 11     | 9    | 12,0 | 20  | 4                |                             |     | 113,40                      | 140 | 125,00                      | 140 |
| M16                          | 2,00 | 110 | 12     | 9    | 14,0 | 22  | 3                | 145,20                      | 160 |                             |     |                             |     |
| M16                          | 2,00 | 110 | 12     | 9    | 14,0 | 22  | 4                |                             |     | 124,00                      | 160 | 135,60                      | 160 |
| M20                          | 2,50 | 140 | 16     | 12   | 17,5 | 25  | 3                | 249,10                      | 200 |                             |     |                             |     |
| M20                          | 2,50 | 140 | 16     | 12   | 17,5 | 25  | 4                |                             |     | 180,10                      | 200 | 198,20                      | 200 |

|                            |      |       |       |       |
|----------------------------|------|-------|-------|-------|
| Acciaio                    | 2-25 | 6-25  | 6-25  | 6-25  |
| Acciaio inossidabile       | 1-10 | 5-10  | 5-10  | 5-10  |
| Ghisa                      |      | 10-20 | 10-20 | 10-20 |
| Metalli non ferrosi        | 2-20 | 12-25 | 12-25 | 12-25 |
| Leghe resistenti al calore |      |       |       |       |
| Materiali duri             |      |       |       |       |

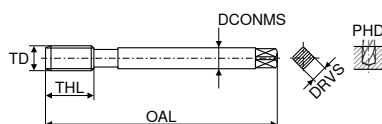
# Foro cieco – Maschi a macchina destri

▲ DRY = per lavorazione a secco o con refrigerazione minimale



DIN 371 con codolo rinforzato

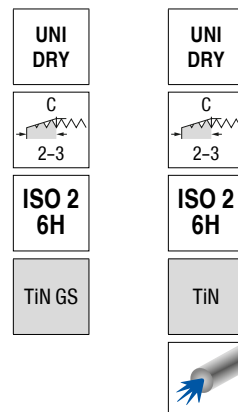
| TD  | TP   | OAL | DCONMS | DRVS | PHD | THL | LU | Scanalatura |
|-----|------|-----|--------|------|-----|-----|----|-------------|
|     | mm   | mm  | mm     | mm   | mm  | mm  | mm |             |
| M3  | 0,50 | 56  | 3,5    | 2,7  | 2,5 | 6   | 18 | 3           |
| M4  | 0,70 | 63  | 4,5    | 3,4  | 3,3 | 7   | 21 | 3           |
| M5  | 0,80 | 70  | 6,0    | 4,9  | 4,2 | 8   | 25 | 3           |
| M6  | 1,00 | 80  | 6,0    | 4,9  | 5,0 | 10  | 30 | 3           |
| M8  | 1,25 | 90  | 8,0    | 6,2  | 6,8 | 14  | 35 | 3           |
| M10 | 1,50 | 100 | 10,0   | 8,0  | 8,5 | 16  | 39 | 3           |



DIN 376 con codolo rastremato

| TD  | TP   | OAL | DCONMS | DRVS | PHD  | THL | Scanalatura |
|-----|------|-----|--------|------|------|-----|-------------|
|     | mm   | mm  | mm     | mm   | mm   | mm  |             |
| M12 | 1,75 | 110 | 9      | 7    | 10,2 | 18  | 4           |
| M16 | 2,00 | 110 | 12     | 9    | 14,0 | 22  | 4           |
| M20 | 2,50 | 140 | 16     | 12   | 17,5 | 25  | 4           |

| Acciaio                    | 6-25 | 5-45  |
|----------------------------|------|-------|
| Acciaio inossidabile       | 5-10 | 5-20  |
| Ghisa                      |      |       |
| Metalli non ferrosi        |      | 20-60 |
| Leghe resistenti al calore |      |       |
| Materiali duri             |      |       |

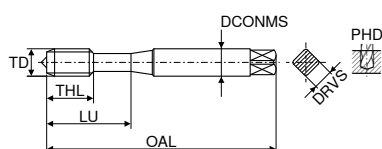
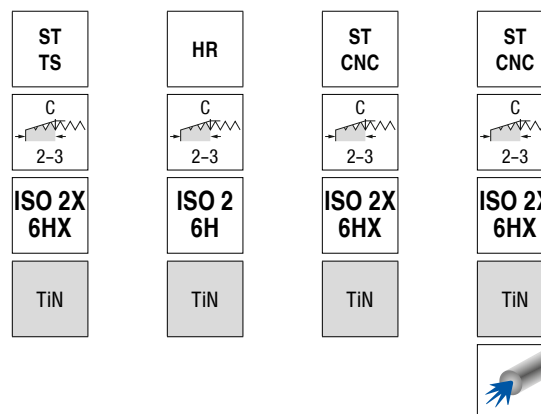


| U0                | U0                |
|-------------------|-------------------|
| Codice 22 566 ... | Codice 22 449 ... |
| EUR               | EUR               |
| 40,27 030         |                   |
| 43,45 040         |                   |
| 44,94 050         | 67,83 050         |
| 50,34 060         | 78,96 060         |
| 53,09 080         | 87,11 080         |
| 75,67 100         | 105,80 100        |

## Foro cieco – Maschi a macchina destri

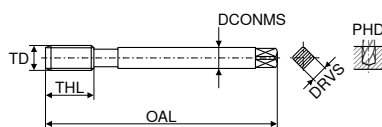
▲ CNC = per maschiatura rigida su macchine CNC con mandrino a minima compensazione assiale

▲ TS = per lavorazione ad elevate velocità, fino a 100 m/min



DIN 371 con codolo rinforzato

| TD  | TP   | OAL | DCONMS | DRVS | PHD  | THL | LU | Scanalatura | U0<br>Codice<br>22 406 ...<br>EUR | U0<br>Codice<br>22 072 ...<br>EUR | U0<br>Codice<br>22 328 ...<br>EUR | U0<br>Codice<br>22 443 ...<br>EUR |
|-----|------|-----|--------|------|------|-----|----|-------------|-----------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|
| M3  | 0,50 | 56  | 3,5    | 2,7  | 2,5  | 6   | 18 | 2           | 46,63                             | 030                               | 42,49                             | 030                               |
| M3  | 0,50 | 56  | 3,5    | 2,7  | 2,5  | 11  | 18 | 3           |                                   | 43,76                             | 030                               |                                   |
| M4  | 0,70 | 63  | 4,5    | 3,4  | 3,3  | 13  | 21 | 3           |                                   | 44,09                             | 040                               |                                   |
| M4  | 0,70 | 63  | 4,5    | 3,4  | 3,3  | 7   | 21 | 3           | 49,49                             | 040                               | 44,29                             | 040                               |
| M5  | 0,80 | 70  | 6,0    | 4,9  | 4,2  | 15  | 25 | 3           |                                   | 45,68                             | 050                               |                                   |
| M5  | 0,80 | 70  | 6,0    | 4,9  | 4,2  | 8   | 25 | 3           | 51,08                             | 050                               | 46,10                             | 050                               |
| M6  | 1,00 | 80  | 6,0    | 4,9  | 5,0  | 17  | 30 | 3           |                                   | 55,32                             | 060                               |                                   |
| M6  | 1,00 | 80  | 6,0    | 4,9  | 5,0  | 10  | 30 | 3           | 62,21                             | 060                               | 56,91                             | 060                               |
| M8  | 1,25 | 90  | 8,0    | 6,2  | 6,8  | 20  | 35 | 3           |                                   | 59,66                             | 080                               |                                   |
| M8  | 1,25 | 90  | 8,0    | 6,2  | 6,8  | 14  | 35 | 3           | 69,41                             | 080                               | 64,32                             | 080                               |
| M10 | 1,50 | 100 | 10,0   | 8,0  | 8,5  | 22  | 39 | 3           |                                   | 84,78                             | 100                               |                                   |
| M10 | 1,50 | 100 | 10,0   | 8,0  | 8,5  | 16  | 39 | 3           | 84,78                             | 100                               | 78,96                             | 100                               |
| M12 | 1,75 | 110 | 12,0   | 9,0  | 10,2 | 24  | 44 | 3           |                                   | 94,74                             | 120                               |                                   |



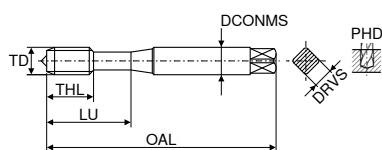
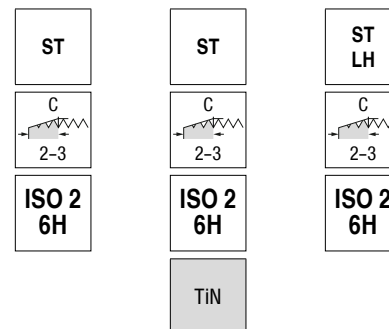
DIN 376 con codolo rastremato

| TD  | TP   | OAL | DCONMS | DRVS | PHD  | THL | Scanalatura | U0<br>Codice<br>22 407 ...<br>EUR | U0<br>Codice<br>22 329 ...<br>EUR | U0<br>Codice<br>22 444 ...<br>EUR |
|-----|------|-----|--------|------|------|-----|-------------|-----------------------------------|-----------------------------------|-----------------------------------|
| M12 | 1,75 | 110 | 9      | 7    | 10,2 | 18  | 3           | 101,30                            | 120                               | 92,41                             |
| M16 | 2,00 | 110 | 12     | 9    | 14,0 | 22  | 3           | 142,10                            | 160                               | 133,50                            |
| M20 | 2,50 | 140 | 16     | 12   | 17,5 | 25  | 3           | 232,10                            | 200                               | 221,50                            |

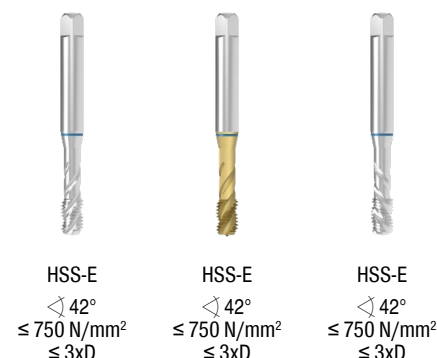
|                            |        |     |       |       |
|----------------------------|--------|-----|-------|-------|
| Acciaio                    | 20-100 | 2-6 | 5-45  | 5-45  |
| Acciaio inossidabile       |        |     |       |       |
| Ghisa                      | 20-60  |     | 10-30 | 10-30 |
| Metalli non ferrosi        | 20-100 |     | 5-30  | 5-30  |
| Leghe resistenti al calore | 10-25  | 3-5 |       |       |
| Materiali duri             |        |     |       |       |

## Foro passante / foro cieco – Maschi a macchina destri/sinistri

▲ LH = per filetti sinistri

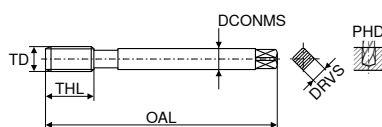


DIN 371 con codolo rinforzato



HSS-E  
 $\angle 42^\circ$   
 $\leq 750 \text{ N/mm}^2$   
 $\leq 3xD$

| TD   | TP   | OAL | DCONMS | DRVS | PHD   | THL  | LU | Scanalatura | UO<br>Codice<br>22 082 ... | UO<br>Codice<br>22 084 ... | UO<br>Codice<br>22 138 ... |
|------|------|-----|--------|------|-------|------|----|-------------|----------------------------|----------------------------|----------------------------|
|      | mm   | mm  | mm     | mm   | mm    | mm   | mm |             | EUR                        | EUR                        | EUR                        |
| M2   | 0,40 | 45  | 2,8    | 2,1  | 1,60  | 4,0  | 12 | 2           | 31,47 020                  | 40,49 020                  |                            |
| M2,3 | 0,40 | 45  | 2,8    | 2,1  | 1,90  | 4,5  | 12 | 2           | 34,98 023                  |                            |                            |
| M2,5 | 0,45 | 50  | 2,8    | 2,1  | 2,05  | 5,0  | 15 | 2           | 30,52 025                  |                            |                            |
| M3   | 0,50 | 56  | 3,5    | 2,7  | 2,50  | 6,0  | 18 | 3           | 26,60 030                  | 33,06 030                  | 45,99 030                  |
| M3,5 | 0,60 | 56  | 4,0    | 3,0  | 2,90  | 7,0  | 20 | 3           | 29,36 035                  |                            |                            |
| M4   | 0,70 | 63  | 4,5    | 3,4  | 3,30  | 7,0  | 21 | 3           | 26,50 040                  | 33,81 040                  | 41,43 040                  |
| M5   | 0,80 | 70  | 6,0    | 4,9  | 4,20  | 8,0  | 25 | 3           | 26,92 050                  | 34,02 050                  | 44,72 050                  |
| M6   | 1,00 | 80  | 6,0    | 4,9  | 5,00  | 10,0 | 30 | 3           | 27,55 060                  | 42,71 060                  | 43,02 060                  |
| M8   | 1,25 | 90  | 8,0    | 6,2  | 6,80  | 14,0 | 35 | 3           | 33,06 080                  | 47,90 080                  | 51,82 080                  |
| M10  | 1,50 | 100 | 10,0   | 8,0  | 8,50  | 16,0 | 39 | 3           | 39,00 100                  | 64,65 100                  | 59,66 100                  |
| M12  | 1,75 | 110 | 12,0   | 9,0  | 10,20 | 18,0 | 44 | 3           | 44,94 120                  |                            |                            |



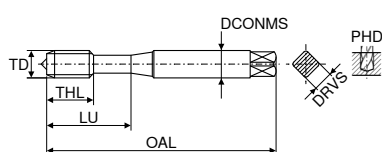
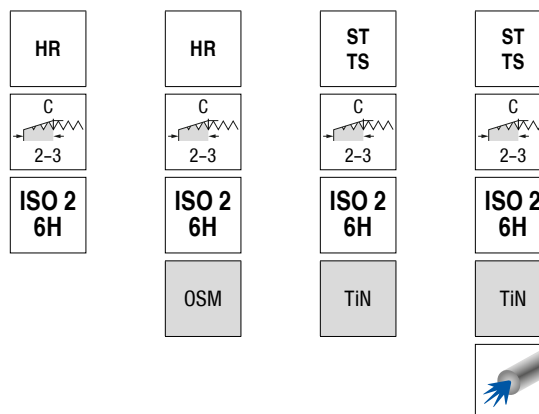
DIN 376 con codolo rastremato

| TD  | TP   | OAL | DCONMS | DRVS | PHD  | THL | Scanalatura | UO<br>Codice<br>22 083 ... | UO<br>Codice<br>22 085 ... | UO<br>Codice<br>22 139 ... |
|-----|------|-----|--------|------|------|-----|-------------|----------------------------|----------------------------|----------------------------|
|     | mm   | mm  | mm     | mm   | mm   | mm  |             | EUR                        | EUR                        | EUR                        |
| M3  | 0,50 | 56  | 2,2    |      | 2,5  | 6   | 3           | 30,94 030                  |                            |                            |
| M4  | 0,70 | 63  | 2,8    | 2,1  | 3,3  | 7   | 3           | 31,16 040                  |                            |                            |
| M5  | 0,80 | 70  | 3,5    | 2,7  | 4,2  | 8   | 3           | 31,47 050                  |                            |                            |
| M6  | 1,00 | 80  | 4,5    | 3,4  | 5,0  | 10  | 3           | 37,73 060                  |                            |                            |
| M8  | 1,25 | 90  | 6,0    | 4,9  | 6,8  | 14  | 3           | 34,98 080                  |                            |                            |
| M10 | 1,50 | 100 | 7,0    | 5,5  | 8,5  | 16  | 3           |                            | 72,59 100                  |                            |
| M12 | 1,75 | 110 | 9,0    | 7,0  | 10,2 | 18  | 3           | 50,44 120                  | 76,51 120                  | 84,78 120                  |
| M14 | 2,00 | 110 | 11,0   | 9,0  | 12,0 | 20  | 3           | 64,01 140                  |                            |                            |
| M16 | 2,00 | 110 | 12,0   | 9,0  | 14,0 | 22  | 3           | 69,94 160                  | 98,56 160                  | 121,90 160                 |
| M18 | 2,50 | 125 | 14,0   | 11,0 | 15,5 | 25  | 3           | 102,20 180                 |                            |                            |
| M20 | 2,50 | 140 | 16,0   | 12,0 | 17,5 | 25  | 3           | 104,00 200                 | 165,40 200                 | 180,10 200                 |
| M22 | 2,50 | 140 | 18,0   | 14,5 | 19,5 | 27  | 4           | 143,10 220                 |                            |                            |
| M24 | 3,00 | 160 | 18,0   | 14,5 | 21,0 | 30  | 4           | 133,50 240                 |                            |                            |
| M30 | 3,50 | 180 | 22,0   | 18,0 | 26,5 | 35  | 4           | 228,90 300                 |                            |                            |
| M33 | 3,50 | 180 | 25,0   | 20,0 | 29,5 | 35  | 4           | 331,80 330                 |                            |                            |
| M36 | 4,00 | 200 | 28,0   | 22,0 | 32,0 | 40  | 4           | 331,80 360                 |                            |                            |

|                            |       |       |       |
|----------------------------|-------|-------|-------|
| Acciaio                    | 10-20 | 10-25 | 10-20 |
| Acciaio inossidabile       |       |       |       |
| Ghisa                      |       |       |       |
| Metalli non ferrosi        | 10-20 | 10-25 | 10-20 |
| Leghe resistenti al calore |       |       |       |
| Materiali duri             |       |       |       |

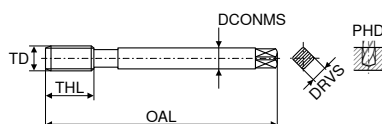
# Foro cieco – Maschi a macchina destri

▲ TS = per lavorazione ad elevate velocità, fino a 100 m/min



DIN 371 con codolo rinforzato

| HSS-PM                                                        | HSS-PM                                                        | HSS-E                                                         | HSS-E                                                         |
|---------------------------------------------------------------|---------------------------------------------------------------|---------------------------------------------------------------|---------------------------------------------------------------|
| $\angle 42^\circ$<br>$\leq 1400 \text{ N/mm}^2$<br>$\leq 3xD$ | $\angle 42^\circ$<br>$\leq 1400 \text{ N/mm}^2$<br>$\leq 3xD$ | $\angle 40^\circ$<br>$\leq 1100 \text{ N/mm}^2$<br>$\leq 2xD$ | $\angle 40^\circ$<br>$\leq 1100 \text{ N/mm}^2$<br>$\leq 2xD$ |
| U0                                                            | U0                                                            | U0                                                            | U0                                                            |
| Codice<br>22 498 ...                                          | Codice<br>22 499 ...                                          | Codice<br>22 044 ...                                          | Codice<br>22 046 ...                                          |
| EUR                                                           | EUR                                                           | EUR                                                           | EUR                                                           |
| M3 030 31,16                                                  | M3 030 39,53                                                  | M3 030 48,21                                                  | M3 030 81,70                                                  |
| M4 040 29,36                                                  | M4 040 39,53                                                  | M4 040 51,82                                                  | M4 040 106,00                                                 |
| M5 050 30,94                                                  | M5 050 42,07                                                  | M5 050 55,11                                                  | M5 050 110,20                                                 |
| M6 060 30,52                                                  | M6 060 43,45                                                  | M6 060 62,21                                                  | M6 060 149,50                                                 |
| M8 080 36,98                                                  | M8 080 55,11                                                  | M8 080 77,26                                                  | M8 080 149,50                                                 |
| M10 100 44,72                                                 | M10 100 62,21                                                 | M10 100 77,26                                                 | M10 100 149,50                                                |

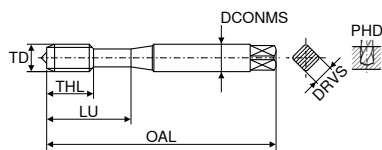
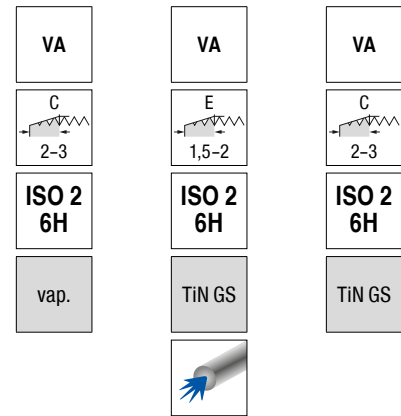


DIN 376 con codolo rastremato

| TD  | TP   | OAL | DCONMS | DRVS | PHD  | THL | Scanala-<br>ture | U0                   | U0                   |
|-----|------|-----|--------|------|------|-----|------------------|----------------------|----------------------|
|     | mm   | mm  | mm     | mm   | mm   | mm  |                  | Codice<br>22 045 ... | Codice<br>22 047 ... |
|     |      |     |        |      |      |     |                  | EUR                  | EUR                  |
| M12 | 1,75 | 110 | 9      | 7    | 10,2 | 18  | 4                | 92,62                | 162,10               |
| M16 | 2,00 | 110 | 12     | 9    | 14,0 | 22  | 4                | 133,50               | 249,10               |

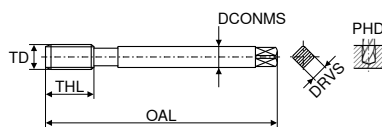
|                            |      |      |        |        |
|----------------------------|------|------|--------|--------|
| Acciaio                    | 4-12 | 4-12 | 20-100 | 20-100 |
| Acciaio inossidabile       | 6-8  | 6-8  |        |        |
| Ghisa                      |      |      | 20-60  | 20-60  |
| Metalli non ferrosi        |      |      | 20-100 | 20-100 |
| Leghe resistenti al calore | 3-5  | 3-5  | 10-25  | 10-25  |
| Materiali duri             |      |      |        |        |

## Foro cieco – Maschi a macchina destri



DIN 371 con codolo rinforzato

| HSS-E<br>$\angle 42^\circ$<br>$\leq 900 \text{ N/mm}^2$<br>$\leq 3xD$ | HSS-E<br>$\angle 45^\circ$<br>$\leq 900 \text{ N/mm}^2$<br>$\leq 3xD$ | HSS-E<br>$\angle 45^\circ$<br>$\leq 900 \text{ N/mm}^2$<br>$\leq 3xD$ |
|-----------------------------------------------------------------------|-----------------------------------------------------------------------|-----------------------------------------------------------------------|
| U0                                                                    | U0                                                                    | U0                                                                    |
| Codice<br>22 090 ...                                                  | Codice<br>22 042 ...                                                  | Codice<br>22 040 ...                                                  |
| EUR                                                                   | EUR                                                                   | EUR                                                                   |
| M1,6 0,35 40 2,5 2,1 1,25 4 11 2                                      |                                                                       | 016                                                                   |
| M2 0,40 45 2,8 2,1 1,60 4 12 2                                        |                                                                       | 020                                                                   |
| M2,5 0,45 50 2,8 2,1 2,05 5 15 2                                      |                                                                       |                                                                       |
| M2,5 0,45 50 2,8 2,1 2,05 5 15 3                                      |                                                                       | 025                                                                   |
| M3 0,50 56 3,5 2,7 2,50 6 18 3                                        |                                                                       | 030                                                                   |
| M4 0,70 63 4,5 3,4 3,30 7 21 3                                        |                                                                       | 040                                                                   |
| M5 0,80 70 6,0 4,9 4,20 8 25 3                                        | 050                                                                   | 050                                                                   |
| M6 1,00 80 6,0 4,9 5,00 10 30 3                                       | 060                                                                   | 060                                                                   |
| M8 1,25 90 8,0 6,2 6,80 14 35 3                                       | 080                                                                   | 080                                                                   |
| M10 1,50 100 10,0 8,0 8,50 16 39 3                                    | 100                                                                   | 100                                                                   |

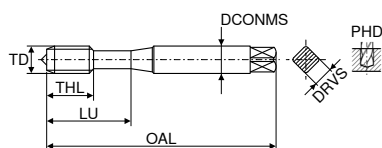


DIN 376 con codolo rastremato

| U0                             | U0                   |
|--------------------------------|----------------------|
| Codice<br>22 091 ...           | Codice<br>22 041 ... |
| EUR                            | EUR                  |
| M12 1,75 110 9 7,0 10,2 18 4   | 120                  |
| M14 2,00 110 11 9,0 12,0 20 4  | 140                  |
| M16 2,00 110 12 9,0 14,0 22 4  | 160                  |
| M20 2,50 140 16 12,0 17,5 25 4 | 200                  |
| M22 2,50 140 18 14,5 19,5 27 5 | 220                  |
| M24 3,00 160 18 14,5 21,0 30 5 | 240                  |
| M30 3,50 180 22 18,0 26,5 35 5 | 300                  |

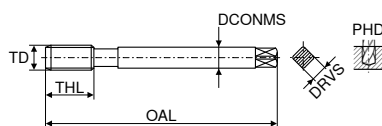
|                            |      |      |
|----------------------------|------|------|
| Acciaio                    | 5-12 | 5-12 |
| Acciaio inossidabile       | 5-10 | 5-10 |
| Ghisa                      |      |      |
| Metalli non ferrosi        |      |      |
| Leghe resistenti al calore |      |      |
| Materiali duri             |      |      |

## Foro cieco – Maschi a macchina destri



DIN 371 con codolo rinforzato

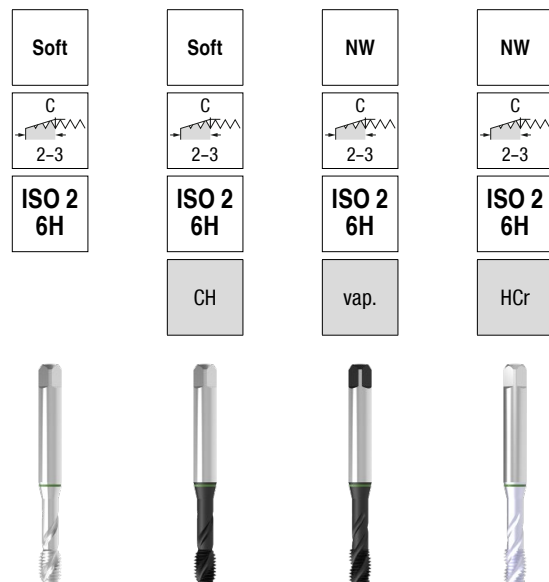
| TD   | TP   | OAL | DCONMS | DRVS | PHD  | THL | LU | Scanalatura | U0                | U0                | U0                | U0                |
|------|------|-----|--------|------|------|-----|----|-------------|-------------------|-------------------|-------------------|-------------------|
|      | mm   | mm  | mm     | mm   | mm   | mm  | mm |             | Codice 22 326 ... | Codice 22 324 ... | Codice 22 086 ... | Codice 22 088 ... |
| M2   | 0,40 | 45  | 2,8    | 2,1  | 1,60 | 4   | 12 | 2           | EUR 41,33 020     | EUR 55,85 020     | EUR 35,61 020     | EUR 43,02 020     |
| M2,5 | 0,45 | 50  | 2,8    | 2,1  | 2,05 | 5   | 15 | 2           | EUR 38,68 025     | EUR 54,26 025     | EUR 33,06 025     | EUR 42,49 025     |
| M3   | 0,50 | 56  | 3,5    | 2,7  | 2,50 | 6   | 18 | 2           | EUR 31,69 030     | EUR 47,05 030     |                   |                   |
| M3   | 0,50 | 56  | 3,5    | 2,7  | 2,50 | 6   | 18 | 3           |                   |                   | EUR 27,77 030     | EUR 35,92 030     |
| M4   | 0,70 | 63  | 4,5    | 3,4  | 3,30 | 7   | 21 | 2           | EUR 31,69 040     | EUR 50,76 040     |                   |                   |
| M4   | 0,70 | 63  | 4,5    | 3,4  | 3,30 | 7   | 21 | 3           |                   |                   | EUR 27,77 040     | EUR 36,98 040     |
| M5   | 0,80 | 70  | 6,0    | 4,9  | 4,20 | 8   | 25 | 2           | EUR 32,75 050     | EUR 52,35 050     |                   |                   |
| M5   | 0,80 | 70  | 6,0    | 4,9  | 4,20 | 8   | 25 | 3           |                   |                   | EUR 28,83 050     | EUR 37,20 050     |
| M6   | 1,00 | 80  | 6,0    | 4,9  | 5,00 | 10  | 30 | 2           | EUR 32,75 060     | EUR 72,70 060     |                   |                   |
| M6   | 1,00 | 80  | 6,0    | 4,9  | 5,00 | 10  | 30 | 3           |                   |                   | EUR 28,83 060     | EUR 38,26 060     |
| M8   | 1,25 | 90  | 8,0    | 6,2  | 6,80 | 14  | 35 | 2           | EUR 39,21 080     | EUR 78,96 080     |                   |                   |
| M8   | 1,25 | 90  | 8,0    | 6,2  | 6,80 | 14  | 35 | 3           |                   |                   | EUR 33,28 080     | EUR 43,02 080     |
| M10  | 1,50 | 100 | 10,0   | 8,0  | 8,50 | 16  | 39 | 2           | EUR 46,10 100     | EUR 99,20 100     |                   |                   |
| M10  | 1,50 | 100 | 10,0   | 8,0  | 8,50 | 16  | 39 | 3           |                   |                   | EUR 40,80 100     | EUR 49,81 100     |



DIN 376 con codolo rastremato

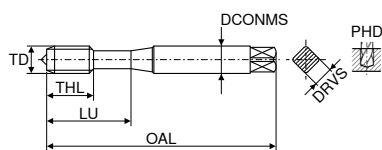
| TD  | TP   | OAL | DCONMS | DRVS | PHD  | THL | Scanalatura | U0                | U0                |
|-----|------|-----|--------|------|------|-----|-------------|-------------------|-------------------|
|     | mm   | mm  | mm     | mm   | mm   | mm  |             | Codice 22 087 ... | Codice 22 089 ... |
| M12 | 1,75 | 110 | 9      | 7    | 10,2 | 18  | 3           | EUR 51,19 120     | EUR 62,21 120     |
| M16 | 2,00 | 110 | 12     | 9    | 14,0 | 22  | 3           | EUR 73,12 160     | EUR 86,80 160     |

|                            |       |       |       |       |
|----------------------------|-------|-------|-------|-------|
| Acciaio                    |       |       |       |       |
| Acciaio inossidabile       |       |       |       |       |
| Ghisa                      |       |       |       |       |
| Metalli non ferrosi        | 15-40 | 15-40 | 10-20 | 12-25 |
| Leghe resistenti al calore |       |       |       |       |
| Materiali duri             |       |       |       |       |



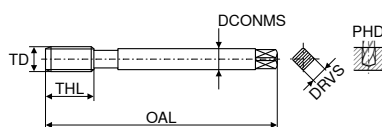
HSS-E  $\angle 42^\circ$   $\leq 500 \text{ N/mm}^2$   $\leq 3xD$   
HSS-E  $\angle 42^\circ$   $\leq 500 \text{ N/mm}^2$   $\leq 3xD$   
HSS-E  $\angle 38^\circ$   $\leq 500 \text{ N/mm}^2$   $\leq 3xD$   
HSS-E  $\angle 38^\circ$   $\leq 500 \text{ N/mm}^2$   $\leq 3xD$

## Foro cieco – Maschi a macchina destri



DIN 371 con codolo rinforzato

| TD   | TP   | OAL | DCONMS | DRVS | PHD  | THL | LU | Scanalatura | UO<br>Codice<br>22 076 ...<br>EUR | UO<br>Codice<br>22 163 ...<br>EUR | UO<br>Codice<br>22 073 ...<br>EUR | UO<br>Codice<br>22 424 ...<br>EUR |
|------|------|-----|--------|------|------|-----|----|-------------|-----------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|
| M3   | 0,50 | 56  | 3,5    | 2,7  | 2,5  | 11  | 18 | 2           |                                   | 45,04                             | 97,18                             | 57,54                             |
| M3   | 0,50 | 56  | 3,5    | 2,7  | 2,5  | 11  | 18 | 3           | 43,45                             |                                   |                                   |                                   |
| M3   | 0,50 | 56  | 3,5    | 2,7  | 2,5  | 6   | 18 | 3           |                                   | 48,43                             |                                   |                                   |
| M3,5 | 0,60 | 56  | 4,0    | 3,0  | 2,9  | 12  | 20 | 3           |                                   |                                   |                                   |                                   |
| M4   | 0,70 | 63  | 4,5    | 3,4  | 3,3  | 7   | 21 | 3           | 44,72                             | 49,49                             | 97,18                             | 59,99                             |
| M4   | 0,70 | 63  | 4,5    | 3,4  | 3,3  | 13  | 21 | 3           |                                   |                                   |                                   |                                   |
| M5   | 0,80 | 70  | 6,0    | 4,9  | 4,2  | 8   | 25 | 3           | 44,94                             | 50,02                             | 86,80                             | 62,21                             |
| M5   | 0,80 | 70  | 6,0    | 4,9  | 4,2  | 15  | 25 | 3           |                                   |                                   |                                   |                                   |
| M6   | 1,00 | 80  | 6,0    | 4,9  | 5,0  | 10  | 30 | 3           | 49,17                             | 66,66                             | 102,40                            | 78,21                             |
| M6   | 1,00 | 80  | 6,0    | 4,9  | 5,0  | 17  | 30 | 3           |                                   |                                   |                                   |                                   |
| M8   | 1,25 | 90  | 8,0    | 6,2  | 6,8  | 14  | 35 | 3           | 51,82                             | 72,70                             | 150,50                            | 85,84                             |
| M8   | 1,25 | 90  | 8,0    | 6,2  | 6,8  | 20  | 35 | 3           |                                   |                                   |                                   |                                   |
| M10  | 1,50 | 100 | 10,0   | 8,0  | 8,5  | 16  | 39 | 3           | 75,04                             | 89,44                             | 130,30                            | 107,00                            |
| M10  | 1,50 | 100 | 10,0   | 8,0  | 8,5  | 22  | 39 | 3           |                                   |                                   |                                   |                                   |
| M12  | 1,75 | 110 | 12,0   | 9,0  | 10,2 | 18  | 44 | 3           | 85,74                             |                                   |                                   |                                   |



DIN 376 con codolo rastremato

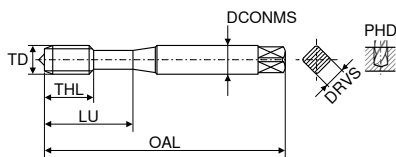
| TD  | TP   | OAL | DCONMS | DRVS | PHD  | THL | Scanalatura | UO<br>Codice<br>22 164 ...<br>EUR | UO<br>Codice<br>22 124 ...<br>EUR | UO<br>Codice<br>22 425 ...<br>EUR |
|-----|------|-----|--------|------|------|-----|-------------|-----------------------------------|-----------------------------------|-----------------------------------|
| M12 | 1,75 | 110 | 9      | 7,0  | 10,2 | 24  | 3           | 101,30                            |                                   | 125,00                            |
| M12 | 1,75 | 110 | 9      | 7,0  | 10,2 | 24  | 4           |                                   | 149,50                            |                                   |
| M14 | 2,00 | 110 | 11     | 9,0  | 12,0 | 26  | 3           |                                   |                                   | 183,40                            |
| M14 | 2,00 | 110 | 11     | 9,0  | 12,0 | 26  | 4           |                                   | 200,30                            |                                   |
| M16 | 2,00 | 110 | 12     | 9,0  | 14,0 | 27  | 3           | 142,10                            |                                   | 171,70                            |
| M16 | 2,00 | 110 | 12     | 9,0  | 14,0 | 27  | 5           |                                   | 181,30                            |                                   |
| M20 | 2,50 | 140 | 16     | 12,0 | 17,5 | 32  | 3           | 245,90                            |                                   | 297,80                            |
| M24 | 3,00 | 160 | 18     | 14,5 | 21,0 | 34  | 3           | 280,80                            |                                   |                                   |

|                            |     |       |     |     |
|----------------------------|-----|-------|-----|-----|
| Acciaio                    | 2-5 | 6-8   |     |     |
| Acciaio inossidabile       |     | 4-10  |     |     |
| Ghisa                      |     |       |     |     |
| Metalli non ferrosi        |     | 10-12 |     |     |
| Leghe resistenti al calore | 2-6 | 4-6   | 2-4 | 2-4 |
| Materiali duri             |     |       |     |     |



## Foro cieco – Maschi a macchina destri

▲ ES = extracorto



DIN 352 con codolo rinforzato



HSS-E

 $\angle 42^\circ$   
 $\leq 1100 \text{ N/mm}^2$   
 $\leq 3xD$ 

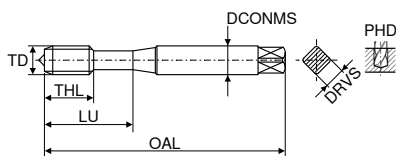
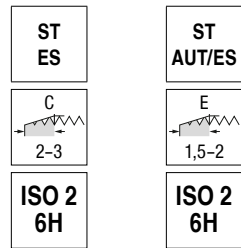
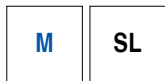
| TD   | TP   | OAL | DCONMS | DRVS | PHD  | THL | LU | Scanala-<br>ture | U0<br>Codice<br>22 500 ...<br>EUR |     |
|------|------|-----|--------|------|------|-----|----|------------------|-----------------------------------|-----|
| M3   | 0,50 | 40  | 3,5    | 2,7  | 2,5  | 6   | 18 | 3                | 25,22                             | 030 |
| M3,5 | 0,60 | 45  | 4,0    | 3,0  | 2,9  | 7   | 20 | 3                | 32,43                             | 035 |
| M4   | 0,70 | 45  | 4,5    | 3,4  | 3,3  | 7   | 22 | 3                | 25,97                             | 040 |
| M5   | 0,80 | 50  | 6,0    | 4,9  | 4,2  | 9   | 25 | 3                | 26,60                             | 050 |
| M6   | 1,00 | 56  | 6,0    | 4,9  | 5,0  | 10  | 28 | 3                | 27,55                             | 060 |
| M8   | 1,25 | 63  | 6,0    | 4,9  | 6,8  | 14  |    | 3                | 31,69                             | 080 |
| M10  | 1,50 | 70  | 7,0    | 5,5  | 8,5  | 16  |    | 3                | 37,73                             | 100 |
| M12  | 1,75 | 75  | 9,0    | 7,0  | 10,2 | 18  |    | 4                | 49,17                             | 120 |
| M16  | 2,00 | 80  | 12,0   | 9,0  | 14,0 | 22  |    | 4                | 77,78                             | 160 |

|                            |      |
|----------------------------|------|
| Acciaio                    | 6-20 |
| Acciaio inossidabile       | 4-8  |
| Ghisa                      | 6-15 |
| Metalli non ferrosi        |      |
| Leghe resistenti al calore |      |
| Materiali duri             |      |

## Foro cieco – Maschi a macchina destri

▲ AUT = esecuzione corta per lavorazione su macchine automatiche

▲ ES = extracorto

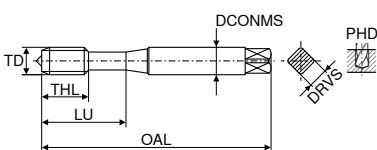


DIN 352 con codolo rinforzato

| TD                         | TP   | OAL | DCONMS | DRVS | PHD  | THL | LU | Scanala-<br>ture | 00         |     | 00         |     |
|----------------------------|------|-----|--------|------|------|-----|----|------------------|------------|-----|------------|-----|
|                            |      |     |        |      |      |     |    |                  | Codice     |     | Codice     |     |
|                            |      |     |        |      |      |     |    |                  | 22 016 ... |     | 22 001 ... |     |
|                            | mm   | mm  | mm     | mm   | mm   | mm  | mm |                  | EUR        |     | EUR        |     |
| M3                         | 0,50 | 40  | 3,5    | 2,7  | 2,5  | 10  | 18 | 2                | 22,68      | 030 | 24,27      | 030 |
| M4                         | 0,70 | 45  | 4,5    | 3,4  | 3,3  | 12  | 22 | 3                | 22,79      | 040 | 24,59      | 040 |
| M5                         | 0,80 | 50  | 6,0    | 4,9  | 4,2  | 14  | 25 | 3                | 23,42      | 050 | 24,69      | 050 |
| M6                         | 1,00 | 56  | 6,0    | 4,9  | 5,0  | 16  | 28 | 3                | 24,16      | 060 | 26,81      | 060 |
| M8                         | 1,25 | 63  | 6,0    | 4,9  | 6,8  | 20  |    | 3                | 27,55      | 080 | 30,52      | 080 |
| M10                        | 1,50 | 70  | 7,0    | 5,5  | 8,5  | 22  |    | 3                | 34,98      | 100 | 38,26      | 100 |
| M12                        | 1,75 | 75  | 9,0    | 7,0  | 10,2 | 24  |    | 3                | 44,94      | 120 |            |     |
| M14                        | 2,00 | 80  | 11,0   | 9,0  | 12,0 | 26  |    | 3                | 65,38      | 140 |            |     |
| M16                        | 2,00 | 80  | 12,0   | 9,0  | 14,0 | 27  |    | 3                | 71,96      | 160 |            |     |
| M20                        | 2,50 | 95  | 16,0   | 12,0 | 17,5 | 32  |    | 3                | 103,80     | 200 |            |     |
| Acciaio                    |      |     |        |      |      |     |    |                  | 10-20      |     | 10-20      |     |
| Acciaio inossidabile       |      |     |        |      |      |     |    |                  |            |     |            |     |
| Ghisa                      |      |     |        |      |      |     |    |                  |            |     |            |     |
| Metalli non ferrosi        |      |     |        |      |      |     |    |                  | 10-20      |     | 10-20      |     |
| Leghe resistenti al calore |      |     |        |      |      |     |    |                  |            |     |            |     |
| Materiali duri             |      |     |        |      |      |     |    |                  |            |     |            |     |

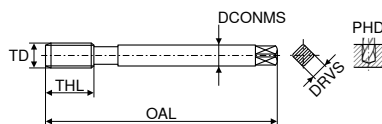
# Foro cieco – Maschi a macchina destri

▲ EL = extralungo con lunghezza totale doppia



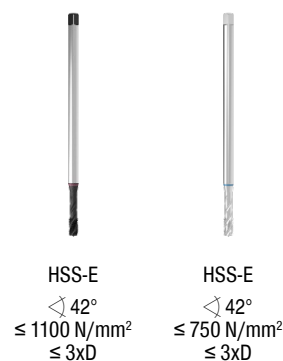
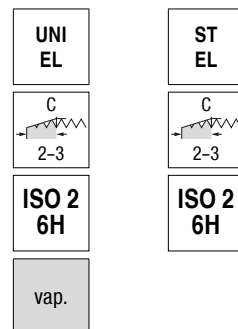
DIN 371 con codolo rinforzato

| TD | TP   | OAL | DCONMS | DRVS | PHD | THL | LU | Scanalatura |
|----|------|-----|--------|------|-----|-----|----|-------------|
|    | mm   | mm  | mm     | mm   | mm  | mm  | mm |             |
| M3 | 0,50 | 100 | 3,5    | 2,7  | 2,5 | 6   | 18 | 3           |
| M4 | 0,70 | 125 | 4,5    | 3,4  | 3,3 | 7   | 21 | 3           |
| M5 | 0,80 | 140 | 6,0    | 4,9  | 4,2 | 8   | 25 | 3           |
| M6 | 1,00 | 160 | 6,0    | 4,9  | 5,0 | 10  | 30 | 3           |
| M8 | 1,25 | 180 | 8,0    | 6,2  | 6,8 | 14  | 35 | 3           |



DIN 376 con codolo rastremato

| TD  | TP   | OAL | DCONMS | DRVS | PHD  | THL | Scanalatura |
|-----|------|-----|--------|------|------|-----|-------------|
|     | mm   | mm  | mm     | mm   | mm   | mm  |             |
| M6  | 1,00 | 160 | 4,5    | 3,4  | 5,0  | 10  | 3           |
| M8  | 1,25 | 180 | 6,0    | 4,9  | 6,8  | 14  | 3           |
| M10 | 1,50 | 200 | 7,0    | 5,5  | 8,5  | 16  | 3           |
| M12 | 1,75 | 224 | 9,0    | 7,0  | 10,2 | 18  | 3           |
| M14 | 2,00 | 224 | 11,0   | 9,0  | 12,0 | 20  | 3           |
| M16 | 2,00 | 224 | 12,0   | 9,0  | 14,0 | 22  | 3           |
| M18 | 2,50 | 250 | 14,0   | 11,0 | 15,5 | 25  | 3           |
| M20 | 2,50 | 280 | 16,0   | 12,0 | 17,5 | 25  | 3           |



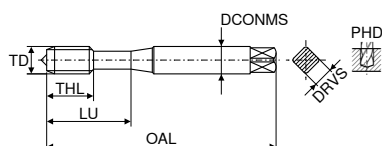
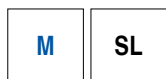
| UO                | UO                |
|-------------------|-------------------|
| Codice 22 538 ... | Codice 22 422 ... |
| EUR               | EUR               |
| 52,35 030         | 60,93 030         |
| 52,35 040         | 59,66 040         |
| 58,71 050         | 66,66 050         |
| 61,79 060         | 69,41 060         |
| 73,86 080         | 83,51 080         |

| UO                | UO                |
|-------------------|-------------------|
| Codice 22 539 ... | Codice 22 423 ... |
| EUR               | EUR               |
| 66,77 060         | 69,41 060         |
| 81,07 080         | 83,51 080         |
| 81,70 100         | 91,67 100         |
| 104,40 120        | 119,80 120        |
| 153,70 140        | 173,80 140        |
| 147,30 160        | 168,50 160        |
| 236,30 180        | 255,40 180        |
| 202,40 200        | 227,90 200        |

|                            |      |       |
|----------------------------|------|-------|
| Acciaio                    | 6-20 | 5-25  |
| Acciaio inossidabile       | 4-8  |       |
| Ghisa                      | 6-15 |       |
| Metalli non ferrosi        |      | 10-40 |
| Leghe resistenti al calore |      |       |
| Materiali duri             |      |       |

# Foro cieco – Maschi a macchina destri

▲ EL = extralungo con lunghezza totale doppia



DIN 371 con codolo rinforzato



HSS-E  
 $\angle 15^\circ$   
 $\leq 750 \text{ N/mm}^2$   
 $\leq 2xD$

| TD | TP   | OAL | DCONMS | DRVS | PHD | THL | LU | Scanalatura |
|----|------|-----|--------|------|-----|-----|----|-------------|
|    | mm   | mm  | mm     | mm   | mm  | mm  | mm |             |
| M3 | 0,50 | 100 | 3,5    | 2,7  | 2,5 | 11  | 18 | 2           |
| M4 | 0,70 | 125 | 4,5    | 3,4  | 3,3 | 13  | 21 | 3           |
| M5 | 0,80 | 140 | 6,0    | 4,9  | 4,2 | 15  | 25 | 3           |
| M6 | 1,00 | 160 | 6,0    | 4,9  | 5,0 | 17  | 30 | 3           |
| M8 | 1,25 | 180 | 8,0    | 6,2  | 6,8 | 20  | 35 | 3           |

U0

Codice  
22 078 ...

EUR

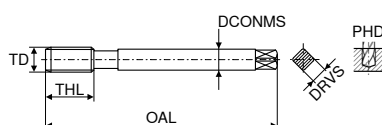
50,34 030

50,02 040

56,70 050

59,03 060

71,22 080



DIN 376 con codolo rastremato

| TD  | TP   | OAL | DCONMS | DRVS | PHD  | THL | Scanalatura |
|-----|------|-----|--------|------|------|-----|-------------|
|     | mm   | mm  | mm     | mm   | mm   | mm  |             |
| M6  | 1,00 | 160 | 4,5    | 3,4  | 5,0  | 17  | 3           |
| M8  | 1,25 | 180 | 6,0    | 4,9  | 6,8  | 20  | 3           |
| M10 | 1,50 | 200 | 7,0    | 5,5  | 8,5  | 22  | 3           |
| M12 | 1,75 | 224 | 9,0    | 7,0  | 10,2 | 24  | 3           |
| M14 | 2,00 | 224 | 11,0   | 9,0  | 12,0 | 26  | 3           |
| M16 | 2,00 | 224 | 12,0   | 9,0  | 14,0 | 27  | 3           |
| M20 | 2,50 | 280 | 16,0   | 12,0 | 17,5 | 32  | 3           |

U0

Codice  
22 080 ...

EUR

61,46 060

73,12 080

77,78 100

99,20 120

145,20 140

143,10 160

198,20 200

Acciaio

10-20

Acciaio inossidabile

Ghisa

Metalli non ferrosi

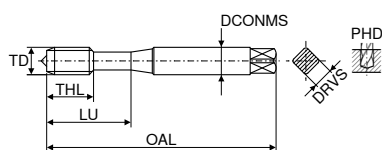
10-20

Leghe resistenti al calore

Materiali duri

# Foro cieco – Maschi a macchina destri

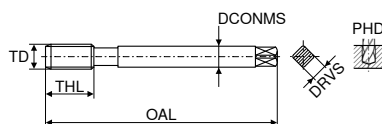
▲ NC = per maschiatura rigida su macchine CNC con mandrino a minima compensazione assiale



DIN 371 con codolo rinforzato

| UNI                                       | UNI                                       | UNI                                        | UNI                                     | UNI NC                                  |
|-------------------------------------------|-------------------------------------------|--------------------------------------------|-----------------------------------------|-----------------------------------------|
|                                           |                                           |                                            |                                         |                                         |
| ISO 2 6H                                  | ISO 2 6H                                  | ISO 2 6H                                   | ISO 2 6H                                | ISO 2 6H                                |
| vap.                                      | TiN                                       | TiN                                        | TiCN                                    | TiN GS                                  |
|                                           |                                           |                                            |                                         |                                         |
| HSS-E<br>≤ 35°<br>≤ 1000 N/mm²<br>≤ 2,5xD | HSS-E<br>≤ 35°<br>≤ 1000 N/mm²<br>≤ 2,5xD | HSS-PM<br>≤ 50°<br>≤ 1000 N/mm²<br>≤ 2,5xD | HSS-E<br>≤ 45°<br>≤ 1000 N/mm²<br>≤ 3xD | HSS-E<br>≤ 45°<br>≤ 1000 N/mm²<br>≤ 3xD |

| TD   | TP   | OAL | DCONMS | DRVS | PHD  | THL | LU | Scanalatura | T9<br>Codice<br>23 118 ...<br>EUR | T9<br>Codice<br>23 120 ...<br>EUR | T9<br>Codice<br>23 026 ...<br>EUR | T9<br>Codice<br>23 122 ...<br>EUR | T9<br>Codice<br>23 124 ...<br>EUR |
|------|------|-----|--------|------|------|-----|----|-------------|-----------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|
| M2   | 0,40 | 45  | 2,8    | 2,1  | 1,60 | 4   | 12 | 2           | 12,64                             | 020                               | 11,01                             | 020                               |                                   |
| M2,5 | 0,45 | 50  | 2,8    | 2,1  | 2,05 | 5   | 14 | 2           | 12,43                             | 025                               | 16,61                             | 025                               |                                   |
| M3   | 0,50 | 56  | 3,5    | 2,7  | 2,50 | 6   | 18 | 3           | 8,54                              | 030                               | 12,64                             | 030                               | 19,46                             |
| M4   | 0,70 | 63  | 4,5    | 3,4  | 3,30 | 7   | 21 | 3           | 8,54                              | 040                               | 13,55                             | 040                               | 20,58                             |
| M5   | 0,80 | 70  | 6,0    | 4,9  | 4,20 | 8   | 25 | 3           | 8,97                              | 050                               | 13,76                             | 050                               | 21,70                             |
| M6   | 1,00 | 80  | 6,0    | 4,9  | 5,00 | 10  | 30 | 3           | 9,27                              | 060                               | 17,12                             | 060                               | 29,35                             |
| M8   | 1,25 | 90  | 8,0    | 6,2  | 6,80 | 14  | 35 | 3           | 10,90                             | 080                               | 18,44                             | 080                               | 31,49                             |
| M10  | 1,50 | 100 | 10,0   | 8,0  | 8,50 | 16  | 39 | 3           | 12,53                             | 100                               | 23,64                             | 100                               | 40,05                             |



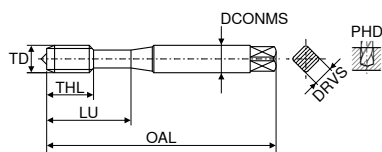
DIN 376 con codolo rastremato

| TD  | TP   | OAL | DCONMS | DRVS | PHD  | THL | Scanalatura | T9<br>Codice<br>23 119 ...<br>EUR | T9<br>Codice<br>23 121 ...<br>EUR | T9<br>Codice<br>23 027 ...<br>EUR | T9<br>Codice<br>23 123 ...<br>EUR | T9<br>Codice<br>23 125 ...<br>EUR |
|-----|------|-----|--------|------|------|-----|-------------|-----------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|
| M3  | 0,50 | 56  | 2,2    | 2,1  | 2,5  | 6   | 3           | 10,19                             | 030                               |                                   |                                   |                                   |
| M4  | 0,70 | 63  | 2,8    | 2,1  | 3,3  | 7   | 3           | 9,18                              | 040                               |                                   |                                   |                                   |
| M5  | 0,80 | 70  | 3,5    | 2,7  | 4,2  | 8   | 3           | 9,04                              | 050                               |                                   |                                   |                                   |
| M6  | 1,00 | 80  | 4,5    | 3,4  | 5,0  | 10  | 3           | 8,90                              | 060                               |                                   |                                   |                                   |
| M8  | 1,25 | 90  | 6,0    | 4,9  | 6,8  | 14  | 3           | 9,32                              | 080                               |                                   |                                   |                                   |
| M10 | 1,50 | 100 | 7,0    | 5,5  | 8,5  | 16  | 3           | 12,64                             | 100                               |                                   |                                   |                                   |
| M12 | 1,75 | 110 | 9,0    | 7,0  | 10,2 | 18  | 3           | 14,27                             | 120                               |                                   |                                   |                                   |
| M12 | 1,75 | 110 | 9,0    | 7,0  | 10,2 | 18  | 4           |                                   |                                   |                                   |                                   |                                   |
| M14 | 2,00 | 110 | 11,0   | 9,0  | 12,0 | 20  | 3           |                                   | 43,07                             | 14000                             |                                   |                                   |
| M14 | 2,00 | 110 | 11,0   | 9,0  | 12,0 | 20  | 4           |                                   |                                   |                                   |                                   |                                   |
| M16 | 2,00 | 110 | 12,0   | 9,0  | 14,0 | 22  | 3           | 20,99                             | 160                               |                                   |                                   |                                   |
| M16 | 2,00 | 110 | 12,0   | 9,0  | 14,0 | 22  | 4           |                                   |                                   |                                   |                                   |                                   |
| M18 | 2,50 | 125 | 14,0   | 11,0 | 15,5 | 25  | 3           |                                   | 68,13                             | 18000                             |                                   |                                   |
| M20 | 2,50 | 140 | 16,0   | 12,0 | 17,5 | 25  | 3           | 31,59                             | 200                               |                                   |                                   |                                   |
| M20 | 2,50 | 140 | 16,0   | 12,0 | 17,5 | 25  | 4           |                                   |                                   |                                   |                                   |                                   |
| M22 | 2,50 | 140 | 18,0   | 14,5 | 19,5 | 27  | 4           |                                   | 99,86                             | 22000                             |                                   |                                   |
| M24 | 3,00 | 160 | 18,0   | 14,5 | 21,0 | 34  | 4           |                                   | 82,34                             | 240                               |                                   |                                   |
| M27 | 3,00 | 160 | 20,0   | 16,0 | 24,0 | 30  | 4           |                                   | 124,90                            | 27000                             |                                   |                                   |
| M30 | 3,50 | 180 | 22,0   | 18,0 | 26,5 | 35  | 4           |                                   | 138,70                            | 30000                             |                                   |                                   |
| M33 | 3,50 | 180 | 25,0   | 20,0 | 29,5 | 35  | 4           |                                   | 200,00                            | 33000                             |                                   |                                   |
| M36 | 4,00 | 200 | 28,0   | 22,0 | 32,0 | 40  | 4           |                                   | 217,30                            | 36000                             |                                   |                                   |

|                            |       |       |       |       |       |
|----------------------------|-------|-------|-------|-------|-------|
| Acciaio                    | 2-25  | 5-45  | 10-20 | 5-45  | 5-45  |
| Acciaio inossidabile       | 2-8   | 5-15  | 8-15  | 5-15  | 5-15  |
| Ghisa                      | 5-20  | 10-25 | 20-25 | 10-25 | 10-25 |
| Metalli non ferrosi        | 10-20 | 15-40 | 20-25 | 15-40 | 15-40 |
| Leghe resistenti al calore |       |       |       |       |       |
| Materiali duri             |       |       |       |       |       |

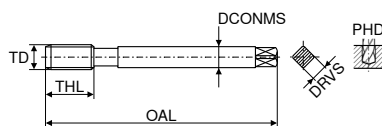
# Foro cieco – Maschi a macchina destri

▲ NCW = con attacco Weldon per la maschiatura rigida CNC senza mandrino a compensazione assiale



DIN 371 con codolo rinforzato

| TD   | TP   | OAL | DCONMS | DRVS | PHD  | THL | LU | Scanalatura | T9         |     | T9         |     | T9         |     | T9         |     |
|------|------|-----|--------|------|------|-----|----|-------------|------------|-----|------------|-----|------------|-----|------------|-----|
|      | mm   | mm  | mm     | mm   | mm   | mm  | mm |             | Codice     |     | Codice     |     | Codice     |     | Codice     |     |
| M2   | 0,40 | 45  | 2,8    | 2,1  | 1,60 | 4   | 12 | 2           | 23 126 ... |     | 23 216 ... |     | 23 312 ... |     | 23 414 ... |     |
|      |      |     |        |      |      |     |    |             | EUR        |     | EUR        |     | EUR        |     | EUR        |     |
| M2,5 | 0,45 | 50  | 2,8    | 2,1  | 2,05 | 5   | 14 | 2           |            |     | 11,51      | 020 |            |     | 19,67      | 020 |
| M3   | 0,50 | 56  | 3,5    | 2,7  | 2,50 | 6   | 18 | 3           |            |     | 21,09      | 025 |            |     | 23,34      | 025 |
| M3   | 0,50 | 70  | 6,0    | 4,9  | 2,50 | 6   | 18 | 3           |            |     | 11,31      | 030 | 16,92      | 030 | 12,74      | 030 |
| M4   | 0,70 | 63  | 4,5    | 3,4  | 3,30 | 7   | 21 | 3           | 20,89      | 030 | 11,31      | 040 | 18,44      | 040 | 12,74      | 040 |
| M4   | 0,70 | 70  | 6,0    | 4,9  | 3,30 | 7   | 21 | 3           | 23,84      | 040 |            |     |            |     |            |     |
| M5   | 0,80 | 70  | 6,0    | 4,9  | 4,20 | 8   | 25 | 3           | 24,25      | 050 | 11,72      | 050 | 18,65      | 050 | 13,15      | 050 |
| M6   | 1,00 | 80  | 6,0    | 4,9  | 5,00 | 10  | 30 | 3           | 24,25      | 060 | 11,72      | 060 | 25,78      | 060 | 13,15      | 060 |
| M8   | 1,25 | 90  | 8,0    | 6,2  | 6,80 | 14  | 35 | 3           | 30,67      | 080 | 15,18      | 080 | 28,12      | 080 | 17,02      | 080 |
| M10  | 1,50 | 100 | 10,0   | 8,0  | 8,50 | 16  | 39 | 3           | 36,99      | 100 | 18,14      | 100 | 35,05      | 100 | 20,69      | 100 |



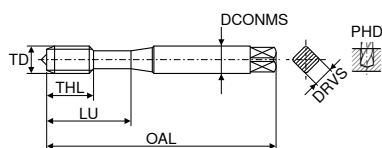
DIN 376 con codolo rastremato

| TD  | TP   | OAL | DCONMS | DRVS | PHD  | THL | Scanalatura | T9         |     | T9         |     | T9         |     | T9         |     |
|-----|------|-----|--------|------|------|-----|-------------|------------|-----|------------|-----|------------|-----|------------|-----|
|     | mm   | mm  | mm     | mm   | mm   | mm  |             | Codice     |     | Codice     |     | Codice     |     | Codice     |     |
| M12 | 1,75 | 110 | 10     | 8,0  | 10,2 | 18  | 3           | 23 127 ... |     | 23 217 ... |     | 23 313 ... |     | 23 415 ... |     |
|     |      |     |        |      |      |     |             | EUR        |     | EUR        |     | EUR        |     | EUR        |     |
| M12 | 1,75 | 110 | 9      | 7,0  | 10,2 | 18  | 3           | 46,26      | 120 | 24,46      | 120 | 40,56      | 120 | 27,41      | 120 |
| M14 | 2,00 | 110 | 11     | 9,0  | 12,0 | 20  | 3           |            |     | 29,45      | 140 |            |     |            |     |
| M16 | 2,00 | 110 | 12     | 9,0  | 14,0 | 22  | 3           | 62,26      | 160 | 37,09      | 160 | 54,82      | 160 | 42,19      | 160 |
| M20 | 2,50 | 140 | 16     | 12,0 | 17,5 | 25  | 3           |            |     | 58,49      | 200 | 98,23      | 200 | 64,50      | 200 |
| M24 | 3,00 | 160 | 18     | 14,5 | 21,0 | 30  | 4           |            |     |            |     |            |     | 88,45      | 240 |

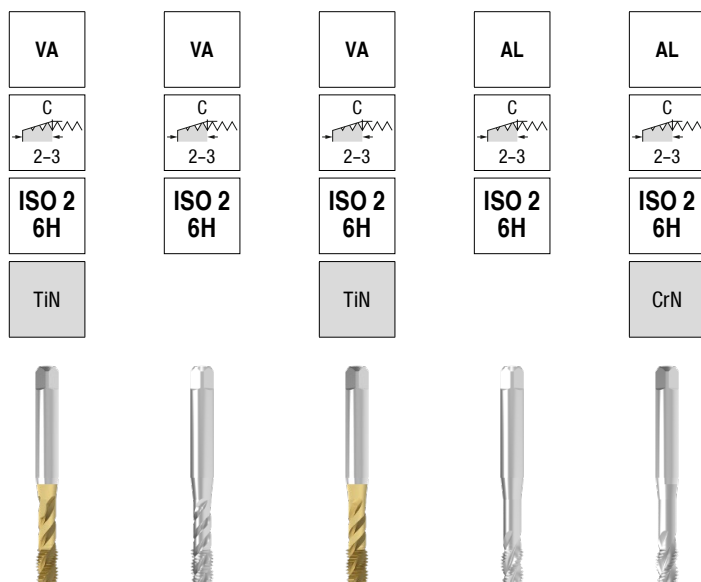
|                            |       |      |      |      |
|----------------------------|-------|------|------|------|
| Acciaio                    | 5-45  | 5-25 | 5-45 |      |
| Acciaio inossidabile       | 5-15  |      |      | 3-10 |
| Ghisa                      | 10-25 |      |      |      |
| Metalli non ferrosi        | 15-40 |      |      |      |
| Leghe resistenti al calore | 5-8   |      |      |      |
| Materiali duri             |       |      |      |      |

## Foro cieco – Maschi a macchina destri

M

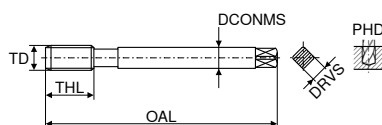


DIN 371 con codolo rinforzato



|                            |                            |                            |                           |                           |
|----------------------------|----------------------------|----------------------------|---------------------------|---------------------------|
| HSS-E                      | HSS-PM                     | HSS-PM                     | HSS-E                     | HSS-E                     |
| $\angle 45^\circ$          | $\angle 40^\circ$          | $\angle 40^\circ$          | $\angle 35^\circ$         | $\angle 35^\circ$         |
| $\leq 1200 \text{ N/mm}^2$ | $\leq 1200 \text{ N/mm}^2$ | $\leq 1200 \text{ N/mm}^2$ | $\leq 500 \text{ N/mm}^2$ | $\leq 500 \text{ N/mm}^2$ |
| $\leq 3xD$                 | $\leq 2,5xD$               | $\leq 2,5xD$               | $\leq 2,5xD$              | $\leq 2,5xD$              |

| TD   | TP   | OAL | DCONMS | DRVS | PHD  | THL | LU | Scanalatura | T9<br>Codice<br>23 416 ...<br>EUR | T9<br>Codice<br>23 426 ...<br>EUR | T9<br>Codice<br>23 456 ...<br>EUR | T9<br>Codice<br>23 616 ...<br>EUR | T9<br>Codice<br>23 614 ...<br>EUR |
|------|------|-----|--------|------|------|-----|----|-------------|-----------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|
| M2   | 0,40 | 45  | 2,8    | 2,1  | 1,60 | 4   | 12 | 2           | 21,20                             | 020                               |                                   |                                   |                                   |
| M2,5 | 0,45 | 50  | 2,8    | 2,1  | 2,05 | 5   | 14 | 2           | 20,28                             | 025                               |                                   |                                   |                                   |
| M3   | 0,50 | 56  | 3,5    | 2,7  | 2,50 | 6   | 18 | 3           | 17,22                             | 030                               | 12,53                             | 030                               | 14,06                             |
| M4   | 0,70 | 63  | 4,5    | 3,4  | 3,30 | 7   | 21 | 3           | 18,04                             | 040                               | 12,74                             | 040                               | 15,29                             |
| M5   | 0,80 | 70  | 6,0    | 4,9  | 4,20 | 8   | 25 | 3           | 18,44                             | 050                               | 13,04                             | 050                               | 15,59                             |
| M6   | 1,00 | 80  | 6,0    | 4,9  | 5,00 | 10  | 30 | 3           | 23,13                             | 060                               | 13,25                             | 060                               | 20,07                             |
| M8   | 1,25 | 90  | 8,0    | 6,2  | 6,80 | 14  | 35 | 3           | 25,48                             | 080                               | 15,59                             | 080                               | 21,50                             |
| M10  | 1,50 | 100 | 10,0   | 8,0  | 8,50 | 16  | 39 | 3           | 32,20                             | 100                               | 18,75                             | 100                               | 29,65                             |



DIN 376 con codolo rastremato

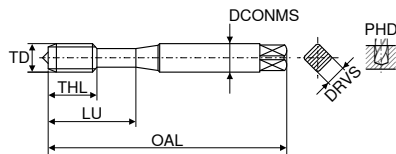
| TD  | TP   | OAL | DCONMS | DRVS | PHD  | THL | Scanalatura | T9<br>Codice<br>23 417 ...<br>EUR | T9<br>Codice<br>23 427 ...<br>EUR | T9<br>Codice<br>23 457 ...<br>EUR | T9<br>Codice<br>23 617 ...<br>EUR | T9<br>Codice<br>23 615 ...<br>EUR |
|-----|------|-----|--------|------|------|-----|-------------|-----------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|
| M12 | 1,75 | 110 | 9      | 7,0  | 10,2 | 18  | 3           |                                   | 30,98                             | 120                               | 42,39                             | 120                               |
| M12 | 1,75 | 110 | 9      | 7,0  | 10,2 | 18  | 4           | 38,11                             |                                   |                                   | 24,46                             | 120                               |
| M14 | 2,00 | 110 | 11     | 9,0  | 12,0 | 20  | 4           |                                   | 40,76                             | 140                               |                                   |                                   |
| M16 | 2,00 | 110 | 12     | 9,0  | 14,0 | 22  | 3           |                                   | 44,33                             | 160                               | 53,40                             | 160                               |
| M16 | 2,00 | 110 | 12     | 9,0  | 14,0 | 22  | 4           | 51,97                             |                                   |                                   |                                   |                                   |
| M20 | 2,50 | 140 | 16     | 12,0 | 17,5 | 25  | 3           |                                   | 66,03                             | 200                               | 106,00                            | 200                               |
| M20 | 2,50 | 140 | 16     | 12,0 | 17,5 | 25  | 4           | 89,57                             |                                   |                                   |                                   |                                   |
| M24 | 3,00 | 160 | 18     | 14,5 | 21,0 | 30  | 4           |                                   | 83,56                             | 240                               |                                   |                                   |

|                            |  |      |  |      |  |      |  |  |  |  |       |       |
|----------------------------|--|------|--|------|--|------|--|--|--|--|-------|-------|
| Acciaio                    |  |      |  |      |  |      |  |  |  |  |       |       |
| Acciaio inossidabile       |  | 8-20 |  | 5-10 |  | 8-20 |  |  |  |  |       |       |
| Ghisa                      |  |      |  |      |  |      |  |  |  |  |       |       |
| Metalli non ferrosi        |  |      |  |      |  |      |  |  |  |  | 10-20 | 15-40 |
| Leghe resistenti al calore |  |      |  |      |  |      |  |  |  |  |       |       |
| Materiali duri             |  |      |  |      |  |      |  |  |  |  |       |       |

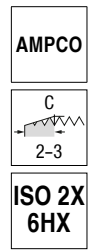
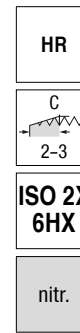
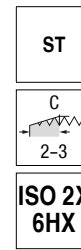
## Foro passante / foro cieco – Maschi a macchina destri

M

TWIN



DIN 371 con codolo rinforzato



HSS-E  
 $\angle 0^\circ$   
 $\leq 750 \text{ N/mm}^2$   
 $\leq 2xD$

HSS-E  
 $\angle 0^\circ$   
 $\leq 1400 \text{ N/mm}^2$   
 $\leq 2xD$

HSS-PM  
 $\angle 0^\circ$   
 $\leq 800 \text{ N/mm}^2$   
 $\leq 2xD$

| TD   | TP   | OAL | DCONMS | DRVS | PHD   | THL | LU | Scanala-<br>ture | UO<br>Codice<br>22 028 ...<br>EUR | UO<br>Codice<br>22 006 ...<br>EUR | UO<br>Codice<br>22 030 ...<br>EUR |
|------|------|-----|--------|------|-------|-----|----|------------------|-----------------------------------|-----------------------------------|-----------------------------------|
| M1,2 | 0,25 | 40  | 2,5    | 2,1  | 0,95  | 5   | 13 | 2                | 44,09 012 1)                      |                                   |                                   |
| M1,4 | 0,30 | 40  | 2,5    | 2,1  | 1,10  | 6   | 13 | 2                | 35,61 014 1)                      |                                   |                                   |
| M1,6 | 0,35 | 40  | 2,5    | 2,1  | 1,25  | 6   | 11 | 2                | 32,00 016                         |                                   |                                   |
| M1,7 | 0,35 | 40  | 2,5    | 2,1  | 1,35  | 6   | 11 | 2                | 34,98 017                         |                                   |                                   |
| M1,8 | 0,35 | 40  | 2,5    | 2,1  | 1,45  | 6   | 11 | 2                | 32,43 018                         |                                   |                                   |
| M2   | 0,40 | 45  | 2,8    | 2,1  | 1,60  | 7   | 12 | 3                | 27,24 020                         |                                   |                                   |
| M2,2 | 0,45 | 45  | 2,8    | 2,1  | 1,75  | 7   | 12 | 3                | 28,83 022                         |                                   |                                   |
| M2,3 | 0,40 | 45  | 2,8    | 2,1  | 1,90  | 7   | 12 | 3                | 31,16 023                         |                                   |                                   |
| M2,5 | 0,45 | 50  | 2,8    | 2,1  | 2,05  | 9   | 14 | 3                | 26,60 025                         |                                   |                                   |
| M2,6 | 0,45 | 50  | 2,8    | 2,1  | 2,15  | 9   | 14 | 3                | 28,61 026                         |                                   |                                   |
| M3   | 0,50 | 56  | 3,5    | 2,7  | 2,50  | 11  | 18 | 3                | 22,15 030                         | 30,10 030                         | 32,65 030                         |
| M3,5 | 0,60 | 56  | 4,0    | 3,0  | 2,90  | 12  | 20 | 3                | 22,68 035                         |                                   |                                   |
| M4   | 0,70 | 63  | 4,5    | 3,4  | 3,30  | 13  | 21 | 3                | 22,46 040                         | 31,16 040                         | 33,81 040                         |
| M5   | 0,80 | 70  | 6,0    | 4,9  | 4,20  | 15  | 25 | 3                | 22,68 050                         | 32,43 050                         | 33,81 050                         |
| M6   | 1,00 | 80  | 6,0    | 4,9  | 5,00  | 17  | 30 | 3                | 22,79 060                         | 32,65 060                         | 33,81 060                         |
| M7   | 1,00 | 80  | 7,0    | 5,5  | 6,00  | 17  | 30 | 3                | 32,43 070                         |                                   |                                   |
| M8   | 1,25 | 90  | 8,0    | 6,2  | 6,80  | 20  | 35 | 3                | 25,97 080                         | 36,24 080                         | 38,57 080                         |
| M10  | 1,50 | 100 | 10,0   | 8,0  | 8,50  | 22  | 39 | 3                | 32,65 100                         | 44,94 100                         | 48,54 100                         |
| M12  | 1,75 | 110 | 12,0   | 9,0  | 10,20 | 24  | 44 | 3                | 40,80 120                         |                                   |                                   |

|                            |       |      |
|----------------------------|-------|------|
| Acciaio                    | 10-20 | 6-15 |
| Acciaio inossidabile       |       |      |
| Ghisa                      |       | 6-15 |
| Metalli non ferrosi        | 10-20 |      |
| Leghe resistenti al calore |       | 3-5  |
| Materiali duri             |       | 3-5  |

1) Tol. 4H/5H  $\leq$  M1,4

**i** Per versione DIN 376 vedere pagina successiva.



## Foro passante / foro cieco – Maschi a macchina destri

M

TWIN

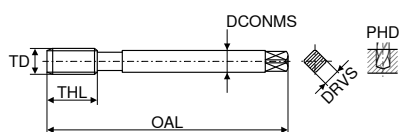
ST

HR

AMPCO

C  
2-3C  
2-3C  
2-3ISO 2X  
6HXISO 2X  
6HXISO 2X  
6HX

nitr.



DIN 376 con codolo rastremato

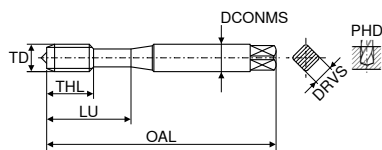
HSS-E  
 $\angle 0^\circ$   
 $\leq 750 \text{ N/mm}^2$   
 $\leq 2xD$ HSS-E  
 $\angle 0^\circ$   
 $\leq 1400 \text{ N/mm}^2$   
 $\leq 2xD$ HSS-PM  
 $\angle 0^\circ$   
 $\leq 800 \text{ N/mm}^2$   
 $\leq 2xD$ 

| TD                         | TP   | OAL | DCONMS | DRVS | PHD  | THL | Scanalatura | UO<br>Codice<br>22 029 ...<br>EUR | UO<br>Codice<br>22 007 ...<br>EUR | UO<br>Codice<br>22 031 ...<br>EUR |
|----------------------------|------|-----|--------|------|------|-----|-------------|-----------------------------------|-----------------------------------|-----------------------------------|
| M4                         | 0,70 | 63  | 2,8    | 2,1  | 3,3  | 13  | 3           | 28,19 040                         |                                   |                                   |
| M5                         | 0,80 | 70  | 3,5    | 2,7  | 4,2  | 15  | 3           | 28,83 050                         |                                   |                                   |
| M6                         | 1,00 | 80  | 4,5    | 3,4  | 5,0  | 17  | 3           | 28,83 060                         |                                   |                                   |
| M8                         | 1,25 | 90  | 6,0    | 4,9  | 6,8  | 20  | 3           | 36,45 080                         |                                   |                                   |
| M10                        | 1,50 | 100 | 7,0    | 5,5  | 8,5  | 22  | 3           | 40,80 100                         |                                   |                                   |
| M12                        | 1,75 | 110 | 9,0    | 7,0  | 10,2 | 24  | 3           | 42,07 120                         | 57,23 120                         |                                   |
| M12                        | 1,75 | 110 | 9,0    | 7,0  | 10,2 | 24  | 4           |                                   |                                   | 81,70 120                         |
| M14                        | 2,00 | 110 | 11,0   | 9,0  | 12,0 | 26  | 3           | 57,97 140                         |                                   |                                   |
| M16                        | 2,00 | 110 | 12,0   | 9,0  | 14,0 | 27  | 3           | 61,79 160                         | 81,07 160                         |                                   |
| M16                        | 2,00 | 110 | 12,0   | 9,0  | 14,0 | 27  | 4           |                                   |                                   | 122,90 160                        |
| M18                        | 2,50 | 125 | 14,0   | 11,0 | 15,5 | 30  | 4           | 91,88 180                         |                                   |                                   |
| M20                        | 2,50 | 140 | 16,0   | 12,0 | 17,5 | 32  | 4           | 93,36 200                         |                                   |                                   |
| M22                        | 2,50 | 140 | 18,0   | 14,5 | 19,5 | 32  | 4           | 132,50 220                        |                                   |                                   |
| M24                        | 3,00 | 160 | 18,0   | 14,5 | 21,0 | 34  | 4           | 126,20 240                        |                                   | 190,70 240                        |
| M33                        | 3,50 | 180 | 25,0   | 20,0 | 29,5 | 40  | 4           | 249,10 330                        |                                   |                                   |
| Acciaio                    |      |     |        |      |      |     |             | 10-20                             | 6-15                              |                                   |
| Acciaio inossidabile       |      |     |        |      |      |     |             |                                   |                                   |                                   |
| Ghisa                      |      |     |        |      |      |     |             |                                   | 6-15                              |                                   |
| Metalli non ferrosi        |      |     |        |      |      |     |             | 10-20                             |                                   |                                   |
| Leghe resistenti al calore |      |     |        |      |      |     |             |                                   | 3-5                               | 3-5                               |
| Materiali duri             |      |     |        |      |      |     |             |                                   |                                   |                                   |

## Foro passante / foro cieco – Maschi a macchina destri

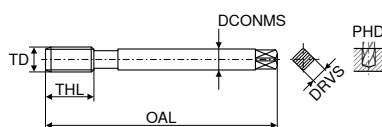
M

TWIN



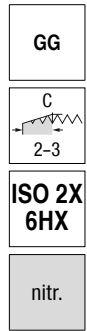
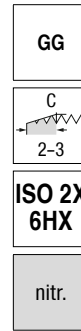
DIN 371 con codolo rinforzato

| TD   | TP   | OAL | DCONMS | DRVS | PHD  | THL | LU | Scanalatura |
|------|------|-----|--------|------|------|-----|----|-------------|
|      | mm   | mm  | mm     | mm   | mm   | mm  | mm |             |
| M2   | 0,40 | 45  | 2,8    | 2,1  | 1,60 | 7   | 12 | 3           |
| M2,5 | 0,45 | 50  | 2,8    | 2,1  | 2,05 | 9   | 14 | 3           |
| M3   | 0,50 | 56  | 3,5    | 2,7  | 2,50 | 11  | 18 | 3           |
| M3,5 | 0,60 | 56  | 4,0    | 3,0  | 2,90 | 12  | 20 | 3           |
| M4   | 0,70 | 63  | 4,5    | 3,4  | 3,30 | 13  | 21 | 3           |
| M5   | 0,80 | 70  | 6,0    | 4,9  | 4,20 | 15  | 25 | 3           |
| M6   | 1,00 | 80  | 6,0    | 4,9  | 5,00 | 17  | 30 | 3           |
| M8   | 1,25 | 90  | 8,0    | 6,2  | 6,80 | 20  | 35 | 3           |
| M10  | 1,50 | 100 | 10,0   | 8,0  | 8,50 | 22  | 39 | 3           |



DIN 376 con codolo rastremato

| TD  | TP   | OAL | DCONMS | DRVS | PHD  | THL | Scanalatura |
|-----|------|-----|--------|------|------|-----|-------------|
|     | mm   | mm  | mm     | mm   | mm   | mm  |             |
| M4  | 0,70 | 63  | 2,8    | 2,1  | 3,3  | 13  | 3           |
| M5  | 0,80 | 70  | 3,5    | 2,7  | 4,2  | 15  | 3           |
| M6  | 1,00 | 80  | 4,5    | 3,4  | 5,0  | 17  | 3           |
| M8  | 1,25 | 90  | 6,0    | 4,9  | 6,8  | 20  | 3           |
| M10 | 1,50 | 100 | 7,0    | 5,5  | 8,5  | 22  | 3           |
| M12 | 1,75 | 110 | 9,0    | 7,0  | 10,2 | 24  | 3           |
| M14 | 2,00 | 110 | 11,0   | 9,0  | 12,0 | 26  | 3           |
| M16 | 2,00 | 110 | 12,0   | 9,0  | 14,0 | 27  | 3           |
| M18 | 2,50 | 125 | 14,0   | 11,0 | 15,5 | 30  | 4           |
| M20 | 2,50 | 140 | 16,0   | 12,0 | 17,5 | 32  | 4           |
| M22 | 2,50 | 140 | 18,0   | 14,5 | 19,5 | 32  | 4           |
| M24 | 3,00 | 160 | 18,0   | 14,5 | 21,0 | 34  | 4           |



HSS-E  
 $\angle 0^\circ$   
 $\leq 1050 \text{ N/mm}^2$   
 $\leq 2xD$

HSS-E  
 $\angle 0^\circ$   
 $\leq 1050 \text{ N/mm}^2$   
 $\leq 2xD$

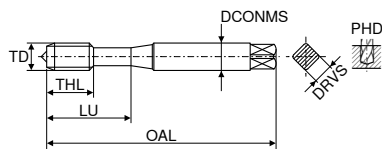
| U0                | U0                |
|-------------------|-------------------|
| Codice 22 032 ... | Codice 22 036 ... |
| EUR               | EUR               |
| 28,83 020         |                   |
| 28,83 025         |                   |
| 24,27 030         |                   |
| 26,60 035         |                   |
| 24,91 040         |                   |
| 26,50 050         | 38,79 050         |
| 26,50 060         | 39,74 060         |
| 31,05 080         | 43,76 080         |
| 36,45 100         | 51,82 100         |

|                            |       |       |
|----------------------------|-------|-------|
| Acciaio                    |       |       |
| Acciaio inossidabile       |       |       |
| Ghisa                      | 10-20 | 10-20 |
| Metalli non ferrosi        |       |       |
| Leghe resistenti al calore |       |       |
| Materiali duri             |       |       |

## Foro passante / foro cieco – Maschi a macchina destri

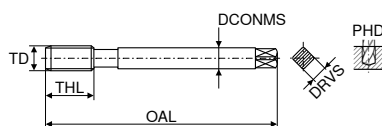
M

TWIN



DIN 371 con codolo rinforzato

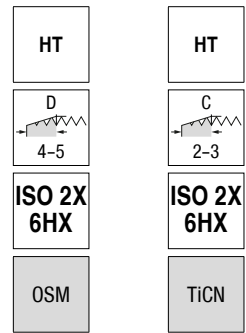
| TD  | TP   | OAL | DCONMS | DRVS | PHD   | THL | LU | Scanala-<br>ture |
|-----|------|-----|--------|------|-------|-----|----|------------------|
|     | mm   | mm  | mm     | mm   | mm    | mm  | mm |                  |
| M3  | 0,50 | 63  | 4,5    | 3,4  | 2,55  | 6   | 18 | 4                |
| M4  | 0,70 | 63  | 4,5    | 3,4  | 3,40  | 8   | 20 | 4                |
| M5  | 0,80 | 70  | 6,0    | 4,9  | 4,30  | 10  | 26 | 4                |
| M6  | 1,00 | 80  | 6,0    | 4,9  | 5,00  | 10  | 30 | 4                |
| M6  | 1,00 | 80  | 6,0    | 4,9  | 5,10  | 12  | 28 | 4                |
| M8  | 1,25 | 90  | 8,0    | 6,2  | 6,80  | 14  | 35 | 5                |
| M8  | 1,25 | 90  | 8,0    | 6,2  | 6,90  | 15  | 35 | 5                |
| M10 | 1,50 | 100 | 10,0   | 8,0  | 8,50  | 18  | 38 | 5                |
| M10 | 1,50 | 100 | 10,0   | 8,0  | 8,50  | 16  | 39 | 5                |
| M12 | 1,75 | 110 | 12,0   | 9,0  | 10,40 | 21  | 41 | 5                |
| M16 | 2,00 | 110 | 16,0   | 12,0 | 14,20 | 24  | 44 | 6                |



DIN 376 con codolo rastremato

| TD  | TP   | OAL | DCONMS | DRVS | PHD  | THL | Scanala-<br>ture |
|-----|------|-----|--------|------|------|-----|------------------|
|     | mm   | mm  | mm     | mm   | mm   | mm  |                  |
| M12 | 1,75 | 110 | 9      | 7    | 10,4 | 18  | 5                |
| M16 | 2,00 | 110 | 12     | 9    | 14,2 | 22  | 6                |

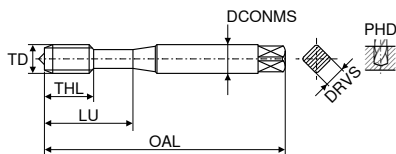
|                            |     |
|----------------------------|-----|
| Acciaio                    |     |
| Acciaio inossidabile       |     |
| Ghisa                      |     |
| Metalli non ferrosi        |     |
| Leghe resistenti al calore |     |
| Materiali duri             | 1-3 |

M.D.I.  
≤ 63 HRC  
≤ 1,5xDHSS-PM  
44 - 52 HRC  
≤ 1,5xD

| U0                | U0                |
|-------------------|-------------------|
| Codice 22 806 ... | Codice 22 227 ... |
| EUR               | EUR               |
| 194,00            | 030               |
| 194,00            | 040               |
| 219,30            | 050               |
|                   | 129,30            |
| 229,30            | 060               |
|                   | 138,80            |
| 255,70            | 080               |
| 316,40            | 100               |
|                   | 173,80            |
| 486,10            | 120               |
| 685,60            | 160               |

## Foro passante / foro cieco – Maschi a macchina destri

▲ ES = extracorto



DIN 352 con codolo rinforzato



HSS-E

 $\angle 0^\circ$   
 $\leq 750 \text{ N/mm}^2$   
 $\leq 2xD$ 

U0

Codice  
22 018 ...

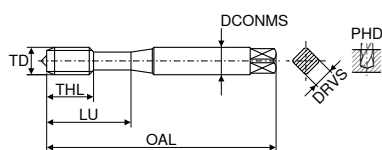
EUR

| TD   | TP   | OAL | DCONMS | DRVS | PHD   | THL | LU | Scanala-<br>ture |  |           |
|------|------|-----|--------|------|-------|-----|----|------------------|--|-----------|
| mm   | mm   | mm  | mm     | mm   | mm    | mm  | mm |                  |  |           |
| M2   | 0,40 | 36  | 2,8    | 2,1  | 1,60  | 8   |    | 3                |  | 30,94 020 |
| M2,5 | 0,45 | 40  | 2,8    | 2,1  | 2,05  | 9   |    | 3                |  | 30,94 025 |
| M3   | 0,50 | 40  | 3,5    | 2,7  | 2,50  | 10  | 18 | 3                |  | 19,93 030 |
| M4   | 0,70 | 45  | 4,5    | 3,4  | 3,30  | 12  | 22 | 3                |  | 19,93 040 |
| M5   | 0,80 | 50  | 6,0    | 4,9  | 4,20  | 14  | 25 | 3                |  | 19,93 050 |
| M6   | 1,00 | 56  | 6,0    | 4,9  | 5,00  | 16  | 28 | 3                |  | 21,40 060 |
| M8   | 1,25 | 63  | 6,0    | 4,9  | 6,80  | 20  |    | 3                |  | 24,59 080 |
| M10  | 1,50 | 70  | 7,0    | 5,5  | 8,50  | 22  |    | 3                |  | 32,00 100 |
| M12  | 1,75 | 75  | 9,0    | 7,0  | 10,20 | 24  |    | 3                |  | 38,57 120 |

|                            |       |
|----------------------------|-------|
| Acciaio                    | 10-20 |
| Acciaio inossidabile       |       |
| Ghisa                      |       |
| Metalli non ferrosi        | 10-20 |
| Leghe resistenti al calore |       |
| Materiali duri             |       |

# Foro passante / foro cieco – Maschi a macchina destri

▲ EL = extralungo con lunghezza totale doppia



DIN 371 con codolo rinforzato

| TD | TP   | OAL | DCONMS | DRVS | PHD | THL | LU | Scanala-<br>ture |
|----|------|-----|--------|------|-----|-----|----|------------------|
|    | mm   | mm  | mm     | mm   | mm  | mm  | mm |                  |
| M3 | 0,50 | 100 | 3,5    | 2,7  | 2,5 | 11  | 18 | 3                |
| M4 | 0,70 | 125 | 4,5    | 3,4  | 3,3 | 13  | 21 | 3                |
| M5 | 0,80 | 140 | 6,0    | 4,9  | 4,2 | 15  | 25 | 3                |
| M6 | 1,00 | 160 | 6,0    | 4,9  | 5,0 | 17  | 30 | 3                |
| M8 | 1,25 | 180 | 8,0    | 6,2  | 6,8 | 20  | 35 | 3                |

HSS-E

0°  
≤ 1400 N/mm²  
≤ 2xD

U0

Codice  
22 122 ...

EUR

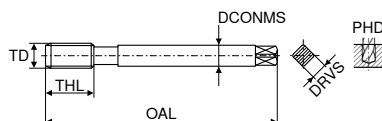
55,32 030

55,32 040

58,50 050

61,15 060

72,59 080



DIN 376 con codolo rastremato

| TD  | TP   | OAL | DCONMS | DRVS | PHD  | THL | Scanala-<br>ture |
|-----|------|-----|--------|------|------|-----|------------------|
|     | mm   | mm  | mm     | mm   | mm   | mm  |                  |
| M10 | 1,50 | 200 | 7      | 5,5  | 8,5  | 22  | 3                |
| M12 | 1,75 | 224 | 9      | 7,0  | 10,2 | 24  | 3                |
| M16 | 2,00 | 224 | 12     | 9,0  | 14,0 | 27  | 3                |
| M20 | 2,50 | 280 | 16     | 12,0 | 17,5 | 32  | 4                |

U0

Codice  
22 123 ...

EUR

81,07 100

97,18 120

152,60 160

207,70 200

|                            |      |
|----------------------------|------|
| Acciaio                    | 6-15 |
| Acciaio inossidabile       |      |
| Ghisa                      | 6-15 |
| Metalli non ferrosi        |      |
| Leghe resistenti al calore | 3-5  |
| Materiali duri             |      |

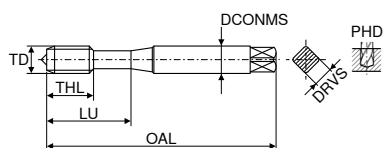
## Foro passante / foro cieco – Maschi a macchina destri

M

GG

ISO 2X  
6HX

TiCN



DIN 371 con codolo rinforzato

HSS-E

 $\angle 0^\circ$   
 $\leq 900 \text{ N/mm}^2$   
 $\leq 2 \times D$ 

| TD  | TP   | OAL | DCONMS | DRVS | PHD | THL | LU | Scanalatura |
|-----|------|-----|--------|------|-----|-----|----|-------------|
|     | mm   | mm  | mm     | mm   | mm  | mm  | mm |             |
| M3  | 0,50 | 56  | 3,5    | 2,7  | 2,5 | 11  | 18 | 3           |
| M4  | 0,70 | 63  | 4,5    | 3,4  | 3,3 | 13  | 21 | 3           |
| M5  | 0,80 | 70  | 6,0    | 4,9  | 4,2 | 15  | 25 | 3           |
| M6  | 1,00 | 80  | 6,0    | 4,9  | 5,0 | 17  | 30 | 3           |
| M8  | 1,25 | 90  | 8,0    | 6,2  | 6,8 | 20  | 35 | 3           |
| M10 | 1,50 | 100 | 10,0   | 8,0  | 8,5 | 22  | 39 | 3           |

T9

Codice  
23 512 ...

EUR

15,39 030

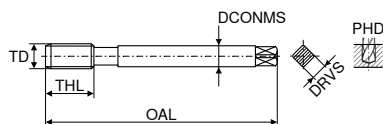
16,71 040

17,02 050

23,54 060

24,76 080

31,49 100



DIN 376 con codolo rastremato

| TD  | TP   | OAL | DCONMS | DRVS | PHD  | THL | Scanalatura |
|-----|------|-----|--------|------|------|-----|-------------|
|     | mm   | mm  | mm     | mm   | mm   | mm  |             |
| M12 | 1,75 | 110 | 9      | 7    | 10,2 | 24  | 3           |

T9

Codice  
23 513 ...

EUR

36,48 120

Acciaio

Acciaio inossidabile

Ghisa

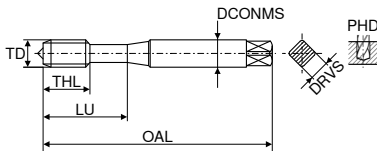
10-30

Metalli non ferrosi

Leghe resistenti al calore

Materiali duri

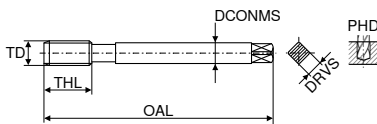
## Foro passante / foro cieco – Maschi a macchina destri



DIN 2174 con codolo rinforzato

| TD   | TP   | OAL | DCONMS | DRVS | PHD  | THL | LU   |
|------|------|-----|--------|------|------|-----|------|
|      | mm   | mm  | mm     | mm   | mm   | mm  | mm   |
| M1   | 0,25 | 40  | 2,5    | 2,1  | 0,90 | 5   | 6,5  |
| M1,2 | 0,25 | 40  | 2,5    | 2,1  | 1,10 | 5   | 6,5  |
| M1,4 | 0,30 | 40  | 2,5    | 2,1  | 1,28 | 6   | 9,0  |
| M1,6 | 0,35 | 40  | 2,5    | 2,1  | 1,47 | 6   | 9,0  |
| M1,7 | 0,35 | 40  | 2,5    | 2,1  | 1,57 | 6   | 9,0  |
| M2   | 0,40 | 45  | 2,8    | 2,1  | 1,85 | 7   | 10,0 |
| M2,5 | 0,45 | 50  | 2,8    | 2,1  | 2,30 | 9   | 14,0 |
| M2,5 | 0,45 | 50  | 2,8    | 2,1  | 2,33 | 9   | 14,0 |
| M2,6 | 0,45 | 50  | 2,8    | 2,1  | 2,43 | 9   | 14,0 |
| M3   | 0,50 | 56  | 3,5    | 2,7  | 2,80 | 6   | 18,0 |
| M3   | 0,50 | 56  | 3,5    | 2,7  | 2,80 | 11  | 18,0 |
| M3,5 | 0,60 | 56  | 4,0    | 3,0  | 3,25 | 12  | 20,0 |
| M4   | 0,70 | 63  | 4,5    | 3,4  | 3,70 | 13  | 21,0 |
| M4   | 0,70 | 63  | 4,5    | 3,4  | 3,70 | 7   | 21,0 |
| M5   | 0,80 | 70  | 6,0    | 4,9  | 4,65 | 15  | 25,0 |
| M5   | 0,80 | 70  | 6,0    | 4,9  | 4,65 | 8   | 25,0 |
| M6   | 1,00 | 80  | 6,0    | 4,9  | 5,60 | 10  | 30,0 |
| M6   | 1,00 | 80  | 6,0    | 4,9  | 5,60 | 17  | 30,0 |
| M8   | 1,25 | 90  | 8,0    | 6,2  | 7,40 | 20  | 35,0 |
| M8   | 1,25 | 90  | 8,0    | 6,2  | 7,45 | 20  | 35,0 |
| M8   | 1,25 | 90  | 8,0    | 6,2  | 7,45 | 14  | 35,0 |
| M10  | 1,50 | 100 | 10,0   | 8,0  | 9,35 | 16  | 39,0 |
| M10  | 1,50 | 100 | 10,0   | 8,0  | 9,35 | 22  | 39,0 |

1) Tol. ISO 1X 4HX ≤ M1,4



DIN 2174 con codolo rastremato

| TD  | TP   | OAL | DCONMS | DRVS | PHD   | THL |
|-----|------|-----|--------|------|-------|-----|
|     | mm   | mm  | mm     | mm   | mm    | mm  |
| M12 | 1,75 | 110 | 9      | 7    | 11,25 | 24  |
| M16 | 2,00 | 110 | 12     | 9    | 15,10 | 27  |

|                            |       |       |       |       |
|----------------------------|-------|-------|-------|-------|
| Acciaio                    | 8-30  | 8-25  | 8-30  | 8-30  |
| Acciaio inossidabile       | 8-15  |       | 8-15  | 8-15  |
| Ghisa                      |       |       |       |       |
| Metalli non ferrosi        | 12-25 | 10-30 | 12-25 | 12-25 |
| Leghe resistenti al calore |       |       |       |       |
| Materiali duri             |       |       |       |       |

|               |               |               |               |
|---------------|---------------|---------------|---------------|
| EC            | EC            | EC            | EC            |
| C<br>2-3      | C<br>2-3      | C<br>2-3      | C<br>2-3      |
| ISO 2X<br>6HX | ISO 2X<br>6HX | ISO 2X<br>6HX | ISO 2X<br>6HX |
| Ti200         | HCr           | TiN GS        | TiN           |

HSS-PM  
≤ 1400 N/mm<sup>2</sup>  
≤ 1,5xDHSS-E  
≤ 1100 N/mm<sup>2</sup>  
≤ 1,5xDHSS-E  
≤ 1100 N/mm<sup>2</sup>  
≤ 1,5xDHSS-E  
≤ 1100 N/mm<sup>2</sup>  
≤ 1,5xD

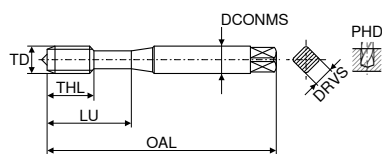
| U0                   | U0                   | U0                   | U0                      |
|----------------------|----------------------|----------------------|-------------------------|
| Codice<br>22 112 ... | Codice<br>22 128 ... | Codice<br>22 136 ... | Codice<br>22 100 ...    |
| EUR                  | EUR                  | EUR                  | EUR                     |
|                      |                      |                      | 78,00 010 <sup>1)</sup> |
|                      |                      |                      | 73,86 012 <sup>1)</sup> |
|                      |                      |                      | 66,02 014 <sup>1)</sup> |
|                      |                      |                      | 63,69 016               |
|                      |                      |                      | 69,94 017               |
|                      |                      |                      | 45,68 020               |
|                      | 64,01 020            | 68,67 025            |                         |
|                      | 55,11 025            |                      | 44,29 025               |
|                      |                      |                      | 49,28 026               |
| 60,51 030            |                      |                      |                         |
|                      | 39,63 030            | 56,27 030            | 42,39 030               |
|                      |                      |                      | 37,30 035               |
|                      | 41,23 040            | 57,76 040            | 43,35 040               |
| 63,69 040            |                      |                      |                         |
|                      | 43,02 050            | 59,66 050            | 45,25 050               |
| 67,40 050            |                      |                      |                         |
| 82,56 060            |                      |                      |                         |
|                      | 43,02 060            | 66,34 060            | 51,72 060               |
|                      |                      |                      | 56,80 080               |
|                      | 48,96 080            | 72,06 080            |                         |
| 91,99 080            |                      |                      |                         |
| 118,70 100           |                      |                      |                         |
|                      | 64,01 100            | 88,28 100            | 72,06 100               |

# Foro passante / foro cieco – Maschi a macchina destri

▲ SN = maschi a rullare con scanalature di lubrificazione



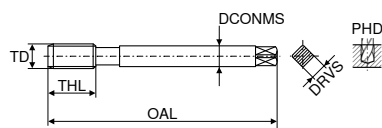
|               |               |               |               |               |
|---------------|---------------|---------------|---------------|---------------|
| EC<br>SN      | EC<br>SN      | EC<br>SN      | EC<br>SN      | EC<br>SN      |
| C<br>2-3      | C<br>2-3      | C<br>2-3      | C<br>2-3      | C<br>2-3      |
| ISO 2X<br>6HX | ISO 2X<br>6HX | ISO 3X<br>6GX | ISO 2X<br>6HX | ISO 2X<br>6HX |
| nitr.         | HCr           | TiN           | TiN GS        | TiN           |



DIN 2174 con codolo rinforzato

|                                            |                                            |                                            |                                            |                                            |
|--------------------------------------------|--------------------------------------------|--------------------------------------------|--------------------------------------------|--------------------------------------------|
| HSS-E<br>≤ 1100 N/mm <sup>2</sup><br>≤ 3xD | HSS-E<br>≤ 1100 N/mm <sup>2</sup><br>≤ 3xD | HSS-E<br>≤ 1100 N/mm <sup>2</sup><br>≤ 3xD | HSS-E<br>≤ 1100 N/mm <sup>2</sup><br>≤ 3xD | HSS-E<br>≤ 1100 N/mm <sup>2</sup><br>≤ 3xD |
|--------------------------------------------|--------------------------------------------|--------------------------------------------|--------------------------------------------|--------------------------------------------|

| TD   | TP   | OAL | DCONMS | DRVS | PHD  | THL | LU | Scanala-<br>ture | Codice<br>22 104 ...<br>EUR | Codice<br>22 107 ...<br>EUR | Codice<br>22 108 ...<br>EUR | Codice<br>22 154 ...<br>EUR | Codice<br>22 105 ...<br>EUR |
|------|------|-----|--------|------|------|-----|----|------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|
| M2   | 0,40 | 45  | 2,8    | 2,1  | 1,85 | 7   | 10 | 3                |                             |                             |                             |                             | 52,46 020                   |
| M2,5 | 0,45 | 50  | 2,8    | 2,1  | 2,33 | 9   | 14 | 3                |                             |                             |                             |                             | 47,90 025                   |
| M3   | 0,50 | 56  | 3,5    | 2,7  | 2,80 | 11  | 18 | 3                |                             |                             | 43,98 030                   | 60,62 030                   | 46,21 030                   |
| M3,5 | 0,60 | 56  | 4,0    | 3,0  | 3,25 | 12  | 20 | 3                | 32,65                       |                             |                             |                             | 45,68 035                   |
| M4   | 0,70 | 63  | 4,5    | 3,4  | 3,70 | 13  | 21 | 4                |                             |                             | 45,68 040                   | 62,32 040                   | 47,90 040                   |
| M4   | 0,70 | 63  | 4,5    | 3,4  | 3,70 | 13  | 21 | 5                | 33,81                       | 46,21                       |                             |                             |                             |
| M5   | 0,80 | 70  | 6,0    | 4,9  | 4,65 | 15  | 25 | 4                |                             |                             | 47,90 050                   | 64,54 050                   | 49,81 050                   |
| M5   | 0,80 | 70  | 6,0    | 4,9  | 4,65 | 15  | 25 | 5                | 35,71                       | 48,54                       |                             |                             |                             |
| M6   | 1,00 | 80  | 6,0    | 4,9  | 5,60 | 17  | 30 | 4                |                             |                             | 55,95 060                   | 71,32 060                   | 56,48 060                   |
| M6   | 1,00 | 80  | 6,0    | 4,9  | 5,60 | 17  | 30 | 5                | 36,24                       | 48,54                       |                             |                             | 62,32 080                   |
| M8   | 1,25 | 90  | 8,0    | 6,2  | 7,45 | 20  | 35 | 6                | 43,66                       | 55,64                       | 63,69 080                   | 77,57 080                   |                             |
| M10  | 1,50 | 100 | 10,0   | 8,0  | 9,35 | 22  | 39 | 6                | 55,95                       | 73,33                       | 80,65 100                   | 94,32 100                   | 78,00 100                   |



DIN 2174 con codolo rastremato

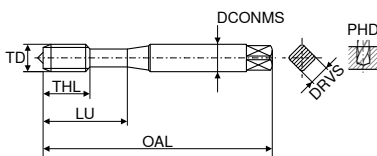
| TD  | TP   | OAL | DCONMS | DRVS | PHD   | THL | Scanala-<br>ture | Codice<br>22 106 ...<br>EUR |
|-----|------|-----|--------|------|-------|-----|------------------|-----------------------------|
| M12 | 1,75 | 110 | 9      | 7    | 11,25 | 24  | 6                | 97,28 120                   |
| M14 | 2,00 | 110 | 11     | 9    | 13,10 | 26  | 5                | 187,60 140                  |
| M16 | 2,00 | 110 | 12     | 9    | 15,10 | 27  | 7                | 150,50 160                  |

|                            |       |       |       |       |       |
|----------------------------|-------|-------|-------|-------|-------|
| Acciaio                    | 8-30  | 8-30  | 8-30  | 8-30  | 8-30  |
| Acciaio inossidabile       | 8-15  | 8-15  | 8-15  | 8-15  | 8-15  |
| Ghisa                      |       |       |       |       |       |
| Metalli non ferrosi        | 10-30 | 10-30 | 12-25 | 12-25 | 12-25 |
| Leghe resistenti al calore |       |       |       |       |       |
| Materiali duri             |       |       |       |       |       |



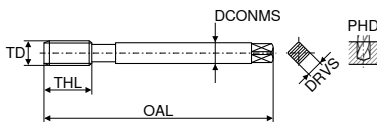
# Foro passante / foro cieco – Maschi a macchina destri

▲ SN = maschi a rullare con scanalature di lubrificazione



DIN 2174 con codolo rinforzato

| TD   | TP   | OAL | DCONMS | DRVS | PHD  | THL | LU | Scanalatura | HSS-PM<br>≤ 1400 N/mm²<br>≤ 3xD | HSS-PM<br>≤ 1400 N/mm²<br>≤ 3xD | HSS-PM<br>≤ 1100 N/mm²<br>≤ 3xD | HSS-PM<br>≤ 1100 N/mm²<br>≤ 3xD |
|------|------|-----|--------|------|------|-----|----|-------------|---------------------------------|---------------------------------|---------------------------------|---------------------------------|
|      | mm   | mm  | mm     | mm   | mm   | mm  | mm |             | U0                              | U0                              | U0                              | U0                              |
|      |      |     |        |      |      |     |    |             | Codice 22 114 ...               | Codice 22 118 ...               | Codice 22 452 ...               | Codice 22 453 ...               |
|      |      |     |        |      |      |     |    |             | EUR                             | EUR                             | EUR                             | EUR                             |
| M2   | 0,40 | 45  | 2,8    | 2,1  | 1,85 | 4   | 12 | 3           | 110,20                          | 020                             |                                 |                                 |
| M2,5 | 0,45 | 50  | 2,8    | 2,1  | 2,33 | 5   | 14 | 3           | 68,04                           | 025                             |                                 |                                 |
| M3   | 0,50 | 56  | 3,5    | 2,7  | 2,80 | 6   | 18 | 3           | 68,04                           | 030                             |                                 |                                 |
| M3   | 0,50 | 56  | 3,5    | 2,7  | 2,80 | 11  | 18 | 4           |                                 |                                 | 60,62                           | 030                             |
| M4   | 0,70 | 63  | 4,5    | 3,4  | 3,70 | 13  | 21 | 4           |                                 |                                 | 62,32                           | 040                             |
| M4   | 0,70 | 63  | 4,5    | 3,4  | 3,70 | 7   | 21 | 4           | 70,47                           | 040                             |                                 |                                 |
| M5   | 0,80 | 70  | 6,0    | 4,9  | 4,65 | 8   | 25 | 4           | 75,04                           | 050                             | 95,38                           | 050                             |
| M5   | 0,80 | 70  | 6,0    | 4,9  | 4,65 | 15  | 25 | 4           |                                 |                                 | 66,34                           | 050                             |
| M6   | 1,00 | 80  | 6,0    | 4,9  | 5,60 | 10  | 30 | 4           | 89,97                           | 060                             | 112,30                          | 060                             |
| M6   | 1,00 | 80  | 6,0    | 4,9  | 5,60 | 17  | 30 | 5           |                                 |                                 | 83,62                           | 060                             |
| M8   | 1,25 | 90  | 8,0    | 6,2  | 7,45 | 20  | 35 | 5           |                                 |                                 | 93,68                           | 080                             |
| M8   | 1,25 | 90  | 8,0    | 6,2  | 7,45 | 14  | 35 | 5           | 100,50                          | 080                             | 124,00                          | 080                             |
| M10  | 1,50 | 100 | 10,0   | 8,0  | 9,35 | 22  | 39 | 5           |                                 |                                 | 121,90                          | 100                             |
| M10  | 1,50 | 100 | 10,0   | 8,0  | 9,35 | 16  | 39 | 5           | 129,30                          | 100                             | 156,80                          | 100                             |



DIN 2174 con codolo rastremato

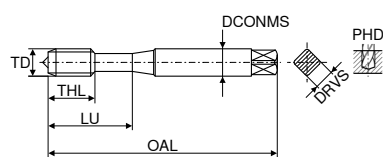
| TD  | TP   | OAL | DCONMS | DRVS | PHD   | THL | Scanalatura | U0                | U0                | U0                |
|-----|------|-----|--------|------|-------|-----|-------------|-------------------|-------------------|-------------------|
|     | mm   | mm  | mm     | mm   | mm    | mm  |             | Codice 22 115 ... | Codice 22 452 ... | Codice 22 454 ... |
|     |      |     |        |      |       |     |             | EUR               | EUR               | EUR               |
| M12 | 1,75 | 110 | 9      | 7    | 11,25 | 18  | 5           | 132,50            | 120               |                   |
| M12 | 1,75 | 110 | 9      | 7    | 11,25 | 24  | 6           |                   | 140,90            | 120               |
| M16 | 2,00 | 110 | 12     | 9    | 15,10 | 27  | 6           |                   | 228,90            | 160               |

|                            |       |       |      |      |
|----------------------------|-------|-------|------|------|
| Acciaio                    | 8-30  | 8-30  | 5-30 | 5-30 |
| Acciaio inossidabile       | 8-15  | 8-15  | 5-15 | 5-15 |
| Ghisa                      |       |       |      |      |
| Metalli non ferrosi        | 12-25 | 12-25 | 5-10 | 5-10 |
| Leghe resistenti al calore |       |       | 5-20 | 5-20 |
| Materiali duri             |       |       |      |      |

# Foro passante / foro cieco – Maschi a macchina destri

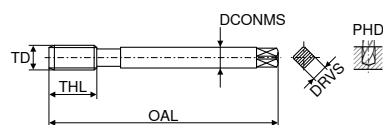
▲ SN = maschi a rullare con scanalature di lubrificazione

M



DIN 2174 con codolo rinforzato

| TD   | TP   | OAL | DCONMS | DRVS | PHD  | THL | LU | Scanalatura | T9<br>Codice<br>23 810 ...<br>EUR | T9<br>Codice<br>23 812 ...<br>EUR | T9<br>Codice<br>23 814 ...<br>EUR | T9<br>Codice<br>23 816 ...<br>EUR |
|------|------|-----|--------|------|------|-----|----|-------------|-----------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|
| M2   | 0,40 | 45  | 2,8    | 2,1  | 1,85 | 7   | 12 |             | 25,07                             | 020                               | 24,56                             | 020                               |
| M2   | 0,40 | 45  | 2,8    | 2,1  | 1,85 | 7   | 12 | 3           |                                   |                                   | 28,43                             | 020                               |
| M2,5 | 0,45 | 50  | 2,8    | 2,1  | 2,33 | 9   | 14 | 3           |                                   |                                   | 25,78                             | 025                               |
| M2,5 | 0,45 | 50  | 2,8    | 2,1  | 2,33 | 9   | 14 |             | 22,32                             | 025                               | 21,30                             | 025                               |
| M3   | 0,50 | 56  | 3,5    | 2,7  | 2,80 | 11  | 18 | 3           |                                   |                                   | 18,44                             | 030                               |
| M3   | 0,50 | 56  | 3,5    | 2,7  | 2,80 | 11  | 18 |             | 16,20                             | 030                               | 15,39                             | 030                               |
| M4   | 0,70 | 63  | 4,5    | 3,4  | 3,70 | 13  | 21 | 4           |                                   |                                   | 19,16                             | 040                               |
| M4   | 0,70 | 63  | 4,5    | 3,4  | 3,70 | 13  | 21 |             | 16,81                             | 040                               | 15,79                             | 040                               |
| M5   | 0,80 | 70  | 6,0    | 4,9  | 4,65 | 15  | 25 | 4           |                                   |                                   | 20,28                             | 050                               |
| M5   | 0,80 | 70  | 6,0    | 4,9  | 4,65 | 15  | 25 |             | 17,83                             | 050                               | 16,51                             | 050                               |
| M6   | 1,00 | 80  | 6,0    | 4,9  | 5,60 | 17  | 30 | 4           |                                   |                                   | 23,44                             | 060                               |
| M6   | 1,00 | 80  | 6,0    | 4,9  | 5,60 | 17  | 30 |             | 21,20                             | 060                               | 16,51                             | 060                               |
| M8   | 1,25 | 90  | 8,0    | 6,2  | 7,45 | 20  | 35 | 5           |                                   |                                   | 26,49                             | 080                               |
| M8   | 1,25 | 90  | 8,0    | 6,2  | 7,45 | 20  | 35 |             | 23,64                             | 080                               | 19,06                             | 080                               |
| M10  | 1,50 | 100 | 10,0   | 8,0  | 9,35 | 22  | 39 | 5           |                                   |                                   | 34,34                             | 100                               |
| M10  | 1,50 | 100 | 10,0   | 8,0  | 9,35 | 22  | 39 |             | 31,49                             | 100                               | 24,56                             | 100                               |



DIN 2174 con codolo rastremato

| TD  | TP   | OAL | DCONMS | DRVS | PHD   | THL | Scanalatura | T9<br>Codice<br>23 811 ...<br>EUR | T9<br>Codice<br>23 813 ...<br>EUR | T9<br>Codice<br>23 815 ...<br>EUR | T9<br>Codice<br>23 817 ...<br>EUR |
|-----|------|-----|--------|------|-------|-----|-------------|-----------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|
| M12 | 1,75 | 110 | 9      | 7,0  | 11,25 | 24  |             | 35,97                             | 120                               | 30,06                             | 120                               |
| M12 | 1,75 | 110 | 9      | 7,0  | 11,25 | 24  | 5           |                                   |                                   | 40,25                             | 120                               |
| M16 | 2,00 | 110 | 12     | 9,0  | 15,10 | 27  | 6           |                                   |                                   | 75,30                             | 160                               |
| M16 | 2,00 | 110 | 12     | 9,0  | 15,10 | 27  |             | 67,76                             | 160                               | 60,12                             | 160                               |
| M18 | 2,50 | 125 | 14     | 11,0 | 16,80 | 30  | 6           |                                   |                                   | 138,90                            | 18000                             |
| M20 | 2,50 | 140 | 16     | 12,0 | 18,80 | 32  | 6           |                                   |                                   | 129,20                            | 20000                             |
| M24 | 3,00 | 160 | 18     | 14,5 | 22,60 | 34  | 6           |                                   |                                   | 172,60                            | 24000                             |

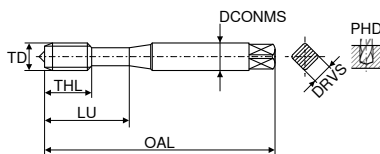
|                            |       |       |       |       |
|----------------------------|-------|-------|-------|-------|
| Acciaio                    | 10-50 | 10-50 | 10-50 | 10-50 |
| Acciaio inossidabile       | 5-20  | 5-20  | 5-20  | 5-20  |
| Ghisa                      |       |       |       |       |
| Metalli non ferrosi        | 10-50 | 10-50 | 10-50 | 10-50 |
| Leghe resistenti al calore | 5-15  | 5-15  | 5-15  | 5-15  |
| Materiali duri             |       |       |       |       |

## Foro passante – Maschi a macchina per filetti riportati destri

EG M

Stabil

UNI

6H  
modnitr. +  
vap.

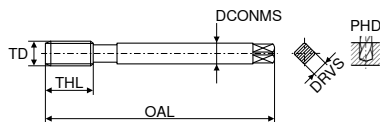
DIN 40435 con codolo rinforzato



HSS-E

 $\angle 0^\circ$   
 $\leq 1100 \text{ N/mm}^2$   
 $\leq 4xD$ 

| TD      | TP   | OAL | DCONMS | DRVS | PHD  | THL | LU | Scanalatura | U0<br>Codice<br>22 662 ...<br>EUR |     |
|---------|------|-----|--------|------|------|-----|----|-------------|-----------------------------------|-----|
| EG-M2,5 | 0,45 | 56  | 3,5    | 2,7  | 2,65 | 11  | 18 | 3           | 48,74                             | 025 |
| EG-M3   | 0,50 | 63  | 4,5    | 3,4  | 3,15 | 10  | 21 | 3           | 40,49                             | 030 |
| EG-M4   | 0,70 | 70  | 6,0    | 4,9  | 4,20 | 12  | 25 | 3           | 42,07                             | 040 |
| EG-M5   | 0,80 | 80  | 6,0    | 4,9  | 5,25 | 13  | 30 | 3           | 40,80                             | 050 |
| EG-M6   | 1,00 | 90  | 8,0    | 6,2  | 6,30 | 17  | 35 | 3           | 41,23                             | 060 |
| EG-M8   | 1,25 | 100 | 10,0   | 8,0  | 8,40 | 18  | 39 | 3           | 49,17                             | 080 |



DIN 40435 con codolo rastremato

| TD     | TP   | OAL | DCONMS | DRVS | PHD   | THL | Scanalatura | U0<br>Codice<br>22 663 ...<br>EUR |     |
|--------|------|-----|--------|------|-------|-----|-------------|-----------------------------------|-----|
| EG-M10 | 1,50 | 100 | 9      | 7,0  | 10,50 | 22  | 3           | 66,13                             | 100 |
| EG-M12 | 1,75 | 110 | 11     | 9,0  | 12,50 | 26  | 3           | 75,67                             | 120 |
| EG-M16 | 2,00 | 125 | 14     | 11,0 | 16,50 | 27  | 3           | 110,20                            | 160 |
| EG-M20 | 2,50 | 160 | 18     | 14,5 | 20,75 | 34  | 3           | 154,80                            | 200 |

|                            |      |
|----------------------------|------|
| Acciaio                    | 6-20 |
| Acciaio inossidabile       | 4-8  |
| Ghisa                      | 6-15 |
| Metalli non ferrosi        |      |
| Leghe resistenti al calore |      |
| Materiali duri             |      |

## Foro cieco – Maschi a macchina per filetti riportati destri

EG M

Salo-Rex

Soft

UNI

6H  
mod6H  
mod

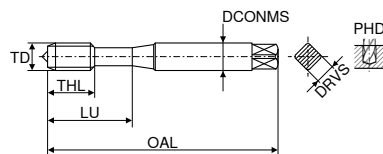
CH

vap.



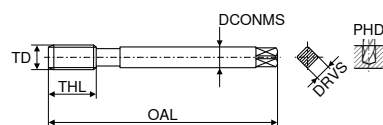
HSS-E

HSS-E

 $\angle 42^\circ$   
 $\leq 500 \text{ N/mm}^2$   
 $\leq 3xD$ 
 $\angle 42^\circ$   
 $\leq 1100 \text{ N/mm}^2$   
 $\leq 3xD$ 


DIN 40435 con codolo rinforzato

| TD      | TP   | OAL | DCONMS | DRVS | PHD  | THL | LU | Scanala-<br>ture | U0<br>Codice<br>22 280 ...<br>EUR | U0<br>Codice<br>22 664 ...<br>EUR |
|---------|------|-----|--------|------|------|-----|----|------------------|-----------------------------------|-----------------------------------|
| EG-M2,5 | 0,45 | 56  | 3,5    | 2,7  | 2,65 | 5   | 18 | 2                | 58,93                             | 025                               |
| EG-M2,5 | 0,45 | 56  | 3,5    | 2,7  | 2,65 | 5   | 18 | 3                |                                   | 46,63                             |
| EG-M3   | 0,50 | 63  | 4,5    | 3,4  | 3,15 | 5   | 21 | 2                | 56,91                             | 030                               |
| EG-M3   | 0,50 | 63  | 4,5    | 3,4  | 3,15 | 5   | 21 | 3                |                                   | 42,49                             |
| EG-M4   | 0,70 | 70  | 6,0    | 4,9  | 4,20 | 8   | 25 | 2                | 56,91                             | 040                               |
| EG-M4   | 0,70 | 70  | 6,0    | 4,9  | 4,20 | 8   | 25 | 3                |                                   | 42,49                             |
| EG-M5   | 0,80 | 80  | 6,0    | 4,9  | 5,25 | 8   | 30 | 2                | 77,57                             | 050                               |
| EG-M5   | 0,80 | 80  | 6,0    | 4,9  | 5,25 | 8   | 30 | 3                |                                   | 39,21                             |
| EG-M6   | 1,00 | 90  | 8,0    | 6,2  | 6,30 | 10  | 35 | 2                | 78,96                             | 060                               |
| EG-M6   | 1,00 | 90  | 8,0    | 6,2  | 6,30 | 10  | 35 | 3                |                                   | 42,49                             |
| EG-M8   | 1,25 | 100 | 10,0   | 8,0  | 8,40 | 16  | 39 | 2                | 99,20                             | 080                               |
| EG-M8   | 1,25 | 100 | 10,0   | 8,0  | 8,40 | 16  | 39 | 3                |                                   | 47,58                             |



DIN 40435 con codolo rastremato

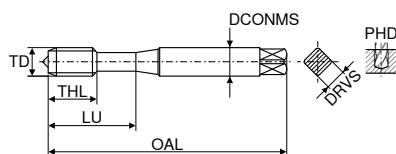
| TD     | TP   | OAL | DCONMS | DRVS | PHD   | THL | Scanala-<br>ture | U0<br>Codice<br>22 665 ...<br>EUR |
|--------|------|-----|--------|------|-------|-----|------------------|-----------------------------------|
| EG-M10 | 1,50 | 100 | 9      | 7,0  | 10,50 | 15  | 5                | 60,83                             |
| EG-M12 | 1,75 | 110 | 11     | 9,0  | 12,50 | 20  | 4                | 74,51                             |
| EG-M16 | 2,00 | 125 | 14     | 11,0 | 16,50 | 20  | 5                | 112,30                            |
| EG-M20 | 2,50 | 160 | 18     | 14,5 | 20,75 | 30  | 4                | 152,60                            |

|                            |       |
|----------------------------|-------|
| Acciaio                    | 6-20  |
| Acciaio inossidabile       | 4-8   |
| Ghisa                      | 6-15  |
| Metalli non ferrosi        | 15-40 |
| Leghe resistenti al calore |       |
| Materiali duri             |       |

## Foro passante – Maschi a macchina destri

MF

Stabil



DIN 371 con codolo rinforzato

| TD                         | TP   | OAL | DCONMS | DRVS | PHD | THL | LU | Scanalatura |  |      |       |       |  |
|----------------------------|------|-----|--------|------|-----|-----|----|-------------|--|------|-------|-------|--|
|                            | mm   | mm  | mm     | mm   | mm  | mm  | mm |             |  |      |       |       |  |
| M4x0,5                     | 0,50 | 63  | 4,5    | 3,4  | 3,5 | 10  | 21 | 3           |  |      |       |       |  |
| M4x0,5                     | 0,50 | 63  | 4,5    | 3,4  | 3,5 | 5   | 21 | 3           |  |      |       |       |  |
| M5x0,5                     | 0,50 | 70  | 6,0    | 4,9  | 4,5 | 11  | 25 | 3           |  |      |       |       |  |
| M6x0,5                     | 0,50 | 80  | 6,0    | 4,9  | 5,5 | 13  | 30 | 3           |  |      |       |       |  |
| M6x0,75                    | 0,75 | 80  | 6,0    | 4,9  | 5,2 | 13  | 30 | 3           |  |      |       |       |  |
| M6x0,75                    | 0,75 | 80  | 6,0    | 4,9  | 5,2 | 8   | 30 | 3           |  |      |       |       |  |
| M6x0,5                     | 0,50 | 80  | 6,0    | 4,9  | 5,5 | 5   | 30 | 3           |  |      |       |       |  |
| M5x0,5                     | 0,50 | 70  | 6,0    | 4,9  | 4,5 | 5   | 25 | 3           |  |      |       |       |  |
| M8x1                       | 1,00 | 90  | 8,0    | 6,2  | 7,0 | 17  | 35 | 3           |  |      |       |       |  |
| M10x1                      | 1,00 | 90  | 10,0   | 8,0  | 9,0 | 18  | 35 | 4           |  |      |       |       |  |
| Acciaio                    |      |     |        |      |     |     |    |             |  | 6-20 | 6-25  | 6-15  |  |
| Acciaio inossidabile       |      |     |        |      |     |     |    |             |  | 4-8  | 5-10  | 5-10  |  |
| Ghisa                      |      |     |        |      |     |     |    |             |  | 6-15 | 10-20 |       |  |
| Metalli non ferrosi        |      |     |        |      |     |     |    |             |  |      | 12-25 | 10-20 |  |
| Leghe resistenti al calore |      |     |        |      |     |     |    |             |  |      |       |       |  |
| Materiali duri             |      |     |        |      |     |     |    |             |  |      |       |       |  |

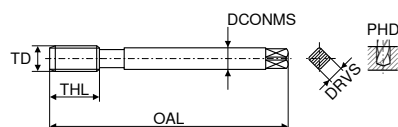
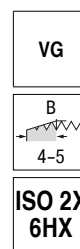
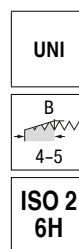
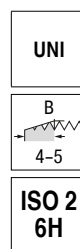
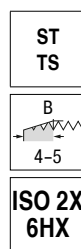
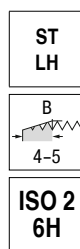
**i** Per versione DIN 374 vedere pagina successiva.

| UNI                                                                   | UNI                                                                   | VG                                                                    |
|-----------------------------------------------------------------------|-----------------------------------------------------------------------|-----------------------------------------------------------------------|
|                                                                       |                                                                       |                                                                       |
| ISO 2 6H                                                              | ISO 2 6H                                                              | ISO 2X 6HX                                                            |
| nit. + vap.                                                           | TiN                                                                   | TiN                                                                   |
|                                                                       |                                                                       |                                                                       |
| HSS-E<br>$\angle 0^\circ$<br>$\leq 1100 \text{ N/mm}^2$<br>$\leq 4xD$ | HSS-E<br>$\angle 0^\circ$<br>$\leq 1100 \text{ N/mm}^2$<br>$\leq 4xD$ | HSS-E<br>$\angle 0^\circ$<br>$\leq 1100 \text{ N/mm}^2$<br>$\leq 4xD$ |
| UO<br>Codice<br>22 590 ...                                            | UO<br>Codice<br>22 550 ...                                            | UO<br>Codice<br>22 587 ...                                            |
| EUR<br>49,17                                                          | EUR<br>56,91                                                          | EUR<br>56,91                                                          |
| 040                                                                   | 040                                                                   | 040                                                                   |
| 49,17                                                                 | 56,91                                                                 |                                                                       |
| 050                                                                   | 050                                                                   |                                                                       |
| 51,82                                                                 | 71,22                                                                 |                                                                       |
| 060                                                                   | 060                                                                   |                                                                       |
| 51,82                                                                 | 71,22                                                                 |                                                                       |
| 062                                                                   | 062                                                                   |                                                                       |
|                                                                       |                                                                       | 68,04                                                                 |
|                                                                       |                                                                       | 062                                                                   |
|                                                                       |                                                                       | 68,04                                                                 |
|                                                                       |                                                                       | 060                                                                   |
|                                                                       |                                                                       | 56,91                                                                 |
|                                                                       |                                                                       | 050                                                                   |
| 50,55                                                                 | 68,04                                                                 |                                                                       |
| 084                                                                   | 080                                                                   |                                                                       |
| 51,82                                                                 | 77,26                                                                 |                                                                       |
| 102                                                                   | 100                                                                   |                                                                       |

# Foro passante – Maschi a macchina destri/sinistri

▲ TS = per lavorazione ad elevate velocità, fino a 100 m/min

▲ LH = per filetti sinistri



DIN 374 con codolo rastremato

HSS-E  
 $\angle 0^\circ$   
 $\leq 750 \text{ N/mm}^2$   
 $\leq 4xD$

HSS-E  
 $\angle 0^\circ$   
 $\leq 1100 \text{ N/mm}^2$   
 $\leq 4xD$

HSS-E  
 $\angle 0^\circ$   
 $\leq 1100 \text{ N/mm}^2$   
 $\leq 4xD$

HSS-E  
 $\angle 0^\circ$   
 $\leq 1100 \text{ N/mm}^2$   
 $\leq 4xD$

HSS-E  
 $\angle 0^\circ$   
 $\leq 1100 \text{ N/mm}^2$   
 $\leq 4xD$

| TD       | TP   | OAL | DCONMS | DRVS | PHD  | THL | Scanala-<br>ture | U0<br>Codice<br>22 210 ...<br>EUR | U0<br>Codice<br>22 193 ...<br>EUR | U0<br>Codice<br>22 551 ...<br>EUR | U0<br>Codice<br>22 552 ...<br>EUR | U0<br>Codice<br>22 570 ...<br>EUR |
|----------|------|-----|--------|------|------|-----|------------------|-----------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|
| M6x0,75  | 0,75 | 80  | 4,5    | 3,4  | 5,2  | 13  | 3                |                                   |                                   | 44,09 062                         |                                   |                                   |
| M6x0,5   | 0,50 | 80  | 4,5    | 3,4  | 5,5  | 13  | 3                |                                   |                                   | 91,25 060                         |                                   |                                   |
| M8x0,75  | 0,75 | 80  | 6,0    | 4,9  | 7,2  | 14  | 3                | 86,27 082                         |                                   | 48,21 082                         |                                   |                                   |
| M8x1     | 1,00 | 90  | 6,0    | 4,9  | 7,0  | 17  | 3                | 64,32 084                         |                                   | 44,09 084                         | 68,04 080                         |                                   |
| M8x1     | 1,00 | 90  | 6,0    | 4,9  | 7,0  | 10  | 4                |                                   | 77,26 080                         |                                   |                                   | 68,04 080                         |
| M10x1    | 1,00 | 90  | 7,0    | 5,5  | 9,0  | 18  | 4                | 66,77 102                         |                                   | 44,94 102                         | 74,51 100                         |                                   |
| M10x0,75 | 0,75 | 90  | 7,0    | 5,5  | 9,2  | 18  | 4                |                                   |                                   | 64,65 100                         |                                   |                                   |
| M10x1,25 | 1,25 | 100 | 7,0    | 5,5  | 8,8  | 16  | 4                |                                   |                                   |                                   |                                   | 91,88 102                         |
| M10x1,25 | 1,25 | 100 | 7,0    | 5,5  | 8,8  | 22  | 3                |                                   |                                   | 96,44 104                         |                                   |                                   |
| M10x1    | 1,00 | 90  | 7,0    | 5,5  | 9,0  | 10  | 4                |                                   | 82,88 100                         |                                   |                                   | 81,07 100                         |
| M12x1    | 1,00 | 100 | 9,0    | 7,0  | 11,0 | 18  | 4                | 86,27 120                         |                                   | 52,56 120                         | 87,33 121                         |                                   |
| M12x1,5  | 1,50 | 100 | 9,0    | 7,0  | 10,5 | 22  | 3                | 91,88 124                         |                                   | 49,81 124                         | 77,26 120                         |                                   |
| M12x1,25 | 1,25 | 100 | 9,0    | 7,0  | 10,8 | 22  | 3                |                                   |                                   | 73,12 122                         |                                   |                                   |
| M12x1,5  | 1,50 | 100 | 9,0    | 7,0  | 10,5 | 15  | 4                |                                   | 79,59 120                         |                                   |                                   | 91,25 120                         |
| M14x1,5  | 1,50 | 100 | 11,0   | 9,0  | 12,5 | 22  | 3                | 117,60 144                        |                                   | 66,77 144                         | 101,10 140                        |                                   |
| M14x1    | 1,00 | 100 | 11,0   | 9,0  | 13,0 | 18  | 4                |                                   |                                   | 135,60 140                        |                                   |                                   |
| M14x1,5  | 1,50 | 100 | 11,0   | 9,0  | 12,5 | 15  | 4                |                                   | 100,40 140                        |                                   |                                   | 110,20 140                        |
| M16x1,5  | 1,50 | 100 | 12,0   | 9,0  | 14,5 | 22  | 3                | 117,60 162                        |                                   | 79,59 162                         | 104,40 160                        |                                   |
| M16x1,5  | 1,50 | 100 | 12,0   | 9,0  | 14,5 | 15  | 4                |                                   | 133,50 160                        |                                   |                                   | 125,00 160                        |
| M18x1    | 1,00 | 110 | 14,0   | 11,0 | 17,0 | 20  | 5                |                                   |                                   | 221,50 180                        |                                   |                                   |
| M18x1,5  | 1,50 | 110 | 14,0   | 11,0 | 16,5 | 25  | 4                | 133,50 182                        |                                   | 92,62 182                         |                                   |                                   |
| M18x2    | 2,00 | 125 | 14,0   | 11,0 | 16,0 | 26  | 3                |                                   |                                   | 182,30 184                        |                                   |                                   |
| M18x1,5  | 1,50 | 110 | 14,0   | 11,0 | 16,5 | 17  | 4                |                                   | 165,40 180                        |                                   |                                   | 154,80 180                        |
| M20x1,5  | 1,50 | 125 | 16,0   | 12,0 | 18,5 | 25  | 4                | 154,80 202                        |                                   | 104,40 202                        | 164,30 200                        |                                   |
| M20x1    | 1,00 | 125 | 16,0   | 12,0 | 19,0 | 20  | 5                |                                   |                                   | 239,50 200                        |                                   |                                   |
| M20x1,5  | 1,50 | 125 | 16,0   | 12,0 | 18,5 | 17  | 4                |                                   | 207,70 200                        |                                   |                                   | 194,00 200                        |
| M22x1,5  | 1,50 | 125 | 18,0   | 14,5 | 20,5 | 25  | 4                |                                   |                                   | 114,50 222                        | 199,30 220                        |                                   |
| M26x1,5  | 1,50 | 140 | 18,0   | 14,5 | 24,5 | 28  | 4                |                                   |                                   | 160,10 260                        |                                   |                                   |
| M24x2    | 2,00 | 140 | 18,0   | 14,5 | 22,0 | 27  | 4                |                                   |                                   | 234,20 244                        |                                   |                                   |
| M25x1,5  | 1,50 | 140 | 18,0   | 14,5 | 23,5 | 28  | 4                |                                   |                                   | 385,70 250                        |                                   |                                   |
| M24x1,5  | 1,50 | 140 | 18,0   | 14,5 | 22,5 | 27  | 4                |                                   |                                   | 129,30 242                        |                                   |                                   |
| M27x2    | 2,00 | 140 | 20,0   | 16,0 | 25,0 | 28  | 4                |                                   |                                   | 407,00 272                        |                                   |                                   |
| M28x1,5  | 1,50 | 140 | 20,0   | 16,0 | 26,5 | 28  | 5                |                                   |                                   | 187,60 280                        |                                   |                                   |
| M30x1,5  | 1,50 | 150 | 22,0   | 18,0 | 28,5 | 28  | 5                |                                   |                                   | 201,30 302                        |                                   |                                   |

|                            |       |        |      |       |       |
|----------------------------|-------|--------|------|-------|-------|
| Acciaio                    | 10-20 | 20-100 | 6-20 | 6-25  | 6-15  |
| Acciaio inossidabile       |       |        | 4-8  | 5-10  | 5-10  |
| Ghisa                      |       | 20-60  | 6-15 | 10-20 |       |
| Metalli non ferrosi        | 10-20 | 20-100 |      | 12-25 | 10-20 |
| Leghe resistenti al calore |       | 10-25  |      |       |       |
| Materiali duri             |       |        |      |       |       |

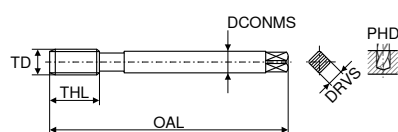
## Foro passante – Maschi a macchina destri

MF

UNI

ISO 2  
6H

TiN



DIN 374 con codolo rastremato



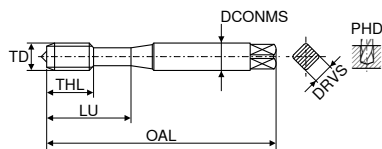
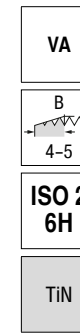
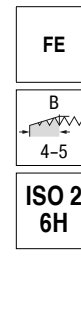
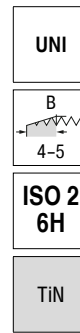
HSS-PM

 $\angle 0^\circ$   
 $\leq 1000 \text{ N/mm}^2$   
 $\leq 3 \times D$ 

| TD                         | TP   | OAL | DCONMS | DRVS | PHD  | THL | Scana-<br>lature | T9<br>Codice<br>23 041 ...<br>EUR |       |
|----------------------------|------|-----|--------|------|------|-----|------------------|-----------------------------------|-------|
| M8x1                       | 1,00 | 90  | 6      | 4,9  | 7,0  | 17  | 3                | 21,91                             | 081   |
| M10x1                      | 1,00 | 90  | 7      | 5,5  | 9,0  | 18  | 4                | 25,07                             | 102   |
| M10x1,25                   | 1,25 | 100 | 7      | 5,5  | 8,8  | 22  | 3                | 26,90                             | 104   |
| M12x1                      | 1,00 | 100 | 9      | 7,0  | 11,0 | 18  | 4                | 30,88                             | 120   |
| M12x1,25                   | 1,25 | 100 | 9      | 7,0  | 10,8 | 22  | 3                | 32,30                             | 122   |
| M12x1,5                    | 1,50 | 100 | 9      | 7,0  | 10,5 | 22  | 3                | 28,74                             | 121   |
| M14x1,5                    | 1,50 | 100 | 11     | 9,0  | 12,5 | 22  | 3                | 35,46                             | 144   |
| M14x1,25                   | 1,25 | 100 | 11     | 9,0  | 12,8 | 22  | 3                | 37,30                             | 142   |
| M16x1,5                    | 1,50 | 100 | 12     | 9,0  | 14,5 | 22  | 3                | 40,15                             | 162   |
| M18x1,5                    | 1,50 | 110 | 14     | 11,0 | 16,5 | 17  | 4                | 53,09                             | 182   |
| M20x1,5                    | 1,50 | 125 | 16     | 12,0 | 18,5 | 17  | 4                | 71,74                             | 202   |
| M24x1,5                    | 1,50 | 140 | 18     | 14,5 | 22,5 | 27  | 4                | 77,44                             | 242   |
| M24x2                      | 2,00 | 140 | 18     | 14,5 | 22,0 | 27  | 4                | 88,25                             | 244   |
| M22x1,5                    | 1,50 | 125 | 18     | 14,5 | 20,5 | 25  | 4                | 67,46                             | 222   |
| Acciaio                    |      |     |        |      |      |     |                  |                                   | 10-20 |
| Acciaio inossidabile       |      |     |        |      |      |     |                  |                                   | 8-15  |
| Ghisa                      |      |     |        |      |      |     |                  |                                   | 20-25 |
| Metalli non ferrosi        |      |     |        |      |      |     |                  |                                   | 20-25 |
| Leghe resistenti al calore |      |     |        |      |      |     |                  |                                   |       |
| Materiali duri             |      |     |        |      |      |     |                  |                                   |       |

## Foro passante – Maschi a macchina destri

MF



DIN 371 con codolo rinforzato

HSS-E

 $\angle 0^\circ$   
 $\leq 1000 \text{ N/mm}^2$   
 $\leq 3xD$ 

HSS-E

 $\angle 0^\circ$   
 $\leq 1000 \text{ N/mm}^2$   
 $\leq 3xD$ 

HSS-E

 $\angle 0^\circ$   
 $\leq 850 \text{ N/mm}^2$   
 $\leq 3xD$ 

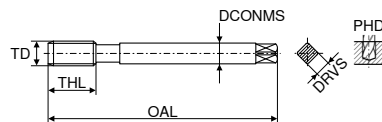
HSS-E

 $\angle 0^\circ$   
 $\leq 1100 \text{ N/mm}^2$   
 $\leq 4xD$ 

HSS-E

 $\angle 0^\circ$   
 $\leq 1200 \text{ N/mm}^2$   
 $\leq 4xD$ 

| TD      | TP   | OAL | DCONMS | DRVS | PHD | THL | LU | Scana-<br>latura | T9                   |     | T9                   |     | T9                   |     | T9                   |     | T9                   |     |
|---------|------|-----|--------|------|-----|-----|----|------------------|----------------------|-----|----------------------|-----|----------------------|-----|----------------------|-----|----------------------|-----|
|         |      |     |        |      |     |     |    |                  | Codice<br>23 140 ... |     | Codice<br>23 142 ... |     | Codice<br>23 240 ... |     | Codice<br>23 340 ... |     | Codice<br>23 440 ... |     |
|         | mm   | mm  | mm     | mm   | mm  | mm  | mm |                  | EUR                  |     | EUR                  |     | EUR                  |     | EUR                  |     | EUR                  |     |
| M4x0,5  | 0,50 | 63  | 4,5    | 3,4  | 3,5 | 10  | 21 | 3                | 15,49                | 040 | 20,89                | 040 | 18,65                | 040 |                      |     |                      |     |
| M6x0,75 | 0,75 | 80  | 6,0    | 4,9  | 5,2 | 13  | 30 | 3                | 15,49                | 062 | 25,98                | 062 | 18,65                | 062 | 34,85                | 062 | 31,39                | 062 |
| M6x0,5  | 0,50 | 80  | 6,0    | 4,9  | 5,5 | 13  | 30 | 3                | 16,51                | 060 | 25,98                | 060 | 18,85                | 060 |                      |     |                      |     |
| M5x0,5  | 0,50 | 70  | 6,0    | 4,9  | 4,5 | 11  | 25 | 3                | 15,49                | 050 | 21,09                | 050 | 18,85                | 050 | 26,70                | 050 | 25,68                | 050 |



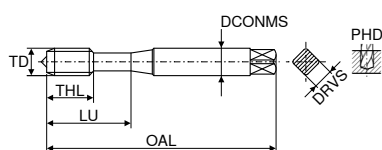
DIN 374 con codolo rastremato

| TD       | TP   | OAL | DCONMS | DRVS | PHD  | THL | Scana-<br>latura | T9                   |     | T9                   |     | T9                   |     | T9                   |     | T9                   |     |
|----------|------|-----|--------|------|------|-----|------------------|----------------------|-----|----------------------|-----|----------------------|-----|----------------------|-----|----------------------|-----|
|          |      |     |        |      |      |     |                  | Codice<br>23 141 ... |     | Codice<br>23 143 ... |     | Codice<br>23 241 ... |     | Codice<br>23 341 ... |     | Codice<br>23 441 ... |     |
|          | mm   | mm  | mm     | mm   | mm   | mm  |                  | EUR                  |     | EUR                  |     | EUR                  |     | EUR                  |     | EUR                  |     |
| M8x0,75  | 0,75 | 80  | 6      | 4,9  | 7,0  | 14  | 3                |                      |     |                      |     | 25,07                | 080 | 36,17                | 082 |                      |     |
| M8x0,5   | 0,50 | 80  | 6      | 8,0  | 7,5  | 14  | 3                |                      |     |                      |     | 20,48                | 084 | 34,34                | 084 | 33,22                | 084 |
| M8x1     | 1,00 | 90  | 6      | 4,9  | 7,0  | 17  | 3                | 13,86                | 084 |                      |     |                      |     |                      |     |                      |     |
| M8x1     | 1,00 | 90  | 6      | 4,9  | 7,0  | 17  | 4                |                      |     | 25,58                | 084 |                      |     |                      |     |                      |     |
| M8x0,75  | 0,75 | 80  | 6      | 4,9  | 7,2  | 14  | 3                | 17,73                | 082 | 27,21                | 082 | 21,70                | 082 |                      |     | 35,36                | 082 |
| M10x0,75 | 0,75 | 90  | 7      | 5,5  | 9,2  | 18  | 4                | 23,95                | 100 | 36,38                | 100 | 29,96                | 100 |                      |     |                      |     |
| M10x1,25 | 1,25 | 100 | 7      | 5,5  | 8,8  | 22  | 3                | 21,60                | 104 | 34,24                | 104 | 24,66                | 104 |                      |     |                      |     |
| M10x1    | 1,00 | 90  | 7      | 5,5  | 9,0  | 18  | 4                | 14,27                | 102 | 27,92                | 102 | 23,84                | 102 | 38,11                | 102 | 36,17                | 102 |
| M12x1,5  | 1,50 | 100 | 9      | 7,0  | 10,5 | 22  | 3                | 16,20                | 124 | 29,65                | 124 | 26,49                | 124 | 41,27                | 124 | 38,72                | 124 |
| M12x1,25 | 1,25 | 100 | 9      | 7,0  | 10,8 | 22  | 3                | 21,81                | 122 | 34,85                | 122 | 28,94                | 122 |                      |     |                      |     |
| M12x1    | 1,00 | 100 | 9      | 7,0  | 11,0 | 18  | 4                | 18,34                | 120 | 32,10                | 120 | 27,61                | 120 | 42,90                | 120 | 41,68                | 120 |
| M14x1    | 1,00 | 100 | 11     | 9,0  | 13,0 | 18  | 4                | 25,98                | 140 | 38,52                | 140 | 34,03                | 140 |                      |     |                      |     |
| M14x1,5  | 1,50 | 100 | 11     | 9,0  | 12,5 | 22  | 3                | 23,13                | 144 | 39,44                | 144 | 32,71                | 144 | 53,40                | 144 | 51,15                | 144 |
| M16x1    | 1,00 | 100 | 12     | 9,0  | 15,0 | 18  | 4                | 29,14                | 160 | 44,94                | 160 | 44,94                | 160 |                      |     |                      |     |
| M16x1,5  | 1,50 | 100 | 12     | 9,0  | 14,5 | 22  | 3                | 23,95                | 162 | 44,94                | 162 | 41,58                | 162 | 60,12                | 162 | 58,49                | 162 |
| M18x1    | 1,00 | 110 | 14     | 11,0 | 17,0 | 20  | 5                |                      |     |                      |     | 59,41                | 180 |                      |     |                      |     |
| M18x1,5  | 1,50 | 110 | 14     | 11,0 | 16,5 | 25  | 4                | 33,02                | 182 | 55,54                | 182 | 54,01                | 182 |                      |     |                      |     |
| M20x1,5  | 1,50 | 125 | 16     | 12,0 | 18,5 | 25  | 4                | 36,79                | 202 | 70,41                | 202 | 59,92                | 202 |                      |     |                      |     |
| M20x1    | 1,00 | 125 | 16     | 12,0 | 19,0 | 20  | 5                |                      |     |                      |     | 64,20                | 200 |                      |     |                      |     |
| M26x1,5  | 1,50 | 140 | 18     | 14,5 | 24,5 | 28  | 4                |                      |     |                      |     | 102,90               | 260 |                      |     |                      |     |
| M24x1,5  | 1,50 | 140 | 18     | 14,5 | 22,5 | 27  | 4                | 47,89                | 242 | 76,63                | 242 | 80,40                | 242 |                      |     |                      |     |
| M22x1,5  | 1,50 | 125 | 18     | 14,5 | 20,5 | 25  | 4                | 41,58                | 222 | 73,16                | 222 | 68,99                | 222 |                      |     |                      |     |
| M28x1,5  | 1,50 | 140 | 20     | 16,0 | 26,5 | 28  | 5                |                      |     |                      |     | 118,20               | 280 |                      |     |                      |     |
| M30x1,5  | 1,50 | 150 | 22     | 18,0 | 28,5 | 28  | 5                |                      |     |                      |     | 131,50               | 300 |                      |     |                      |     |

|                            |       |       |      |      |      |
|----------------------------|-------|-------|------|------|------|
| Acciaio                    | 2-25  | 5-45  | 5-25 | 5-45 |      |
| Acciaio inossidabile       | 2-8   | 5-15  |      |      | 8-20 |
| Ghisa                      | 5-20  | 10-25 |      |      |      |
| Metalli non ferrosi        | 10-20 | 15-40 |      |      |      |
| Leghe resistenti al calore |       |       |      |      |      |
| Materiali duri             |       |       |      |      |      |

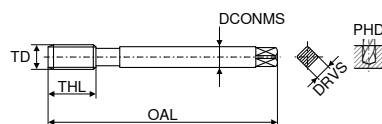


## Foro cieco – Maschi a macchina destri



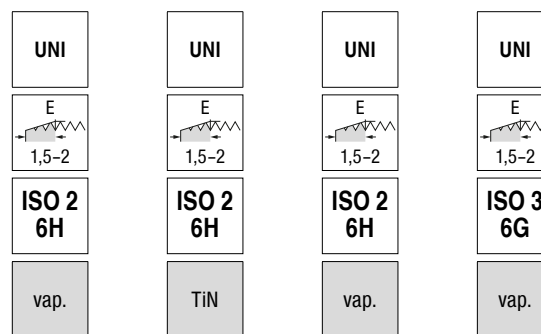
DIN 371 con codolo rinforzato

| TD      | TP   | OAL | DCONMS | DRVS | PHD  | THL | LU | Scanalatura |
|---------|------|-----|--------|------|------|-----|----|-------------|
|         | mm   | mm  | mm     | mm   | mm   | mm  | mm |             |
| M4x0,5  | 0,50 | 63  | 4,5    | 3,4  | 3,50 | 5   | 21 | 3           |
| M6x0,75 | 0,75 | 80  | 6,0    | 4,9  | 5,25 | 8   | 30 | 3           |
| M5x0,5  | 0,50 | 70  | 6,0    | 4,9  | 4,50 | 5   | 25 | 3           |



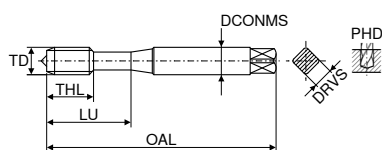
DIN 374 con codolo rastremato

| TD                         | TP  | OAL | DCONMS | DRVS | PHD  | THL | Scanalatura | U0<br>Codice<br>22 555 ...<br>EUR | U0<br>Codice<br>22 556 ...<br>EUR | U0<br>Codice<br>22 491 ...<br>EUR | U0<br>Codice<br>22 490 ...<br>EUR |
|----------------------------|-----|-----|--------|------|------|-----|-------------|-----------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|
|                            | mm  | mm  | mm     | mm   | mm   | mm  |             |                                   |                                   |                                   |                                   |
| M8x1                       | 1,0 | 90  | 6      | 4,9  | 7,0  | 10  | 3           | 48,54 080                         | 62,21 080                         |                                   | 53,09 080                         |
| M10x1                      | 1,0 | 90  | 7      | 5,5  | 9,0  | 10  | 4           | 52,35 100                         | 79,59 100                         |                                   | 58,50 100                         |
| M12x1,5                    | 1,5 | 100 | 9      | 7,0  | 10,5 | 15  | 5           | 59,87 120                         | 91,25 120                         | 86,27 120                         | 64,32 120                         |
| M14x1,5                    | 1,5 | 100 | 11     | 9,0  | 12,5 | 15  | 5           | 77,26 140                         | 116,60 140                        | 114,50 140                        | 84,78 140                         |
| M16x1,5                    | 1,5 | 100 | 12     | 9,0  | 14,5 | 15  | 5           | 91,88 160                         | 122,90 160                        | 117,60 160                        | 101,10 160                        |
| M18x1,5                    | 1,5 | 110 | 14     | 11,0 | 16,5 | 17  | 5           |                                   |                                   |                                   | 116,60 180                        |
| M20x1,5                    | 1,5 | 125 | 16     | 12,0 | 18,5 | 17  | 5           |                                   |                                   | 180,10 200                        | 133,50 200                        |
| Acciaio                    |     |     |        |      |      |     |             | 6-20                              | 6-25                              | 6-20                              | 6-20                              |
| Acciaio inossidabile       |     |     |        |      |      |     |             | 4-8                               | 5-10                              | 4-8                               | 4-8                               |
| Ghisa                      |     |     |        |      |      |     |             | 6-15                              | 10-20                             | 6-15                              | 6-15                              |
| Metalli non ferrosi        |     |     |        |      |      |     |             |                                   | 12-25                             |                                   |                                   |
| Leghe resistenti al calore |     |     |        |      |      |     |             |                                   |                                   |                                   |                                   |
| Materiali duri             |     |     |        |      |      |     |             |                                   |                                   |                                   |                                   |



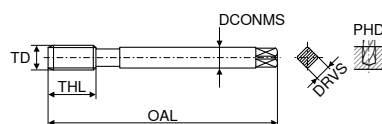
# Foro cieco – Maschi a macchina destri

▲ CNC = per maschiatura rigida su macchine CNC con mandrino a minima compensazione assiale



DIN 371 con codolo rinforzato

| TD      | TP   | OAL | DCONMS | DRVS | PHD | THL | LU | Scanalatura | U0<br>Codice<br>22 202 ...<br>EUR | U0<br>Codice<br>22 548 ...<br>EUR |
|---------|------|-----|--------|------|-----|-----|----|-------------|-----------------------------------|-----------------------------------|
| M4x0,5  | 0,50 | 63  | 4,5    | 3,4  | 3,5 | 5   | 21 | 3           | 53,09 040                         |                                   |
| M5x0,5  | 0,50 | 70  | 6,0    | 4,9  | 4,5 | 5   | 25 | 3           | 48,54 050                         |                                   |
| M6x0,75 | 0,75 | 80  | 6,0    | 4,9  | 5,2 | 8   | 30 | 3           | 53,09 062                         |                                   |
| M6x0,5  | 0,50 | 80  | 6,0    | 4,9  | 5,5 | 5   | 30 | 3           | 53,09 060                         | 61,46 050                         |
|         |      |     |        |      |     |     |    |             |                                   | 61,46 062                         |
|         |      |     |        |      |     |     |    |             |                                   | 61,46 060                         |



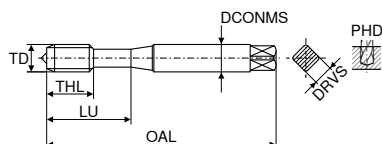
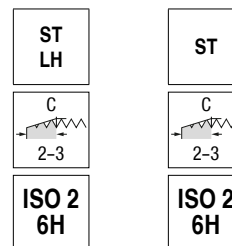
DIN 374 con codolo rastremato

| TD       | TP   | OAL | DCONMS | DRVS | PHD  | THL | Scanalatura | U0<br>Codice<br>22 553 ...<br>EUR | U0<br>Codice<br>22 554 ...<br>EUR | U0<br>Codice<br>22 563 ...<br>EUR | U0<br>Codice<br>22 549 ...<br>EUR |
|----------|------|-----|--------|------|------|-----|-------------|-----------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|
| M6x0,75  | 0,75 | 80  | 4,5    | 3,4  | 5,2  | 8   | 3           | 53,09 062                         |                                   |                                   |                                   |
| M8x0,75  | 0,75 | 80  | 6,0    | 4,9  | 7,2  | 8   | 3           | 49,81 080                         |                                   |                                   |                                   |
| M8x1     | 1,00 | 90  | 6,0    | 4,9  | 7,0  | 10  | 3           | 45,99 082                         | 62,21 080                         | 93,89 084                         | 64,65 082                         |
| M10x0,75 | 0,75 | 90  | 7,0    | 5,5  | 9,2  | 10  | 4           | 91,88 101                         |                                   |                                   | 78,31 084                         |
| M10x1    | 1,00 | 90  | 7,0    | 5,5  | 9,0  | 10  | 3           | 49,17 100                         | 79,59 100                         |                                   |                                   |
| M10x1    | 1,00 | 90  | 7,0    | 5,5  | 9,0  | 10  | 4           |                                   |                                   | 101,10 102                        | 89,44 102                         |
| M10x1,25 | 1,25 | 100 | 7,0    | 5,5  | 8,8  | 16  | 3           | 121,90 102                        |                                   |                                   |                                   |
| M12x1    | 1,00 | 100 | 9,0    | 7,0  | 11,0 | 11  | 4           | 62,21 120                         | 93,36 121                         |                                   | 102,90 120                        |
| M12x1,25 | 1,25 | 100 | 9,0    | 7,0  | 10,8 | 15  | 4           | 97,18 122                         |                                   |                                   |                                   |
| M12x1,5  | 1,50 | 100 | 9,0    | 7,0  | 10,5 | 15  | 4           | 59,87 124                         | 91,25 120                         |                                   |                                   |
| M12x1,5  | 1,50 | 100 | 9,0    | 7,0  | 10,5 | 15  | 5           |                                   |                                   | 114,50 124                        | 99,20 124                         |
| M14x1,5  | 1,50 | 100 | 11,0   | 9,0  | 12,5 | 15  | 5           |                                   |                                   | 140,90 144                        | 126,20 144                        |
| M14x1,5  | 1,50 | 100 | 11,0   | 9,0  | 12,5 | 15  | 4           | 73,86 140                         | 105,60 140                        |                                   |                                   |
| M16x1,5  | 1,50 | 100 | 12,0   | 9,0  | 14,5 | 15  | 4           | 90,19 160                         | 122,90 160                        |                                   |                                   |
| M16x1,5  | 1,50 | 100 | 12,0   | 9,0  | 14,5 | 15  | 5           |                                   |                                   | 160,10 162                        | 147,30 162                        |
| M18x1,5  | 1,50 | 110 | 14,0   | 11,0 | 16,5 | 17  | 5           |                                   |                                   |                                   | 180,10 182                        |
| M18x1,5  | 1,50 | 110 | 14,0   | 11,0 | 16,5 | 17  | 4           | 110,20 180                        | 156,80 182                        |                                   |                                   |
| M20x1,5  | 1,50 | 125 | 16,0   | 12,0 | 18,5 | 17  | 5           |                                   |                                   | 239,50 202                        | 221,50 202                        |
| M20x1,5  | 1,50 | 125 | 16,0   | 12,0 | 18,5 | 17  | 4           | 150,50 200                        | 199,30 202                        |                                   |                                   |
| M22x1,5  | 1,50 | 125 | 18,0   | 14,5 | 20,5 | 17  | 4           | 146,20 220                        |                                   |                                   |                                   |
| M26x1,5  | 1,50 | 140 | 18,0   | 14,5 | 24,5 | 20  | 5           | 203,50 260                        |                                   |                                   |                                   |
| M24x1,5  | 1,50 | 140 | 18,0   | 14,5 | 22,5 | 20  | 5           | 159,00 240                        |                                   |                                   |                                   |
| M28x1,5  | 1,50 | 140 | 20,0   | 16,0 | 26,5 | 20  | 5           | 239,50 280                        |                                   |                                   |                                   |
| M30x1,5  | 1,50 | 150 | 22,0   | 18,0 | 28,5 | 22  | 6           | 242,70 300                        |                                   |                                   |                                   |

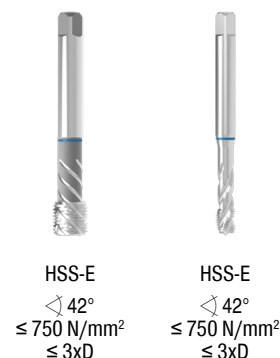
|                            |      |       |       |       |
|----------------------------|------|-------|-------|-------|
| Acciaio                    | 6-20 | 6-25  | 6-25  | 6-25  |
| Acciaio inossidabile       | 4-8  | 5-10  | 5-10  | 5-10  |
| Ghisa                      | 6-15 | 10-20 | 10-20 | 10-20 |
| Metalli non ferrosi        |      | 12-25 | 12-25 | 12-25 |
| Leghe resistenti al calore |      |       |       |       |
| Materiali duri             |      |       |       |       |

## Foro passante / foro cieco – Maschi a macchina destri/sinistri

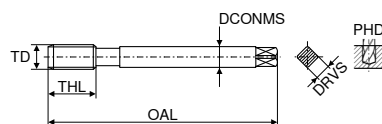
▲ LH = per filetti sinistri



DIN 371 con codolo rinforzato



| TD        | TP   | OAL | DCONMS | DRVS | PHD  | THL  | LU | Scanalatura | U0         |
|-----------|------|-----|--------|------|------|------|----|-------------|------------|
| mm        | mm   | mm  | mm     | mm   | mm   | mm   | mm |             | Codice     |
|           |      |     |        |      |      |      |    |             | 22 238 ... |
|           |      |     |        |      |      |      |    |             | EUR        |
| M2,5x0,35 | 0,35 | 50  | 2,8    | 2,1  | 2,15 | 5,0  | 15 | 2           | 84,78 025  |
| M3x0,35   | 0,35 | 56  | 3,5    | 2,7  | 2,65 | 4,5  | 18 | 3           | 51,82 030  |
| M3,5x0,35 | 0,35 | 56  | 4,0    | 3,0  | 3,15 | 5,0  | 20 | 3           | 71,22 035  |
| M4x0,5    | 0,50 | 63  | 4,5    | 3,4  | 3,50 | 5,0  | 21 | 3           | 47,90 040  |
| M5x0,5    | 0,50 | 70  | 6,0    | 4,9  | 4,50 | 5,0  | 25 | 3           | 47,90 050  |
| M6x0,75   | 0,75 | 80  | 6,0    | 4,9  | 5,20 | 8,0  | 30 | 3           | 47,90 060  |
| M8x0,75   | 0,75 | 80  | 8,0    | 6,2  | 7,20 | 8,0  | 30 | 3           | 53,09 080  |
| M8x1      | 1,00 | 90  | 8,0    | 6,2  | 7,00 | 10,0 | 35 | 3           | 47,90 082  |



DIN 374 con codolo rastremato

| TD      | TP   | OAL | DCONMS | DRVS | PHD  | THL | Scanalatura | U0         | U0         |
|---------|------|-----|--------|------|------|-----|-------------|------------|------------|
| mm      | mm   | mm  | mm     | mm   | mm   | mm  |             | Codice     | Codice     |
|         |      |     |        |      |      |     |             | 22 601 ... | 22 186 ... |
|         |      |     |        |      |      |     |             | EUR        | EUR        |
| M6x0,75 | 0,75 | 80  | 4,5    | 3,4  | 5,2  | 8   | 3           |            | 47,37 060  |
| M8x0,75 | 0,75 | 80  | 6,0    | 4,9  | 7,2  | 8   | 3           |            | 48,54 080  |
| M8x1    | 1,00 | 90  | 6,0    | 4,9  | 7,0  | 10  | 3           | 77,26 082  | 44,09 082  |
| M10x1   | 1,00 | 90  | 7,0    | 5,5  | 9,0  | 10  | 3           | 79,59 100  | 45,99 100  |
| M12x1,5 | 1,50 | 100 | 9,0    | 7,0  | 10,5 | 15  | 4           |            | 54,79 122  |
| M12x1   | 1,00 | 100 | 9,0    | 7,0  | 11,0 | 11  | 4           | 97,18 120  | 56,70 120  |
| M14x1,5 | 1,50 | 100 | 11,0   | 9,0  | 12,5 | 15  | 4           | 105,00 140 | 73,12 140  |
| M16x1,5 | 1,50 | 100 | 12,0   | 9,0  | 14,5 | 15  | 4           | 125,00 160 | 86,27 160  |
| M18x1,5 | 1,50 | 110 | 14,0   | 11,0 | 16,5 | 17  | 4           | 145,20 180 | 112,30 180 |
| M20x1,5 | 1,50 | 125 | 16,0   | 12,0 | 18,5 | 17  | 4           | 169,50 200 | 111,30 200 |
| M22x1,5 | 1,50 | 125 | 18,0   | 14,5 | 20,5 | 17  | 4           |            | 125,00 220 |
| M26x1,5 | 1,50 | 140 | 18,0   | 14,5 | 24,5 | 20  | 5           |            | 196,00 260 |
| M24x1,5 | 1,50 | 140 | 18,0   | 14,5 | 22,5 | 20  | 5           |            | 134,60 240 |

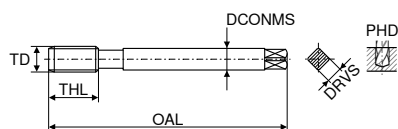
|                            |       |       |
|----------------------------|-------|-------|
| Acciaio                    | 10-20 | 10-20 |
| Acciaio inossidabile       |       |       |
| Ghisa                      |       |       |
| Metalli non ferrosi        | 10-20 | 10-20 |
| Leghe resistenti al calore |       |       |
| Materiali duri             |       |       |

## Foro cieco – Maschi a macchina destri

MF

SL

ST

ISO 2  
6H

DIN 374 con codolo rastremato

HSS-E

 $\angle 15^\circ$   
 $\leq 750 \text{ N/mm}^2$   
 $\leq 2xD$ 

U0

Codice  
22 182 ...

EUR

| TD       | TP   | OAL | DCONMS | DRVS | PHD  | THL | Scanala-<br>ture |        |     |
|----------|------|-----|--------|------|------|-----|------------------|--------|-----|
| mm       | mm   | mm  | mm     | mm   | mm   | mm  |                  |        |     |
| M6x0,75  | 0,75 | 80  | 4,5    | 3,4  | 5,2  | 13  | 3                | 48,74  | 062 |
| M8x0,75  | 0,75 | 80  | 6,0    | 4,9  | 7,2  | 14  | 3                | 49,17  | 082 |
| M8x1     | 1,00 | 90  | 6,0    | 4,9  | 7,0  | 17  | 3                | 44,94  | 084 |
| M10x1    | 1,00 | 90  | 7,0    | 5,5  | 9,0  | 18  | 3                | 47,37  | 102 |
| M10x0,75 | 0,75 | 90  | 7,0    | 5,5  | 9,2  | 18  | 3                | 78,31  | 100 |
| M10x1,25 | 1,25 | 100 | 7,0    | 5,5  | 8,8  | 22  | 3                | 67,51  | 104 |
| M9x1     | 1,00 | 90  | 7,0    | 5,5  | 8,0  | 17  | 3                | 66,77  | 090 |
| M11x1    | 1,00 | 90  | 8,0    | 6,2  | 10,0 | 18  | 3                | 75,04  | 110 |
| M12x1,25 | 1,25 | 100 | 9,0    | 7,0  | 10,8 | 22  | 3                | 75,04  | 122 |
| M12x1,5  | 1,50 | 100 | 9,0    | 7,0  | 10,5 | 22  | 3                | 55,32  | 124 |
| M12x1    | 1,00 | 100 | 9,0    | 7,0  | 11,0 | 18  | 3                | 57,97  | 120 |
| M14x1    | 1,00 | 100 | 11,0   | 9,0  | 13,0 | 18  | 4                | 76,51  | 140 |
| M14x1,5  | 1,50 | 100 | 11,0   | 9,0  | 12,5 | 22  | 3                | 74,51  | 144 |
| M16x1    | 1,00 | 100 | 12,0   | 9,0  | 15,0 | 18  | 4                | 90,19  | 160 |
| M16x1,5  | 1,50 | 100 | 12,0   | 9,0  | 14,5 | 22  | 3                | 87,96  | 162 |
| M15x1    | 1,00 | 100 | 12,0   | 9,0  | 14,0 | 18  | 4                | 100,40 | 150 |
| M18x1,5  | 1,50 | 110 | 14,0   | 11,0 | 16,5 | 25  | 4                | 114,50 | 182 |
| M18x2    | 2,00 | 125 | 14,0   | 11,0 | 16,0 | 26  | 3                | 181,30 | 184 |
| M18x1    | 1,00 | 110 | 14,0   | 11,0 | 17,0 | 20  | 4                | 124,00 | 180 |
| M20x1    | 1,00 | 125 | 16,0   | 12,0 | 19,0 | 20  | 4                | 126,20 | 200 |
| M20x2    | 2,00 | 140 | 16,0   | 12,0 | 18,0 | 27  | 3                | 154,80 | 204 |
| M20x1,5  | 1,50 | 125 | 16,0   | 12,0 | 18,5 | 25  | 4                | 113,40 | 202 |
| M22x2    | 2,00 | 140 | 18,0   | 14,5 | 20,0 | 27  | 4                | 157,90 | 224 |
| M24x1,5  | 1,50 | 140 | 18,0   | 14,5 | 22,5 | 27  | 4                | 139,90 | 242 |
| M24x1    | 1,00 | 140 | 18,0   | 14,5 | 23,0 | 20  | 5                | 172,70 | 240 |
| M24x2    | 2,00 | 140 | 18,0   | 14,5 | 22,0 | 27  | 4                | 163,20 | 244 |
| M22x1,5  | 1,50 | 125 | 18,0   | 14,5 | 20,5 | 25  | 4                | 128,20 | 222 |
| M25x1,5  | 1,50 | 140 | 18,0   | 14,5 | 23,5 | 28  | 4                | 233,20 | 252 |
| M22x1    | 1,00 | 125 | 18,0   | 14,5 | 21,0 | 20  | 4                | 165,40 | 220 |
| M27x1,5  | 1,50 | 140 | 20,0   | 16,0 | 25,5 | 28  | 4                | 202,40 | 270 |
| M28x2    | 2,00 | 140 | 20,0   | 16,0 | 26,0 | 28  | 4                | 267,10 | 282 |
| M27x2    | 2,00 | 140 | 20,0   | 16,0 | 25,0 | 28  | 4                | 228,90 | 272 |
| M30x1,5  | 1,50 | 150 | 22,0   | 18,0 | 28,5 | 28  | 5                | 232,10 | 302 |
| M32x1,5  | 1,50 | 150 | 22,0   | 18,0 | 30,5 | 28  | 6                | 267,10 | 320 |
| M30x2    | 2,00 | 150 | 22,0   | 18,0 | 28,0 | 28  | 4                | 245,90 | 304 |
| M33x2    | 2,00 | 160 | 25,0   | 20,0 | 31,0 | 30  | 4                | 323,20 | 332 |
| M36x2    | 2,00 | 170 | 28,0   | 22,0 | 34,0 | 30  | 5                | 411,20 | 362 |
| M36x3    | 3,00 | 200 | 28,0   | 22,0 | 33,0 | 42  | 4                | 385,70 | 364 |
| M34x1,5  | 1,50 | 170 | 28,0   | 22,0 | 32,5 | 30  | 6                | 326,50 | 340 |

Acciaio

10-20

Acciaio inossidabile

Ghisa

Metalli non ferrosi

10-20

Leghe resistenti al calore

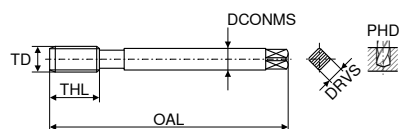
Materiali duri

## Foro cieco – Maschi a macchina destri

MF

SL

ST

ISO 2  
6H

DIN 374 con codolo rastremato



HSS-E

 $\angle 15^\circ$   
 $\leq 750 \text{ N/mm}^2$   
 $\leq 2xD$ 

U0

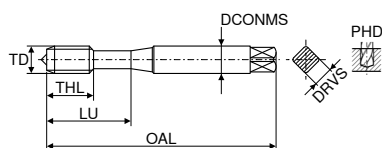
Codice  
22 182 ...

EUR

| TD      | TP   | OAL | DCONMS | DRVS | PHD  | THL | Scanala-<br>ture |        |     |
|---------|------|-----|--------|------|------|-----|------------------|--------|-----|
| mm      | mm   | mm  | mm     | mm   | mm   | mm  |                  |        |     |
| M40x1,5 | 1,50 | 170 | 32,0   | 24,0 | 38,5 | 30  | 6                | 404,90 | 400 |
| M42x3   | 3,00 | 200 | 32,0   | 24,0 | 39,0 | 45  | 4                | 518,20 | 424 |
| M42x2   | 2,00 | 170 | 32,0   | 24,0 | 40,0 | 30  | 6                | 489,60 | 422 |
| M45x1,5 | 1,50 | 180 | 36,0   | 29,0 | 43,5 | 32  | 6                | 479,00 | 450 |
| M48x2   | 2,00 | 190 | 36,0   | 29,0 | 46,0 | 32  | 6                | 675,10 | 482 |
| M48x3   | 3,00 | 225 | 36,0   | 29,0 | 45,0 | 50  | 5                | 685,70 | 484 |
| M48x1,5 | 1,50 | 190 | 36,0   | 29,0 | 46,5 | 32  | 6                | 562,70 | 480 |
| M45x3   | 3,00 | 200 | 36,0   | 29,0 | 42,0 | 45  | 5                | 661,30 | 454 |
| M52x2   | 2,00 | 190 | 40,0   | 32,0 | 50,0 | 32  | 6                | 801,20 | 522 |

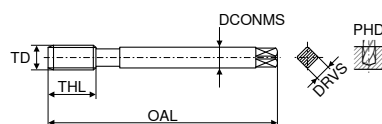
|                            |       |
|----------------------------|-------|
| Acciaio                    | 10-20 |
| Acciaio inossidabile       |       |
| Ghisa                      |       |
| Metalli non ferrosi        | 10-20 |
| Leghe resistenti al calore |       |
| Materiali duri             |       |

## Foro cieco – Maschi a macchina destri



DIN 371 con codolo rinforzato

| TD      | TP   | OAL | DCONMS | DRVS | PHD | THL | LU | Scanalatura | U0<br>Codice<br>22 176 ...<br>EUR |     |
|---------|------|-----|--------|------|-----|-----|----|-------------|-----------------------------------|-----|
| M4x0,5  | 0,50 | 63  | 4,5    | 3,4  | 3,5 | 5   | 21 | 3           | 81,07                             | 040 |
| M6x0,75 | 0,75 | 80  | 6,0    | 4,9  | 5,2 | 8   | 30 | 3           | 62,21                             | 062 |
| M6x0,5  | 0,50 | 80  | 6,0    | 4,9  | 5,5 | 5   | 30 | 3           | 62,21                             | 060 |
| M5x0,5  | 0,50 | 70  | 6,0    | 4,9  | 4,5 | 5   | 25 | 3           | 62,21                             | 050 |



DIN 374 con codolo rastremato

| TD      | TP   | OAL | DCONMS | DRVS | PHD  | THL | Scanalatura | U0<br>Codice<br>22 188 ...<br>EUR |     | U0<br>Codice<br>22 189 ...<br>EUR |     | U0<br>Codice<br>22 177 ...<br>EUR |     |
|---------|------|-----|--------|------|------|-----|-------------|-----------------------------------|-----|-----------------------------------|-----|-----------------------------------|-----|
| M8x1    | 1,00 | 90  | 6      | 4,9  | 7,0  | 10  | 3           | 48,54                             | 081 | 48,54                             | 082 | 79,06                             | 084 |
| M8x0,75 | 0,75 | 80  | 6      | 4,9  | 7,2  | 8   | 3           |                                   |     | 48,54                             | 082 | 65,38                             | 082 |
| M10x1   | 1,00 | 90  | 7      | 5,5  | 9,0  | 10  | 4           |                                   |     | 56,38                             | 100 | 90,19                             | 102 |
| M10x1   | 1,00 | 90  | 7      | 5,5  | 9,0  | 10  | 3           | 50,55                             | 100 |                                   |     |                                   |     |
| M12x1   | 1,00 | 100 | 9      | 7,0  | 11,0 | 11  | 4           | 61,79                             | 120 | 63,79                             | 121 | 104,40                            | 120 |
| M12x1,5 | 1,50 | 100 | 9      | 7,0  | 10,5 | 15  | 4           | 55,64                             | 122 |                                   |     |                                   |     |
| M12x1,5 | 1,50 | 100 | 9      | 7,0  | 10,5 | 15  | 5           |                                   |     | 62,21                             | 120 | 100,40                            | 124 |
| M14x1,5 | 1,50 | 100 | 11     | 9,0  | 12,5 | 15  | 5           |                                   |     | 77,26                             | 140 | 128,20                            | 144 |
| M14x1,5 | 1,50 | 100 | 11     | 9,0  | 12,5 | 15  | 4           | 79,59                             | 140 |                                   |     |                                   |     |
| M16x1,5 | 1,50 | 100 | 12     | 9,0  | 14,5 | 15  | 4           | 87,33                             | 160 |                                   |     |                                   |     |
| M16x1,5 | 1,50 | 100 | 12     | 9,0  | 14,5 | 15  | 5           |                                   |     | 93,36                             | 160 | 149,50                            | 162 |
| M18x1,5 | 1,50 | 110 | 14     | 11,0 | 16,5 | 17  | 5           |                                   |     |                                   |     | 182,30                            | 182 |
| M18x1,5 | 1,50 | 110 | 14     | 11,0 | 16,5 | 17  | 4           | 122,90                            | 180 |                                   |     |                                   |     |
| M20x1,5 | 1,50 | 125 | 16     | 12,0 | 18,5 | 17  | 4           | 114,50                            | 200 |                                   |     |                                   |     |
| M20x1,5 | 1,50 | 125 | 16     | 12,0 | 18,5 | 17  | 5           |                                   |     | 129,30                            | 200 | 225,80                            | 202 |
| M26x1,5 | 1,50 | 140 | 18     | 14,5 | 24,5 | 20  | 6           |                                   |     | 251,20                            | 260 |                                   |     |
| M28x1,5 | 1,50 | 140 | 20     | 16,0 | 26,5 | 20  | 6           |                                   |     | 293,60                            | 280 |                                   |     |
| M30x1,5 | 1,50 | 150 | 22     | 18,0 | 28,5 | 22  | 6           |                                   |     | 290,40                            | 300 |                                   |     |

|                            |       |
|----------------------------|-------|
| Acciaio                    | 5-12  |
| Acciaio inossidabile       | 5-10  |
| Ghisa                      |       |
| Metalli non ferrosi        | 10-20 |
| Leghe resistenti al calore |       |
| Materiali duri             |       |

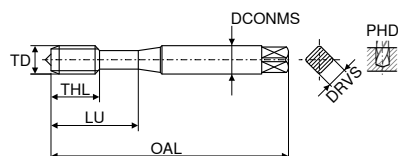
## Foro cieco – Maschi a macchina destri

MF

UNI

ISO 2  
6H

TiN



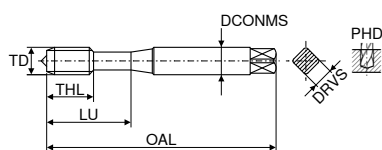
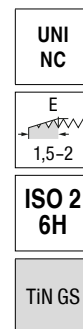
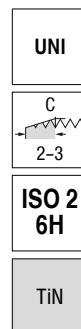
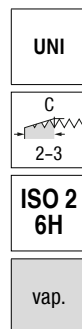
DIN 374 con codolo rinforzato

HSS-PM  
 $\angle 40^\circ$   
 $\leq 1000 \text{ N/mm}^2$   
 $\leq 2,5 \times D$ 

| TD                         | TP   | OAL | DCONMS | DRVS | PHD  | THL | LU | Scanalatura | T9<br>Codice<br>23 047 ...<br>EUR |     |
|----------------------------|------|-----|--------|------|------|-----|----|-------------|-----------------------------------|-----|
| mm                         | mm   | mm  | mm     | mm   | mm   | mm  | mm |             |                                   |     |
| M8x1                       | 1,00 | 90  | 6      | 4,9  | 7,0  | 10  | 35 | 3           | 21,50                             | 081 |
| M10x1                      | 1,00 | 90  | 7      | 5,5  | 9,0  | 10  | 35 | 4           | 28,02                             | 102 |
| M10x1,25                   | 1,25 | 100 | 7      | 5,5  | 8,8  | 16  | 39 | 4           | 27,31                             | 104 |
| M12x1                      | 1,00 | 100 | 9      | 7,0  | 11,0 | 11  | 40 | 4           | 31,89                             | 120 |
| M12x1,25                   | 1,25 | 100 | 9      | 7,0  | 10,8 | 15  | 40 | 5           | 34,75                             | 122 |
| M12x1,5                    | 1,50 | 100 | 9      | 7,0  | 10,5 | 15  | 40 | 5           | 30,88                             | 121 |
| M14x1                      | 1,00 | 100 | 11     | 9,0  | 12,8 | 11  | 40 | 4           | 37,30                             | 140 |
| M14x1,5                    | 1,50 | 100 | 11     | 9,0  | 12,5 | 15  | 40 | 5           | 36,58                             | 144 |
| M16x1,5                    | 1,50 | 100 | 12     | 9,0  | 14,5 | 15  | 44 | 5           | 47,38                             | 162 |
| M18x1,5                    | 1,50 | 110 | 14     | 11,0 | 16,5 | 17  | 44 | 5           | 61,65                             | 182 |
| M20x1,5                    | 1,50 | 125 | 16     | 12,0 | 18,5 | 17  | 44 | 5           | 70,31                             | 202 |
| M22x1,5                    | 1,50 | 125 | 18     | 14,5 | 20,5 | 17  | 44 | 5           | 77,44                             | 222 |
| M24x1,5                    | 1,50 | 140 | 18     | 14,5 | 22,5 | 20  | 48 | 5           | 78,87                             | 242 |
| M24x2                      | 2,00 | 140 | 18     | 14,5 | 22,0 | 20  | 48 | 5           | 91,81                             | 244 |
| Acciaio                    |      |     |        |      |      |     |    |             | 10-20                             |     |
| Acciaio inossidabile       |      |     |        |      |      |     |    |             | 8-15                              |     |
| Ghisa                      |      |     |        |      |      |     |    |             | 20-25                             |     |
| Metalli non ferrosi        |      |     |        |      |      |     |    |             | 20-25                             |     |
| Leghe resistenti al calore |      |     |        |      |      |     |    |             |                                   |     |
| Materiali duri             |      |     |        |      |      |     |    |             |                                   |     |

# Foro cieco – Maschi a macchina destri

▲ NC = per maschiatura rigida su macchine CNC con mandrino a minima compensazione assiale



DIN 371 con codolo rinforzato

HSS-E  
 $\angle 35^\circ$   
 $\leq 1000 \text{ N/mm}^2$   
 $\leq 2,5xD$

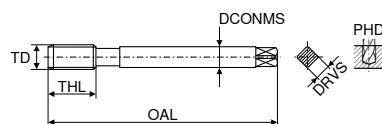
HSS-E  
 $\angle 35^\circ$   
 $\leq 1000 \text{ N/mm}^2$   
 $\leq 2,5xD$

HSS-E  
 $\angle 45^\circ$   
 $\leq 1000 \text{ N/mm}^2$   
 $\leq 3xD$

HSS-E  
 $\angle 35^\circ$   
 $\leq 850 \text{ N/mm}^2$   
 $\leq 2,5xD$

HSS-E  
 $\angle 35^\circ$   
 $\leq 1100 \text{ N/mm}^2$   
 $\leq 2,5xD$

| TD      | TP   | OAL | DCONMS | DRVS | PHD | THL | LU | Scanalatura | T9<br>Codice<br>23 144 ... | T9<br>Codice<br>23 146 ... | T9<br>Codice<br>23 148 ... | T9<br>Codice<br>23 242 ... | T9<br>Codice<br>23 342 ... |
|---------|------|-----|--------|------|-----|-----|----|-------------|----------------------------|----------------------------|----------------------------|----------------------------|----------------------------|
| mm      | mm   | mm  | mm     | mm   | mm  | mm  | mm |             | EUR                        | EUR                        | EUR                        | EUR                        | EUR                        |
| M4x0,5  | 0,50 | 63  | 4,5    | 3,4  | 3,5 | 5   | 21 | 3           | 15,49 040                  | 22,52 040                  |                            | 20,07 040                  |                            |
| M6x0,75 | 0,75 | 80  | 6,0    | 4,9  | 5,2 | 8   | 30 | 3           | 16,51 062                  | 26,19 062                  | 38,31 062                  | 20,07 062                  | 34,85 062                  |
| M6x0,5  | 0,50 | 80  | 6,0    | 4,9  | 5,5 | 5   | 30 | 3           | 16,92 060                  | 26,19 060                  | 38,31 060                  | 20,48 060                  |                            |
| M5x0,5  | 0,50 | 70  | 6,0    | 4,9  | 4,5 | 5   | 25 | 3           | 15,49 050                  | 22,52 050                  | 29,86 050                  | 20,48 050                  | 28,63 050                  |



DIN 374 con codolo rastremato

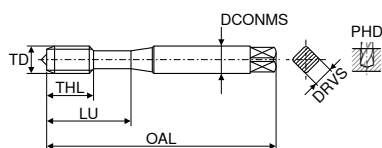
| TD       | TP   | OAL | DCONMS | DRVS | PHD  | THL | Scanalatura | T9<br>Codice<br>23 145 ... | T9<br>Codice<br>23 147 ... | T9<br>Codice<br>23 149 ... | T9<br>Codice<br>23 243 ... | T9<br>Codice<br>23 343 ... |
|----------|------|-----|--------|------|------|-----|-------------|----------------------------|----------------------------|----------------------------|----------------------------|----------------------------|
| mm       | mm   | mm  | mm     | mm   | mm   | mm  |             | EUR                        | EUR                        | EUR                        | EUR                        | EUR                        |
| M4x0,5   | 0,50 | 63  | 2,8    | 2,1  | 3,5  | 5   | 3           | 15,08 040                  |                            |                            |                            |                            |
| M5x0,5   | 0,50 | 70  | 3,5    | 2,7  | 4,5  | 5   | 3           | 15,08 050                  |                            |                            |                            |                            |
| M6x0,75  | 0,75 | 80  | 4,5    | 3,4  | 5,2  | 8   | 3           | 16,10 062                  |                            |                            |                            |                            |
| M8x0,75  | 0,75 | 80  | 6,0    | 4,9  | 7,2  | 8   | 3           | 18,24 082                  | 27,92 082                  | 40,86 082                  | 23,23 082                  |                            |
| M8x1     | 1,00 | 90  | 6,0    | 4,9  | 7,0  | 10  | 3           | 13,35 084                  | 26,19 084                  | 38,31 084                  | 21,81 084                  | 35,05 084                  |
| M8x0,5   | 0,50 | 80  | 6,0    | 8,0  | 7,5  | 6   | 3           |                            |                            |                            | 44,63 080                  |                            |
| M8x0,75  | 0,75 | 80  | 6,0    | 4,9  | 7,0  | 8   | 3           |                            |                            |                            |                            | 41,98 082                  |
| M10x1,25 | 1,25 | 100 | 7,0    | 5,5  | 8,8  | 16  | 3           | 15,49 104                  | 37,09 104                  |                            | 42,29 104                  |                            |
| M10x0,75 | 0,75 | 90  | 7,0    | 5,5  | 9,2  | 10  | 4           | 29,35 100                  | 42,59 100                  |                            | 48,91 100                  |                            |
| M10x1    | 1,00 | 90  | 7,0    | 5,5  | 9,0  | 10  | 4           |                            |                            | 45,04 102                  |                            |                            |
| M10x1    | 1,00 | 90  | 7,0    | 5,5  | 9,0  | 10  | 3           | 13,96 102                  | 29,35 102                  |                            | 25,58 102                  | 40,25 102                  |
| M12x1,25 | 1,25 | 100 | 9,0    | 7,0  | 10,8 | 15  | 4           | 22,11 122                  | 41,78 122                  |                            | 47,49 122                  |                            |
| M12x1,5  | 1,50 | 100 | 9,0    | 7,0  | 10,5 | 15  | 4           | 16,51 124                  | 33,22 124                  |                            | 28,33 124                  | 44,84 124                  |
| M12x1,5  | 1,50 | 100 | 9,0    | 7,0  | 10,5 | 15  | 5           |                            |                            | 48,61 124                  |                            |                            |
| M12x1    | 1,00 | 100 | 9,0    | 7,0  | 11,0 | 11  | 4           | 18,75 120                  | 34,44 120                  | 51,26 120                  | 29,45 120                  | 46,06 120                  |
| M14x1    | 1,00 | 100 | 11,0   | 9,0  | 13,0 | 11  | 4           | 24,66 140                  | 44,94 140                  |                            | 47,49 140                  |                            |
| M14x1,5  | 1,50 | 100 | 11,0   | 9,0  | 12,5 | 15  | 5           |                            |                            | 62,46 144                  |                            |                            |
| M14x1,5  | 1,50 | 100 | 11,0   | 9,0  | 12,5 | 15  | 4           | 22,42 144                  | 41,78 144                  |                            | 34,85 144                  | 56,76 144                  |
| M16x1    | 1,00 | 100 | 12,0   | 9,0  | 15,0 | 12  | 4           | 26,49 160                  | 49,32 160                  |                            | 55,84 160                  |                            |
| M16x1,5  | 1,50 | 100 | 12,0   | 9,0  | 14,5 | 15  | 5           |                            |                            | 69,60 162                  |                            |                            |
| M16x1,5  | 1,50 | 100 | 12,0   | 9,0  | 14,5 | 15  | 4           | 25,68 162                  | 49,32 162                  |                            | 44,43 162                  | 65,83 162                  |
| M18x1,5  | 1,50 | 110 | 14,0   | 11,0 | 16,5 | 17  | 4           | 35,56 182                  | 57,47 182                  |                            | 57,47 182                  |                            |
| M18x1,5  | 1,50 | 110 | 14,0   | 11,0 | 16,5 | 17  | 5           |                            |                            | 88,25 182                  |                            |                            |
| M20x1,5  | 1,50 | 125 | 16,0   | 12,0 | 18,5 | 17  | 4           | 32,71 202                  | 73,16 202                  |                            | 64,20 202                  |                            |
| M20x1,5  | 1,50 | 125 | 16,0   | 12,0 | 18,5 | 17  | 5           |                            |                            | 115,20 202                 |                            |                            |
| M24x1,5  | 1,50 | 140 | 18,0   | 14,5 | 22,5 | 20  | 5           | 52,99 242                  | 86,82 242                  |                            | 86,62 242                  |                            |
| M22x1,5  | 1,50 | 125 | 18,0   | 14,5 | 20,5 | 17  | 4           | 48,61 222                  | 81,32 222                  |                            | 74,29 222                  |                            |

|                            |       |       |       |      |      |
|----------------------------|-------|-------|-------|------|------|
| Acciaio                    | 2-25  | 5-45  | 5-45  | 5-25 | 5-45 |
| Acciaio inossidabile       | 2-8   | 5-15  | 5-15  |      |      |
| Ghisa                      | 5-20  | 10-25 | 10-25 |      |      |
| Metalli non ferrosi        | 10-20 | 15-40 | 15-40 |      |      |
| Leghe resistenti al calore |       |       |       |      |      |
| Materiali duri             |       |       |       |      |      |



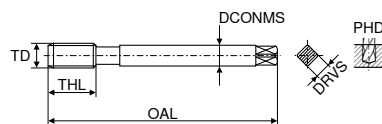
## Foro cieco – Maschi a macchina destri

MF



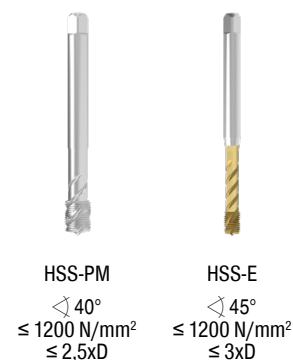
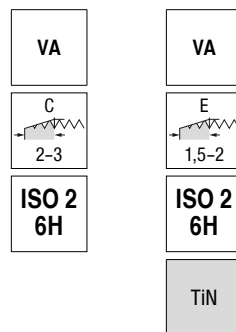
DIN 371 con codolo rinforzato

| TD      | TP   | OAL | DCONMS | DRVS | PHD | THL | LU | Scanalatura |
|---------|------|-----|--------|------|-----|-----|----|-------------|
|         | mm   | mm  | mm     | mm   | mm  | mm  | mm |             |
| M6x0,75 | 0,75 | 80  | 6      | 4,9  | 5,2 | 8   | 30 | 3           |
| M5x0,5  | 0,50 | 70  | 6      | 4,9  | 4,5 | 5   | 25 | 3           |



DIN 374 con codolo rastremato

| TD      | TP   | OAL | DCONMS | DRVS | PHD  | THL | Scanalatura |
|---------|------|-----|--------|------|------|-----|-------------|
|         | mm   | mm  | mm     | mm   | mm   | mm  |             |
| M8x1    | 1,00 | 90  | 6      | 4,9  | 7,0  | 10  | 3           |
| M8x0,75 | 0,75 | 80  | 6      | 4,9  | 7,2  | 8   | 3           |
| M10x1   | 1,00 | 90  | 7      | 5,5  | 9,0  | 10  | 4           |
| M12x1,5 | 1,50 | 100 | 9      | 7,0  | 10,5 | 15  | 5           |
| M12x1   | 1,00 | 100 | 9      | 7,0  | 11,0 | 11  | 4           |
| M14x1,5 | 1,50 | 100 | 11     | 9,0  | 12,5 | 15  | 5           |
| M16x1,5 | 1,50 | 100 | 12     | 9,0  | 14,5 | 15  | 5           |
| M18x1,5 | 1,50 | 110 | 14     | 11,0 | 16,5 | 17  | 5           |
| M20x1,5 | 1,50 | 125 | 16     | 12,0 | 18,5 | 17  | 5           |



| T9                |
|-------------------|
| Codice 23 442 ... |
| EUR               |
| 32,00 062         |
| 27,21 050         |

| T9                | T9                |
|-------------------|-------------------|
| Codice 23 447 ... | Codice 23 443 ... |
| EUR               | EUR               |
| 34,75 084         | 32,00 084         |
|                   | 34,14 082         |
| 36,99 102         | 35,97 102         |
| 44,84 124         | 40,56 124         |
| 47,79 120         | 42,19 120         |
| 57,88 144         | 51,46 144         |
| 68,17 162         | 59,10 162         |
| 84,17 182         |                   |
| 91,61 202         |                   |

|                            |      |      |
|----------------------------|------|------|
| Acciaio                    |      |      |
| Acciaio inossidabile       | 5-10 | 8-20 |
| Ghisa                      |      |      |
| Metalli non ferrosi        |      |      |
| Leghe resistenti al calore |      |      |
| Materiali duri             |      |      |

## Foro passante / foro cieco – Maschi a macchina destri

MF

TWIN

ST

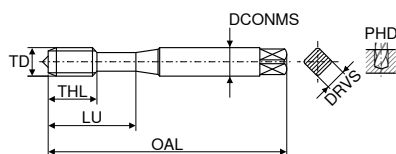
HR

HT

ISO 2X  
6HXISO 2X  
6HXISO 2X  
6HX

nitr.

OSM



DIN 371 con codolo rinforzato

HSS-E  
 $\angle 0^\circ$   
 $\leq 750 \text{ N/mm}^2$   
 $\leq 2xD$ HSS-E  
 $\angle 0^\circ$   
 $\leq 1400 \text{ N/mm}^2$   
 $\leq 2xD$ M.D.I.  
 $\angle 0^\circ$   
 $\leq 63 \text{ HRC}$   
 $\leq 1,5xD$ 

| TD                         | TP   | OAL | DCONMS | DRVS | PHD   | THL | LU | Scanala-<br>ture | U0<br>Codice<br>22 144 ...<br>EUR | U0<br>Codice<br>22 146 ...<br>EUR | U0<br>Codice<br>22 817 ...<br>EUR |
|----------------------------|------|-----|--------|------|-------|-----|----|------------------|-----------------------------------|-----------------------------------|-----------------------------------|
| M3x0,35                    | 0,35 | 56  | 3,5    | 2,7  | 2,65  | 8   | 18 | 3                | 43,02 030                         |                                   |                                   |
| M4x0,5                     | 0,50 | 63  | 4,5    | 3,4  | 3,50  | 10  | 21 | 3                | 41,43 040                         | 45,99 040                         |                                   |
| M5x0,5                     | 0,50 | 70  | 6,0    | 4,9  | 4,50  | 11  | 25 | 3                | 41,43 050                         | 45,99 050                         |                                   |
| M6x0,5                     | 0,50 | 80  | 6,0    | 4,9  | 5,50  | 13  | 30 | 3                | 41,43 060                         | 45,99 060                         |                                   |
| M6x0,75                    | 0,75 | 80  | 6,0    | 4,9  | 5,20  | 13  | 30 | 3                | 41,43 062                         | 45,99 062                         |                                   |
| M8x1                       | 1,00 | 90  | 8,0    | 6,2  | 7,00  | 17  | 35 | 3                | 41,43 084                         |                                   |                                   |
| M8x1                       | 1,00 | 90  | 8,0    | 6,2  | 7,10  | 15  | 35 | 5                |                                   |                                   | 342,80 080                        |
| M10x1                      | 1,00 | 100 | 10,0   | 8,0  | 9,10  | 18  | 38 | 5                |                                   |                                   | 437,50 100                        |
| M10x1                      | 1,00 | 90  | 10,0   | 8,0  | 9,00  | 18  | 35 | 4                | 41,43 104                         |                                   |                                   |
| M12x1,5                    | 1,50 | 110 | 12,0   | 9,0  | 10,60 | 21  | 41 | 5                |                                   |                                   | 507,00 120                        |
| M14x1,5                    | 1,50 | 110 | 14,0   | 11,0 | 12,60 | 24  | 44 | 6                |                                   |                                   | 595,20 140                        |
| M16x1,5                    | 1,50 | 110 | 16,0   | 12,0 | 14,60 | 24  | 44 | 6                |                                   |                                   | 676,70 160                        |
| Acciaio                    |      |     |        |      |       |     |    |                  | 10-20                             | 6-15                              |                                   |
| Acciaio inossidabile       |      |     |        |      |       |     |    |                  |                                   |                                   |                                   |
| Ghisa                      |      |     |        |      |       |     |    |                  |                                   | 6-15                              |                                   |
| Metalli non ferrosi        |      |     |        |      |       |     |    |                  | 10-20                             |                                   |                                   |
| Leghe resistenti al calore |      |     |        |      |       |     |    |                  |                                   | 3-5                               |                                   |
| Materiali duri             |      |     |        |      |       |     |    |                  |                                   |                                   | 1-3                               |

**i** Per versione DIN 374 vedere pagina successiva.

## Foro passante / foro cieco – Maschi a macchina destri

MF

TWIN

ST

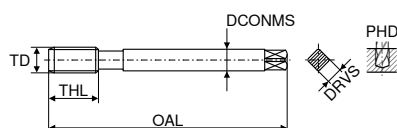
HR

GG

ISO 2X  
6HXISO 2X  
6HXISO 2X  
6HX

nitr.

nitr.



DIN 374 con codolo rastremato

HSS-E

HSS-E

HSS-E

 $\angle 0^\circ$   
 $\leq 750 \text{ N/mm}^2$   
 $\leq 2xD$ 
 $\angle 0^\circ$   
 $\leq 1400 \text{ N/mm}^2$   
 $\leq 2xD$ 
 $\angle 0^\circ$   
 $\leq 1050 \text{ N/mm}^2$   
 $\leq 2xD$ 

| UO         | UO         | UO         |
|------------|------------|------------|
| Codice     | Codice     | Codice     |
| 22 171 ... | 22 209 ... | 22 173 ... |
| EUR        | EUR        | EUR        |
| M4x0,5     |            |            |
| M5x0,5     |            |            |
| M6x0,75    |            |            |
| M6x0,5     |            |            |
| M8x0,75    |            |            |
| M8x1       |            |            |
| M10x1      |            |            |
| M10x1,25   |            |            |
| M10x0,75   |            |            |
| M11x1      |            |            |
| M12x1      |            |            |
| M12x1,25   |            |            |
| M12x1,5    |            |            |
| M14x1      |            |            |
| M14x1,25   |            |            |
| M14x1,5    |            |            |
| M16x1      |            |            |
| M16x1,5    |            |            |
| M18x1      |            |            |
| M18x2      |            |            |
| M18x1,5    |            |            |
| M20x1      |            |            |
| M20x2      |            |            |
| M20x1,5    |            |            |
| M24x2      |            |            |
| M22x2      |            |            |
| M22x1      |            |            |
| M24x1      |            |            |
| M26x1,5    |            |            |
| M24x1,5    |            |            |
| M25x1,5    |            |            |
| M22x1,5    |            |            |
| M28x1,5    |            |            |
| M27x2      |            |            |
| M27x1,5    |            |            |
| M30x2      |            |            |
| M32x2      |            |            |
| M32x1,5    |            |            |
| M30x1,5    |            |            |
| M33x2      |            |            |
| M36x2      |            |            |
| M36x1,5    |            |            |
| M35x1,5    |            |            |
| M42x1,5    |            |            |
| M42x3      |            |            |
| M40x2      |            |            |
| M50x1,5    |            |            |
| M52x1,5    |            |            |

|                            |       |      |       |
|----------------------------|-------|------|-------|
| Acciaio                    | 10-20 | 6-15 |       |
| Acciaio inossidabile       |       |      |       |
| Ghisa                      |       | 6-15 | 10-20 |
| Metalli non ferrosi        | 10-20 |      |       |
| Leghe resistenti al calore |       | 3-5  |       |
| Materiali duri             |       |      |       |

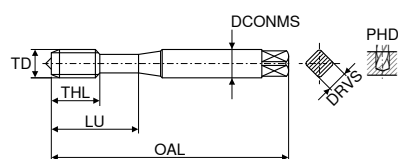
## Foro passante / foro cieco – Maschi a macchina destri/sinistri

▲ ES = extracorto

▲ LH = per filetto sinistro

MF

TWIN

ST  
ESST  
LH/ESISO 2X  
6HXISO 2X  
6HX

DIN 2181 con codolo rinforzato



HSS-E

HSS-E

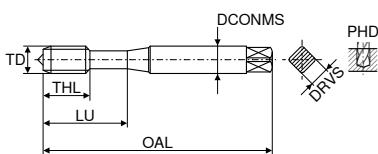
 $\angle 0^\circ$   
 $\leq 750 \text{ N/mm}^2$   
 $\leq 2xD$ 
 $\angle 0^\circ$   
 $\leq 750 \text{ N/mm}^2$   
 $\leq 2xD$ 

| TD        | TP   | OAL | DCONMS | DRVS | PHD   | THL | LU | Scanalatura | U0<br>Codice<br>22 179 ...<br>EUR | U0<br>Codice<br>22 200 ...<br>EUR |
|-----------|------|-----|--------|------|-------|-----|----|-------------|-----------------------------------|-----------------------------------|
| M2,5x0,35 | 0,35 | 40  | 2,8    | 2,1  | 2,15  | 9   |    | 3           | 61,15                             | 025                               |
| M3x0,35   | 0,35 | 40  | 3,5    | 2,7  | 2,65  | 8   | 18 | 3           | 39,74                             | 030                               |
| M4x0,35   | 0,35 | 45  | 4,5    | 3,4  | 3,65  | 9   | 22 | 3           | 56,91                             | 040                               |
| M4x0,5    | 0,50 | 45  | 4,5    | 3,4  | 3,50  | 9   | 22 | 3           | 39,74                             | 042                               |
| M4,5x0,5  | 0,50 | 50  | 6,0    | 4,9  | 4,00  | 10  | 24 | 3           | 66,13                             | 045                               |
| M5x0,5    | 0,50 | 50  | 6,0    | 4,9  | 4,50  | 11  | 25 | 3           | 39,74                             | 050                               |
| M6x0,5    | 0,50 | 56  | 6,0    | 4,9  | 5,50  | 12  | 27 | 3           | 41,76                             | 060                               |
| M6x0,75   | 0,75 | 56  | 6,0    | 4,9  | 5,20  | 12  | 27 | 3           | 39,74                             | 062                               |
| M7x0,75   | 0,75 | 56  | 6,0    | 4,9  | 6,20  | 14  |    | 3           | 44,72                             | 070                               |
| M8x0,5    | 0,50 | 56  | 6,0    | 4,9  | 7,50  | 14  |    | 4           | 55,32                             | 080                               |
| M8x0,75   | 0,75 | 56  | 6,0    | 4,9  | 7,20  | 14  |    | 3           | 44,72                             | 082                               |
| M8x1      | 1,00 | 63  | 6,0    | 4,9  | 7,00  | 17  |    | 3           | 39,74                             | 084                               |
| M9x1      | 1,00 | 63  | 7,0    | 5,5  | 8,00  | 17  |    | 4           | 55,32                             | 090                               |
| M10x0,75  | 0,75 | 63  | 7,0    | 5,5  | 9,20  | 18  |    | 4           | 58,50                             | 100                               |
| M10x1     | 1,00 | 63  | 7,0    | 5,5  | 9,00  | 18  |    | 4           | 41,76                             | 102                               |
| M10x1,25  | 1,25 | 70  | 7,0    | 5,5  | 8,80  | 22  |    | 3           | 53,52                             | 104                               |
| M11x1     | 1,00 | 63  | 8,0    | 6,2  | 10,00 | 18  |    | 4           | 64,65                             | 110                               |
| M12x1     | 1,00 | 70  | 9,0    | 7,0  | 11,00 | 18  |    | 4           | 49,17                             | 120                               |
| M12x1,25  | 1,25 | 70  | 9,0    | 7,0  | 10,80 | 20  |    | 4           | 55,32                             | 122                               |
| M12x1,5   | 1,50 | 70  | 9,0    | 7,0  | 10,50 | 20  |    | 4           | 47,90                             | 124                               |
| M13x1     | 1,00 | 70  | 11,0   | 9,0  | 12,00 | 18  |    | 4           | 72,59                             | 130                               |
| M14x1     | 1,00 | 70  | 11,0   | 9,0  | 13,00 | 18  |    | 4           | 64,65                             | 140                               |
| M14x1,25  | 1,25 | 70  | 11,0   | 9,0  | 12,80 | 20  |    | 4           | 64,65                             | 142                               |
| M14x1,5   | 1,50 | 70  | 11,0   | 9,0  | 12,50 | 20  |    | 4           | 61,15                             | 144                               |
| M15x1     | 1,00 | 70  | 12,0   | 9,0  | 14,00 | 18  |    | 5           | 78,31                             | 150                               |
| M16x1     | 1,00 | 70  | 12,0   | 9,0  | 15,00 | 18  |    | 5           | 73,86                             | 160                               |
| M16x1,5   | 1,50 | 70  | 12,0   | 9,0  | 14,50 | 20  |    | 4           | 68,04                             | 162                               |
| M18x1     | 1,00 | 80  | 14,0   | 11,0 | 17,00 | 18  |    | 5           | 95,91                             | 180                               |
| M18x1,5   | 1,50 | 80  | 14,0   | 11,0 | 16,50 | 22  |    | 4           | 79,59                             | 182                               |
| M18x2     | 2,00 | 80  | 14,0   | 11,0 | 16,00 | 22  |    | 4           | 95,91                             | 184                               |
| M20x1,5   | 1,50 | 80  | 16,0   | 12,0 | 18,50 | 22  |    | 4           | 93,36                             | 202                               |
| M20x2     | 2,00 | 80  | 16,0   | 12,0 | 18,00 | 22  |    | 4           | 101,10                            | 204                               |

|                            |       |       |
|----------------------------|-------|-------|
| Acciaio                    | 10-20 | 10-20 |
| Acciaio inossidabile       |       |       |
| Ghisa                      |       |       |
| Metalli non ferrosi        | 10-20 | 10-20 |
| Leghe resistenti al calore |       |       |
| Materiali duri             |       |       |

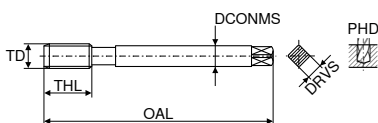
# Foro passante / foro cieco – Maschi a macchina destri

▲ SN = maschi a rullare con scanalature di lubrificazione



DIN 2174 con codolo rinforzato

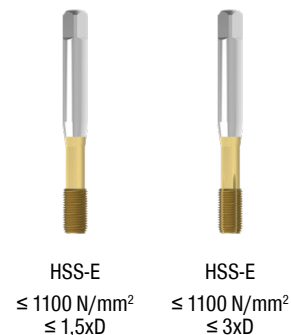
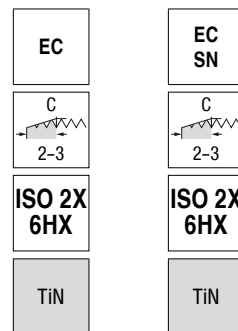
| TD      | TP   | OAL | DCONMS | DRVS | PHD | THL | LU | Scanalatura |
|---------|------|-----|--------|------|-----|-----|----|-------------|
|         | mm   | mm  | mm     | mm   | mm  | mm  | mm |             |
| M4x0,5  | 0,50 | 63  | 4,5    | 3,4  | 3,8 | 10  | 21 |             |
| M4x0,5  | 0,50 | 63  | 4,5    | 3,4  | 3,8 | 10  | 21 | 4           |
| M5x0,5  | 0,50 | 70  | 6,0    | 4,9  | 4,8 | 11  | 25 |             |
| M5x0,5  | 0,50 | 70  | 6,0    | 4,9  | 4,8 | 11  | 25 | 4           |
| M6x0,5  | 0,50 | 80  | 6,0    | 4,9  | 5,8 | 13  | 30 |             |
| M6x0,5  | 0,50 | 80  | 6,0    | 4,9  | 5,8 | 13  | 30 | 5           |
| M6x0,75 | 0,75 | 80  | 6,0    | 4,9  | 5,7 | 13  | 30 |             |
| M6x0,75 | 0,75 | 80  | 6,0    | 4,9  | 5,7 | 13  | 30 | 4           |
| M8x0,75 | 0,75 | 80  | 8,0    | 6,2  | 7,7 | 14  | 30 |             |
| M8x0,75 | 0,75 | 80  | 8,0    | 6,2  | 7,7 | 14  | 30 | 5           |
| M8x1    | 1,00 | 90  | 8,0    | 6,2  | 7,6 | 17  | 35 |             |
| M8x1    | 1,00 | 90  | 8,0    | 6,2  | 7,6 | 17  | 35 | 5           |
| M10x1   | 1,00 | 90  | 10,0   | 8,0  | 9,6 | 18  | 35 |             |
| M10x1   | 1,00 | 90  | 10,0   | 8,0  | 9,6 | 18  | 35 | 5           |



DIN 2174 con codolo rastremato

| TD      | TP  | OAL | DCONMS | DRVS | PHD   | THL | Scanalatura |
|---------|-----|-----|--------|------|-------|-----|-------------|
|         | mm  | mm  | mm     | mm   | mm    | mm  |             |
| M12x1   | 1,0 | 100 | 9      | 7    | 11,60 | 18  |             |
| M12x1   | 1,0 | 100 | 9      | 7    | 11,60 | 18  | 6           |
| M12x1,5 | 1,5 | 100 | 9      | 7    | 11,35 | 22  |             |
| M12x1,5 | 1,5 | 100 | 9      | 7    | 11,35 | 22  | 6           |
| M14x1,5 | 1,5 | 100 | 11     | 9    | 13,35 | 22  |             |
| M14x1,5 | 1,5 | 100 | 11     | 9    | 13,35 | 22  | 6           |
| M16x1,5 | 1,5 | 100 | 12     | 9    | 15,35 | 22  |             |
| M16x1,5 | 1,5 | 100 | 12     | 9    | 15,35 | 22  | 6           |
| M20x1,5 | 1,5 | 125 | 16     | 12   | 19,35 | 25  |             |
| M20x1,5 | 1,5 | 125 | 16     | 12   | 19,35 | 25  | 6           |

|                            |       |       |
|----------------------------|-------|-------|
| Acciaio                    | 8-30  | 8-30  |
| Acciaio inossidabile       | 8-15  | 8-15  |
| Ghisa                      |       |       |
| Metalli non ferrosi        | 12-25 | 12-25 |
| Leghe resistenti al calore |       |       |
| Materiali duri             |       |       |

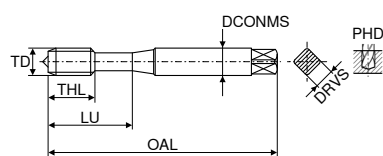


| U0                | U0                |
|-------------------|-------------------|
| Codice 22 204 ... | Codice 22 205 ... |
| EUR               | EUR               |
| 87,33 040         | 98,03 040         |
| 74,51 050         | 87,33 050         |
| 87,33 060         | 98,03 060         |
| 69,20 062         | 78,00 062         |
| 91,25 080         | 87,33 080         |
| 84,57 082         | 92,62 082         |
| 78,00 100         | 86,05 100         |

# Foro passante / foro cieco – Maschi a macchina destri

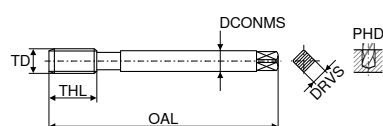
▲ SN = maschi a rullare con scanalature di lubrificazione

MF



DIN 2174 con codolo rinforzato

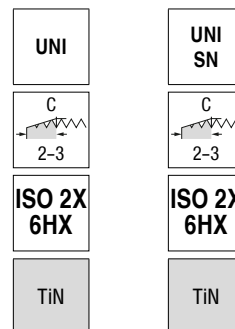
| TD       | TP   | OAL | DCONMS | DRVS | PHD  | THL | LU | Scanalatura |
|----------|------|-----|--------|------|------|-----|----|-------------|
|          | mm   | mm  | mm     | mm   | mm   | mm  | mm |             |
| M4x0,5   | 0,50 | 63  | 4,5    | 3,4  | 3,80 | 10  | 21 |             |
| M4x0,5   | 0,50 | 63  | 4,5    | 3,4  | 3,80 | 10  | 21 | 4           |
| M5x0,5   | 0,50 | 70  | 6,0    | 4,9  | 4,80 | 11  | 25 |             |
| M5x0,5   | 0,50 | 70  | 6,0    | 4,9  | 4,80 | 11  | 25 | 4           |
| M6x0,5   | 0,50 | 80  | 6,0    | 4,9  | 5,80 | 13  | 30 |             |
| M6x0,5   | 0,50 | 80  | 6,0    | 4,9  | 5,80 | 13  | 30 | 5           |
| M8x1     | 1,00 | 90  | 8,0    | 6,2  | 7,60 | 17  | 35 |             |
| M8x1     | 1,00 | 90  | 8,0    | 6,2  | 7,60 | 17  | 35 | 5           |
| M10x1    | 1,00 | 90  | 10,0   | 8,0  | 9,60 | 18  | 35 |             |
| M10x1    | 1,00 | 90  | 10,0   | 8,0  | 9,60 | 18  | 35 | 5           |
| M10x1,25 | 1,25 | 100 | 10,0   | 8,0  | 9,45 | 18  | 39 |             |
| M10x1,25 | 1,25 | 100 | 10,0   | 8,0  | 9,45 | 18  | 39 | 5           |



DIN 2174 con codolo rastremato

| TD       | TP   | OAL | DCONMS | DRVS | PHD   | THL | Scanalatura |
|----------|------|-----|--------|------|-------|-----|-------------|
|          | mm   | mm  | mm     | mm   | mm    | mm  |             |
| M12x1,25 | 1,25 | 100 | 9      | 7    | 11,45 | 22  |             |
| M12x1,25 | 1,25 | 100 | 9      | 7    | 11,45 | 22  | 6           |
| M12x1,5  | 1,50 | 100 | 9      | 7    | 11,35 | 22  |             |
| M12x1,5  | 1,50 | 100 | 9      | 7    | 11,35 | 22  | 6           |
| M14x1,5  | 1,50 | 100 | 11     | 9    | 13,35 | 22  |             |
| M14x1,5  | 1,50 | 100 | 11     | 9    | 13,35 | 22  | 6           |
| M16x1,5  | 1,50 | 100 | 12     | 9    | 15,35 | 22  |             |
| M16x1,5  | 1,50 | 100 | 12     | 9    | 15,35 | 22  | 6           |

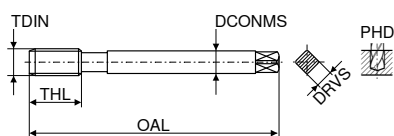
|                            |       |       |
|----------------------------|-------|-------|
| Acciaio                    | 10-50 | 10-50 |
| Acciaio inossidabile       | 5-20  | 5-20  |
| Ghisa                      |       |       |
| Metalli non ferrosi        | 10-50 | 10-50 |
| Leghe resistenti al calore | 5-15  | 5-15  |
| Materiali duri             |       |       |



|                                           |                                           |
|-------------------------------------------|-------------------------------------------|
| HSS-E<br>≤ 850 N/mm <sup>2</sup><br>≤ 3xD | HSS-E<br>≤ 850 N/mm <sup>2</sup><br>≤ 3xD |
| T9                                        | T9                                        |
| Codice<br>23 840 ...                      | Codice<br>23 842 ...                      |
| EUR                                       | EUR                                       |

|       |     |       |     |
|-------|-----|-------|-----|
| 39,13 | 040 | 43,92 | 040 |
| 33,83 | 050 | 39,54 | 050 |
| 39,13 | 060 | 44,12 | 060 |
| 37,70 | 084 | 41,98 | 084 |
| 42,90 | 102 | 46,47 | 102 |
| 51,05 | 104 | 56,76 | 104 |

## Foro passante – Maschi a macchina destri

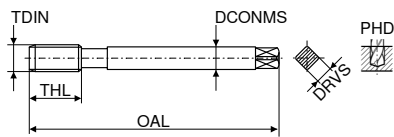


**DIN 5156** con codolo rastremato

| TDIN                       | TP    | OAL | DCONMS | DRVS | PHD   | THL | Scanala-<br>ture | U0         |     | U0         |     | U0         |     | U0         |     |
|----------------------------|-------|-----|--------|------|-------|-----|------------------|------------|-----|------------|-----|------------|-----|------------|-----|
|                            |       |     |        |      |       |     |                  | Codice     |     | Codice     |     | Codice     |     | Codice     |     |
|                            |       |     |        |      |       |     |                  | 22 632 ... |     | 22 630 ... |     | 22 346 ... |     | 22 352 ... |     |
|                            | mm    | mm  | mm     | mm   | mm    | mm  |                  | EUR        |     | EUR        |     | EUR        |     | EUR        |     |
| 1/8-28                     | 0,907 | 90  | 7      | 5,5  | 8,80  | 18  | 3                | 59,03      | 012 | 79,59      | 012 | 44,72      | 012 | 56,91      | 012 |
| 1/4-19                     | 1,337 | 100 | 11     | 9,0  | 11,80 | 22  | 3                | 79,06      | 025 | 105,00     | 025 | 60,51      | 025 | 74,51      | 025 |
| 3/8-19                     | 1,337 | 100 | 12     | 9,0  | 15,25 | 22  | 3                | 98,56      | 037 | 122,90     | 037 | 72,59      | 037 | 92,62      | 037 |
| 1/2-14                     | 1,814 | 125 | 16     | 12,0 | 19,00 | 25  | 4                | 127,20     | 050 | 188,70     | 050 | 99,20      | 050 | 122,90     | 050 |
| 3/4-14                     | 1,814 | 140 | 20     | 16,0 | 24,50 | 28  | 4                | 202,40     | 075 |            |     | 159,00     | 075 | 182,30     | 075 |
| 1-11                       | 2,309 | 160 | 25     | 20,0 | 30,75 | 30  | 4                | 313,70     | 100 |            |     | 227,90     | 100 | 278,70     | 100 |
| Acciaio                    |       |     |        |      |       |     |                  | 6-20       |     | 6-25       |     | 10-20      |     |            |     |
| Acciaio inossidabile       |       |     |        |      |       |     |                  | 4-8        |     | 5-10       |     |            |     | 5-10       |     |
| Ghisa                      |       |     |        |      |       |     |                  | 6-15       |     | 10-20      |     |            |     |            |     |
| Metalli non ferrosi        |       |     |        |      |       |     |                  |            |     | 12-25      |     | 10-20      |     |            |     |
| Leghe resistenti al calore |       |     |        |      |       |     |                  |            |     |            |     |            |     |            |     |
| Materiali duri             |       |     |        |      |       |     |                  |            |     |            |     |            |     |            |     |

## Foro passante – Maschi a macchina destri

G



DIN 5156 con codolo rastremato

| TDIN   | TP    | OAL | DCONMS | DRVS | PHD   | THL | Scanalatura |
|--------|-------|-----|--------|------|-------|-----|-------------|
|        | mm    | mm  | mm     | mm   | mm    | mm  |             |
| 1/8-28 | 0,907 | 90  | 7      | 5,5  | 8,80  | 18  | 3           |
| 1/4-19 | 1,337 | 100 | 11     | 9,0  | 11,80 | 22  | 3           |
| 3/8-19 | 1,337 | 100 | 12     | 9,0  | 15,25 | 22  | 3           |
| 1/2-14 | 1,814 | 125 | 16     | 12,0 | 19,00 | 25  | 4           |
| 3/4-14 | 1,814 | 140 | 20     | 16,0 | 24,50 | 28  | 4           |
| 1-11   | 2,309 | 160 | 25     | 20,0 | 30,75 | 30  | 4           |

|                            |       |       |
|----------------------------|-------|-------|
| Acciaio                    | 2-25  | 5-45  |
| Acciaio inossidabile       | 2-8   | 5-15  |
| Ghisa                      | 5-20  | 10-25 |
| Metalli non ferrosi        | 10-20 | 15-40 |
| Leghe resistenti al calore |       |       |
| Materiali duri             |       |       |

| UNI            | UNI      |
|----------------|----------|
| B<br>4-5       | B<br>4-5 |
| ISO 228        | ISO 228  |
| nit. +<br>vap. | TiN      |



HSS-E

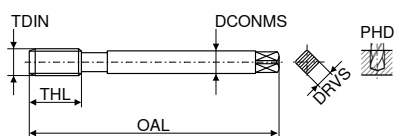
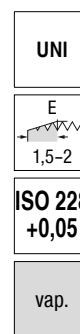
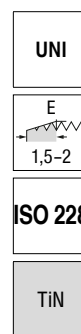
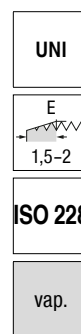
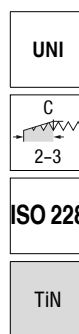
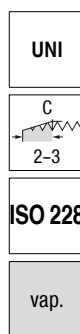
HSS-E

 $\angle 0^\circ$   
 $\leq 1100 \text{ N/mm}^2$   
 $\leq 3xD$ 
 $\angle 0^\circ$   
 $\leq 1100 \text{ N/mm}^2$   
 $\leq 3xD$ 

| T9         | T9         |
|------------|------------|
| Codice     | Codice     |
| 23 161 ... | 23 160 ... |
| EUR        | EUR        |
| 15,79 012  | 29,14 012  |
| 21,30 025  | 38,52 025  |
| 26,09 037  | 45,35 037  |
| 36,07 050  | 69,60 050  |
| 70,62 075  | 91,10 075  |
| 77,95 100  | 168,10 100 |



## Foro cieco – Maschi a macchina destri



DIN 5156 con codolo rastremato



HSS-E  
 $\angle 42^\circ$   
 $\leq 1100 \text{ N/mm}^2$   
 $\leq 3xD$

HSS-E  
 $\angle 42^\circ$   
 $\leq 1100 \text{ N/mm}^2$   
 $\leq 3xD$

HSS-E  
 $\angle 42^\circ$   
 $\leq 1100 \text{ N/mm}^2$   
 $\leq 3xD$

HSS-E  
 $\angle 42^\circ$   
 $\leq 1100 \text{ N/mm}^2$   
 $\leq 3xD$

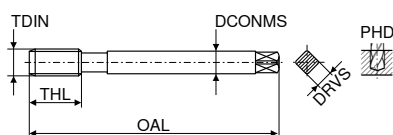
HSS-E  
 $\angle 42^\circ$   
 $\leq 1100 \text{ N/mm}^2$   
 $\leq 3xD$

| TDIN     | TP    | OAL | DCONMS | DRVS | PHD   | THL | Scanalatura | Codice UO<br>22 633 ...<br>EUR | Codice UO<br>22 634 ...<br>EUR | Codice UO<br>22 635 ...<br>EUR | Codice UO<br>22 636 ...<br>EUR | Codice UO<br>22 639 ...<br>EUR |
|----------|-------|-----|--------|------|-------|-----|-------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|
| 1/8-28   | 0,907 | 90  | 7      | 5,5  | 8,80  | 10  | 3           | 59,03                          | 012                            | 82,88                          | 012                            | 79,59                          |
| 1/8-28   | 0,907 | 90  | 7      | 5,5  | 8,80  | 10  | 4           | 82,88                          | 025                            | 103,80                         | 025                            | 105,00                         |
| 1/4-19   | 1,337 | 100 | 11     | 9,0  | 11,80 | 15  | 4           | 101,70                         | 037                            | 146,20                         | 037                            | 130,30                         |
| 1/4-19   | 1,337 | 100 | 11     | 9,0  | 11,80 | 15  | 5           | 134,60                         | 050                            | 209,90                         | 050                            | 167,40                         |
| 3/8-19   | 1,337 | 100 | 12     | 9,0  | 15,25 | 15  | 4           | 165,40                         | 062                            | 234,20                         | 062                            | 254,40                         |
| 3/8-19   | 1,337 | 100 | 12     | 9,0  | 15,25 | 15  | 5           | 207,70                         | 075                            | 286,10                         | 075                            | 315,90                         |
| 1/2-14   | 1,814 | 125 | 16     | 12,0 | 19,00 | 17  | 4           | 315,90                         | 100                            | 508,70                         | 100                            | 387,90                         |
| 1/2-14   | 1,814 | 125 | 16     | 12,0 | 19,00 | 17  | 5           | 725,90                         | 150                            |                                |                                |                                |
| 5/8-14   | 1,814 | 125 | 18     | 14,5 | 21,00 | 17  | 4           |                                |                                |                                |                                |                                |
| 5/8-14   | 1,814 | 125 | 18     | 14,5 | 21,00 | 17  | 5           |                                |                                |                                |                                |                                |
| 3/4-14   | 1,814 | 140 | 20     | 16,0 | 24,50 | 20  | 4           |                                |                                |                                |                                |                                |
| 3/4-14   | 1,814 | 140 | 20     | 16,0 | 24,50 | 20  | 5           |                                |                                |                                |                                |                                |
| 7/8-14   | 1,814 | 150 | 22     | 18,0 | 28,25 | 22  | 5           |                                |                                |                                |                                |                                |
| 1-11     | 2,309 | 160 | 25     | 20,0 | 30,75 | 24  | 5           |                                |                                |                                |                                |                                |
| 1-11     | 2,309 | 160 | 25     | 20,0 | 30,75 | 24  | 6           |                                |                                |                                |                                |                                |
| 1 1/4-11 | 2,309 | 170 | 32     | 24,0 | 39,50 | 25  | 6           |                                |                                |                                |                                |                                |
| 1 1/2-11 | 2,309 | 190 | 36     | 29,0 | 45,25 | 27  | 6           |                                |                                |                                |                                |                                |

|                            |      |       |       |       |       |
|----------------------------|------|-------|-------|-------|-------|
| Acciaio                    | 6-20 | 6-25  | 6-25  | 6-25  | 6-25  |
| Acciaio inossidabile       | 4-8  | 5-10  | 4-10  | 4-10  | 4-10  |
| Ghisa                      | 6-15 | 10-20 | 6-20  | 6-20  | 6-20  |
| Metalli non ferrosi        |      | 12-25 | 12-25 | 12-25 | 12-25 |
| Leghe resistenti al calore |      |       |       |       |       |
| Materiali duri             |      |       |       |       |       |

## Foro cieco – Maschi a macchina destri

▲ CNC = per maschiatura rigida su macchine CNC con mandrino a minima compensazione assiale



DIN 5156 con codolo rastremato



HSS-E  
 $\angle 45^\circ$   
 $\leq 1100 \text{ N/mm}^2$   
 $\leq 3xD$

HSS-E  
 $\angle 42^\circ$   
 $\leq 750 \text{ N/mm}^2$   
 $\leq 3xD$

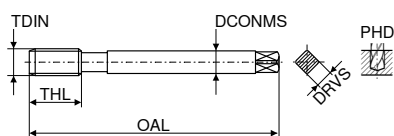
HSS-E  
 $\angle 42^\circ$   
 $\leq 900 \text{ N/mm}^2$   
 $\leq 3xD$

HSS-E  
 $\angle 45^\circ$   
 $\leq 900 \text{ N/mm}^2$   
 $\leq 3xD$

| TDIN                       | TP    | OAL | DCONMS | DRVS | PHD   | THL | Scanalatura | U0<br>Codice<br>22 624 ...<br>EUR | U0<br>Codice<br>22 354 ...<br>EUR | U0<br>Codice<br>22 355 ...<br>EUR | U0<br>Codice<br>22 358 ...<br>EUR |
|----------------------------|-------|-----|--------|------|-------|-----|-------------|-----------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|
| 1/8-28                     | 0,907 | 90  | 7      | 5,5  | 8,80  | 10  | 3           |                                   | 50,55                             | 012                               | 96,44                             |
| 1/8-28                     | 0,907 | 90  | 7      | 5,5  | 8,80  | 10  | 4           | 94,74                             | 012                               | 60,51                             |                                   |
| 1/4-19                     | 1,337 | 100 | 11     | 9,0  | 11,80 | 15  | 4           |                                   | 70,58                             | 025                               |                                   |
| 1/4-19                     | 1,337 | 100 | 11     | 9,0  | 11,80 | 15  | 5           | 124,00                            | 025                               | 80,23                             | 125,00                            |
| 3/8-19                     | 1,337 | 100 | 12     | 9,0  | 15,25 | 15  | 4           |                                   | 86,27                             | 037                               |                                   |
| 3/8-19                     | 1,337 | 100 | 12     | 9,0  | 15,25 | 15  | 5           | 147,30                            | 037                               | 99,20                             | 149,50                            |
| 1/2-14                     | 1,814 | 125 | 16     | 12,0 | 19,00 | 17  | 4           |                                   | 111,30                            | 050                               |                                   |
| 1/2-14                     | 1,814 | 125 | 16     | 12,0 | 19,00 | 17  | 5           | 222,60                            | 050                               | 126,20                            | 225,80                            |
| 5/8-14                     | 1,814 | 125 | 18     | 14,5 | 21,00 | 17  | 5           |                                   |                                   | 165,40                            | 062                               |
| 3/4-14                     | 1,814 | 140 | 20     | 16,0 | 24,50 | 20  | 4           |                                   | 177,00                            | 075                               |                                   |
| 3/4-14                     | 1,814 | 140 | 20     | 16,0 | 24,50 | 20  | 5           |                                   |                                   | 212,00                            | 075                               |
| 1-11                       | 2,309 | 160 | 25     | 20,0 | 30,75 | 24  | 5           |                                   | 269,20                            | 100                               |                                   |
| 1-11                       | 2,309 | 160 | 25     | 20,0 | 30,75 | 24  | 6           |                                   |                                   | 311,60                            | 100                               |
| Acciaio                    |       |     |        |      |       |     |             | 6-25                              | 10-20                             |                                   | 5-12                              |
| Acciaio inossidabile       |       |     |        |      |       |     |             | 5-10                              |                                   | 5-10                              | 5-10                              |
| Ghisa                      |       |     |        |      |       |     |             | 10-20                             |                                   |                                   |                                   |
| Metalli non ferrosi        |       |     |        |      |       |     |             | 12-25                             | 10-20                             |                                   |                                   |
| Leghe resistenti al calore |       |     |        |      |       |     |             |                                   |                                   |                                   |                                   |
| Materiali duri             |       |     |        |      |       |     |             |                                   |                                   |                                   |                                   |

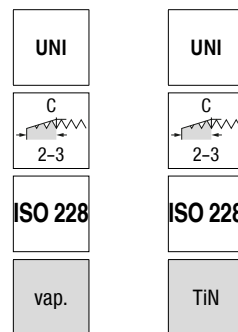
## Foro cieco – Maschi a macchina destri

G



DIN 5156 con codolo rastremato

| TDIN                       | TP    | OAL | DCONMS | DRVS | PHD   | THL | Scanala-<br>ture | 19<br>Codice<br>23 163 ... |     | 19<br>Codice<br>23 162 ... |     |
|----------------------------|-------|-----|--------|------|-------|-----|------------------|----------------------------|-----|----------------------------|-----|
|                            |       |     |        |      |       |     |                  | EUR                        |     | EUR                        |     |
| 1/8-28                     | 0,907 | 90  | 7      | 5,5  | 8,80  | 10  | 3                | 16,51                      | 012 | 30,37                      | 012 |
| 1/4-19                     | 1,337 | 100 | 11     | 9,0  | 11,80 | 15  | 4                | 23,54                      | 025 | 41,78                      | 025 |
| 3/8-19                     | 1,337 | 100 | 12     | 9,0  | 15,25 | 15  | 4                | 34,24                      | 037 | 49,32                      | 037 |
| 1/2-14                     | 1,814 | 125 | 16     | 12,0 | 19,00 | 17  | 4                | 44,12                      | 050 | 74,29                      | 050 |
| 3/4-14                     | 1,814 | 140 | 20     | 16,0 | 24,50 | 20  | 4                | 67,66                      | 075 | 95,38                      | 075 |
| 1-11                       | 2,309 | 160 | 25     | 20,0 | 30,75 | 24  | 5                | 94,16                      | 100 | 181,40                     | 100 |
| Acciaio                    |       |     |        |      |       |     |                  | 2-25                       |     | 5-45                       |     |
| Acciaio inossidabile       |       |     |        |      |       |     |                  | 2-8                        |     | 5-15                       |     |
| Ghisa                      |       |     |        |      |       |     |                  | 5-20                       |     | 10-25                      |     |
| Metalli non ferrosi        |       |     |        |      |       |     |                  | 10-20                      |     | 15-40                      |     |
| Leghe resistenti al calore |       |     |        |      |       |     |                  |                            |     |                            |     |
| Materiali duri             |       |     |        |      |       |     |                  |                            |     |                            |     |



6

## Foro passante / foro cieco – Maschi a macchina destri

G

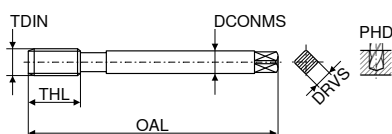
TWIN

ST

HR

ISO 228  
XISO 228  
X

nitr.



DIN 5156 con codolo rastremato



HSS-E

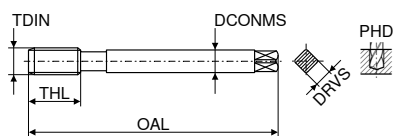
HSS-E

 $\angle 0^\circ$   
 $\leq 750 \text{ N/mm}^2$   
 $\leq 2xD$ 
 $\angle 0^\circ$   
 $\leq 1400 \text{ N/mm}^2$   
 $\leq 2xD$ 

| TDIN                       | TP    | OAL | DCONMS | DRVS | PHD   | THL | Scanala-<br>ture | U0<br>Codice<br>22 347 ...<br>EUR | U0<br>Codice<br>22 339 ...<br>EUR |
|----------------------------|-------|-----|--------|------|-------|-----|------------------|-----------------------------------|-----------------------------------|
| 1/16-28                    | 0,907 | 90  | 6      | 4,9  | 6,80  | 17  | 3                | 52,35                             | 006                               |
| 1/8-28                     | 0,907 | 90  | 7      | 5,5  | 8,80  | 18  | 4                | 48,54                             | 012                               |
| 1/4-19                     | 1,337 | 100 | 11     | 9,0  | 11,80 | 22  | 4                | 58,50                             | 025                               |
| 3/8-19                     | 1,337 | 100 | 12     | 9,0  | 15,25 | 22  | 4                | 71,22                             | 037                               |
| 1/2-14                     | 1,814 | 125 | 16     | 12,0 | 19,00 | 25  | 4                | 97,93                             | 050                               |
| 3/4-14                     | 1,814 | 140 | 20     | 16,0 | 24,50 | 28  | 4                | 149,50                            | 075                               |
| 1-11                       | 2,309 | 160 | 25     | 20,0 | 30,75 | 30  | 5                | 228,90                            | 100                               |
| 1 1/8-11                   | 2,309 | 170 | 28     | 22,0 | 35,50 | 30  | 5                | 321,20                            | 112                               |
| 1 1/4-11                   | 2,309 | 170 | 32     | 24,0 | 39,50 | 30  | 6                | 379,40                            | 125                               |
| 1 3/8-11                   | 2,309 | 180 | 36     | 29,0 | 41,75 | 32  | 6                | 463,10                            | 137                               |
| 1 1/2-11                   | 2,309 | 190 | 36     | 29,0 | 45,25 | 32  | 6                | 505,50                            | 150                               |
| 1 3/4-11                   | 2,309 | 190 | 40     | 32,0 | 51,00 | 32  | 6                |                                   | 175                               |
| Acciaio                    |       |     |        |      |       |     |                  | 10-20                             | 6-15                              |
| Acciaio inossidabile       |       |     |        |      |       |     |                  |                                   |                                   |
| Ghisa                      |       |     |        |      |       |     |                  |                                   | 6-15                              |
| Metalli non ferrosi        |       |     |        |      |       |     |                  | 10-20                             |                                   |
| Leghe resistenti al calore |       |     |        |      |       |     |                  |                                   | 3-5                               |
| Materiali duri             |       |     |        |      |       |     |                  |                                   |                                   |

# Foro passante / foro cieco – Maschi a macchina destri

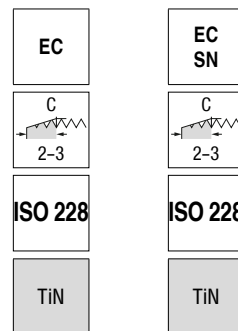
▲ SN = maschi a rullare con scanalature di lubrificazione



DIN 2189 con codolo rastremato

| TDIN   | TP    | OAL | DCONMS | DRVS | PHD   | THL | Scanalatura |
|--------|-------|-----|--------|------|-------|-----|-------------|
|        | mm    | mm  | mm     | mm   | mm    | mm  |             |
| 1/8-28 | 0,907 | 90  | 7      | 5,5  | 9,25  | 18  |             |
| 1/8-28 | 0,907 | 90  | 7      | 5,5  | 9,25  | 18  | 5           |
| 1/4-19 | 1,337 | 100 | 11     | 9,0  | 12,55 | 22  |             |
| 1/4-19 | 1,337 | 100 | 11     | 9,0  | 12,55 | 22  | 6           |
| 3/8-19 | 1,337 | 100 | 12     | 9,0  | 16,05 | 22  |             |
| 3/8-19 | 1,337 | 100 | 12     | 9,0  | 16,05 | 22  | 6           |
| 1/2-14 | 1,814 | 125 | 16     | 12,0 | 20,10 | 25  |             |
| 1/2-14 | 1,814 | 125 | 16     | 12,0 | 20,10 | 25  | 6           |

|                            |       |       |
|----------------------------|-------|-------|
| Acciaio                    | 8-30  | 8-30  |
| Acciaio inossidabile       | 8-15  | 8-15  |
| Ghisa                      |       |       |
| Metalli non ferrosi        | 12-25 | 12-25 |
| Leghe resistenti al calore |       |       |
| Materiali duri             |       |       |



HSS-E  
≤ 1100 N/mm<sup>2</sup>  
≤ 1,5xD

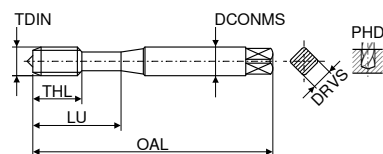
HSS-E  
≤ 1100 N/mm<sup>2</sup>  
≤ 3xD

| U0                | U0                |
|-------------------|-------------------|
| Codice 22 360 ... | Codice 22 359 ... |
| EUR               | EUR               |
| 94,85 012         | 107,00 012        |
| 121,90 025        | 134,60 025        |
| 164,30 037        | 184,40 037        |
| 219,30 050        | 246,90 050        |

## Foro passante – Maschi a macchina destri

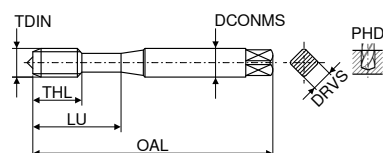
UNC

Stabil



DIN 371 con codolo rinforzato

| TDIN      | TP    | OAL | DCONMS | DRVS | PHD  | THL | LU | Scanalatura |
|-----------|-------|-----|--------|------|------|-----|----|-------------|
|           | mm    | mm  | mm     | mm   | mm   | mm  | mm |             |
| Nr. 2-56  | 0,454 | 45  | 2,8    | 2,1  | 1,85 | 7   | 12 | 2           |
| Nr. 4-40  | 0,635 | 56  | 3,5    | 2,7  | 2,35 | 11  | 18 | 2           |
| Nr. 4-40  | 0,635 | 56  | 3,5    | 2,7  | 2,35 | 11  | 18 | 3           |
| Nr. 6-32  | 0,794 | 56  | 4,0    | 3,0  | 2,85 | 12  | 20 | 3           |
| Nr. 8-32  | 0,794 | 63  | 4,5    | 3,4  | 3,50 | 13  | 21 | 3           |
| Nr. 10-24 | 1,058 | 70  | 6,0    | 4,9  | 3,90 | 15  | 25 | 3           |
| Nr. 12-24 | 1,058 | 80  | 6,0    | 4,9  | 4,50 | 16  | 30 | 3           |
| 1/4-20    | 1,270 | 80  | 7,0    | 5,5  | 5,10 | 17  | 30 | 3           |
| 5/16-18   | 1,411 | 90  | 8,0    | 6,2  | 6,60 | 20  | 35 | 3           |
| 3/8-16    | 1,588 | 100 | 10,0   | 8,0  | 8,00 | 22  | 39 | 3           |



DIN 371 con codolo rinforzato

| TDIN   | TP    | OAL | DCONMS | DRVS | PHD   | THL | Scanalatura |
|--------|-------|-----|--------|------|-------|-----|-------------|
|        | mm    | mm  | mm     | mm   | mm    | mm  |             |
| 1/2-13 | 1,954 | 110 | 9      | 7,0  | 10,80 | 25  | 3           |
| 5/8-11 | 2,309 | 110 | 12     | 9,0  | 13,50 | 27  | 3           |
| 3/4-10 | 2,540 | 125 | 14     | 11,0 | 16,50 | 30  | 3           |
| 7/8-9  | 2,822 | 140 | 18     | 14,5 | 19,50 | 32  | 3           |
| 1-8    | 3,175 | 160 | 18     | 14,5 | 22,25 | 36  | 3           |

|                            |      |      |
|----------------------------|------|------|
| Acciaio                    | 6-20 | 2-5  |
| Acciaio inossidabile       | 4-8  | 5-10 |
| Ghisa                      | 6-15 |      |
| Metalli non ferrosi        |      |      |
| Leghe resistenti al calore |      | 2-6  |
| Materiali duri             |      |      |

| UNI          | VA       | Ti       |
|--------------|----------|----------|
| B<br>4-5     | B<br>4-5 | B<br>4-5 |
| 2B           | 2B       | 2BX      |
| nitr. + vap. | nitr.    | TiN      |



HSS-E  
 $\angle 0^\circ$   
 $\leq 1100 \text{ N/mm}^2$   
 $\leq 4xD$



HSS-E  
 $\angle 0^\circ$   
 $\leq 900 \text{ N/mm}^2$   
 $\leq 4xD$



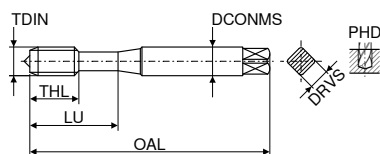
HSS-PM  
 $\angle 0^\circ$   
 $\leq 44 \text{ HRC}$   
 $\leq 4xD$

| U0         | U0         | U0         |
|------------|------------|------------|
| Codice     | Codice     | Codice     |
| 22 572 ... | 22 250 ... | 22 269 ... |
| EUR        | EUR        | EUR        |
| 77,26 002  |            |            |
| 42,49 004  |            |            |
|            |            | 68,04 004  |
| 37,94 006  | 36,24 006  | 59,87 006  |
| 35,92 008  | 35,61 008  | 61,15 008  |
| 40,49 010  | 35,61 010  | 61,79 010  |
| 48,54 012  |            |            |
| 43,76 025  | 45,25 025  | 65,38 025  |
| 50,34 031  | 45,68 031  | 72,59 031  |
| 55,95 037  | 46,31 037  | 84,78 037  |

| U0         |
|------------|
| Codice     |
| 22 573 ... |
| EUR        |
| 66,77 050  |
| 93,36 062  |
| 115,50 075 |
| 147,30 087 |
| 187,60 100 |

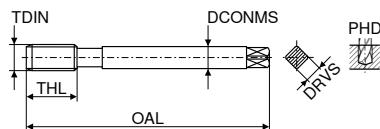
## Foro passante – Maschi a macchina destri

UNC



DIN 371 con codolo rinforzato

| TDIN      | TP    | OAL | DCONMS | DRVS | PHD  | THL | LU | Scanalatura |
|-----------|-------|-----|--------|------|------|-----|----|-------------|
| mm        | mm    | mm  | mm     | mm   | mm   | mm  | mm |             |
| Nr. 4-40  | 0,635 | 56  | 3,5    | 2,7  | 2,30 | 11  | 18 | 2           |
| Nr. 6-32  | 0,794 | 56  | 4,0    | 3,0  | 2,85 | 12  | 20 | 3           |
| Nr. 8-32  | 0,794 | 63  | 4,5    | 3,4  | 3,50 | 13  | 21 | 3           |
| Nr. 10-24 | 1,058 | 70  | 6,0    | 4,9  | 3,90 | 15  | 25 | 3           |
| 1/4-20    | 1,270 | 80  | 7,0    | 5,5  | 5,20 | 17  | 30 | 3           |
| 5/16-18   | 1,411 | 90  | 8,0    | 6,2  | 6,60 | 20  | 35 | 3           |
| 3/8-16    | 1,588 | 100 | 10,0   | 8,0  | 8,00 | 22  | 39 | 3           |



DIN 376 con codolo rastremato

| TDIN    | TP    | OAL | DCONMS | DRVS | PHD   | THL | Scanalatura |
|---------|-------|-----|--------|------|-------|-----|-------------|
| mm      | mm    | mm  | mm     | mm   | mm    | mm  |             |
| 7/16-14 | 1,814 | 100 | 8      | 6,2  | 9,40  | 22  | 3           |
| 1/2-13  | 1,954 | 110 | 9      | 7,0  | 10,75 | 25  | 3           |
| 5/8-11  | 2,309 | 110 | 12     | 9,0  | 13,50 | 27  | 3           |
| 3/4-10  | 2,540 | 125 | 14     | 11,0 | 16,50 | 30  | 3           |

| UNI                                                                   | FE                                                                   | FE-HF                                                                 | VA                                                                    |
|-----------------------------------------------------------------------|----------------------------------------------------------------------|-----------------------------------------------------------------------|-----------------------------------------------------------------------|
|                                                                       |                                                                      |                                                                       |                                                                       |
| 2B                                                                    | 2B                                                                   | 2B                                                                    | 2B                                                                    |
| TiN                                                                   |                                                                      | TiCN                                                                  | nitr.                                                                 |
|                                                                       |                                                                      |                                                                       |                                                                       |
| HSS-E<br>$\angle 0^\circ$<br>$\leq 1000 \text{ N/mm}^2$<br>$\leq 3xD$ | HSS-E<br>$\angle 0^\circ$<br>$\leq 850 \text{ N/mm}^2$<br>$\leq 3xD$ | HSS-E<br>$\angle 0^\circ$<br>$\leq 1100 \text{ N/mm}^2$<br>$\leq 3xD$ | HSS-E<br>$\angle 0^\circ$<br>$\leq 1000 \text{ N/mm}^2$<br>$\leq 3xD$ |

| T9                | T9                | T9                | T9                |
|-------------------|-------------------|-------------------|-------------------|
| Codice 23 170 ... | Codice 23 270 ... | Codice 23 370 ... | Codice 23 470 ... |
| EUR               | EUR               | EUR               | EUR               |
| 19,06 004         | 23,23 004         | 27,00 004         | 15,79 004         |
| 18,34 006         | 21,60 006         | 26,19 006         | 14,67 006         |
| 18,34 008         | 21,09 008         | 26,19 008         | 14,27 008         |
| 19,06 010         | 23,23 010         | 27,21 010         | 15,79 010         |
| 25,07 025         | 23,74 025         | 37,80 025         | 16,92 025         |
| 27,41 031         | 27,00 031         | 41,17 031         | 19,26 031         |
| 32,61 037         | 30,67 037         | 48,61 037         | 21,81 037         |

| TDIN      | TP        | OAL        | DCONMS    | DRVS      | PHD       | THL       | Scanalatura | T9                | T9                | T9                | T9                |
|-----------|-----------|------------|-----------|-----------|-----------|-----------|-------------|-------------------|-------------------|-------------------|-------------------|
| mm        | mm        | mm         | mm        | mm        | mm        | mm        |             | Codice 23 171 ... | Codice 23 271 ... | Codice 23 371 ... | Codice 23 471 ... |
| EUR       | EUR       | EUR        | EUR       | EUR       | EUR       | EUR       |             | EUR               | EUR               | EUR               | EUR               |
| 37,91 043 | 38,42 043 | 56,25 043  | 27,31 043 | 42,39 050 | 42,08 050 | 63,89 050 | 29,86 050   | 52,89 062         | 54,21 062         | 77,14 062         | 38,52 062         |
| 80,09 075 | 69,60 075 | 121,30 075 | 49,52 075 |           |           |           |             |                   |                   |                   |                   |

|                            |       |      |      |
|----------------------------|-------|------|------|
| Acciaio                    | 5-45  | 5-25 | 5-45 |
| Acciaio inossidabile       | 5-15  |      | 3-10 |
| Ghisa                      | 10-25 |      |      |
| Metalli non ferrosi        | 15-40 |      |      |
| Leghe resistenti al calore |       |      |      |
| Materiali duri             |       |      |      |

## Foro cieco – Maschi a macchina destri

UNC

Salo-Rex

UNI

VA



2B

2B

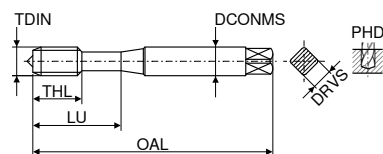
vap.

vap.



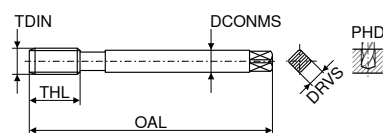
HSS-E

HSS-E

 $\angle 42^\circ$   
 $\leq 1100 \text{ N/mm}^2$   
 $\leq 3xD$ 
 $\angle 42^\circ$   
 $\leq 900 \text{ N/mm}^2$   
 $\leq 3xD$ 


DIN 371 con codolo rinforzato

| TDIN      | TP    | OAL | DCONMS | DRVS | PHD  | THL  | LU | Scanala-<br>ture | U0<br>Codice<br>22 582 ...<br>EUR | U0<br>Codice<br>22 266 ...<br>EUR |
|-----------|-------|-----|--------|------|------|------|----|------------------|-----------------------------------|-----------------------------------|
| Nr. 2-56  | 0,454 | 45  | 2,8    | 2,1  | 1,85 | 4,5  | 12 | 2                | 61,79 002                         |                                   |
| Nr. 4-40  | 0,635 | 56  | 3,5    | 2,7  | 2,35 | 6,0  | 18 | 2                | 38,57 004                         |                                   |
| Nr. 6-32  | 0,794 | 56  | 4,0    | 3,0  | 2,85 | 7,0  | 20 | 3                | 33,81 006                         | 36,98 006                         |
| Nr. 8-32  | 0,794 | 63  | 4,5    | 3,4  | 3,50 | 8,0  | 21 | 3                | 36,24 008                         | 39,53 008                         |
| Nr. 10-24 | 1,058 | 70  | 6,0    | 4,9  | 3,90 | 10,0 | 25 | 3                | 37,94 010                         | 42,07 010                         |
| 1/4-20    | 1,270 | 80  | 7,0    | 5,5  | 5,10 | 13,0 | 30 | 3                | 40,80 025                         | 43,02 025                         |
| 5/16-18   | 1,411 | 90  | 8,0    | 6,2  | 6,60 | 14,0 | 35 | 3                | 43,45 031                         | 48,74 031                         |
| 3/8-16    | 1,588 | 100 | 10,0   | 8,0  | 8,00 | 16,0 | 39 | 3                | 48,74 037                         | 50,55 037                         |



DIN 376 con codolo rastremato

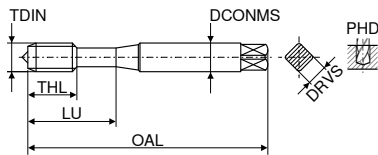
| TDIN    | TP    | OAL | DCONMS | DRVS | PHD   | THL | Scanala-<br>ture | U0<br>Codice<br>22 583 ...<br>EUR | U0<br>Codice<br>22 267 ...<br>EUR |
|---------|-------|-----|--------|------|-------|-----|------------------|-----------------------------------|-----------------------------------|
| 7/16-14 | 1,814 | 100 | 8      | 6,2  | 9,40  | 18  | 3                | 66,77 043                         |                                   |
| 7/16-14 | 1,814 | 100 | 8      | 6,2  | 9,40  | 18  | 4                |                                   | 84,78 043                         |
| 1/2-13  | 1,954 | 110 | 9      | 7,0  | 10,80 | 20  | 3                | 66,77 050                         |                                   |
| 1/2-13  | 1,954 | 110 | 9      | 7,0  | 10,80 | 20  | 4                |                                   | 74,51 050                         |
| 9/16-12 | 2,117 | 110 | 11     | 9,0  | 12,25 | 20  | 3                | 94,74 056                         |                                   |
| 5/8-11  | 2,309 | 110 | 12     | 9,0  | 13,50 | 22  | 3                | 87,96 062                         |                                   |
| 5/8-11  | 2,309 | 110 | 12     | 9,0  | 13,50 | 22  | 4                |                                   | 95,91 062                         |
| 3/4-10  | 2,540 | 125 | 14     | 11,0 | 16,50 | 25  | 3                | 113,40 075                        |                                   |
| 3/4-10  | 2,540 | 125 | 14     | 11,0 | 16,50 | 25  | 4                |                                   | 117,60 075                        |
| 7/8-9   | 2,822 | 140 | 18     | 14,5 | 19,50 | 27  | 4                | 135,60 087                        |                                   |
| 1-8     | 3,175 | 160 | 18     | 14,5 | 22,25 | 30  | 4                | 184,40 100                        |                                   |
| 1-8     | 3,175 | 160 | 18     | 14,5 | 22,25 | 30  | 5                |                                   | 197,10 100                        |

|                            |      |      |
|----------------------------|------|------|
| Acciaio                    | 6-20 |      |
| Acciaio inossidabile       | 4-8  | 5-10 |
| Ghisa                      | 6-15 |      |
| Metalli non ferrosi        |      |      |
| Leghe resistenti al calore |      |      |
| Materiali duri             |      |      |



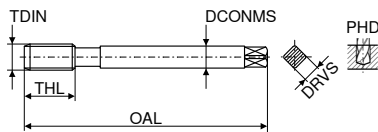
## Foro cieco – Maschi a macchina destri

UNC



DIN 371 con codolo rinforzato

| TDIN      | TP    | OAL | DCONMS | DRVS | PHD  | THL | LU | Scanalatura | T9<br>Codice<br>23 172 ...<br>EUR | T9<br>Codice<br>23 272 ...<br>EUR | T9<br>Codice<br>23 372 ...<br>EUR | T9<br>Codice<br>23 472 ...<br>EUR |
|-----------|-------|-----|--------|------|------|-----|----|-------------|-----------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|
| Nr. 4-40  | 0,635 | 56  | 3,5    | 2,7  | 2,30 | 11  | 18 | 2           |                                   |                                   |                                   |                                   |
| Nr. 4-40  | 0,635 | 56  | 3,5    | 2,7  | 2,30 | 6   | 18 | 2           | 20,58 004                         | 23,74 004                         | 21,60 004                         | 26,09 004                         |
| Nr. 6-32  | 0,794 | 56  | 4,0    | 3,0  | 2,85 | 7   | 20 | 3           | 18,95 006                         | 22,11 006                         |                                   | 24,46 006                         |
| Nr. 6-32  | 0,794 | 56  | 4,0    | 3,0  | 2,85 | 12  | 20 | 3           |                                   |                                   | 20,48 006                         |                                   |
| Nr. 8-32  | 0,794 | 63  | 4,5    | 3,4  | 3,50 | 8   | 21 | 3           | 20,38 008                         | 23,13 008                         |                                   | 25,37 008                         |
| Nr. 8-32  | 0,794 | 63  | 4,5    | 3,4  | 3,50 | 13  | 21 | 3           |                                   |                                   | 21,70 008                         |                                   |
| Nr. 10-24 | 1,058 | 70  | 6,0    | 4,9  | 3,90 | 10  | 25 | 3           | 21,09 010                         | 24,15 010                         |                                   | 26,39 010                         |
| Nr. 10-24 | 1,058 | 70  | 6,0    | 4,9  | 3,90 | 15  | 25 | 3           |                                   |                                   | 22,42 010                         |                                   |
| 1/4-20    | 1,270 | 80  | 7,0    | 5,5  | 5,20 | 13  | 30 | 3           | 27,21 025                         | 26,90 025                         |                                   | 29,65 025                         |
| 1/4-20    | 1,270 | 80  | 7,0    | 5,5  | 5,20 | 17  | 30 | 3           |                                   |                                   | 30,26 025                         |                                   |
| 5/16-18   | 1,411 | 90  | 8,0    | 6,2  | 6,60 | 14  | 35 | 3           | 27,21 031                         | 28,53 031                         |                                   | 31,28 031                         |
| 5/16-18   | 1,411 | 90  | 8,0    | 6,2  | 6,60 | 20  | 35 | 3           |                                   |                                   | 31,49 031                         |                                   |
| 3/8-16    | 1,588 | 100 | 10,0   | 8,0  | 8,00 | 16  | 39 | 3           | 33,32 037                         | 31,79 037                         |                                   | 34,95 037                         |
| 3/8-16    | 1,588 | 100 | 10,0   | 8,0  | 8,00 | 22  | 39 | 3           |                                   |                                   | 37,50 037                         |                                   |



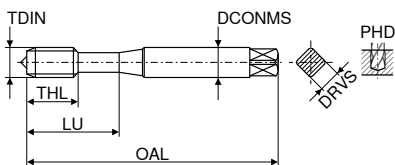
DIN 376 con codolo rastremato

| TDIN    | TP    | OAL | DCONMS | DRVS | PHD   | THL | Scanalatura | T9<br>Codice<br>23 173 ...<br>EUR | T9<br>Codice<br>23 273 ...<br>EUR | T9<br>Codice<br>23 373 ...<br>EUR | T9<br>Codice<br>23 473 ...<br>EUR |
|---------|-------|-----|--------|------|-------|-----|-------------|-----------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|
| 7/16-14 | 1,814 | 100 | 8      | 6,2  | 9,40  | 22  | 3           |                                   |                                   | 46,77 043                         |                                   |
| 7/16-14 | 1,814 | 100 | 8      | 6,2  | 9,40  | 18  | 3           | 42,19 043                         | 43,92 043                         |                                   | 48,40 043                         |
| 1/2-13  | 1,954 | 110 | 9      | 7,0  | 10,75 | 20  | 3           | 44,53 050                         | 43,41 050                         |                                   | 47,69 050                         |
| 1/2-13  | 1,954 | 110 | 9      | 7,0  | 10,75 | 25  | 3           |                                   |                                   | 50,54 050                         |                                   |
| 5/8-11  | 2,309 | 110 | 12     | 9,0  | 13,50 | 22  | 3           | 54,82 062                         | 60,73 062                         |                                   | 66,95 062                         |
| 5/8-11  | 2,309 | 110 | 12     | 9,0  | 13,50 | 27  | 3           |                                   |                                   | 60,53 062                         |                                   |
| 3/4-10  | 2,540 | 125 | 14     | 11,0 | 16,50 | 25  | 3           | 82,95 075                         | 74,69 075                         |                                   | 82,13 075                         |
| 3/4-10  | 2,540 | 125 | 14     | 11,0 | 16,50 | 30  | 3           |                                   |                                   | 94,87 075                         |                                   |

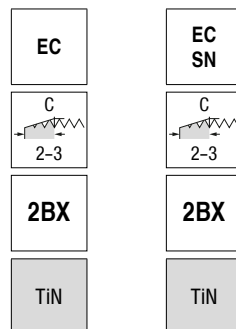
|                            |       |      |      |
|----------------------------|-------|------|------|
| Acciaio                    | 5-45  | 5-25 | 5-45 |
| Acciaio inossidabile       | 5-15  |      | 3-10 |
| Ghisa                      | 10-25 |      |      |
| Metalli non ferrosi        | 15-40 |      |      |
| Leghe resistenti al calore |       |      |      |
| Materiali duri             |       |      |      |

# Foro passante / foro cieco – Maschi a macchina destri

▲ SN = maschi a rullare con scanalature di lubrificazione



DIN 2174 con codolo rastremato



HSS-E  
≤ 1100 N/mm<sup>2</sup>  
≤ 1,5xD

HSS-E  
≤ 1100 N/mm<sup>2</sup>  
≤ 3xD

| TDIN                       | TP    | OAL | DCONMS | DRVS | PHD  | THL | LU | Scanalatura | U0<br>Codice<br>22 270 ...<br>EUR | 004 | U0<br>Codice<br>22 271 ...<br>EUR | 004 |
|----------------------------|-------|-----|--------|------|------|-----|----|-------------|-----------------------------------|-----|-----------------------------------|-----|
| Nr. 4-40                   | 0,635 | 56  | 3,5    | 2,7  | 2,55 | 11  | 18 |             | 54,48                             |     | 62,95                             |     |
| Nr. 4-40                   | 0,635 | 56  | 3,5    | 2,7  | 2,55 | 11  | 18 | 3           |                                   |     |                                   |     |
| Nr. 6-32                   | 0,794 | 56  | 4,0    | 3,0  | 3,15 | 12  | 20 |             | 50,76                             | 006 | 58,50                             | 006 |
| Nr. 6-32                   | 0,794 | 56  | 4,0    | 3,0  | 3,15 | 12  | 20 | 3           |                                   |     |                                   |     |
| Nr. 8-32                   | 0,794 | 63  | 4,5    | 3,4  | 3,80 | 13  | 21 |             | 50,97                             | 008 | 58,50                             | 008 |
| Nr. 8-32                   | 0,794 | 63  | 4,5    | 3,4  | 3,80 | 13  | 21 | 4           |                                   |     |                                   |     |
| Nr. 10-24                  | 1,058 | 70  | 6,0    | 4,9  | 4,35 | 15  | 25 |             | 56,80                             | 010 | 64,32                             | 010 |
| Nr. 10-24                  | 1,058 | 70  | 6,0    | 4,9  | 4,35 | 15  | 25 | 4           |                                   |     |                                   |     |
| 1/4-20                     | 1,270 | 80  | 7,0    | 5,5  | 5,75 | 17  | 30 |             | 66,02                             | 025 | 74,51                             | 025 |
| 1/4-20                     | 1,270 | 80  | 7,0    | 5,5  | 5,75 | 17  | 30 | 4           |                                   |     |                                   |     |
| 5/16-18                    | 1,411 | 90  | 8,0    | 6,2  | 7,30 | 20  | 35 |             | 71,22                             | 031 | 80,65                             | 031 |
| 5/16-18                    | 1,411 | 90  | 8,0    | 6,2  | 7,30 | 20  | 35 | 5           |                                   |     |                                   |     |
| 3/8-16                     | 1,588 | 100 | 10,0   | 8,0  | 8,80 | 22  | 39 |             | 85,42                             | 037 | 93,89                             | 037 |
| 3/8-16                     | 1,588 | 100 | 10,0   | 8,0  | 8,80 | 22  | 39 | 5           |                                   |     |                                   |     |
| Acciaio                    |       |     |        |      |      |     |    |             | 8-30                              |     | 8-30                              |     |
| Acciaio inossidabile       |       |     |        |      |      |     |    |             | 8-15                              |     | 8-15                              |     |
| Ghisa                      |       |     |        |      |      |     |    |             |                                   |     |                                   |     |
| Metalli non ferrosi        |       |     |        |      |      |     |    |             | 12-25                             |     | 12-25                             |     |
| Leghe resistenti al calore |       |     |        |      |      |     |    |             |                                   |     |                                   |     |
| Materiali duri             |       |     |        |      |      |     |    |             |                                   |     |                                   |     |

## Foro passante – Maschi a macchina per filetti riportati destri

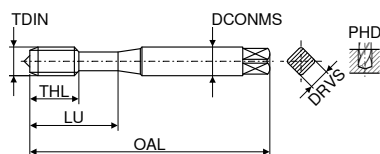
EG  
UNC

Stabil

UNI



2B

nitr. +  
vap.

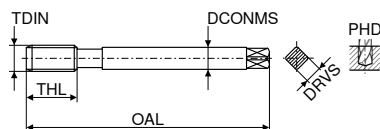
DIN 371 con codolo rinforzato



HSS-E

 $\angle 0^\circ$   
 $\leq 1100 \text{ N/mm}^2$   
 $\leq 4xD$ 

| TDIN         | TP    | OAL | DCONMS | DRVS | PHD | THL | LU | Scana-<br>lature | U0<br>Codice<br>22 668 ...<br>EUR |     |
|--------------|-------|-----|--------|------|-----|-----|----|------------------|-----------------------------------|-----|
| EG Nr. 4-40  | 0,635 | 63  | 4,5    | 3,4  | 3,1 | 13  | 21 | 3                | 55,95                             | 004 |
| EG Nr. 6-32  | 0,794 | 70  | 6,0    | 4,9  | 3,8 | 14  | 25 | 3                | 57,97                             | 006 |
| EG Nr. 8-32  | 0,794 | 80  | 6,0    | 4,9  | 4,4 | 16  | 30 | 3                | 55,64                             | 008 |
| EG Nr. 10-24 | 1,058 | 80  | 7,0    | 5,5  | 5,2 | 17  | 30 | 3                | 60,51                             | 010 |
| EG 1/4-20    | 1,270 | 90  | 8,0    | 6,2  | 6,7 | 20  | 35 | 3                | 62,52                             | 025 |
| EG 5/16-18   | 1,411 | 100 | 10,0   | 8,0  | 8,4 | 22  | 39 | 3                | 71,96                             | 031 |

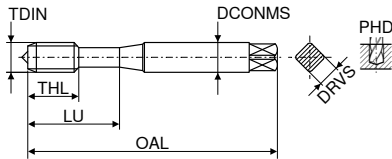
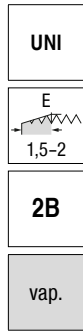


DIN 376 con codolo rastremato

| TDIN       | TP    | OAL | DCONMS | DRVS | PHD   | THL | Scana-<br>lature | U0<br>Codice<br>22 670 ...<br>EUR |     |
|------------|-------|-----|--------|------|-------|-----|------------------|-----------------------------------|-----|
| EG 3/8-16  | 1,588 | 100 | 9      | 7,0  | 10,00 | 22  | 3                | 82,88                             | 037 |
| EG 7/16-14 | 1,814 | 110 | 11     | 9,0  | 11,60 | 26  | 3                | 100,40                            | 043 |
| EG 1/2-13  | 1,954 | 110 | 12     | 9,0  | 13,30 | 27  | 3                | 107,00                            | 050 |
| EG 5/8-11  | 2,309 | 125 | 14     | 11,0 | 16,50 | 30  | 3                | 133,50                            | 062 |
| EG 3/4-10  | 2,540 | 140 | 18     | 14,5 | 19,75 | 32  | 3                | 173,80                            | 075 |

|                            |      |
|----------------------------|------|
| Acciaio                    | 6-20 |
| Acciaio inossidabile       | 4-8  |
| Ghisa                      | 6-15 |
| Metalli non ferrosi        |      |
| Leghe resistenti al calore |      |
| Materiali duri             |      |

## Foro cieco – Maschi a macchina per filetti riportati destri



DIN 371 con codolo rinforzato



HSS-E

$\angle 42^\circ$   
 $\leq 1100 \text{ N/mm}^2$   
 $\leq 3xD$

| TDIN         | TP    | OAL | DCONMS | DRVS | PHD | THL | LU | Scana-<br>lature | U0<br>Codice<br>22 672 ...<br>EUR |
|--------------|-------|-----|--------|------|-----|-----|----|------------------|-----------------------------------|
| EG Nr. 4-40  | 0,635 | 63  | 4,5    | 3,4  | 3,1 | 7   | 21 | 3                | 56,70 004                         |
| EG Nr. 6-32  | 0,794 | 70  | 6,0    | 4,9  | 3,8 | 8   | 25 | 3                | 53,09 006                         |
| EG Nr. 8-32  | 0,794 | 80  | 6,0    | 4,9  | 4,4 | 8   | 30 | 3                | 56,38 008                         |
| EG Nr. 10-24 | 1,058 | 80  | 7,0    | 5,5  | 5,2 | 10  | 30 | 3                | 59,24 010                         |
| EG 1/4-20    | 1,270 | 90  | 8,0    | 6,2  | 6,7 | 14  | 35 | 3                | 65,38 025                         |
| EG 5/16-18   | 1,411 | 100 | 10,0   | 8,0  | 8,4 | 16  | 39 | 3                | 70,58 031                         |

|                            |      |
|----------------------------|------|
| Acciaio                    | 6-20 |
| Acciaio inossidabile       | 4-8  |
| Ghisa                      | 6-15 |
| Metalli non ferrosi        |      |
| Leghe resistenti al calore |      |
| Materiali duri             |      |

## Foro cieco – Maschi a macchina destri

UNJC

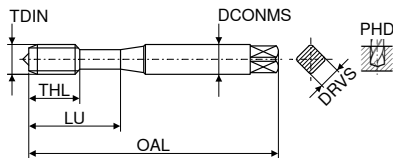
SL

Ti



3BX

TiCN



DIN 371 con codolo rinforzato



HSS-E

 $\angle 15^\circ$   
 $\leq 1200 \text{ N/mm}^2$   
 $\leq 2xD$ 

U0

Codice  
22 166 ...

EUR

| TDIN      | TP    | OAL | DCONMS | DRVS | PHD  | THL | LU | Scanala-<br>ture |            |
|-----------|-------|-----|--------|------|------|-----|----|------------------|------------|
| mm        | mm    | mm  | mm     | mm   | mm   | mm  | mm |                  |            |
| Nr. 4-40  | 0,635 | 56  | 3,5    | 2,7  | 2,30 | 11  | 18 | 2                | 74,51 004  |
| Nr. 6-32  | 0,794 | 56  | 4,0    | 3,0  | 2,85 | 12  | 20 | 3                | 76,09 006  |
| Nr. 8-32  | 0,794 | 63  | 4,5    | 3,4  | 3,50 | 13  | 21 | 3                | 75,04 008  |
| Nr. 10-24 | 1,058 | 70  | 6,0    | 4,9  | 3,90 | 15  | 25 | 3                | 78,96 010  |
| 1/4-20    | 1,270 | 80  | 7,0    | 5,5  | 5,25 | 17  | 30 | 3                | 101,30 025 |
| 3/8-16    | 1,588 | 100 | 10,0   | 8,0  | 8,10 | 22  | 39 | 3                | 122,90 037 |

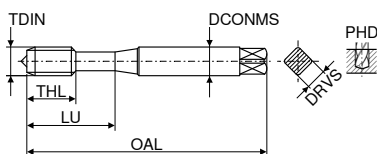
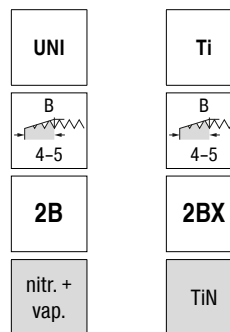
|                            |       |
|----------------------------|-------|
| Acciaio                    | 6-8   |
| Acciaio inossidabile       | 4-10  |
| Ghisa                      |       |
| Metalli non ferrosi        | 10-12 |
| Leghe resistenti al calore | 4-6   |
| Materiali duri             |       |

6

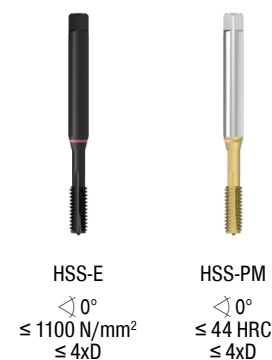
## Foro passante – Maschi a macchina destri

UNF

Stabil

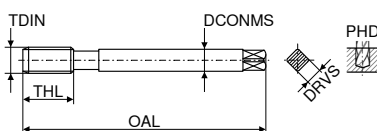


DIN 371 con codolo rinforzato



| TDIN      | TP    | OAL | DCONMS | DRVS | PHD  | THL | LU | Scanalatura |
|-----------|-------|-----|--------|------|------|-----|----|-------------|
|           | mm    | mm  | mm     | mm   | mm   | mm  | mm |             |
| Nr. 4-48  | 0,529 | 56  | 3,5    | 2,7  | 2,40 | 11  | 18 | 2           |
| Nr. 4-48  | 0,529 | 56  | 3,5    | 2,7  | 2,40 | 11  | 18 | 3           |
| Nr. 5-44  | 0,577 | 56  | 3,5    | 2,7  | 2,70 | 11  | 18 | 3           |
| Nr. 6-40  | 0,635 | 56  | 4,0    | 3,0  | 2,95 | 12  | 20 | 3           |
| Nr. 8-36  | 0,706 | 63  | 4,5    | 3,4  | 3,50 | 13  | 21 | 3           |
| Nr. 10-32 | 0,794 | 70  | 6,0    | 4,9  | 4,10 | 15  | 25 | 3           |
| 1/4-28    | 0,907 | 80  | 7,0    | 5,5  | 5,50 | 17  | 30 | 3           |
| 5/16-24   | 1,058 | 90  | 8,0    | 6,2  | 6,90 | 17  | 35 | 3           |
| 3/8-24    | 1,058 | 90  | 10,0   | 8,0  | 8,50 | 18  | 35 | 3           |

| U0                | U0                |
|-------------------|-------------------|
| Codice 22 602 ... | Codice 22 317 ... |
| EUR               | EUR               |
| 51,82             | 73,12             |
| 004               | 005               |
| 45,99             | 63,79             |
| 006               | 006               |
| 45,99             | 73,65             |
| 008               | 008               |
| 47,37             | 66,77             |
| 010               | 010               |
| 52,03             | 75,04             |
| 025               | 025               |
| 58,71             | 85,74             |
| 031               | 031               |
|                   | 90,72             |
|                   | 037               |



DIN 374 con codolo rastremato

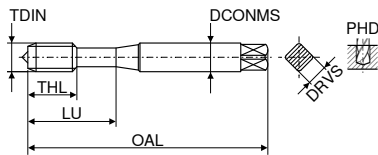
| TDIN     | TP    | OAL | DCONMS | DRVS | PHD   | THL | Scanalatura |
|----------|-------|-----|--------|------|-------|-----|-------------|
|          | mm    | mm  | mm     | mm   | mm    | mm  |             |
| 7/16-20  | 1,270 | 100 | 8      | 6,2  | 9,90  | 22  | 3           |
| 1/2-20   | 1,270 | 100 | 9      | 7,0  | 11,50 | 22  | 3           |
| 9/16-18  | 1,411 | 100 | 11     | 9,0  | 12,90 | 22  | 3           |
| 5/8-18   | 1,411 | 100 | 12     | 9,0  | 14,50 | 22  | 3           |
| 3/4-16   | 1,588 | 110 | 14     | 11,0 | 17,50 | 25  | 4           |
| 7/8-14   | 1,814 | 125 | 18     | 14,5 | 20,50 | 25  | 4           |
| 1-12     | 2,117 | 140 | 18     | 14,5 | 23,25 | 28  | 4           |
| 1 1/8-12 | 2,117 | 150 | 22     | 18,0 | 26,50 | 28  | 4           |
| 1 1/4-12 | 2,117 | 150 | 22     | 18,0 | 29,75 | 28  | 4           |
| 1 3/8-12 | 2,117 | 170 | 28     | 22,0 | 33,00 | 30  | 5           |

| U0                | U0                |
|-------------------|-------------------|
| Codice 22 603 ... | Codice 22 421 ... |
| EUR               | EUR               |
| 70,05             | 110,20            |
| 043               | 050               |
| 66,77             |                   |
| 050               |                   |
| 102,90            |                   |
| 056               |                   |
| 93,89             |                   |
| 062               |                   |
| 118,70            |                   |
| 075               |                   |
| 154,80            |                   |
| 087               |                   |
| 200,30            |                   |
| 100               |                   |
| 526,70            |                   |
| 112               |                   |
| 577,60            |                   |
| 125               |                   |
| 608,30            |                   |
| 137               |                   |

|                            |      |     |
|----------------------------|------|-----|
| Acciaio                    | 6-20 | 2-5 |
| Acciaio inossidabile       | 4-8  |     |
| Ghisa                      | 6-15 |     |
| Metalli non ferrosi        |      |     |
| Leghe resistenti al calore |      | 2-6 |
| Materiali duri             |      |     |

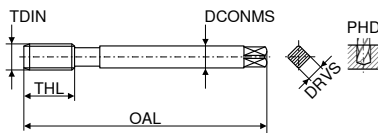
## Foro passante – Maschi a macchina destri

UNF



DIN 371 con codolo rinforzato

| TDIN      | TP    | OAL | DCONMS | DRVS | PHD | THL | LU | Scanalatura |
|-----------|-------|-----|--------|------|-----|-----|----|-------------|
|           | mm    | mm  | mm     | mm   | mm  | mm  | mm |             |
| Nr. 10-32 | 0,794 | 70  | 6      | 4,9  | 4,1 | 15  | 25 | 3           |
| 1/4-28    | 0,907 | 80  | 7      | 5,5  | 5,5 | 17  | 30 | 3           |
| 5/16-24   | 1,058 | 90  | 8      | 6,2  | 6,9 | 17  | 35 | 3           |
| 3/8-24    | 1,058 | 90  | 10     | 8,0  | 8,5 | 18  | 35 | 4           |



DIN 374 con codolo rastremato

| TDIN    | TP    | OAL | DCONMS | DRVS | PHD  | THL | Scanalatura |
|---------|-------|-----|--------|------|------|-----|-------------|
|         | mm    | mm  | mm     | mm   | mm   | mm  |             |
| 7/16-20 | 1,270 | 100 | 8      | 6,2  | 9,9  | 22  | 3           |
| 1/2-20  | 1,270 | 100 | 9      | 7,0  | 11,5 | 22  | 3           |
| 9/16-18 | 1,411 | 100 | 11     | 9,0  | 12,9 | 22  | 3           |
| 5/8-18  | 1,411 | 100 | 12     | 9,0  | 14,5 | 22  | 3           |
| 3/4-16  | 1,588 | 110 | 14     | 11,0 | 17,5 | 25  | 4           |

| UNI      | FE       | VA       |
|----------|----------|----------|
| B<br>4-5 | B<br>4-5 | B<br>4-5 |
| 2B       | 2B       | 2B       |
| TiN      |          | nitr.    |



HSS-E  
 $\angle 0^\circ$   
 $\leq 1100 \text{ N/mm}^2$   
 $\leq 3xD$

| T9                   |
|----------------------|
| Codice<br>23 180 ... |
| EUR                  |
| 22,01 010            |
| 28,12 025            |
| 31,28 031            |
| 34,14 037            |



HSS-E  
 $\angle 0^\circ$   
 $\leq 850 \text{ N/mm}^2$   
 $\leq 3xD$

| T9                   |
|----------------------|
| Codice<br>23 280 ... |
| EUR                  |
| 26,70 010            |
| 28,74 025            |
| 31,79 031            |
| 33,12 037            |



HSS-E  
 $\angle 0^\circ$   
 $\leq 1100 \text{ N/mm}^2$   
 $\leq 3xD$

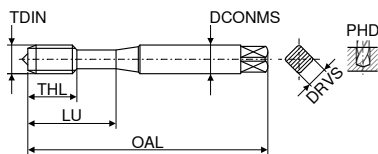
| T9                   |
|----------------------|
| Codice<br>23 480 ... |
| EUR                  |
| 18,14 010            |
| 20,48 025            |
| 22,62 031            |
| 23,64 037            |

|                            |       |      |
|----------------------------|-------|------|
| Acciaio                    | 5-45  | 5-25 |
| Acciaio inossidabile       | 5-15  | 3-10 |
| Ghisa                      | 10-25 |      |
| Metalli non ferrosi        | 15-40 |      |
| Leghe resistenti al calore |       |      |
| Materiali duri             |       |      |

## Foro cieco – Maschi a macchina destri

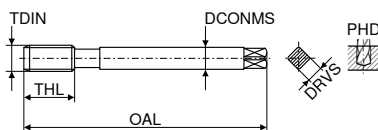
UNF

Salo-Rex



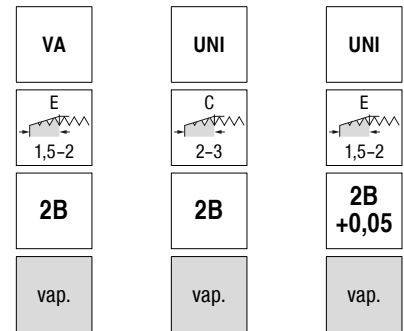
DIN 371 con codolo rinforzato

| TDIN      | TP    | OAL | DCONMS | DRVS | PHD  | THL  | LU | Scana-lature |
|-----------|-------|-----|--------|------|------|------|----|--------------|
| mm        | mm    | mm  | mm     | mm   | mm   | mm   | mm |              |
| Nr. 2-64  | 0,397 | 45  | 2,8    | 2,1  | 1,85 | 4,5  | 12 | 2            |
| Nr. 4-48  | 0,529 | 56  | 3,5    | 2,7  | 2,40 | 6,0  | 18 | 2            |
| Nr. 6-40  | 0,635 | 56  | 4,0    | 3,0  | 2,95 | 7,0  | 20 | 3            |
| Nr. 6-40  | 0,635 | 56  | 4,0    | 3,0  | 3,00 | 7,0  | 20 | 3            |
| Nr. 8-36  | 0,706 | 63  | 4,5    | 3,4  | 3,50 | 8,0  | 21 | 3            |
| Nr. 10-32 | 0,794 | 70  | 6,0    | 4,9  | 4,10 | 10,0 | 25 | 3            |
| Nr. 10-32 | 0,794 | 70  | 6,0    | 4,9  | 4,15 | 10,0 | 25 | 3            |
| 1/4-28    | 0,907 | 80  | 7,0    | 5,5  | 5,50 | 10,0 | 30 | 3            |
| 1/4-28    | 0,907 | 80  | 7,0    | 5,5  | 5,55 | 10,0 | 30 | 3            |
| 5/16-24   | 1,058 | 90  | 8,0    | 6,2  | 6,90 | 10,0 | 35 | 3            |
| 5/16-24   | 1,058 | 90  | 8,0    | 6,2  | 6,95 | 10,0 | 35 | 3            |
| 3/8-24    | 1,058 | 90  | 10,0   | 8,0  | 8,50 | 10,0 | 35 | 3            |
| 3/8-24    | 1,058 | 90  | 10,0   | 8,0  | 8,55 | 10,0 | 35 | 3            |



DIN 374 con codolo rastremato

| TDIN     | TP    | OAL | DCONMS | DRVS | PHD   | THL | Scana-lature |
|----------|-------|-----|--------|------|-------|-----|--------------|
| mm       | mm    | mm  | mm     | mm   | mm    | mm  |              |
| 7/16-20  | 1,270 | 100 | 8      | 6,2  | 9,90  | 13  | 3            |
| 7/16-20  | 1,270 | 100 | 8      | 6,2  | 9,95  | 13  | 4            |
| 1/2-20   | 1,270 | 100 | 9      | 7,0  | 11,50 | 13  | 4            |
| 1/2-20   | 1,270 | 100 | 9      | 7,0  | 11,55 | 13  | 5            |
| 9/16-18  | 1,411 | 100 | 11     | 9,0  | 12,90 | 15  | 4            |
| 9/16-18  | 1,411 | 100 | 11     | 9,0  | 12,95 | 15  | 5            |
| 5/8-18   | 1,411 | 100 | 12     | 9,0  | 14,50 | 15  | 4            |
| 5/8-18   | 1,411 | 100 | 12     | 9,0  | 14,55 | 15  | 5            |
| 3/4-16   | 1,588 | 110 | 14     | 11,0 | 17,50 | 17  | 4            |
| 3/4-16   | 1,588 | 110 | 14     | 11,0 | 17,55 | 17  | 5            |
| 7/8-14   | 1,814 | 125 | 18     | 14,5 | 20,50 | 17  | 4            |
| 1-12     | 2,117 | 140 | 18     | 14,5 | 23,25 | 20  | 4            |
| 1-12     | 2,117 | 140 | 18     | 14,5 | 23,30 | 20  | 5            |
| 1 1/8-12 | 2,117 | 150 | 22     | 18,0 | 26,50 | 22  | 4            |
| 1 1/4-12 | 2,117 | 150 | 22     | 18,0 | 29,75 | 22  | 5            |
| 1 3/8-12 | 2,117 | 170 | 28     | 22,0 | 33,00 | 24  | 5            |

HSS-E  
 $\angle 42^\circ$   
 $\leq 900 \text{ N/mm}^2$   
 $\leq 3xD$ HSS-E  
 $\angle 42^\circ$   
 $\leq 1100 \text{ N/mm}^2$   
 $\leq 3xD$ HSS-E  
 $\angle 42^\circ$   
 $\leq 1100 \text{ N/mm}^2$   
 $\leq 3xD$ 

| UO         | UO         | UO         |
|------------|------------|------------|
| Codice     | Codice     | Codice     |
| 22 308 ... | 22 606 ... | 22 307 ... |
| EUR        | EUR        | EUR        |
| 63,59 002  | 45,99 004  |            |
| 47,90 004  | 40,80 006  |            |
| 45,99 006  |            | 64,32 006  |
| 45,99 008  | 40,80 008  |            |
| 49,17 010  | 43,02 010  |            |
|            |            | 68,04 010  |
| 50,55 025  | 47,05 025  | 71,22 025  |
| 56,38 031  | 53,09 031  | 81,07 031  |
| 59,03 037  |            | 81,07 037  |

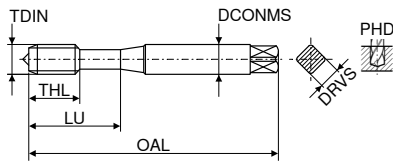
|                            |      |      |      |
|----------------------------|------|------|------|
| Acciaio                    |      | 6-20 | 6-20 |
| Acciaio inossidabile       | 5-10 | 4-8  | 4-8  |
| Ghisa                      |      | 6-15 | 6-15 |
| Metalli non ferrosi        |      |      |      |
| Leghe resistenti al calore |      |      |      |
| Materiali duri             |      |      |      |



## Foro cieco – Maschi a macchina destri

UNF

SL



DIN 371 con codolo rinforzato

| TDIN      | TP    | OAL | DCONMS | DRVS | PHD | THL | LU | Scana-lature |
|-----------|-------|-----|--------|------|-----|-----|----|--------------|
|           | mm    | mm  | mm     | mm   | mm  | mm  | mm |              |
| Nr. 10-32 | 0,794 | 70  | 6      | 4,9  | 4,1 | 10  | 25 | 3            |
| 1/4-28    | 0,907 | 80  | 7      | 5,5  | 5,5 | 10  | 30 | 3            |
| 5/16-24   | 1,058 | 90  | 8      | 6,2  | 6,9 | 10  | 35 | 3            |
| 3/8-24    | 1,058 | 90  | 10     | 8,0  | 8,5 | 10  | 35 | 3            |

|                            |     |     |
|----------------------------|-----|-----|
| Acciaio                    | 2-5 | 2-5 |
| Acciaio inossidabile       |     |     |
| Ghisa                      |     |     |
| Metalli non ferrosi        |     |     |
| Leghe resistenti al calore | 2-6 | 2-6 |
| Materiali duri             |     |     |

Ti



2BX

vap.



HSS-PM

 $\angle 30^\circ$   
 $\leq 1400 \text{ N/mm}^2$   
 $\leq 1,5xD$ 

 U0  
 Codice  
 22 302 ...  
 EUR

 89,44 010  
 97,18 025  
 115,50 031  
 114,50 037

Ti



3BX

vap.



HSS-PM

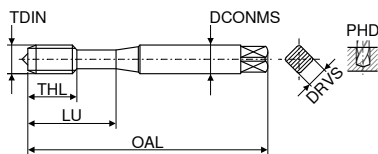
 $\angle 30^\circ$   
 $\leq 1400 \text{ N/mm}^2$   
 $\leq 1,5xD$ 

 U0  
 Codice  
 22 303 ...  
 EUR

 89,44 010  
 97,18 025  
 105,00 031  
 114,50 037

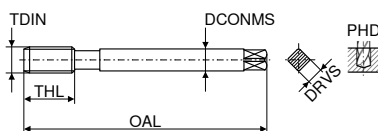
## Foro cieco – Maschi a macchina destri

UNF



DIN 371 con codolo rinforzato

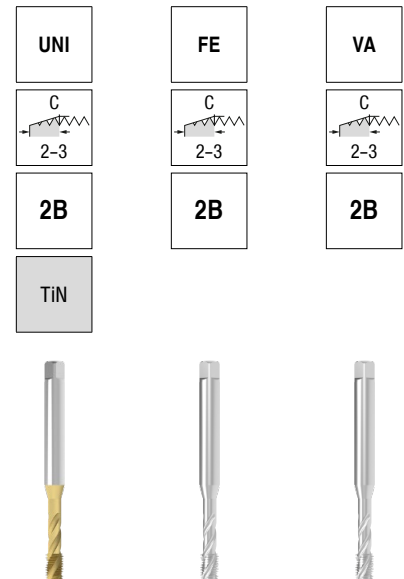
| TDIN      | TP    | OAL | DCONMS | DRVS | PHD | THL | LU | Scana-<br>lature | T9                   |     | T9                   |     | T9                   |     |
|-----------|-------|-----|--------|------|-----|-----|----|------------------|----------------------|-----|----------------------|-----|----------------------|-----|
|           | mm    | mm  | mm     | mm   | mm  | mm  | mm |                  | Codice<br>23 182 ... |     | Codice<br>23 282 ... |     | Codice<br>23 482 ... |     |
| Nr. 10-32 | 0,794 | 70  | 6      | 4,9  | 4,1 | 10  | 25 | 3                | EUR                  |     | EUR                  |     | EUR                  |     |
| 1/4-28    | 0,907 | 80  | 7      | 5,5  | 5,5 | 10  | 30 | 3                | 23,23                | 010 | 28,23                | 010 | 30,98                | 010 |
| 5/16-24   | 1,058 | 90  | 8      | 6,2  | 6,9 | 10  | 35 | 3                | 29,75                | 025 | 30,67                | 025 | 33,83                | 025 |
| 3/8-24    | 1,058 | 90  | 10     | 8,0  | 8,5 | 10  | 35 | 3                | 31,49                | 031 | 32,71                | 031 | 35,87                | 031 |
|           |       |     |        |      |     |     |    |                  | 35,05                | 037 | 35,46                | 037 | 38,93                | 037 |



DIN 374 con codolo rastremato

| TDIN    | TP    | OAL | DCONMS | DRVS | PHD  | THL | Scana-<br>lature | T9                   |     | T9                   |     | T9                   |     |
|---------|-------|-----|--------|------|------|-----|------------------|----------------------|-----|----------------------|-----|----------------------|-----|
|         | mm    | mm  | mm     | mm   | mm   | mm  |                  | Codice<br>23 183 ... |     | Codice<br>23 283 ... |     | Codice<br>23 483 ... |     |
| 7/16-20 | 1,270 | 100 | 8      | 6,2  | 9,9  | 13  | 3                | EUR                  |     | EUR                  |     | EUR                  |     |
| 1/2-20  | 1,270 | 100 | 9      | 7,0  | 11,5 | 13  | 4                | 42,19                | 043 | 43,92                | 043 | 48,40                | 043 |
| 9/16-18 | 1,411 | 100 | 11     | 9,0  | 12,9 | 15  | 4                | 44,53                | 050 | 44,53                | 050 | 48,81                | 050 |
| 5/8-18  | 1,411 | 100 | 12     | 9,0  | 14,5 | 15  | 4                | 60,12                | 056 | 62,16                | 056 | 68,48                | 056 |
| 3/4-16  | 1,588 | 110 | 14     | 11,0 | 17,5 | 17  | 4                | 54,41                | 062 | 54,62                | 062 | 60,12                | 062 |
|         |       |     |        |      |      |     |                  | 86,31                | 075 | 73,88                | 075 | 81,32                | 075 |

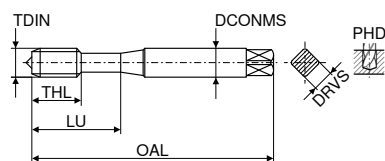
|                            |       |      |      |
|----------------------------|-------|------|------|
| Acciaio                    | 5-45  | 5-25 |      |
| Acciaio inossidabile       | 5-15  |      | 3-10 |
| Ghisa                      | 10-25 |      |      |
| Metalli non ferrosi        | 15-40 |      |      |
| Leghe resistenti al calore |       |      |      |
| Materiali duri             |       |      |      |



|                                                                 |                                                                |                                                                 |
|-----------------------------------------------------------------|----------------------------------------------------------------|-----------------------------------------------------------------|
| HSS-E                                                           | HSS-E                                                          | HSS-E                                                           |
| $\angle 35^\circ$<br>$\leq 1100 \text{ N/mm}^2$<br>$\leq 2,5xD$ | $\angle 35^\circ$<br>$\leq 850 \text{ N/mm}^2$<br>$\leq 2,5xD$ | $\angle 35^\circ$<br>$\leq 1100 \text{ N/mm}^2$<br>$\leq 2,5xD$ |

# Foro passante / foro cieco – Maschi a macchina destri

▲ SN = maschi a rullare con scanalature di lubrificazione



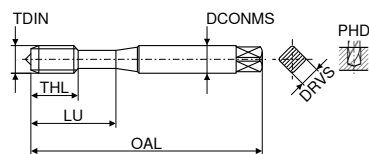
DIN 2174 con codolo rastremato



HSS-E  
≤ 1100 N/mm<sup>2</sup>  
≤ 3xD

| TDIN      | TP    | OAL | DCONMS | DRVS | PHD  | THL | LU | Scanala-<br>ture |
|-----------|-------|-----|--------|------|------|-----|----|------------------|
| mm        | mm    | mm  | mm     | mm   | mm   | mm  | mm |                  |
| Nr. 4-48  | 0,529 | 56  | 3,5    | 2,7  | 2,62 | 11  | 18 | 3                |
| Nr. 6-40  | 0,635 | 56  | 4,0    | 3,0  | 3,22 | 12  | 20 | 3                |
| Nr. 8-36  | 0,706 | 63  | 4,5    | 3,4  | 3,85 | 13  | 21 | 4                |
| Nr. 10-32 | 0,794 | 70  | 6,0    | 4,9  | 4,45 | 15  | 25 | 4                |
| 1/4-28    | 0,907 | 80  | 7,0    | 5,5  | 5,95 | 17  | 30 | 4                |

| U0                |
|-------------------|
| Codice 22 312 ... |
| EUR               |
| 69,94 004         |
| 64,96 006         |
| 66,66 008         |
| 72,06 010         |
| 84,57 025         |



DIN 2174 con codolo rastremato

| TDIN    | TP   | OAL | DCONMS | DRVS | PHD   | THL | Scanala-<br>ture |
|---------|------|-----|--------|------|-------|-----|------------------|
| mm      | mm   | mm  | mm     | mm   | mm    | mm  |                  |
| 7/16-20 | 1,27 | 100 | 8      | 6,2  | 10,55 | 22  | 6                |
| 1/2-20  | 1,27 | 100 | 9      | 7,0  | 12,15 | 22  | 6                |

| U0                |
|-------------------|
| Codice 22 313 ... |
| EUR               |
| 126,20 043        |
| 129,30 050        |

|                            |       |
|----------------------------|-------|
| Acciaio                    | 8-30  |
| Acciaio inossidabile       | 8-15  |
| Ghisa                      |       |
| Metalli non ferrosi        | 12-25 |
| Leghe resistenti al calore |       |
| Materiali duri             |       |

## Foro passante – Maschi a macchina per filetti riportati destri

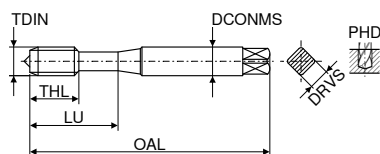
EG  
UNF

Stabil

UNI



2B

nitr. +  
vap.

DIN 371 con codolo rinforzato



HSS-E

 $\angle 0^\circ$   
 $\leq 1100 \text{ N/mm}^2$   
 $\leq 4xD$ 

| TDIN         | TP    | OAL | DCONMS | DRVS | PHD | THL | LU | Scana-<br>lature |
|--------------|-------|-----|--------|------|-----|-----|----|------------------|
|              | mm    | mm  | mm     | mm   | mm  | mm  | mm |                  |
| EG Nr. 4-48  | 0,529 | 56  | 4      | 3,0  | 3,0 | 9   | 20 | 3                |
| EG Nr. 6-40  | 0,635 | 70  | 6      | 4,9  | 3,7 | 11  | 25 | 3                |
| EG Nr. 8-36  | 0,706 | 80  | 6      | 4,9  | 4,4 | 13  | 30 | 3                |
| EG Nr. 10-32 | 0,794 | 80  | 6      | 4,9  | 5,1 | 13  | 30 | 3                |
| EG 1/4-28    | 0,907 | 90  | 8      | 6,2  | 6,6 | 17  | 35 | 3                |

U0

Codice  
22 676 ...

EUR

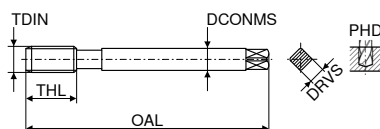
72,59 004

70,05 006

70,05 008

74,51 010

79,59 025



DIN 374 con codolo rastremato

| TDIN       | TP    | OAL | DCONMS | DRVS | PHD   | THL | Scana-<br>lature |
|------------|-------|-----|--------|------|-------|-----|------------------|
|            | mm    | mm  | mm     | mm   | mm    | mm  |                  |
| EG 3/8-24  | 1,058 | 90  | 8      | 6,2  | 9,80  | 18  | 4                |
| EG 7/16-20 | 1,270 | 100 | 9      | 7,0  | 11,50 | 22  | 3                |
| EG 1/2-20  | 1,270 | 100 | 11     | 9,0  | 13,10 | 22  | 3                |
| EG 5/8-18  | 1,411 | 110 | 14     | 11,0 | 16,25 | 25  | 4                |
| EG 3/4-16  | 1,588 | 125 | 16     | 12,0 | 19,50 | 25  | 4                |

U0

Codice  
22 677 ...

EUR

97,18 037

121,90 043

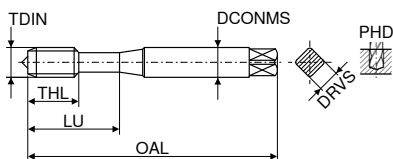
114,50 050

174,80 062

223,60 075

|                            |      |
|----------------------------|------|
| Acciaio                    | 6-20 |
| Acciaio inossidabile       | 4-8  |
| Ghisa                      | 6-15 |
| Metalli non ferrosi        |      |
| Leghe resistenti al calore |      |
| Materiali duri             |      |

## Foro cieco – Maschi a macchina per filetti riportati destri



DIN 371 con codolo rinforzato



HSS-E

$\angle 42^\circ$   
 $\leq 1100 \text{ N/mm}^2$   
 $\leq 3xD$

| TDIN         | TP    | OAL | DCONMS | DRVS | PHD | THL | LU | Scana-<br>lature |
|--------------|-------|-----|--------|------|-----|-----|----|------------------|
|              | mm    | mm  | mm     | mm   | mm  | mm  | mm |                  |
| EG Nr. 4-48  | 0,529 | 56  | 4      | 3,0  | 3,0 | 7   | 20 | 3                |
| EG Nr. 6-40  | 0,635 | 70  | 6      | 4,9  | 3,7 | 8   | 25 | 3                |
| EG Nr. 8-36  | 0,706 | 80  | 6      | 4,9  | 4,4 | 8   | 30 | 3                |
| EG Nr. 10-32 | 0,794 | 80  | 6      | 4,9  | 5,1 | 8   | 30 | 3                |
| EG 1/4-28    | 0,907 | 90  | 8      | 6,2  | 6,6 | 10  | 35 | 3                |

U0

Codice  
22 680 ...

EUR

68,04 004

67,51 006

70,58 008

74,51 010

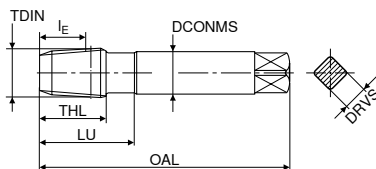
81,70 025

|                            |      |
|----------------------------|------|
| Acciaio                    | 6-20 |
| Acciaio inossidabile       | 4-8  |
| Ghisa                      | 6-15 |
| Metalli non ferrosi        |      |
| Leghe resistenti al calore |      |
| Materiali duri             |      |

## Foro cieco – Maschi a macchina destri

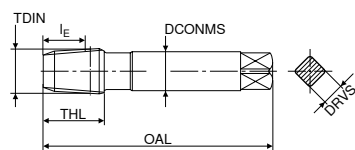
NPT

Salo-Rex



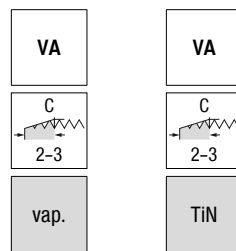
DIN 371 con codolo rinforzato

| TDIN    | TP    | OAL | DCONMS | DRVS | I <sub>E</sub> | THL  | LU   | Scana-<br>lature |
|---------|-------|-----|--------|------|----------------|------|------|------------------|
|         | mm    | mm  | mm     | mm   | mm             | mm   | mm   |                  |
| 1/16-27 | 0,941 | 90  | 8      | 6,2  | 9,24           | 13,0 | 26,0 | 3                |
| 1/8-27  | 0,941 | 90  | 10     | 8,0  | 9,28           | 13,0 | 26,0 | 3                |
| 1/8-27  | 0,941 | 90  | 10     | 8,0  | 9,28           | 12,0 | 26,0 | 4                |
| 1/4-18  | 1,411 | 100 | 14     | 11,0 | 13,55          | 19,5 | 34,5 | 3                |
| 1/4-18  | 1,411 | 100 | 14     | 11,0 | 13,55          | 18,0 | 34,5 | 4                |



DIN 374 con codolo rastremato

| TDIN   | TP    | OAL | DCONMS | DRVS | I <sub>E</sub> | THL  | Scana-<br>lature |
|--------|-------|-----|--------|------|----------------|------|------------------|
|        | mm    | mm  | mm     | mm   | mm             | mm   |                  |
| 3/8-18 | 1,411 | 110 | 14     | 11   | 13,86          | 19,5 | 3                |
| 3/8-18 | 1,411 | 110 | 14     | 11   | 13,86          | 18,0 | 5                |
| 1/2-14 | 1,814 | 140 | 16     | 12   | 18,11          | 25,0 | 5                |
| 1/2-14 | 1,814 | 140 | 16     | 12   | 18,11          | 23,0 | 5                |
| 3/4-14 | 1,814 | 150 | 20     | 16   | 18,59          | 26,0 | 5                |
| 1-11,5 | 2,209 | 170 | 25     | 20   | 22,31          | 32,0 | 5                |

HSS-E  
≤ 35°  
≤ 900 N/mm²HSS-E  
≤ 42°  
≤ 1100 N/mm²

| U0                   | U0                   |
|----------------------|----------------------|
| Codice<br>22 364 ... | Codice<br>22 365 ... |
| EUR                  | EUR                  |
| 92,62                | 006                  |
| 107,00               | 012                  |
| 125,00               | 025                  |
|                      | 139,90               |
|                      | 143,10               |

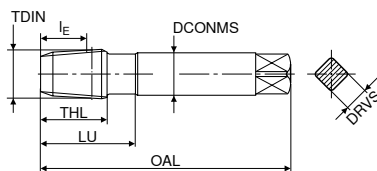
|                            |     |
|----------------------------|-----|
| Acciaio                    | 2-4 |
| Acciaio inossidabile       | 2-4 |
| Ghisa                      |     |
| Metalli non ferrosi        |     |
| Leghe resistenti al calore |     |
| Materiali duri             |     |

## Foro passante / foro cieco – Maschi a macchina destri

NPT

TWIN

VG



DIN 371 con codolo rinforzato



HSS-E

 $\angle 0^\circ$   
 $\leq 1100 \text{ N/mm}^2$ 

U0

Codice  
22 374 ...

EUR

66,77

006

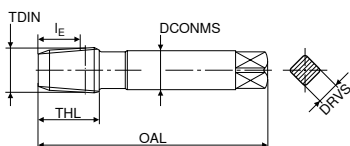
86,80

012

91,88

025

| TDIN    | TP    | OAL | DCONMS | DRVS | IE    | THL  | LU   | Scana-<br>lature |
|---------|-------|-----|--------|------|-------|------|------|------------------|
| mm      | mm    | mm  | mm     | mm   | mm    | mm   | mm   |                  |
| 1/16-27 | 0,941 | 90  | 8      | 6,2  | 9,24  | 13,0 | 26,0 | 3                |
| 1/8-27  | 0,941 | 90  | 10     | 8,0  | 9,28  | 13,0 | 26,0 | 3                |
| 1/4-18  | 1,411 | 100 | 14     | 11,0 | 13,55 | 19,5 | 34,5 | 3                |



DIN 374 con codolo rastremato

| TDIN   | TP    | OAL | DCONMS | DRVS | IE    | THL  | Scana-<br>lature |
|--------|-------|-----|--------|------|-------|------|------------------|
| mm     | mm    | mm  | mm     | mm   | mm    | mm   |                  |
| 3/8-18 | 1,411 | 110 | 14     | 11   | 13,86 | 19,5 | 3                |
| 1/2-14 | 1,814 | 140 | 16     | 12   | 18,11 | 25,0 | 5                |
| 3/4-14 | 1,814 | 150 | 20     | 16   | 18,59 | 26,0 | 5                |
| 1-11,5 | 2,209 | 170 | 25     | 20   | 22,31 | 30,0 | 5                |

U0

Codice  
22 375 ...

EUR

114,50

037

153,70

050

198,20

075

271,30

100

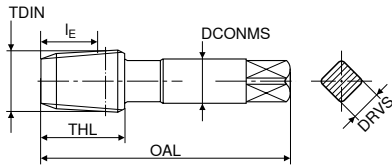
|                            |     |
|----------------------------|-----|
| Acciaio                    | 2-6 |
| Acciaio inossidabile       |     |
| Ghisa                      | 4-6 |
| Metalli non ferrosi        | 4-6 |
| Leghe resistenti al calore |     |
| Materiali duri             |     |

## Foro passante / foro cieco – Maschi a macchina destri

▲ ES = extracorto

NPT

TWIN

ST  
ES

DIN 2181 con codolo rastremato



HSS-E

 $\angle 0^\circ$   
 $\leq 750 \text{ N/mm}^2$ 

U0

Codice  
22 361 ...

EUR

| TDIN    | TP    | OAL | DCONMS | DRVS | $I_E$ | THL  | Scana-<br>lature |            |
|---------|-------|-----|--------|------|-------|------|------------------|------------|
| mm      | mm    | mm  | mm     | mm   | mm    | mm   |                  |            |
| 1/16-27 | 0,941 | 63  | 6      | 4,9  | 9,24  | 13,0 | 4                | 56,91 006  |
| 1/8-27  | 0,941 | 63  | 7      | 5,5  | 9,28  | 13,0 | 5                | 59,87 012  |
| 1/4-18  | 1,411 | 63  | 11     | 9,0  | 13,55 | 19,5 | 5                | 71,22 025  |
| 3/8-18  | 1,411 | 70  | 12     | 9,0  | 13,86 | 19,5 | 5                | 89,44 037  |
| 1/2-14  | 1,814 | 80  | 16     | 12,0 | 18,11 | 23,0 | 5                | 119,80 050 |
| 3/4-14  | 1,814 | 100 | 20     | 16,0 | 18,59 | 26,0 | 6                | 150,50 075 |
| 1-11,5  | 2,209 | 110 | 25     | 20,0 | 22,31 | 32,0 | 6                | 224,60 100 |
| 2-11,5  | 2,209 | 160 | 45     | 35,0 | 23,22 | 36,0 | 7                | 711,20 200 |

|                            |     |
|----------------------------|-----|
| Acciaio                    | 4-6 |
| Acciaio inossidabile       |     |
| Ghisa                      |     |
| Metalli non ferrosi        | 4-6 |
| Leghe resistenti al calore |     |
| Materiali duri             |     |



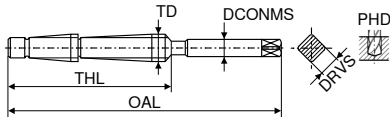
## Foro passante – Maschi a macchina destri

- ▲ Maschi trapezoidali unici (2 gradini)
- ▲ Non eseguire il movimento di ritorno del maschio

Tr

ST

7H



Norma di fabbrica

HSS-E

$\angle 5^\circ$   
 $\leq 900 \text{ N/mm}^2$   
 $\leq 2xD$

| TD    | TP  | OAL | DCONMS | DRVS | PHD   | THL | Scana-<br>lature | U0<br>Codice<br>22 402 ...<br>EUR |     |
|-------|-----|-----|--------|------|-------|-----|------------------|-----------------------------------|-----|
| Tr 8  | 1,5 | 105 | 6      | 4,9  | 6,60  | 55  | 3                | 498,10                            | 080 |
| Tr 9  | 2,0 | 130 | 7      | 5,5  | 7,20  | 70  | 3                | 498,10                            | 090 |
| Tr 10 | 2,0 | 130 | 7      | 5,5  | 8,20  | 70  | 3                | 498,10                            | 102 |
| Tr 10 | 3,0 | 155 | 7      | 5,5  | 7,25  | 95  | 3                | 458,90                            | 103 |
| Tr 12 | 3,0 | 160 | 9      | 7,0  | 9,25  | 95  | 3                | 550,10                            | 123 |
| Tr 14 | 3,0 | 170 | 10     | 8,0  | 11,25 | 100 | 3                | 637,90                            | 143 |
| Tr 14 | 4,0 | 195 | 10     | 8,0  | 10,25 | 125 | 3                | 539,50                            | 144 |
| Tr 16 | 4,0 | 225 | 12     | 9,0  | 12,25 | 130 | 3                | 539,50                            | 164 |
| Tr 18 | 4,0 | 225 | 14     | 11,0 | 14,25 | 116 | 3                | 556,40                            | 184 |
| Tr 20 | 4,0 | 225 | 16     | 12,0 | 16,25 | 130 | 3                | 644,40                            | 204 |
| Tr 22 | 5,0 | 260 | 16     | 12,0 | 17,25 | 160 | 3                | 750,40                            | 225 |
| Tr 24 | 5,0 | 285 | 18     | 14,5 | 19,25 | 165 | 3                | 868,00                            | 245 |

Acciaio

Acciaio inossidabile

Ghisa

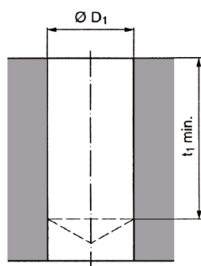
Metalli non ferrosi

Leghe resistenti al calore

Materiali duri

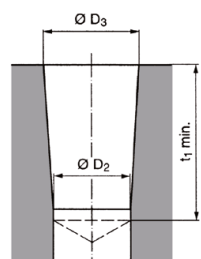
## Diametri preforo per filetti conici, conicità 1:16

### Preforo cilindrico senza l'impiego di un alesatore



|                           |                     | NPT                    |                           | NPTF                   |                           |                           |                     | Rc                     |                           |
|---------------------------|---------------------|------------------------|---------------------------|------------------------|---------------------------|---------------------------|---------------------|------------------------|---------------------------|
| Ø D <sub>1</sub><br>poll. | Passo<br>Fil./poll. | Ø D <sub>1</sub><br>mm | t <sub>1</sub> min.<br>mm | Ø D <sub>1</sub><br>mm | t <sub>1</sub> min.<br>mm | Ø D <sub>1</sub><br>poll. | Passo<br>Fil./poll. | Ø D <sub>1</sub><br>mm | t <sub>1</sub> min.<br>mm |
| 1/16                      | 27                  | 6,15                   | 12                        | 6,1                    | 12                        | 1/16                      | 28                  | 6,2                    | 11,9                      |
| 1/8                       | 27                  | 8,5                    | 12                        | 8,45                   | 12                        | 1/8                       | 28                  | 8,2                    | 11,9                      |
| 1/4                       | 18                  | 11                     | 17,5                      | 10,9                   | 17,5                      | 1/4                       | 19                  | 10,85                  | 16,3                      |
| 3/8                       | 18                  | 14,5                   | 17,6                      | 14,3                   | 17,6                      | 3/8                       | 19                  | 14,5                   | 18,1                      |
| 1/2                       | 14                  | 17,85                  | 22,9                      | 17,6                   | 22,9                      | 1/2                       | 14                  | 18                     | 24                        |
| 3/4                       | 14                  | 23,2                   | 23                        | 23                     | 23                        | 3/4                       | 14                  | 23,5                   | 25,3                      |
| 1                         | 11½                 | 29,5                   | 27,4                      | 28,75                  | 27,4                      | 1                         | 11                  | 29,5                   | 30,6                      |
| 1¼                        | 11½                 | 37,8                   | 28,1                      | 37,5                   | 28,1                      |                           |                     |                        |                           |
| 1½                        | 11½                 | 44                     | 28,4                      | 43,75                  | 28,4                      |                           |                     |                        |                           |
| 2                         | 11½                 | 56                     | 28,4                      | 55,75                  | 28,4                      |                           |                     |                        |                           |

### Preforo cilindrico e alesatura conica con alesatore

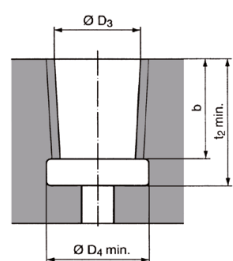


Conicità 1:16

|                           |                     | NPT                    |                        |                           | NPTF                   |                        |                           |
|---------------------------|---------------------|------------------------|------------------------|---------------------------|------------------------|------------------------|---------------------------|
| Ø D <sub>1</sub><br>poll. | Passo<br>Fil./poll. | Ø D <sub>2</sub><br>mm | Ø D <sub>3</sub><br>mm | t <sub>1</sub> min.<br>mm | Ø D <sub>2</sub><br>mm | Ø D <sub>3</sub><br>mm | t <sub>1</sub> min.<br>mm |
| 1/16                      | 27                  | 5,95                   | 6,39                   | 12                        | 5,95                   | 6,41                   | 12                        |
| 1/8                       | 27                  | 8,25                   | 8,74                   | 12                        | 8,25                   | 8,76                   | 12                        |
| 1/4                       | 18                  | 10,75                  | 11,36                  | 17,5                      | 10,75                  | 11,4                   | 17,5                      |
| 3/8                       | 18                  | 14,1                   | 14,8                   | 17,6                      | 14,1                   | 14,84                  | 17,6                      |
| 1/2                       | 14                  | 17,5                   | 18,32                  | 22,9                      | 17,5                   | 18,33                  | 22,9                      |
| 3/4                       | 14                  | 22,7                   | 23,67                  | 23                        | 22,7                   | 23,68                  | 23                        |
| 1                         | 11½                 | 28,6                   | 29,69                  | 27,4                      | 28,6                   | 29,72                  | 27,4                      |
| 1¼                        | 11½                 | 37,3                   | 38,45                  | 28,1                      | 37,3                   | 38,48                  | 28,1                      |
| 1½                        | 11½                 | 43,4                   | 44,52                  | 28,4                      | 43,4                   | 44,5                   | 28,4                      |
| 2                         | 11½                 | 55,5                   | 56,56                  | 28,4                      | 55,5                   | 56,59                  | 28,4                      |

|                           |                     | Rc                     |                        |                           |
|---------------------------|---------------------|------------------------|------------------------|---------------------------|
| Ø D <sub>1</sub><br>poll. | Passo<br>Fil./poll. | Ø D <sub>2</sub><br>mm | Ø D <sub>3</sub><br>mm | t <sub>1</sub> min.<br>mm |
| 1/16                      | 28                  | 6,1                    | 6,56                   | 11,9                      |
| 1/8                       | 28                  | 8,1                    | 8,57                   | 11,9                      |
| 1/4                       | 19                  | 10,75                  | 11,45                  | 17,7                      |
| 3/8                       | 19                  | 14,25                  | 14,95                  | 18,1                      |
| 1/2                       | 14                  | 17,75                  | 18,63                  | 24                        |
| 3/4                       | 14                  | 23                     | 24,12                  | 25,3                      |
| 1                         | 11                  | 29                     | 30,29                  | 30,6                      |

### Raccomandazioni per il preforo su fori ciechi



Conicità 1:16

|                           |                     | NPT                    |         |                           |                        | NPTF                   |         |                           |                             |
|---------------------------|---------------------|------------------------|---------|---------------------------|------------------------|------------------------|---------|---------------------------|-----------------------------|
| Ø D <sub>1</sub><br>poll. | Passo<br>Fil./poll. | Ø D <sub>3</sub><br>mm | b<br>mm | t <sub>2</sub> min.<br>mm | Ø D <sub>4</sub><br>mm | Ø D <sub>3</sub><br>mm | b<br>mm | t <sub>2</sub> min.<br>mm | Ø D <sub>4</sub> min.<br>mm |
| 1/16                      | 27                  | 6,39                   | 7       | 10                        | 7,6                    | 6,41                   | 8       | 11                        | 7,4                         |
| 1/8                       | 27                  | 8,74                   | 7       | 10                        | 10                     | 8,76                   | 8       | 11                        | 9,8                         |
| 1/4                       | 18                  | 11,36                  | 10,2    | 14,5                      | 13,1                   | 11,4                   | 11,6    | 15,5                      | 12,9                        |
| 3/8                       | 18                  | 14,8                   | 10,6    | 15                        | 16,5                   | 14,84                  | 12      | 16                        | 16,3                        |
| 1/2                       | 14                  | 18,32                  | 13,8    | 19                        | 20,5                   | 18,33                  | 15,6    | 20,5                      | 20,3                        |
| 3/4                       | 14                  | 23,67                  | 14,2    | 20                        | 25,8                   | 23,68                  | 16      | 21,5                      | 25,6                        |
| 1                         | 11½                 | 29,69                  | 17      | 24                        | 32,2                   | 29,72                  | 19,2    | 26                        | 32                          |
| 1¼                        | 11½                 | 38,45                  | 17,5    | 24,5                      | 41                     | 38,48                  | 19,7    | 26,5                      | 40,8                        |
| 1½                        | 11½                 | 44,52                  | 17,5    | 24,5                      | 47,2                   | 44,5                   | 19,7    | 26,5                      | 47                          |
| 2                         | 11½                 | 56,56                  | 18      | 25                        | 59,2                   | 56,59                  | 20,2    | 27                        | 59                          |

|                           |                     | Rc                     |         |                           |                             |
|---------------------------|---------------------|------------------------|---------|---------------------------|-----------------------------|
| Ø D <sub>1</sub><br>poll. | Passo<br>Fil./poll. | Ø D <sub>3</sub><br>mm | b<br>mm | t <sub>2</sub> min.<br>mm | Ø D <sub>4</sub> min.<br>mm |
| 1/16                      | 28                  | 6,56                   | 5,6     | 9,5                       | 7,6                         |
| 1/8                       | 28                  | 8,57                   | 5,6     | 9,5                       | 9,6                         |
| 1/4                       | 19                  | 11,45                  | 8,4     | 14                        | 13                          |
| 3/8                       | 19                  | 14,95                  | 8,8     | 14,4                      | 16,5                        |
| 1/2                       | 14                  | 18,63                  | 11,4    | 19                        | 20,6                        |
| 3/4                       | 14                  | 24,12                  | 12,7    | 20,3                      | 26                          |
| 1                         | 11                  | 30,29                  | 14,5    | 24,3                      | 32,8                        |

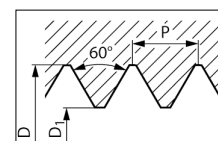
## Maschiatura – diametro di preforatura

M

Filetto ISO metrico fine 6H secondo DIN 13 e DIN ISO 965-1 (M1-M1,4 = 5H)

| Ø nominale filetto |      | Ø D <sub>1</sub> |       | Ø preforo |
|--------------------|------|------------------|-------|-----------|
| D                  | P    | min.             | max.  |           |
| M1                 | 0,25 | 0,729            | 0,785 | 0,75      |
| M1,1               | 0,25 | 0,829            | 0,885 | 0,85      |
| M1,2               | 0,25 | 0,929            | 0,985 | 0,95      |
| M1,4               | 0,3  | 1,075            | 1,142 | 1,1       |
| M1,6               | 0,35 | 1,221            | 1,321 | 1,25      |
| M1,8               | 0,35 | 1,421            | 1,521 | 1,45      |
| M2                 | 0,4  | 1,567            | 1,679 | 1,6       |
| M2,2               | 0,45 | 1,713            | 1,838 | 1,75      |
| M2,5               | 0,45 | 2,013            | 2,138 | 2,05      |
| M3                 | 0,5  | 2,459            | 2,599 | 2,5       |
| M3,5               | 0,6  | 2,850            | 3,010 | 2,9       |
| M4                 | 0,7  | 3,242            | 3,422 | 3,3       |
| M4,5               | 0,75 | 3,688            | 3,878 | 3,7       |
| M5                 | 0,8  | 4,134            | 4,334 | 4,2       |
| M6                 | 1,0  | 4,917            | 5,153 | 5         |
| M7                 | 1,0  | 5,917            | 6,153 | 6         |
| M8                 | 1,25 | 6,647            | 6,912 | 6,8       |
| M9                 | 1,25 | 7,647            | 7,912 | 7,8       |
| M10                | 1,5  | 8,376            | 8,676 | 8,5       |
| M11                | 1,5  | 9,376            | 9,676 | 9,5       |

| Ø nominale filetto |      | Ø D <sub>1</sub> |        | Ø preforo |
|--------------------|------|------------------|--------|-----------|
| D                  | P    | min.             | max.   |           |
| M12                | 1,75 | 10,106           | 10,441 | 10,2      |
| M14                | 2,0  | 11,835           | 12,210 | 12        |
| M16                | 2,0  | 13,835           | 14,210 | 14        |
| M18                | 2,5  | 15,294           | 15,744 | 15,5      |
| M20                | 2,5  | 17,294           | 17,744 | 17,5      |
| M22                | 2,5  | 19,294           | 19,744 | 19,5      |
| M24                | 3,0  | 20,752           | 21,252 | 21        |
| M27                | 3,0  | 23,752           | 24,252 | 24        |
| M30                | 3,5  | 26,211           | 26,771 | 26,5      |
| M33                | 3,5  | 29,211           | 29,771 | 29,5      |
| M36                | 4,0  | 31,670           | 32,270 | 32        |
| M39                | 4,0  | 34,670           | 35,270 | 35        |
| M42                | 4,5  | 37,129           | 37,799 | 37,5      |
| M45                | 4,5  | 40,129           | 40,799 | 40,5      |
| M48                | 5,0  | 42,587           | 43,297 | 43        |
| M52                | 5,0  | 46,587           | 47,297 | 47        |
| M56                | 5,5  | 50,046           | 50,796 | 50,5      |
| M60                | 5,5  | 54,046           | 54,796 | 54,5      |
| M64                | 6,0  | 57,505           | 58,305 | 58        |
| M68                | 6,0  | 61,505           | 62,305 | 62        |



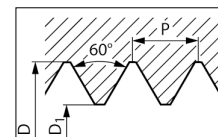
6

MF

Filetto ISO metrico fine 6H secondo DIN 13 e DIN ISO 965-1

| Ø nominale filetto |   |      | Ø D <sub>1</sub> |        | Ø preforo |
|--------------------|---|------|------------------|--------|-----------|
| D                  | x | P    | min.             | max.   |           |
| M2                 | x | 0,25 | 1,729            | 1,774  | 1,75      |
| M2,2               | x | 0,25 | 1,929            | 1,974  | 1,95      |
| M2,5               | x | 0,35 | 2,121            | 2,221  | 2,15      |
| M3                 | x | 0,35 | 2,621            | 2,721  | 2,65      |
| M3,5               | x | 0,35 | 3,121            | 3,221  | 3,15      |
| M4                 | x | 0,35 | 3,621            | 3,721  | 3,65      |
| M4                 | x | 0,5  | 3,459            | 3,599  | 3,5       |
| M4,5               | x | 0,5  | 3,959            | 4,099  | 4         |
| M5                 | x | 0,5  | 4,459            | 4,599  | 4,5       |
| M6                 | x | 0,5  | 5,459            | 5,599  | 5,5       |
| M6                 | x | 0,75 | 5,188            | 5,378  | 5,2       |
| M8                 | x | 0,75 | 7,188            | 7,378  | 7,2       |
| M8                 | x | 1,0  | 6,917            | 7,153  | 7         |
| M10                | x | 0,75 | 9,188            | 9,378  | 9,2       |
| M10                | x | 1,0  | 8,917            | 9,153  | 9         |
| M10                | x | 1,25 | 8,647            | 8,912  | 8,8       |
| M12                | x | 1,0  | 10,917           | 11,153 | 11        |
| M12                | x | 1,5  | 10,376           | 10,676 | 10,5      |
| M14                | x | 1,25 | 12,647           | 12,912 | 12,8      |
| M16                | x | 1,0  | 14,917           | 15,153 | 15        |
| M16                | x | 1,5  | 14,376           | 14,676 | 14,5      |

| Ø nominale filetto |   |     | Ø D <sub>1</sub> |         | Ø preforo |
|--------------------|---|-----|------------------|---------|-----------|
| D                  | x | P   | min.             | max.    |           |
| M20                | x | 1,0 | 18,917           | 19,153  | 19        |
| M20                | x | 1,5 | 18,376           | 18,676  | 18,5      |
| M20                | x | 2,0 | 17,835           | 18,210  | 18        |
| M24                | x | 1,5 | 22,376           | 22,676  | 22,5      |
| M30                | x | 2,0 | 27,835           | 28,210  | 28        |
| M36                | x | 1,5 | 34,376           | 34,676  | 34,5      |
| M36                | x | 3,0 | 32,752           | 33,252  | 33        |
| M42                | x | 2,0 | 39,835           | 40,210  | 40        |
| M48                | x | 1,5 | 46,376           | 46,676  | 46,5      |
| M48                | x | 3,0 | 44,752           | 45,252  | 45        |
| M48                | x | 4,0 | 43,670           | 44,270  | 44        |
| M56                | x | 1,5 | 54,376           | 54,676  | 54,5      |
| M56                | x | 2,0 | 53,835           | 54,210  | 54        |
| M56                | x | 3,0 | 52,752           | 53,252  | 53        |
| M56                | x | 4,0 | 51,670           | 52,270  | 52        |
| M64                | x | 3,0 | 60,752           | 61,252  | 61        |
| M64                | x | 4,0 | 59,670           | 60,270  | 60        |
| M72                | x | 4,0 | 67,670           | 68,270  | 68        |
| M80                | x | 6,0 | 73,505           | 74,305  | 74        |
| M95                | x | 6,0 | 88,505           | 89,305  | 89        |
| M110               | x | 6,0 | 103,505          | 104,305 | 104       |



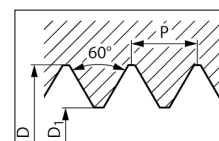
Dimensioni in mm; P = passo

## Rullatura – diametro di preforatura

**M** Filetto ISO metrico fine 6H secondo DIN 13 e DIN ISO 965-1 (M1–M1,4 = 5H)

| Ø nominale filetto |      | Ø D <sub>1</sub> |      | Ø preforo |
|--------------------|------|------------------|------|-----------|
| D                  | P    | min.             | max. |           |
| M1                 | 0,25 | 0,89             |      | 0,9       |
| M1,2               | 0,25 | 1,09             |      | 1,1       |
| M1,4               | 0,3  | 1,26             |      | 1,26      |
| M1,6               | 0,35 | 1,45             |      | 1,45      |
| M1,8               | 0,35 | 1,65             |      | 1,65      |
| M2                 | 0,4  | 1,83             | 1,86 | 1,85      |
| M2,2               | 0,45 | 2,00             | 2,04 | 2,0       |
| M2,5               | 0,45 | 2,30             | 2,34 | 2,3       |
| M3                 | 0,5  | 2,77             | 2,82 | 2,8       |
| M3,5               | 0,6  | 3,23             | 3,28 | 3,25      |
| M4                 | 0,7  | 3,68             | 3,73 | 3,7       |
| M4,5               | 0,75 | 4,15             | 4,21 | 4,15      |
| M5                 | 0,8  | 4,63             | 4,68 | 4,65      |

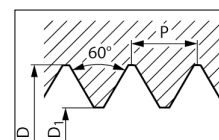
| Ø nominale filetto |      | Ø D <sub>1</sub> |       | Ø preforo |
|--------------------|------|------------------|-------|-----------|
| D                  | P    | min.             | max.  |           |
| M6                 | 1    | 5,51             | 5,59  | 5,55      |
| M7                 | 1    | 6,51             | 6,59  | 6,55      |
| M8                 | 1,25 | 7,39             | 7,48  | 7,4       |
| M9                 | 1,25 | 8,39             | 8,48  | 8,4       |
| M10                | 1,5  | 9,25             | 9,35  | 9,3       |
| M11                | 1,5  | 10,25            | 10,35 | 10,3      |
| M12                | 1,75 | 11,12            | 11,25 | 11,2      |
| M14                | 2    | 13,00            | 13,15 | 13,0      |
| M16                | 2    | 15,00            | 15,15 | 15,0      |
| M18                | 2,5  | 16,72            | 16,90 | 16,8      |
| M20                | 2,5  | 18,72            | 18,90 | 18,8      |
| M22                | 2,5  | 20,72            | 20,9  | 20,8      |
| M24                | 3    | 22,46            | 22,7  | 22,5      |



**MF** Filetto ISO metrico fine 6H secondo DIN 13 e DIN ISO 965-1

| Ø nominale filetto |   |      | Ø D <sub>1</sub> |       | Ø preforo |
|--------------------|---|------|------------------|-------|-----------|
| D                  | x | P    | min.             | max.  |           |
| M2                 | x | 0,25 | 1,89             |       | 1,9       |
| M2,2               | x | 0,25 | 2,09             |       | 2,1       |
| M2,5               | x | 0,25 | 2,39             |       | 2,4       |
| M2,5               | x | 0,35 | 2,35             |       | 2,35      |
| M3                 | x | 0,25 | 2,89             |       | 2,9       |
| M3                 | x | 0,35 | 2,85             |       | 2,85      |
| M3,5               | x | 0,35 | 3,35             |       | 3,35      |
| M3,5               | x | 0,5  | 3,27             | 3,32  | 3,3       |
| M4                 | x | 0,35 | 3,85             |       | 3,85      |
| M4                 | x | 0,5  | 3,77             | 3,82  | 3,8       |
| M4,5               | x | 0,5  | 4,27             | 4,32  | 4,3       |
| M5                 | x | 0,5  | 4,77             | 4,82  | 4,8       |
| M5                 | x | 0,75 | 4,65             | 4,71  | 4,65      |
| M5,5               | x | 0,5  | 5,27             | 5,32  | 5,3       |
| M6                 | x | 0,5  | 5,78             | 5,83  | 5,8       |
| M6                 | x | 0,75 | 5,65             | 5,71  | 5,65      |
| M7                 | x | 0,5  | 6,78             | 6,83  | 6,8       |
| M7                 | x | 0,75 | 6,65             | 6,71  | 6,65      |
| M8                 | x | 0,5  | 7,78             | 7,83  | 7,8       |
| M8                 | x | 0,75 | 7,65             | 7,71  | 7,65      |
| M8                 | x | 1,0  | 7,51             | 7,59  | 7,55      |
| M9                 | x | 0,5  | 8,78             | 8,83  | 8,8       |
| M9                 | x | 0,75 | 8,65             | 8,71  | 8,65      |
| M9                 | x | 1,0  | 8,51             | 8,59  | 8,55      |
| M10                | x | 0,5  | 9,78             | 9,83  | 9,8       |
| M10                | x | 0,75 | 9,65             | 9,71  | 9,65      |
| M10                | x | 1,0  | 9,51             | 9,59  | 9,55      |
| M10                | x | 1,25 | 9,39             | 9,48  | 9,4       |
| M11                | x | 0,75 | 10,65            | 10,71 | 10,7      |
| M11                | x | 1,0  | 10,51            | 10,59 | 10,5      |
| M12                | x | 0,75 | 11,66            | 11,72 | 11,7      |

| Ø nominale filetto |   |      | Ø D <sub>1</sub> |       | Ø preforo |
|--------------------|---|------|------------------|-------|-----------|
| D                  | x | P    | min.             | max.  |           |
| M12                | x | 1,0  | 11,52            | 11,6  | 11,5      |
| M12                | x | 1,25 | 11,4             | 11,49 | 11,4      |
| M12                | x | 1,5  | 11,26            | 11,36 | 11,3      |
| M13                | x | 0,75 | 12,66            | 12,72 | 12,7      |
| M13                | x | 1,0  | 12,52            | 12,6  | 12,5      |
| M13                | x | 1,5  | 12,26            | 12,36 | 12,3      |
| M14                | x | 0,75 | 13,66            | 13,72 | 13,7      |
| M14                | x | 1,0  | 13,52            | 13,6  | 13,5      |
| M14                | x | 1,25 | 13,4             | 13,49 | 13,4      |
| M14                | x | 1,5  | 13,26            | 13,36 | 13,3      |
| M15                | x | 0,75 | 14,66            | 14,72 | 14,7      |
| M15                | x | 1,0  | 14,52            | 14,6  | 14,5      |
| M15                | x | 1,5  | 14,26            | 14,36 | 14,3      |
| M16                | x | 0,75 | 15,66            | 15,72 | 15,7      |
| M16                | x | 1,0  | 15,52            | 15,6  | 15,5      |
| M16                | x | 1,5  | 15,26            | 15,36 | 15,3      |
| M18                | x | 1,0  | 17,52            | 17,6  | 17,5      |
| M18                | x | 1,5  | 17,26            | 17,36 | 17,3      |
| M18                | x | 2,0  | 17               | 17,15 | 17        |
| M20                | x | 1,0  | 19,52            | 19,6  | 19,5      |
| M20                | x | 1,5  | 19,26            | 19,36 | 19,3      |
| M20                | x | 2,0  | 19               | 19,15 | 19        |
| M22                | x | 1,5  | 21,26            | 21,36 | 21,3      |
| M22                | x | 2,0  | 21               | 21,15 | 21        |
| M24                | x | 1,5  | 23,26            | 23,38 | 23,3      |
| M24                | x | 2,0  | 23,01            | 23,16 | 23        |
| M25                | x | 1,5  | 24,26            | 24,38 | 24,3      |
| M26                | x | 1,5  | 25,26            | 25,38 | 25,3      |
| M27                | x | 2,0  | 26,01            | 26,16 | 26        |
| M28                | x | 1,5  | 27,26            | 27,38 | 27,25     |
| M30                | x | 1,5  | 29,26            | 29,38 | 29,25     |
| M30                | x | 2,0  | 29,01            | 29,16 | 29        |



Dimensioni in mm; P = passo

## Tipi di maschi – dettagli e caratteristiche

### Stabil

#### Maschi per fori passanti tipo Stabil



- ▲ Per filetti passanti fino a 4xD
- ▲ Forma d'imbocco B: imbocco 3,5–5 filetti, senza imbocco corretto
- ▲ Scanalature dritte
- ▲ Idoneo anche per maschiatura rigida, con attacco Weldon, esecuzione extralunga e refrigerazione interna
- ▲ Grazie alla geometria particolare delle scanalature il truciolo viene evacuato in direzione del taglio

### Salo-Rex

#### Maschi per fori ciechi tipo Salo-Rex



- ▲ Per filetti ciechi fino a 3xD
- ▲ Forma d'imbocco C: imbocco 2–3 filetti, senza imbocco corretto
- ▲ Forma d'imbocco E: imbocco 1,5–2 filetti, senza imbocco corretto
- ▲ (35°, 42°, 45°, 50°) con scanalature destre, ad elica forte torsione
- ▲ Idoneo anche per maschiatura rigida, con attacco Weldon, esecuzione extralunga e refrigerazione interna
- ▲ Grazie alla torsione estremamente accentuata delle eliche i trucioli vengono evacuati in sicurezza nella direzione opposta a quella di taglio

### TWIN

#### Maschi per fori passanti e fori ciechi tipo TWIN



- ▲ Per filetti ciechi e passanti fino a 2xD
- ▲ Forma d'imbocco C: imbocco 2–3 filetti, senza imbocco corretto
- ▲ Forma d'imbocco D: imbocco 3,5–5 filetti, senza imbocco corretto
- ▲ Forma d'imbocco E: imbocco 1,5–2 filetti, senza imbocco corretto
- ▲ Scanalature dritte
- ▲ Per acciaio, materiali a truciolo corto e temprati fino a 55 (62) HRC
- ▲ Con esecuzione extralunga e refrigerazione interna

### SL

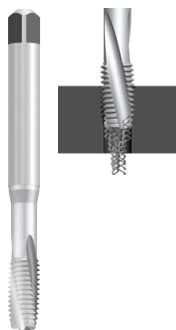
#### Maschi per fori ciechi tipo SL



- ▲ Per filetti ciechi fino a 2xD
- ▲ Forma d'imbocco C: imbocco 2–3 filetti, senza imbocco corretto
- ▲ Forma d'imbocco E: imbocco 1,5–2 filetti, senza imbocco corretto
- ▲ (15°, 25°, 30°) con scanalature destre, ad elica leggera
- ▲ Idoneo per acciaio, titanio, leghe di titanio e Inconel 718
- ▲ Idoneo anche per maschiatura rigida, con esecuzione extralunga e refrigerazione interna
- ▲ Adatto anche per condizioni d'impiego difficili come fori trasversali

### DL

#### Maschi per fori passanti tipo DL



- ▲ Per filetti passanti fino a 4xD
- ▲ Forma d'imbocco D: imbocco 3,5–5 filetti, senza imbocco corretto
- ▲ Con elica sinistra di 15°
- ▲ Idoneo per acciaio, titanio e leghe di titanio e Inconel 718
- ▲ I trucioli vengono evacuati nella direzione di taglio

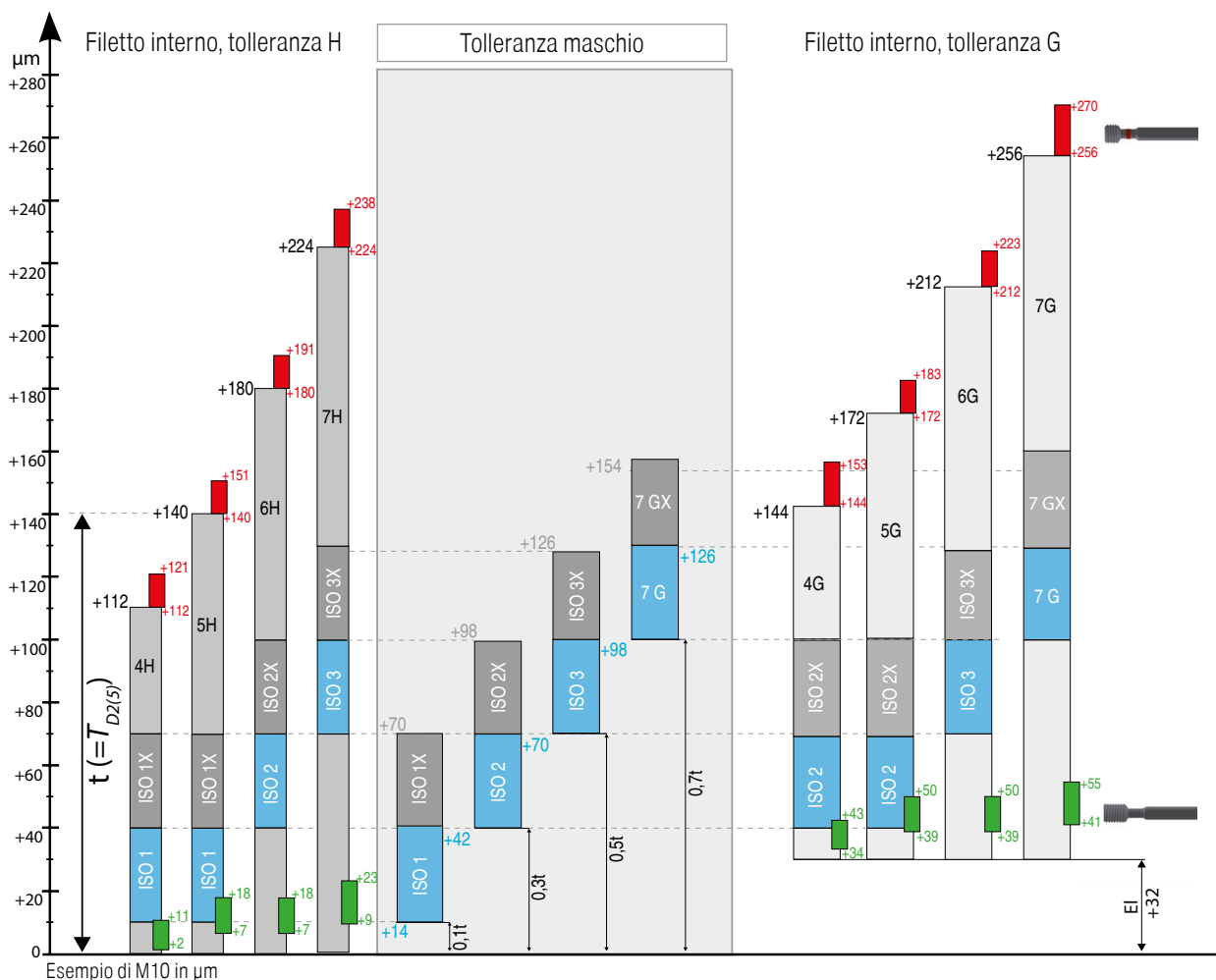
### Spanlos

#### Maschi a rullare tipo Spanlos



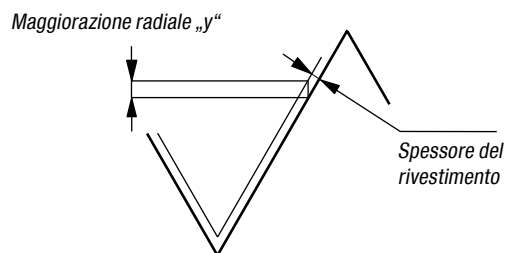
- ▲ Per filetti ciechi e passanti fino a 3xD
- ▲ Forma d'imbocco C: imbocco 2–3 filetti, senza imbocco corretto
- ▲ Per materiali adatti alla deformazione a freddo fino a 1400 N/mm²
- ▲ Idoneo anche per maschiatura rigida, con scanalature di lubrificazione e refrigerazione interna

## Tabella delle tolleranze di costruzione



I filetti che devono essere rivestiti richiedono un maschio maggiorato. La maggiorazione dipende dallo spessore del rivestimento e dall'angolo del fianco.

|     |                       |                                                                   |
|-----|-----------------------|-------------------------------------------------------------------|
| Con | 60° Angolo del fianco | maggiorazione $\triangleq 4 \times$ spessore del rivestimento     |
|     | 55° Angolo del fianco | maggiorazione $\triangleq 4,331 \times$ spessore del rivestimento |
|     | 30° Angolo del fianco | maggiorazione $\triangleq 7,272 \times$ spessore del rivestimento |

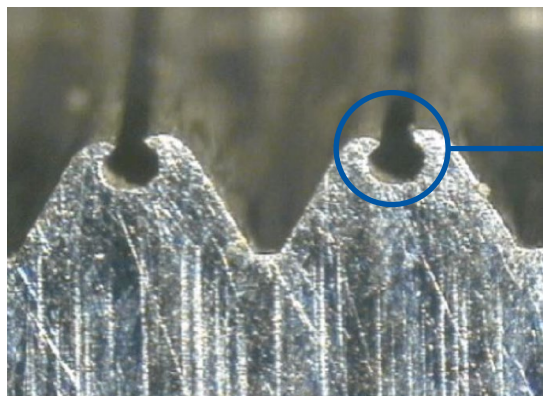


| Classe d'impiego per maschi – denominazione secondo |      | Classe di tolleranza del filetto interno da tagliare |      |      |    |    |
|-----------------------------------------------------|------|------------------------------------------------------|------|------|----|----|
| DIN                                                 | ISO  |                                                      |      |      |    |    |
| 4H                                                  | ISO1 | 4H                                                   | 5H   | -    | -  | -  |
| 6H                                                  | ISO2 | 4G                                                   | 5G   | 6H   | -  | -  |
| 6G                                                  | ISO3 | -                                                    | (4E) | 6G   | 7H | 8H |
| 7G                                                  | -    | -                                                    | -    | (6E) | 7G | 8G |

**i** Per particolari impieghi, ad esempio su ghisa abrasiva o materie plastiche, occorre scegliere altre dimensioni che vengono definite in base all'esperienza. In tal caso viene aggiunta una X alla denominazione della classe di tolleranza, ad es. ISO 2X, anche se la tolleranza del filetto interno può essere limitata (6HX per il campo di tolleranza 6H e 5G). Inoltre va tenuto conto del fatto che le dimensioni del filetto interno tagliato non dipendono solamente dalle dimensioni del maschio ma anche dal materiale da lavorare e dalle condizioni di produzione in generale. Per maschi sgrossatori e semifinitori non sono definite tolleranze dimensionali.

## Maschi a rullare

Maschi a rullare Spanlos per materiali adatti alla deformazione a freddo fino a 1400 N/mm<sup>2</sup> oppure min. 5 % di resistenza alla trazione. Il filetto viene prodotto mediante deformazione plastica. Grazie a questo il filetto prodotto raggiunge una resistenza molto elevata.



Prima di rullare un filetto, assicuratevi che il cliente sia d'accordo con questo metodo di produzione: in determinati settori la rullatura di filetti **non** è ammessa. Possono rimanere sporcizia o batteri nella parte superiore del filetto.

» **Importante**

6

## Deformazione a step mediante pressione



Pezzo

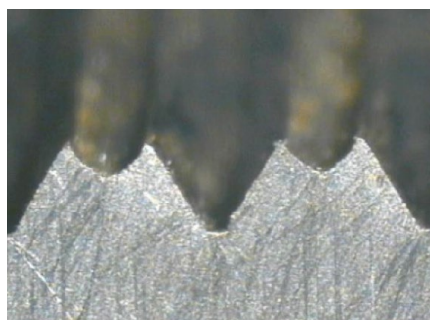
Maschi a rullare



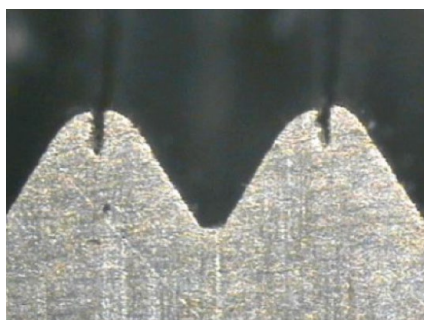
Il profilo del filetto viene premuto nel materiale in varie fasi per via dell'imbocco del filetto.

## Caratteristiche

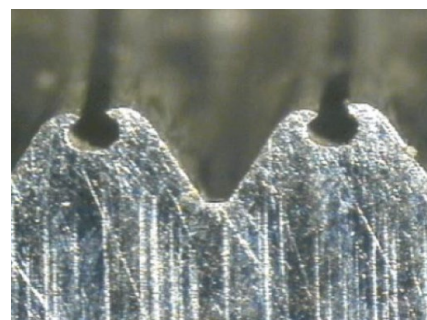
- ▲ Tipo applicabile con vari materiali
- ▲ Per filetti passanti e ciechi
- ▲ Qualità della superficie molto buona
- ▲ Elevata resistenza statica e dinamica del filetto
- ▲ Lavorazione sicura di filetti profondi e posizionati in bassop
- ▲ Tempi brevi di lavorazione
- ▲ Non vi sono problemi di evacuazione truciolo
- ▲ Nessun filetto disassato
- ▲ Elevata sicurezza dei processi
- ▲ Materiali HSS-E e HSS-PM fino a ca. 33 HRC con una resistenza alla trazione del materiale di min. 5 %



*forma non abbastanza definita –  
preforo troppo grande*



*forma troppo espressa (sovrapposta) –  
preforo troppo piccolo*



*forma perfetta – preforo corretto*



## Risoluzione dei problemi

### Bassa durata utile

#### Cause

- ▲ Rotture a fatica dei taglienti nella parte dell'imbocco
- ▲ Durezza o materiale di base dell'utensile non idoneo per la lavorazione
- ▲ Preforo troppo piccolo o indurito
- ▲ Lubrificazione insufficiente o parametri d'impiego scorretti

#### Misure

- ▲ Imbocco più lungo o numero maggiore di scanalature con lunghezza d'imbocco identica, pertanto un numero maggiore di taglienti attivi
- ▲ In utensili riaffilati è possibile che cali la durezza di base, applicare i parametri corretti per la riaffilatura
- ▲ Cambio più frequente o riaffilatura dell'utensile a forare
- ▲ Parametri di applicazione corretti per l'utensile di foratura
- ▲ Scegliere il lubrificante corretto e assicurare la fornitura di una quantità sufficiente

### Filetti eseguiti non in asse

#### Cause

- ▲ La geometria da taglio non è adatta
- ▲ Il numero di giri del mandrino non è compatibile con l'avanzamento
- ▲ I maschi per fori ciechi vengono applicati con eccessiva pressione di taglio iniziale
- ▲ I maschi per fori passanti vengono applicati con pressione di taglio iniziale insufficiente

#### Misure

- ▲ Rivedere programmazione e cartuccia principale e altri strumenti per la sincronizzazione
- ▲ Utilizzare un mandrino portamaschio con compensazione assiale
- ▲ Ridurre la pressione iniziale di taglio
- ▲ Aumentare la pressione di taglio iniziale

### Filetto troppo grande

#### Cause

- ▲ Le tolleranze dell'utensile e del calibro per filetti sono compatibili
- ▲ Taglienti degli utensili con bave dopo l'affilatura
- ▲ Bave causate da deformazione a freddo

#### Misure

- ▲ Applicare tolleranze corrette e calibro per filettature
- ▲ Realizzare una sbavatura precisa
- ▲ Utilizzare una geometria (positiva) adatta
- ▲ Ridurre la velocità di taglio
- ▲ Effettuare un altro trattamento superficiale o un altro rivestimento
- ▲ Usare un mandrino portamaschio con compensazione assiale
- ▲ Utilizzare un lubrificante

### Rottura utensile

#### Cause

- ▲ L'utensile è spuntato
- ▲ L'utensile tocca il fondo del foro
- ▲ Croste di fusione
- ▲ Preforo troppo piccolo
- ▲ Tucioli accumulati
- ▲ Velocità di taglio scorretta
- ▲ Intasamento nella scanalatura
- ▲ Refrigerazione o lubrificazione insufficiente

#### Misure

- ▲ Utilizzare un maschio del set
- ▲ Utilizzare un utensile con un'elica con meno torsione
- ▲ Utilizzare un utensile con un imbocco più corto/lungo
- ▲ Controllo della profondità del preforo e della profondità del filetto
- ▲ Effettuare un preforo con maggiore profondità
- ▲ Correggere la velocità di taglio
- ▲ Cambiare rivestimento o trattamento della superficie
- ▲ Utilizzare un mandrino con compensazione assiale
- ▲ Usare un lubrificante adatto
- ▲ Utilizzare il diametro con preforo corretto
- ▲ Cambiare geometria e/o forma di scanalatura
- ▲ Tenere conto della forma e della formazione del truciolo



## Rivestimenti

|              |                                                                                                                                                                                                                                             |       |                                                                                                                                                                                                                                            |
|--------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| vap.         | <ul style="list-style-type: none"> <li>▲ Vaporizzato</li> <li>▲ La vaporizzazione evita la formazione di materiale di riporto sull'utensile e aumenta la durezza della superficie e di conseguenza anche la resistenza all'usura</li> </ul> | Ti200 | <ul style="list-style-type: none"> <li>▲ Rivestimento TiN</li> <li>▲ Buona idoneità per elevate velocità nella rullatura</li> <li>▲ Massima temperatura d'impiego: 450 °C</li> </ul>                                                       |
| nitr.        | <ul style="list-style-type: none"> <li>▲ Nitratato</li> <li>▲ La nitrurazione aumenta la resistenza all'usura e offre buone caratteristiche antifrizione</li> </ul>                                                                         | OSM   | <ul style="list-style-type: none"> <li>▲ Substrato duro e antifrizione</li> <li>▲ Per l'applicazione su acciai altamente resistenti</li> </ul>                                                                                             |
| vap. + nitr. | <ul style="list-style-type: none"> <li>▲ Vaporizzato e nitratato</li> <li>▲ Una combinazione di una maggiore durezza della superficie e conduttore di lubrificante</li> </ul>                                                               | CH    | <ul style="list-style-type: none"> <li>▲ Rivestimento di carbonio amorfo</li> <li>▲ Per la lavorazione di metalli non ferrosi</li> <li>▲ Riduce l'adesione del materiale</li> </ul>                                                        |
| TiN          | <ul style="list-style-type: none"> <li>▲ Rivestimento TiN</li> <li>▲ Massima temperatura d'impiego: 450 °C</li> </ul>                                                                                                                       | HCr   | <ul style="list-style-type: none"> <li>▲ Cromato duro</li> <li>▲ Per l'uso con metalli non ferrosi</li> <li>▲ Bassa rugosità della superficie</li> </ul>                                                                                   |
| TiN GS       | <ul style="list-style-type: none"> <li>▲ Substrato antifrizione di nitruro di titanio</li> <li>▲ Elevata resistenza all'usura con buone caratteristiche antifrizione</li> <li>▲ Massima temperatura d'impiego: 450 °C</li> </ul>            | CrN   | <ul style="list-style-type: none"> <li>▲ Rivestimento di cromo e azoto</li> <li>▲ Rivestimento con elevata resistenza all'usura</li> <li>▲ Particolarmente per la lavorazione di alluminio, idoneo anche per materiali P, M e S</li> </ul> |
| TiCN         | <ul style="list-style-type: none"> <li>▲ Rivestimento multistrato TiCN</li> <li>▲ Massima temperatura d'impiego: 450 °C</li> </ul>                                                                                                          |       |                                                                                                                                                                                                                                            |

6

## Panoramica degli anelli colorati

WNT \ Performance

|                                                                                     |                                                                                     |                                                                                                                                                |                                                                                     |                                                                                     |                                                                                                                      |
|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------|
|  |  | Per acciaio fino a 750 N/mm <sup>2</sup><br>Tipo ST maschio non rivestito per acciaio fino a 750 N/mm <sup>2</sup> di resistenza alla trazione |  |  | Per alluminio e metalli non ferrosi<br>Tipo NW, Soft e Ms per alluminio, ottone a truciolo corto e leghe non ferrose |
|  |  | Per acciai fino a 1100 N/mm <sup>2</sup><br>Tipo ST e VG maschi rivestiti per acciai fino a 1100 N/mm <sup>2</sup> di resistenza alla trazione |  |  | Per leghe resistenti al calore<br>Tipo Ti, Ni e AMPCO per leghe resistenti al calore, Titanio e Inconel              |
|  |  | Per acciaio ad alta resistenza fino a 1400 N/mm <sup>2</sup><br>Tipo HR per acciaio fino a 1400 N/mm <sup>2</sup> di resistenza alla trazione  |  |  | Per acciai temprati<br>Tipo HT per la lavorazione di materiali duri                                                  |
|  |  | Per acciai inossidabili e acciai resistenti agli acidi<br>Tipo VA per acciai inossidabili                                                      |  |  | Per impiego universale fino a 1100 N/mm <sup>2</sup><br>Tipo UNI per applicazioni universali                         |
|  |  | Per ghisa<br>Tipo GG per ghise                                                                                                                 |                                                                                     |                                                                                     |                                                                                                                      |