

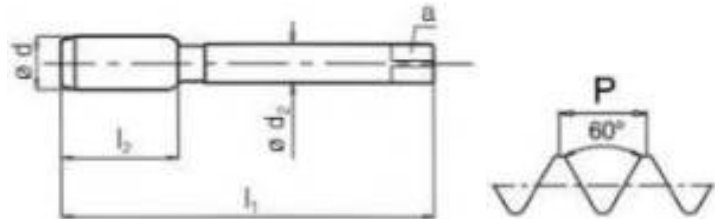
## M

## Metrisches ISO-Regelgewinde DIN 13

Baumaße DIN 352, Satz à 3 Stück

## ISO Metric Coarse Threads, DIN 13

Dimensions DIN 352, Set of 3 pieces



| Katalog Nr.<br>Bezeichnung                      | Catalogue No.<br>Name   |                                              |                |                |                |                |      | 110 001<br>Hahnreiter                                                                        | 110 021<br>Hahnreiter              | 110 002<br>Hahnreiter | 110 003<br>Hahnreiter |   |  |  |  |  |  |
|-------------------------------------------------|-------------------------|----------------------------------------------|----------------|----------------|----------------|----------------|------|----------------------------------------------------------------------------------------------|------------------------------------|-----------------------|-----------------------|---|--|--|--|--|--|
| Toleranz                                        | Tolerance               |                                              |                |                |                |                |      | Nr. 1                                                                                        | Nr. 1                              | Nr. 2                 | 6H / ISO2             |   |  |  |  |  |  |
| Anschnittform                                   | Chamfer form            |                                              |                |                |                |                |      |                                                                                              | Zapfen/Pilot                       |                       |                       |   |  |  |  |  |  |
| Anschnittlänge, Gang                            | Chamfer length, threads |                                              |                |                |                |                |      | 5                                                                                            | 5                                  | 3-4                   | 2-3                   |   |  |  |  |  |  |
| für Bohrungsart                                 | For holes               |                                              |                |                |                |                |      |                                                                                              |                                    |                       |                       |   |  |  |  |  |  |
| hauptsächlich Einsatzgebiet                     |                         | Main use                                     |                |                |                |                |      | alle gut spanbaren Materialien bis 800 N/mm²<br>all free machining materials up to 800 N/mm² |                                    |                       |                       |   |  |  |  |  |  |
| Zerspanungsgruppe,<br>siehe Ausklappseite links |                         | Machinability-group,<br>See folder left page |                |                |                |                |      |                                                                                              |                                    |                       |                       |   |  |  |  |  |  |
| Ausführung                                      |                         | Variation                                    |                |                |                |                |      | Vorschneider                                                                                 | Vorschneider<br>mit Führungszapfen | Mittelschneider       | Fertigschneider       |   |  |  |  |  |  |
|                                                 |                         |                                              |                |                |                |                |      | Taper                                                                                        | Taper<br>with Pilot                | Second                | Bottoming             |   |  |  |  |  |  |
| Oberfläche                                      |                         | Surface                                      |                |                |                |                |      |                                                                                              |                                    |                       |                       |   |  |  |  |  |  |
| d                                               | P<br>mm                 | Code                                         | l <sub>1</sub> | l <sub>2</sub> | l <sub>3</sub> | d <sub>2</sub> | a    |                                                                                              | Verfügbarkeit<br>Availability      |                       |                       |   |  |  |  |  |  |
| M 1                                             | 0,25                    | 01                                           | 40**           | 5,5            |                | 2,5            | 2,1  | 0,75                                                                                         |                                    |                       |                       |   |  |  |  |  |  |
| M 1,1                                           | 0,25                    | 01,1                                         | 40**           | 5,5            |                | 2,5            | 2,1  | 0,85                                                                                         |                                    |                       |                       |   |  |  |  |  |  |
| M 1,2                                           | 0,25                    | 01,2                                         | 40**           | 5,5            |                | 2,5            | 2,1  | 0,95                                                                                         |                                    |                       |                       |   |  |  |  |  |  |
| M 1,4                                           | 0,3                     | 01,4                                         | 40**           | 7              |                | 2,5            | 2,1  | 1,10                                                                                         | x                                  |                       | x                     | x |  |  |  |  |  |
| M 1,6                                           | 0,35                    | 01,6                                         | 40**           | 8              |                | 2,5            | 2,1  | 1,25                                                                                         | x                                  |                       | x                     | x |  |  |  |  |  |
| M 1,7*                                          | 0,35                    | 01,7                                         | 40**           | 8              |                | 2,5            | 2,1  | 1,30                                                                                         |                                    |                       |                       |   |  |  |  |  |  |
| M 1,8                                           | 0,35                    | 01,8                                         | 40**           | 8              |                | 2,5            | 2,1  | 1,45                                                                                         | x                                  |                       | x                     | x |  |  |  |  |  |
| M 2                                             | 0,4                     | 02                                           | 36             | 8              |                | 2,8            | 2,1  | 1,60                                                                                         | x                                  | x                     | x                     | x |  |  |  |  |  |
| M 2,2                                           | 0,45                    | 02,2                                         | 36             | 9              |                | 2,8            | 2,1  | 1,75                                                                                         | x                                  |                       | x                     | x |  |  |  |  |  |
| M 2,3*                                          | 0,4                     | 02,3                                         | 36             | 9              |                | 2,8            | 2,1  | 1,90                                                                                         | x                                  |                       | x                     | x |  |  |  |  |  |
| M 2,5                                           | 0,45                    | 02,5                                         | 40             | 10             |                | 2,8            | 2,1  | 2,05                                                                                         | x                                  | x                     | x                     | x |  |  |  |  |  |
| M 2,6*                                          | 0,45                    | 02,6                                         | 40             | 10             |                | 2,8            | 2,1  | 2,10                                                                                         | x                                  | x                     | x                     | x |  |  |  |  |  |
| M 3                                             | 0,5                     | 03                                           | 40             | 10             |                | 3,5            | 2,7  | 2,50                                                                                         | x                                  | x                     | x                     | x |  |  |  |  |  |
| M 3,5                                           | 0,6                     | 03,5                                         | 45             | 12             |                | 4,0            | 3,0  | 2,90                                                                                         | x                                  | x                     | x                     | x |  |  |  |  |  |
| M 4                                             | 0,7                     | 04                                           | 45             | 12             | 21             | 4,5            | 3,4  | 3,30                                                                                         | x                                  | x                     | x                     | x |  |  |  |  |  |
| M 4,5                                           | 0,75                    | 04,5                                         | 50             | 15             | 24             | 6,0            | 4,9  | 3,70                                                                                         | x                                  |                       | x                     | x |  |  |  |  |  |
| M 5                                             | 0,8                     | 05                                           | 50             | 14             | 22             | 6,0            | 4,9  | 4,20                                                                                         | x                                  | x                     | x                     | x |  |  |  |  |  |
| M 6                                             | 1                       | 06                                           | 56             | 16             | 27             | 6,0            | 4,9  | 5,00                                                                                         | x                                  | x                     | x                     | x |  |  |  |  |  |
| M 7                                             | 1                       | 07                                           | 56             | 16             |                | 6,0            | 4,9  | 6,00                                                                                         | x                                  | x                     | x                     | x |  |  |  |  |  |
| M 8                                             | 1,25                    | 08                                           | 63             | 20             |                | 6,0            | 4,9  | 6,80                                                                                         | x                                  | x                     | x                     | x |  |  |  |  |  |
| M 9                                             | 1,25                    | 09                                           | 63             | 20             |                | 7,0            | 5,5  | 7,80                                                                                         | x                                  |                       | x                     | x |  |  |  |  |  |
| M 10                                            | 1,5                     | 10                                           | 70             | 22             |                | 7,0            | 5,5  | 8,50                                                                                         | x                                  | x                     | x                     | x |  |  |  |  |  |
| M 11                                            | 1,5                     | 11                                           | 70             | 24             |                | 8,0            | 6,2  | 9,50                                                                                         | x                                  |                       | x                     | x |  |  |  |  |  |
| M 12                                            | 1,75                    | 12                                           | 75             | 24             |                | 9,0            | 7,0  | 10,20                                                                                        | x                                  | x                     | x                     | x |  |  |  |  |  |
| M 14                                            | 2                       | 14                                           | 80             | 25             |                | 11,0           | 9,0  | 12,00                                                                                        | x                                  | x                     | x                     | x |  |  |  |  |  |
| M 16                                            | 2                       | 16                                           | 80             | 28             |                | 12,0           | 9,0  | 14,00                                                                                        | x                                  | x                     | x                     | x |  |  |  |  |  |
| M 18                                            | 2,5                     | 18                                           | 95             | 32             |                | 14,0           | 11,0 | 15,50                                                                                        | x                                  | x                     | x                     | x |  |  |  |  |  |
| M 20                                            | 2,5                     | 20                                           | 95             | 32             |                | 16,0           | 12,0 | 17,50                                                                                        | x                                  | x                     | x                     | x |  |  |  |  |  |
| M 22                                            | 2,5                     | 22                                           | 100            | 32             |                | 18,0           | 14,5 | 19,50                                                                                        | x                                  | x                     | x                     | x |  |  |  |  |  |
| M 24                                            | 3                       | 24                                           | 110            | 36             |                | 18,0           | 14,5 | 21,00                                                                                        | x                                  | x                     | x                     | x |  |  |  |  |  |
| M 27                                            | 3                       | 27                                           | 110            | 36             |                | 20,0           | 16,0 | 24,00                                                                                        | x                                  | x                     | x                     | x |  |  |  |  |  |
| M 30                                            | 3,5                     | 30                                           | 125            | 40             |                | 22,0           | 18,0 | 26,50                                                                                        | x                                  | x                     | x                     | x |  |  |  |  |  |

\* DIN Profil

\* Thread profile accord. to DIN

M 33 bis M 68 Fortsetzung Seite G2

M 33 bis M 68 continued on page G2

x = ab Lager, Zwischenverkauf vorbehalten

o = nur solange Lagervorrat vorhanden

x = normally ex stock

o = available while stocks last

Bis einschl. M 1,4 Toleranz 4H / ISO1  
up to M 1,4 incl. tolerance 4H / ISO1\*\*< M 2 Baumaße ähnl. DIN 371  
\*\*< M 2 dimensions DIN 371

M



|                                                                                              |         | 110 000<br>Hahnreiter<br>6H / ISO2                                                |                                                                                              |  |  | 110 020<br>Hahnreiter<br>6H / ISO2                                                 |  |  |  |
|----------------------------------------------------------------------------------------------|---------|-----------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------|--|--|------------------------------------------------------------------------------------|--|--|--|
|                                                                                              |         |  |                                                                                              |  |  |  |  |  |  |
| alle gut spanbaren Materialien bis 800 N/mm²<br>all free machining materials up to 800 N/mm² |         |                                                                                   | alle gut spanbaren Materialien bis 800 N/mm²<br>all free machining materials up to 800 N/mm² |  |  |                                                                                    |  |  |  |
|                                                                                              |         |  |                                                                                              |  |  |  |  |  |  |
|                                                                                              |         | Satz à 3 Stück<br><br>Set of 3 pc.                                                |                                                                                              |  |  | Satz à 3 Stück<br>mit Führungzapfen<br>Set of 3 pc.<br>with Pilot                  |  |  |  |
|                                                                                              |         |                                                                                   |                                                                                              |  |  |                                                                                    |  |  |  |
| d                                                                                            | P<br>mm | Verfügbarkeit<br>Availability                                                     |                                                                                              |  |  |                                                                                    |  |  |  |
| M 1                                                                                          | 0,25    |                                                                                   |                                                                                              |  |  |                                                                                    |  |  |  |
| M 1,1                                                                                        | 0,25    |                                                                                   |                                                                                              |  |  |                                                                                    |  |  |  |
| M 1,2                                                                                        | 0,25    |                                                                                   |                                                                                              |  |  |                                                                                    |  |  |  |
| M 1,4                                                                                        | 0,3     | x                                                                                 |                                                                                              |  |  |                                                                                    |  |  |  |
| M 1,6                                                                                        | 0,35    | x                                                                                 |                                                                                              |  |  |                                                                                    |  |  |  |
| M 1,7*                                                                                       | 0,35    |                                                                                   |                                                                                              |  |  |                                                                                    |  |  |  |
| M 1,8                                                                                        | 0,35    | x                                                                                 |                                                                                              |  |  |                                                                                    |  |  |  |
| M 2                                                                                          | 0,4     | x                                                                                 |                                                                                              |  |  | x                                                                                  |  |  |  |
| M 2,2                                                                                        | 0,45    | x                                                                                 |                                                                                              |  |  |                                                                                    |  |  |  |
| M 2,3*                                                                                       | 0,4     | x                                                                                 |                                                                                              |  |  |                                                                                    |  |  |  |
| M 2,5                                                                                        | 0,45    | x                                                                                 |                                                                                              |  |  | x                                                                                  |  |  |  |
| M 2,6*                                                                                       | 0,45    | x                                                                                 |                                                                                              |  |  | x                                                                                  |  |  |  |
| M 3                                                                                          | 0,5     | x                                                                                 |                                                                                              |  |  | x                                                                                  |  |  |  |
| M 3,5                                                                                        | 0,6     | x                                                                                 |                                                                                              |  |  | x                                                                                  |  |  |  |
| M 4                                                                                          | 0,7     | x                                                                                 |                                                                                              |  |  | x                                                                                  |  |  |  |
| M 4,5                                                                                        | 0,75    | x                                                                                 |                                                                                              |  |  |                                                                                    |  |  |  |
| M 5                                                                                          | 0,8     | x                                                                                 |                                                                                              |  |  | x                                                                                  |  |  |  |
| M 6                                                                                          | 1       | x                                                                                 |                                                                                              |  |  | x                                                                                  |  |  |  |
| M 7                                                                                          | 1       | x                                                                                 |                                                                                              |  |  | x                                                                                  |  |  |  |
| M 8                                                                                          | 1,25    | x                                                                                 |                                                                                              |  |  | x                                                                                  |  |  |  |
| M 9                                                                                          | 1,25    | x                                                                                 |                                                                                              |  |  |                                                                                    |  |  |  |
| M 10                                                                                         | 1,5     | x                                                                                 |                                                                                              |  |  | x                                                                                  |  |  |  |
| M 11                                                                                         | 1,5     | x                                                                                 |                                                                                              |  |  |                                                                                    |  |  |  |
| M 12                                                                                         | 1,75    | x                                                                                 |                                                                                              |  |  | x                                                                                  |  |  |  |
| M 14                                                                                         | 2       | x                                                                                 |                                                                                              |  |  | x                                                                                  |  |  |  |
| M 16                                                                                         | 2       | x                                                                                 |                                                                                              |  |  | x                                                                                  |  |  |  |
| M 18                                                                                         | 2,5     | x                                                                                 |                                                                                              |  |  | x                                                                                  |  |  |  |
| M 20                                                                                         | 2,5     | x                                                                                 |                                                                                              |  |  | x                                                                                  |  |  |  |
| M 22                                                                                         | 2,5     | x                                                                                 |                                                                                              |  |  | x                                                                                  |  |  |  |
| M 24                                                                                         | 3       | x                                                                                 |                                                                                              |  |  | x                                                                                  |  |  |  |
| M 27                                                                                         | 3       | x                                                                                 |                                                                                              |  |  | x                                                                                  |  |  |  |
| M 30                                                                                         | 3,5     | x                                                                                 |                                                                                              |  |  | x                                                                                  |  |  |  |

\* DIN Profil

\* Thread profile accord. to DIN

M 33 bis M 68 Fortsetzung Seite G2  
M 33 bis M 68 continued on page G2

x = ab Lager, Zwischenverkauf vorbehalten

o = nur solange Lagervorrat vorhanden

x = normally ex stock

o = available while stocks last

Bis einschl. M 1,4 Toleranz 4H / ISO1  
up to M 1,4 incl. tolerance 4H / ISO1

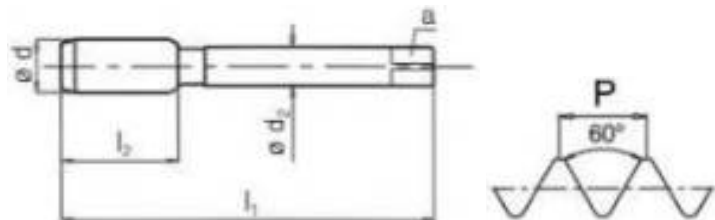
## M

## Metrisches ISO-Regelgewinde DIN 13

Baumaße DIN 352, Satz à 3 Stück

**ISO Metric Coarse Threads, DIN 13**

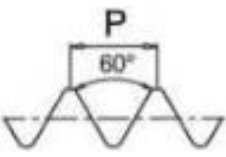
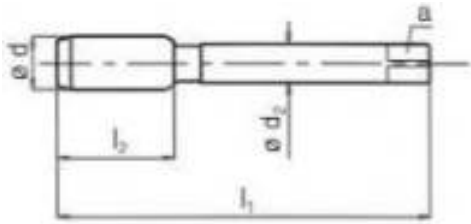
*Dimensions DIN 352, Set of 3 pieces*

[illegible]

**x** = ab Lager, Zwischenverkauf vorbehalten  
**o** = nur solange Lagervorrat vorhanden  
*x* = normally ex stock  
*o* = available while stocks last

M

**Metrisches ISO-Regelgewinde DIN 13, Linksgewinde**  
Baumaße DIN 352, Satz à 3 Stück  
**ISO Metric Coarse Threads, DIN 13, Left Hand Thread**  
Dimensions DIN 352, Set of 3 pieces



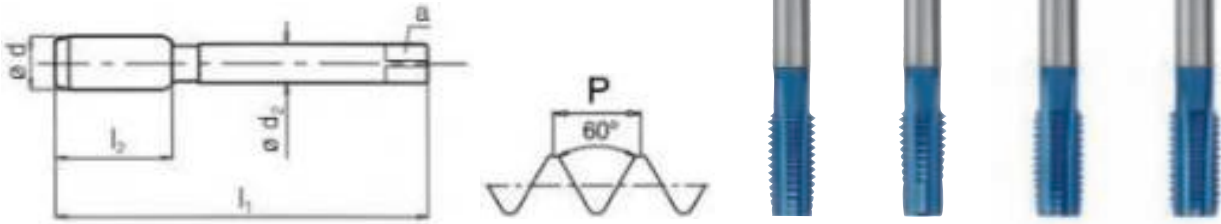
| Katalog Nr.<br>Bezeichnung                      |         | Catalogue No.<br>Name                        |                | 110 011<br>Hahnreiter LH                                                                     |                | 110 012<br>Hahnreiter LH                        |      | 110 013<br>Hahnreiter LH                           |   | 110 010<br>Hahnreiter LH                             |   |
|-------------------------------------------------|---------|----------------------------------------------|----------------|----------------------------------------------------------------------------------------------|----------------|-------------------------------------------------|------|----------------------------------------------------|---|------------------------------------------------------|---|
| Toleranz                                        |         | Tolerance                                    |                | Nr. 1                                                                                        |                | Nr. 2                                           |      | 6H / ISO2                                          |   | 6H / ISO2                                            |   |
| Anschnittform                                   |         | Chamfer form                                 |                | 5                                                                                            |                | 3-4                                             |      | C                                                  |   |                                                      |   |
| Anschnittlänge, Gang                            |         | Chamfer length, threads                      |                |                                                                                              |                |                                                 |      | 2-3                                                |   |                                                      |   |
| für Bohrungsart                                 |         | For holes                                    |                |                                                                                              |                |                                                 |      |                                                    |   |                                                      |   |
| hauptsächliches Einsatzgebiet                   |         | Main use                                     |                | alle gut spanbaren Materialien bis 800 N/mm²<br>all free machining materials up to 800 N/mm² |                |                                                 |      |                                                    |   |                                                      |   |
| Zerspanungsgruppe,<br>siehe Ausklappseite links |         | Machinability-group,<br>See folder left page |                |                                                                                              |                |                                                 |      |                                                    |   |                                                      |   |
| Ausführung                                      |         | Variation                                    |                | Vorschneider<br>Links<br>Taper<br>Left hand                                                  |                | Mittelschneider<br>Links<br>Second<br>Left hand |      | Fertigschneider<br>Links<br>Bottoming<br>Left hand |   | Satz à 3 Stück<br>Links<br>Set of 3 pc.<br>Left hand |   |
| Oberfläche                                      |         | Surface                                      |                |                                                                                              |                |                                                 |      |                                                    |   |                                                      |   |
| d                                               | P<br>mm | Code                                         | l <sub>1</sub> | l <sub>2</sub>                                                                               | l <sub>3</sub> | d <sub>2</sub>                                  | a    | Verfügbarkeit<br>Availability                      |   |                                                      |   |
| M 2                                             | 0,4     | 02                                           | 36             | 8                                                                                            |                | 2,8                                             | 2,1  | 1,60                                               | x | x                                                    | x |
| M 2,5                                           | 0,45    | 02,5                                         | 40             | 10                                                                                           |                | 2,8                                             | 2,1  | 2,05                                               | x | x                                                    | x |
| M 3                                             | 0,5     | 03                                           | 40             | 10                                                                                           |                | 3,5                                             | 2,7  | 2,50                                               | x | x                                                    | x |
| M 4                                             | 0,7     | 04                                           | 45             | 12                                                                                           | 21             | 4,5                                             | 3,4  | 3,30                                               | x | x                                                    | x |
| M 5                                             | 0,8     | 05                                           | 50             | 14                                                                                           | 22             | 6,0                                             | 4,9  | 4,20                                               | x | x                                                    | x |
| M 6                                             | 1       | 06                                           | 56             | 16                                                                                           | 27             | 6,0                                             | 4,9  | 5,00                                               | x | x                                                    | x |
| M 8                                             | 1,25    | 08                                           | 63             | 20                                                                                           |                | 6,0                                             | 4,9  | 6,80                                               | x | x                                                    | x |
| M 10                                            | 1,5     | 10                                           | 70             | 22                                                                                           |                | 7,0                                             | 5,5  | 8,50                                               | x | x                                                    | x |
| M 12                                            | 1,75    | 12                                           | 75             | 24                                                                                           |                | 9,0                                             | 7,0  | 10,20                                              | x | x                                                    | x |
| M 14                                            | 2       | 14                                           | 80             | 25                                                                                           |                | 11,0                                            | 9,0  | 12,00                                              | x | x                                                    | x |
| M 16                                            | 2       | 16                                           | 80             | 28                                                                                           |                | 12,0                                            | 9,0  | 14,00                                              | x | x                                                    | x |
| M 18                                            | 2,5     | 18                                           | 95             | 32                                                                                           |                | 14,0                                            | 11,0 | 15,50                                              | x | x                                                    | x |
| M 20                                            | 2,5     | 20                                           | 95             | 32                                                                                           |                | 16,0                                            | 12,0 | 17,50                                              | x | x                                                    | x |
| M 22                                            | 2,5     | 22                                           | 100            | 32                                                                                           |                | 18,0                                            | 14,5 | 19,50                                              | x | x                                                    | x |
| M 24                                            | 3       | 24                                           | 110            | 36                                                                                           |                | 18,0                                            | 14,5 | 21,00                                              | x | x                                                    | x |
| M 27                                            | 3       | 27                                           | 110            | 36                                                                                           |                | 20,0                                            | 16,0 | 24,00                                              | x | x                                                    | x |
| M 30                                            | 3,5     | 30                                           | 125            | 40                                                                                           |                | 22,0                                            | 18,0 | 26,50                                              | x | x                                                    | x |
|                                                 |         |                                              |                |                                                                                              |                |                                                 |      |                                                    |   |                                                      |   |
|                                                 |         |                                              |                |                                                                                              |                |                                                 |      |                                                    |   |                                                      |   |
|                                                 |         |                                              |                |                                                                                              |                |                                                 |      |                                                    |   |                                                      |   |
|                                                 |         |                                              |                |                                                                                              |                |                                                 |      |                                                    |   |                                                      |   |

x = ab Lager, Zwischenverkauf vorbehalten  
o = nur solange Lagervorrat vorhanden  
x = normally ex stock  
o = available while stocks last

M

M

**Metrisches ISO-Regelgewinde DIN 13**  
Baumaße DIN 352, Satz à 3 Stück  
**ISO Metric Coarse Threads, DIN 13**  
Dimensions DIN 352, Set of 3 pieces



| Katalog Nr.<br>Bezeichnung                      | Catalogue No.<br>Name                        |      |                |                |                |                |      |       | 110 051<br>Nirofix                                                                                                                                                                                                                                                                                                                  | 110 041<br>Nirofix                                        | 110 042<br>Nirofix            | 110 043<br>Nirofix               |  |
|-------------------------------------------------|----------------------------------------------|------|----------------|----------------|----------------|----------------|------|-------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------|-------------------------------|----------------------------------|--|
| Toleranz                                        | Tolerance                                    |      |                |                |                |                |      |       | Nr. 1                                                                                                                                                                                                                                                                                                                               | Nr. 1                                                     | Nr. 2                         | 6H / ISO2                        |  |
| Anschnittform                                   | Chamfer form                                 |      |                |                |                |                |      |       |                                                                                                                                                                                                                                                                                                                                     |                                                           |                               | C                                |  |
| Anschnittlänge, Gang                            | Chamfer length, threads                      |      |                |                |                |                |      |       | 5                                                                                                                                                                                                                                                                                                                                   | 5                                                         | 3-4                           | 2-3                              |  |
| für Bohrungsart                                 | For holes                                    |      |                |                |                |                |      |       |                                                                                                                                                                                                                                                                                                                                     |                                                           |                               |                                  |  |
| hauptsächliches Einsatzgebiet                   | Main use                                     |      |                |                |                |                |      |       | für rostfreie Stähle und Stähle > 1000 N/mm²<br>for stainless steel and steel > 1000 N/mm²                                                                                                                                                                                                                                          |                                                           |                               |                                  |  |
| Zerspanungsgruppe,<br>siehe Ausklappseite links | Machinability-group,<br>See folder left page |      |                |                |                |                |      |       | <div><div>P</div><div>M</div><div></div><div></div><div></div><div>S</div></div> <div><div>P</div><div>M</div><div></div><div></div><div></div><div>S</div></div> <div><div>P</div><div>M</div><div></div><div></div><div></div><div>S</div></div> <div><div>P</div><div>M</div><div></div><div></div><div></div><div>S</div></div> |                                                           |                               |                                  |  |
| Ausführung                                      | Variation                                    |      |                |                |                |                |      |       | Vorschneider<br><br>Taper                                                                                                                                                                                                                                                                                                           | Vorschneider<br>mit Führungszapfen<br>Taper<br>with Pilot | Mittelschneider<br><br>Second | Fertigschneider<br><br>Bottoming |  |
| Oberfläche                                      | Surface                                      |      |                |                |                |                |      |       | VAP                                                                                                                                                                                                                                                                                                                                 | VAP                                                       | VAP                           | VAP                              |  |
| d                                               | P<br>mm                                      | Code | l <sub>1</sub> | l <sub>2</sub> | l <sub>3</sub> | d <sub>2</sub> | a    |       | Verfügbarkeit<br>Availability                                                                                                                                                                                                                                                                                                       |                                                           |                               |                                  |  |
| M 2                                             | 0,4                                          | 02   | 36             | 8              |                | 2,8            | 2,1  | 1,60  | x                                                                                                                                                                                                                                                                                                                                   | x                                                         | x                             | x                                |  |
| M 2,5                                           | 0,45                                         | 02,5 | 40             | 10             |                | 2,8            | 2,1  | 2,05  | x                                                                                                                                                                                                                                                                                                                                   | x                                                         | x                             | x                                |  |
| M 3                                             | 0,5                                          | 03   | 40             | 10             |                | 3,5            | 2,7  | 2,50  | x                                                                                                                                                                                                                                                                                                                                   | x                                                         | x                             | x                                |  |
| M 4                                             | 0,7                                          | 04   | 45             | 12             | 21             | 4,5            | 3,4  | 3,30  | x                                                                                                                                                                                                                                                                                                                                   | x                                                         | x                             | x                                |  |
| M 5                                             | 0,8                                          | 05   | 50             | 14             | 22             | 6,0            | 4,9  | 4,20  | x                                                                                                                                                                                                                                                                                                                                   | x                                                         | x                             | x                                |  |
| M 6                                             | 1                                            | 06   | 56             | 16             | 27             | 6,0            | 4,9  | 5,00  | x                                                                                                                                                                                                                                                                                                                                   | x                                                         | x                             | x                                |  |
| M 8                                             | 1,25                                         | 08   | 63             | 20             |                | 6,0            | 4,9  | 6,80  | x                                                                                                                                                                                                                                                                                                                                   | x                                                         | x                             | x                                |  |
| M 10                                            | 1,5                                          | 10   | 70             | 22             |                | 7,0            | 5,5  | 8,50  | x                                                                                                                                                                                                                                                                                                                                   | x                                                         | x                             | x                                |  |
| M 12                                            | 1,75                                         | 12   | 75             | 24             |                | 9,0            | 7,0  | 10,20 | x                                                                                                                                                                                                                                                                                                                                   | x                                                         | x                             | x                                |  |
| M 14                                            | 2                                            | 14   | 80             | 25             |                | 11,0           | 9,0  | 12,00 | x                                                                                                                                                                                                                                                                                                                                   | x                                                         | x                             | x                                |  |
| M 16                                            | 2                                            | 16   | 80             | 28             |                | 12,0           | 9,0  | 14,00 | x                                                                                                                                                                                                                                                                                                                                   | x                                                         | x                             | x                                |  |
| M 18                                            | 2,5                                          | 18   | 95             | 32             |                | 14,0           | 11,0 | 15,50 | x                                                                                                                                                                                                                                                                                                                                   | x                                                         | x                             | x                                |  |
| M 20                                            | 2,5                                          | 20   | 95             | 32             |                | 16,0           | 12,0 | 17,50 | x                                                                                                                                                                                                                                                                                                                                   | x                                                         | x                             | x                                |  |
| M 22                                            | 2,5                                          | 22   | 100            | 32             |                | 18,0           | 14,5 | 19,50 | x                                                                                                                                                                                                                                                                                                                                   | x                                                         | x                             | x                                |  |
| M 24                                            | 3                                            | 24   | 110            | 36             |                | 18,0           | 14,5 | 21,00 | x                                                                                                                                                                                                                                                                                                                                   | x                                                         | x                             | x                                |  |
| M 27                                            | 3                                            | 27   | 110            | 36             |                | 20,0           | 16,0 | 24,00 | x                                                                                                                                                                                                                                                                                                                                   | x                                                         | x                             | x                                |  |
| M 30                                            | 3,5                                          | 30   | 125            | 40             |                | 22,0           | 18,0 | 26,50 | x                                                                                                                                                                                                                                                                                                                                   | x                                                         | x                             | x                                |  |
|                                                 |                                              |      |                |                |                |                |      |       |                                                                                                                                                                                                                                                                                                                                     |                                                           |                               |                                  |  |
|                                                 |                                              |      |                |                |                |                |      |       |                                                                                                                                                                                                                                                                                                                                     |                                                           |                               |                                  |  |
|                                                 |                                              |      |                |                |                |                |      |       |                                                                                                                                                                                                                                                                                                                                     |                                                           |                               |                                  |  |
|                                                 |                                              |      |                |                |                |                |      |       |                                                                                                                                                                                                                                                                                                                                     |                                                           |                               |                                  |  |

x = ab Lager, Zwischenverkauf vorbehalten  
o = nur solange Lagervorrat vorhanden  
x = normally ex stock  
o = available while stocks last

M



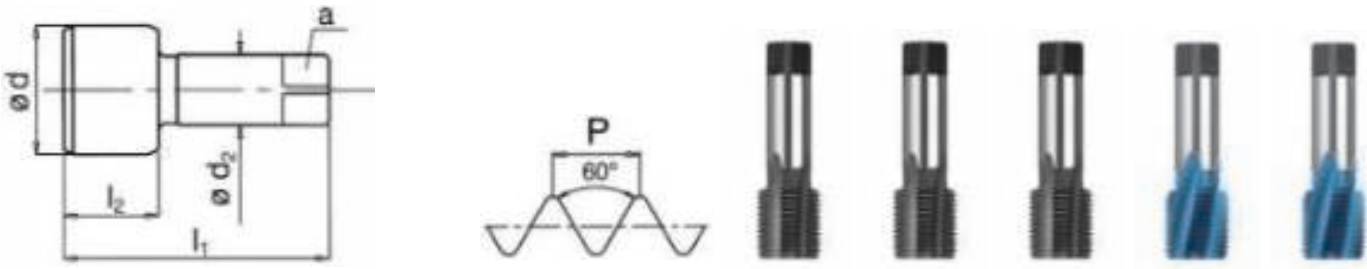
|                                                                                            |         |                                                                                   |                                                                                            |  |  |                                                                                    |   |  |  |
|--------------------------------------------------------------------------------------------|---------|-----------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------|--|--|------------------------------------------------------------------------------------|---|--|--|
|                                                                                            |         | 110 050<br>Nirofix<br>6H / ISO2                                                   |                                                                                            |  |  | 110 040<br>Nirofix<br>6H / ISO2                                                    |   |  |  |
|                                                                                            |         |  |                                                                                            |  |  |  |   |  |  |
| für rostfreie Stähle und Stähle > 1000 N/mm²<br>for stainless steel and steel > 1000 N/mm² |         |                                                                                   | für rostfreie Stähle und Stähle > 1000 N/mm²<br>for stainless steel and steel > 1000 N/mm² |  |  |                                                                                    |   |  |  |
|           |         |                                                                                   |          |  |  |                                                                                    |   |  |  |
| Satz à 3 Stück<br>Set of 3 pc.                                                             |         |                                                                                   | Satz à 3 Stück<br>mit Führungzapfen<br>Set of 3 pc.<br>with Pilot                          |  |  |                                                                                    |   |  |  |
| VAP                                                                                        |         |                                                                                   |                                                                                            |  |  |                                                                                    |   |  |  |
| VAP                                                                                        |         |                                                                                   |                                                                                            |  |  |                                                                                    |   |  |  |
| d                                                                                          | P<br>mm | Verfügbarkeit<br>Availability                                                     |                                                                                            |  |  |                                                                                    |   |  |  |
| M 2                                                                                        | 0,4     |                                                                                   | x                                                                                          |  |  |                                                                                    | x |  |  |
| M 2,5                                                                                      | 0,45    |                                                                                   | x                                                                                          |  |  |                                                                                    | x |  |  |
| M 3                                                                                        | 0,5     |                                                                                   | x                                                                                          |  |  |                                                                                    | x |  |  |
| M 4                                                                                        | 0,7     |                                                                                   | x                                                                                          |  |  |                                                                                    | x |  |  |
| M 5                                                                                        | 0,8     |                                                                                   | x                                                                                          |  |  |                                                                                    | x |  |  |
| M 6                                                                                        | 1       |                                                                                   | x                                                                                          |  |  |                                                                                    | x |  |  |
| M 8                                                                                        | 1,25    |                                                                                   | x                                                                                          |  |  |                                                                                    | x |  |  |
| M 10                                                                                       | 1,5     |                                                                                   | x                                                                                          |  |  |                                                                                    | x |  |  |
| M 12                                                                                       | 1,75    |                                                                                   | x                                                                                          |  |  |                                                                                    | x |  |  |
| M 14                                                                                       | 2       |                                                                                   | x                                                                                          |  |  |                                                                                    | x |  |  |
| M 16                                                                                       | 2       |                                                                                   | x                                                                                          |  |  |                                                                                    | x |  |  |
| M 18                                                                                       | 2,5     |                                                                                   | x                                                                                          |  |  |                                                                                    | x |  |  |
| M 20                                                                                       | 2,5     |                                                                                   | x                                                                                          |  |  |                                                                                    | x |  |  |
| M 22                                                                                       | 2,5     |                                                                                   | x                                                                                          |  |  |                                                                                    | x |  |  |
| M 24                                                                                       | 3       |                                                                                   | x                                                                                          |  |  |                                                                                    | x |  |  |
| M 27                                                                                       | 3       |                                                                                   | x                                                                                          |  |  |                                                                                    | x |  |  |
| M 30                                                                                       | 3,5     |                                                                                   | x                                                                                          |  |  |                                                                                    | x |  |  |
|                                                                                            |         |                                                                                   |                                                                                            |  |  |                                                                                    |   |  |  |
|                                                                                            |         |                                                                                   |                                                                                            |  |  |                                                                                    |   |  |  |
|                                                                                            |         |                                                                                   |                                                                                            |  |  |                                                                                    |   |  |  |
|                                                                                            |         |                                                                                   |                                                                                            |  |  |                                                                                    |   |  |  |

x = ab Lager, Zwischenverkauf vorbehalten  
o = nur solange Lagervorrat vorhanden  
x = normally ex stock  
o = available while stocks last

M

M

**Metrisches ISO-Regelgewinde DIN 13**  
Baumaße Werksnorm  
**ISO Metric Coarse Threads, DIN 13**  
Dimensions manufacturer's standard



| Katalog Nr.<br>Bezeichnung                                              | Catalogue No.<br>Name                        | 110 600<br>Automat MS                                                                                          | 110 601<br>Automat MS 6G                                                                                       | 110 602<br>Automat MS +0,1                                                                                     | 110 605<br>Automat 15                                                                                                                                            | 110 606<br>Automat 15 6G                                                                                                                                         |
|-------------------------------------------------------------------------|----------------------------------------------|----------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Toleranz                                                                | Tolerance                                    | 6H / ISO2                                                                                                      | 6G / ISO3                                                                                                      | 6H +0,1                                                                                                        | 6H / ISO2                                                                                                                                                        | 6G / ISO3                                                                                                                                                        |
| Anschnittform                                                           | Chamfer form                                 | E                                                                                                              | E                                                                                                              | E                                                                                                              | E                                                                                                                                                                | E                                                                                                                                                                |
| Anschnittlänge, Gang                                                    | Chamfer length, threads                      | 1,5-2                                                                                                          | 1,5-2                                                                                                          | 1,5-2                                                                                                          | 1,5-2                                                                                                                                                            | 1,5-2                                                                                                                                                            |
| für Bohrungsart                                                         | For holes                                    |                                                                                                                |                                                                                                                |                                                                                                                |                                                                                                                                                                  |                                                                                                                                                                  |
| Sonderwerkstoff                                                         | Special material                             | Messing<br>Brass<br>3.21                                                                                       |                                                                                                                |                                                                                                                | Automatenstahl<br>free cutting steel<br>1.2                                                                                                                      |                                                                                                                                                                  |
| Zerspanungsgruppe,<br>siehe Ausklappseite links                         | Machinability-group,<br>See folder left page | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/> | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/> | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> | <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> |
| Oberfläche                                                              | Surface                                      |                                                                                                                |                                                                                                                |                                                                                                                | VAP                                                                                                                                                              | VAP                                                                                                                                                              |
| Ausführung                                                              | Variation                                    |                                                                                                                | Aufmaß<br>Oversize                                                                                             | Aufmaß<br>Oversize                                                                                             |                                                                                                                                                                  | Aufmaß<br>Oversize                                                                                                                                               |
| Typenbeschreibung ab Seite                                              |                                              | T2                                                                                                             |                                                                                                                | T2                                                                                                             | T2                                                                                                                                                               | T2                                                                                                                                                               |
| Type description from page                                              |                                              | Verfügbarkeit<br>Availability                                                                                  |                                                                                                                |                                                                                                                |                                                                                                                                                                  |                                                                                                                                                                  |
| d                                                                       | P<br>mm                                      | Code                                                                                                           | l <sub>1</sub>                                                                                                 | l <sub>2</sub>                                                                                                 | d <sub>2</sub>                                                                                                                                                   | a                                                                                                                                                                |
| M 8                                                                     | 1,25                                         | 08                                                                                                             | 70                                                                                                             | 17                                                                                                             | 6,0                                                                                                                                                              | 4,9 6,80                                                                                                                                                         |
| M 10                                                                    | 1,5                                          | 10                                                                                                             | 70                                                                                                             | 22                                                                                                             | 8,0                                                                                                                                                              | 6,2 8,50                                                                                                                                                         |
| M 12                                                                    | 1,75                                         | 12                                                                                                             | 70                                                                                                             | 22                                                                                                             | 9,0                                                                                                                                                              | 7,0 10,20                                                                                                                                                        |
| M 14                                                                    | 2                                            | 14                                                                                                             | 70                                                                                                             | 25                                                                                                             | 10,0                                                                                                                                                             | 8,0 12,00                                                                                                                                                        |
| M 16                                                                    | 2                                            | 16                                                                                                             | 70                                                                                                             | 25                                                                                                             | 12,0                                                                                                                                                             | 9,0 14,00                                                                                                                                                        |
| M 18                                                                    | 2,5                                          | 18                                                                                                             | 70                                                                                                             | 28                                                                                                             | 12,0                                                                                                                                                             | 9,0 15,50                                                                                                                                                        |
| M 20                                                                    | 2,5                                          | 20                                                                                                             | 70                                                                                                             | 28                                                                                                             | 16,0 (15,0)*                                                                                                                                                     | 12,0 17,50                                                                                                                                                       |
| < M 8 siehe Seite G9 und G10 'kurze Maschinengewindebohrer für Messing' |                                              |                                                                                                                |                                                                                                                |                                                                                                                |                                                                                                                                                                  |                                                                                                                                                                  |
| < M 8 see page G9 and G10 'short machine taps for brass'                |                                              |                                                                                                                |                                                                                                                |                                                                                                                |                                                                                                                                                                  |                                                                                                                                                                  |
| Weitere Abmessungen und Aufmaße ab Lager verfügbar. Bitte anfragen.     |                                              |                                                                                                                |                                                                                                                |                                                                                                                |                                                                                                                                                                  |                                                                                                                                                                  |
| Other sizes and oversizes ex stock available on request.                |                                              |                                                                                                                |                                                                                                                |                                                                                                                |                                                                                                                                                                  |                                                                                                                                                                  |

\*solange Lagervorrat liefern wir mit Schaft Ø 15,0  
\*as long as available we will send shank Ø 15,0

x = ab Lager, Zwischenverkauf vorbehalten  
o = nur solange Lagervorrat vorhanden  
x = normally ex stock  
o = available while stocks last

## M

[illegible]

- \* DIN Profil
- \* *Thread profile accord. to DIN*

**x** = ab Lager, Zwischenverkauf vorbehalten  
**o** = nur solange Lagervorrat vorhanden  
*x* = normally ex stock  
*o* = available while stocks last

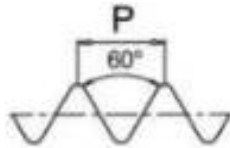
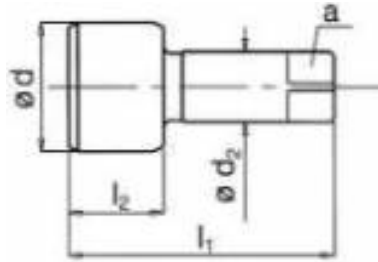
# M

## Metrisches ISO-Regelgewinde DIN 13

Baumaße Werksnorm

### ISO Metric Coarse Threads, DIN 13

*Dimensions manufacturer's standard*

[illegible]

\*solange Lagervorrat liefern wir mit Schaft Ø15,0  
\*as long as available we will send shank Ø 15,0

**x** = ab Lager, Zwischenverkauf vorbehalten  
**o** = nur solange Lagervorrat vorhanden  
*x* = *normally ex stock*  
*o* = *available while stocks last*

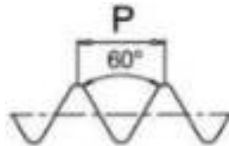
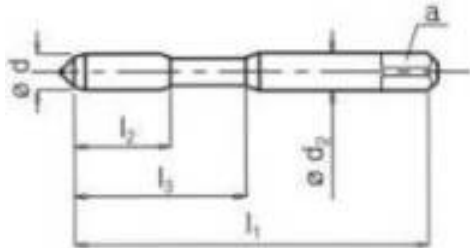
## M

## Metrisches ISO-Regelgewinde DIN 13

Baumaße  $\approx$  ISO 529

### ISO Metric Coarse Threads, DIN 13

*Dimensions  $\approx$  ISO 529*



| Katalog Nr.<br>Bezeichnung                                                                | Catalogue No.<br>Name                        | 110 685<br>2-Flach                                                                | 110 686<br>2-Flach                                                                 |                |                |                |     |                                                                                     |                               |   |  |  |  |  |
|-------------------------------------------------------------------------------------------|----------------------------------------------|-----------------------------------------------------------------------------------|------------------------------------------------------------------------------------|----------------|----------------|----------------|-----|-------------------------------------------------------------------------------------|-------------------------------|---|--|--|--|--|
| Toleranz                                                                                  | Tolerance                                    | 6H / ISO2                                                                         | 6G / ISO3                                                                          |                |                |                |     |                                                                                     |                               |   |  |  |  |  |
| Anschnittform                                                                             | Chamfer form                                 | E                                                                                 | E                                                                                  |                |                |                |     |                                                                                     |                               |   |  |  |  |  |
| Anschnittlänge, Gang                                                                      | Chamfer length, threads                      | 1,5-2                                                                             | 1,5-2                                                                              |                |                |                |     |                                                                                     |                               |   |  |  |  |  |
| für Bohrungsart                                                                           | For holes                                    |  |  |                |                |                |     |                                                                                     |                               |   |  |  |  |  |
| Sonderwerkstoff                                                                           | Special material                             | Messing<br>Brass                                                                  |                                                                                    |                |                |                |     |                                                                                     |                               |   |  |  |  |  |
| Zerspanungsgruppe,<br>siehe Ausklappseite links                                           | Machinability-group,<br>See folder left page | 3.21                                                                              |                                                                                    |                |                |                |     |                                                                                     |                               |   |  |  |  |  |
| Oberfläche                                                                                | Surface                                      |                                                                                   |                                                                                    |                |                |                |     |                                                                                     |                               |   |  |  |  |  |
| Ausführung                                                                                | Variation                                    | 2 flache Nuten<br>2 flat flutes                                                   |                                                                                    |                |                |                |     |                                                                                     |                               |   |  |  |  |  |
| Typenbeschreibung ab Seite                                                                | Type description from page                   | T2                                                                                | T2                                                                                 |                |                |                |     |                                                                                     |                               |   |  |  |  |  |
| d                                                                                         | P                                            | Code                                                                              | I <sub>1</sub>                                                                     | I <sub>2</sub> | I <sub>3</sub> | d <sub>2</sub> | a   |  | Verfügbarkeit<br>Availability |   |  |  |  |  |
| mm                                                                                        |                                              |                                                                                   |                                                                                    |                |                |                |     |                                                                                     |                               |   |  |  |  |  |
| M 2                                                                                       | 0,4                                          | 02                                                                                | 45                                                                                 | 8              | 10             | 2,8            | 2,1 | 1,60                                                                                | x                             | x |  |  |  |  |
| M 2,5                                                                                     | 0,45                                         | 02,5                                                                              | 50                                                                                 | 9              | 14             | 2,8            | 2,1 | 2,05                                                                                | x                             | x |  |  |  |  |
| M 2,6                                                                                     | 0,45                                         | 02,6                                                                              | 50                                                                                 | 10             | 14             | 2,8            | 2,1 | 2,10                                                                                | x                             | x |  |  |  |  |
| M 3                                                                                       | 0,5                                          | 03                                                                                | 48                                                                                 | 10             | 17             | 3,0            | 2,4 | 2,50                                                                                | x                             | x |  |  |  |  |
| M 3,5                                                                                     | 0,6                                          | 03,5                                                                              | 50                                                                                 | 13             | 20             | 3,5            | 2,7 | 2,90                                                                                | x                             | x |  |  |  |  |
| M 4                                                                                       | 0,7                                          | 04                                                                                | 53                                                                                 | 13             | 21             | 4,0            | 3,0 | 3,30                                                                                | x                             | x |  |  |  |  |
| M 5                                                                                       | 0,8                                          | 05                                                                                | 58                                                                                 | 16             | 25             | 5,0            | 3,8 | 4,20                                                                                | x                             | x |  |  |  |  |
| M 6                                                                                       | 1                                            | 06                                                                                | 66                                                                                 | 20             | 31             | 6,0            | 4,9 | 5,00                                                                                | x                             | x |  |  |  |  |
|                                                                                           |                                              |                                                                                   |                                                                                    |                |                |                |     |                                                                                     |                               |   |  |  |  |  |
| Ausführung mit 3 Nuten siehe Seite G10 und G17<br>Type with 3 flutes see page G10 and G17 |                                              |                                                                                   |                                                                                    |                |                |                |     |                                                                                     |                               |   |  |  |  |  |
|                                                                                           |                                              |                                                                                   |                                                                                    |                |                |                |     |                                                                                     |                               |   |  |  |  |  |
|                                                                                           |                                              |                                                                                   |                                                                                    |                |                |                |     |                                                                                     |                               |   |  |  |  |  |
| bis M 2,6 Baumaße = DIN 371<br>up to M 2,6 dimensiuons = DIN 371                          |                                              |                                                                                   |                                                                                    |                |                |                |     |                                                                                     |                               |   |  |  |  |  |
|                                                                                           |                                              |                                                                                   |                                                                                    |                |                |                |     |                                                                                     |                               |   |  |  |  |  |

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o = nur solange Lagervorrat vorhanden  
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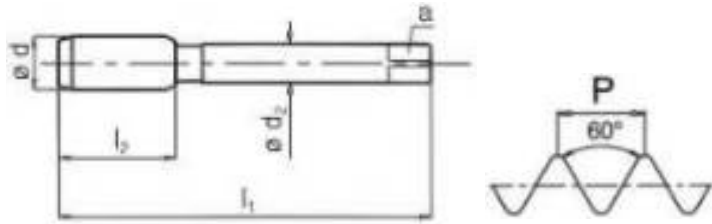
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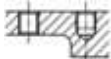
Metrisches ISO-Regelgewinde DIN 13

Baumaße DIN 352, kurze Ausführung

ISO Metric Coarse Threads, DIN 13

Dimensions DIN 352, Short taps



| Katalog Nr.<br>Bezeichnung                      | Catalogue No.<br>Name                        | 110 100<br>Hahnreiter                                                             | 110 118<br>Spiralo 15                                                              | 110 126<br>Spiralo 35                                                               | 110 180<br>Hahnreiter MS                                                            | 110 184<br>Hahnreiter MS 6G                                                         |                |      |                                                                                     |                               |   |   |   |   |
|-------------------------------------------------|----------------------------------------------|-----------------------------------------------------------------------------------|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|----------------|------|-------------------------------------------------------------------------------------|-------------------------------|---|---|---|---|
| Toleranz                                        | Tolerance                                    | 6H / ISO2                                                                         | 6H / ISO2                                                                          | 6H / ISO2                                                                           | 6H / ISO2                                                                           | 6G /ISO3                                                                            |                |      |                                                                                     |                               |   |   |   |   |
| Anschnittform                                   | Chamfer form                                 | C                                                                                 | C                                                                                  | C                                                                                   | E                                                                                   | E                                                                                   |                |      |                                                                                     |                               |   |   |   |   |
| Anschnittlänge, Gang                            | Chamfer length, threads                      | 2-3                                                                               | 2-3                                                                                | 2-3                                                                                 | 1,5-2                                                                               | 1,5-2                                                                               |                |      |                                                                                     |                               |   |   |   |   |
| für Bohrungsart                                 | For holes                                    |  |  |  |  |  |                |      |                                                                                     |                               |   |   |   |   |
| Sonderwerkstoff                                 | Special material                             |                                                                                   |                                                                                    |                                                                                     | Messing<br>Brass<br>3.21                                                            | Messing<br>Brass<br>3.21                                                            |                |      |                                                                                     |                               |   |   |   |   |
| Zerspanungsgruppe,<br>siehe Ausklappseite links | Machinability-group,<br>See folder left page | <div><div>P</div><div></div><div></div><div></div><div></div></div>               | <div><div>P</div><div></div><div></div><div></div><div></div></div>                | <div><div>P</div><div></div><div></div><div></div><div></div></div>                 | <div><div></div><div></div><div></div><div></div><div>N</div><div></div></div>      | <div><div></div><div></div><div></div><div></div><div>N</div><div></div></div>      |                |      |                                                                                     |                               |   |   |   |   |
| Oberfläche                                      | Surface                                      |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                |      |                                                                                     |                               |   |   |   |   |
| Ausführung                                      | Variation                                    |                                                                                   |                                                                                    |                                                                                     |                                                                                     | Aufmaß<br>Oversize                                                                  |                |      |                                                                                     |                               |   |   |   |   |
| Typenbeschreibung ab Seite                      | Type description from page                   | T2                                                                                | T2                                                                                 | T2                                                                                  | T2                                                                                  | T2                                                                                  |                |      |                                                                                     |                               |   |   |   |   |
| d                                               | P                                            | Code                                                                              | l <sub>1</sub>                                                                     | l <sub>2</sub>                                                                      | l <sub>2</sub>                                                                      | l <sub>3</sub>                                                                      | d <sub>2</sub> | a    |  | Verfügbarkeit<br>Availability |   |   |   |   |
|                                                 | mm                                           |                                                                                   |                                                                                    |                                                                                     | SSP**                                                                               |                                                                                     |                |      |                                                                                     |                               |   |   |   |   |
| M 3                                             | 0,5                                          | 03                                                                                | 40                                                                                 | 10                                                                                  |                                                                                     | 18                                                                                  | 3,5            | 2,7  | 2,50                                                                                | x                             | x | x | x | x |
| M 3,5                                           | 0,6                                          | 03,5                                                                              | 45                                                                                 | 12                                                                                  |                                                                                     | 20                                                                                  | 4,0            | 3,0  | 2,90                                                                                |                               |   |   |   |   |
| M 4                                             | 0,7                                          | 04                                                                                | 45                                                                                 | 12                                                                                  | 7                                                                                   | 21                                                                                  | 4,5            | 3,4  | 3,30                                                                                | x                             | x | x | x | x |
| M 5                                             | 0,8                                          | 05                                                                                | 50                                                                                 | 14                                                                                  | 9                                                                                   | 22                                                                                  | 6,0            | 4,9  | 4,20                                                                                | x                             | x | x | x | x |
| M 6                                             | 1                                            | 06                                                                                | 56                                                                                 | 16                                                                                  | 10                                                                                  | 27                                                                                  | 6,0            | 4,9  | 5,00                                                                                | x                             | x | x | x | x |
| M 7                                             | 1                                            | 07                                                                                | 56                                                                                 | 16                                                                                  |                                                                                     |                                                                                     | 6,0            | 4,9  | 6,00                                                                                |                               |   |   |   |   |
| M 8                                             | 1,25                                         | 08                                                                                | 63                                                                                 | 20                                                                                  | 13                                                                                  |                                                                                     | 6,0            | 4,9  | 6,80                                                                                | x                             | x | x | x |   |
| M 10                                            | 1,5                                          | 10                                                                                | 70                                                                                 | 22                                                                                  | 14                                                                                  |                                                                                     | 7,0            | 5,5  | 8,50                                                                                | x                             | x | x | x |   |
| M 12                                            | 1,75                                         | 12                                                                                | 75                                                                                 | 24                                                                                  | 16                                                                                  |                                                                                     | 9,0            | 7,0  | 10,20                                                                               | x                             | x | x | x |   |
| M 14                                            | 2                                            | 14                                                                                | 80                                                                                 | 25                                                                                  | 20                                                                                  |                                                                                     | 11,0           | 9,0  | 12,00                                                                               |                               | x | x |   |   |
| M 16                                            | 2                                            | 16                                                                                | 80                                                                                 | 28                                                                                  | 20                                                                                  |                                                                                     | 12,0           | 9,0  | 14,00                                                                               |                               | x | x |   |   |
| M 18                                            | 2,5                                          | 18                                                                                | 95                                                                                 | 32                                                                                  |                                                                                     |                                                                                     | 14,0           | 11,0 | 15,50                                                                               |                               | x |   |   |   |
| M 20                                            | 2,5                                          | 20                                                                                | 95                                                                                 | 32                                                                                  |                                                                                     |                                                                                     | 16,0           | 12,0 | 17,50                                                                               |                               | x |   |   |   |
| M 22                                            | 2,5                                          | 22                                                                                | 100                                                                                | 32                                                                                  |                                                                                     |                                                                                     | 18,0           | 14,5 | 19,50                                                                               |                               |   |   |   |   |
| M 24                                            | 3                                            | 24                                                                                | 110                                                                                | 36                                                                                  |                                                                                     |                                                                                     | 18,0           | 14,5 | 21,00                                                                               |                               |   |   |   |   |
|                                                 |                                              |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                |      |                                                                                     |                               |   |   |   |   |
|                                                 |                                              |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                |      |                                                                                     |                               |   |   |   |   |
|                                                 |                                              |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                |      |                                                                                     |                               |   |   |   |   |
|                                                 |                                              |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                |      |                                                                                     |                               |   |   |   |   |
|                                                 |                                              |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                |      |                                                                                     |                               |   |   |   |   |
|                                                 |                                              |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |                |      |                                                                                     |                               |   |   |   |   |

x = ab Lager, Zwischenverkauf vorbehalten  
o = nur solange Lagervorrat vorhanden  
x = normally ex stock  
o = available while stocks last

\*\* SSP = Steilschneidspiral  
\*\* SSP = quick spiral

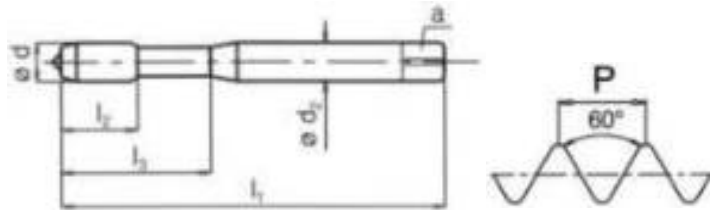
# M

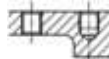
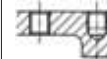
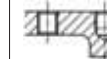
## Metrisches ISO-Regelgewinde DIN 13

Baumaße DIN 371, verstärkter Schaft

**ISO Metric Coarse Threads, DIN 13**

*Dimensions DIN 371, Reinforced shank*



| Katalog Nr.<br>Bezeichnung                      | Catalogue No.<br>Name                        |      | 110 200<br>Hahnreiter                                                                            |                | 110 201<br>Hahnreiter 6G                                                                         |                | 110 204<br>Hahnreiter LH                                                                         |                               | 110 205<br>Dulofix                                                                                             |   | 110 210<br>Dulofix TiN                                                                                         |   |
|-------------------------------------------------|----------------------------------------------|------|--------------------------------------------------------------------------------------------------|----------------|--------------------------------------------------------------------------------------------------|----------------|--------------------------------------------------------------------------------------------------|-------------------------------|----------------------------------------------------------------------------------------------------------------|---|----------------------------------------------------------------------------------------------------------------|---|
| Toleranz                                        | Tolerance                                    |      | 6H / ISO2                                                                                        |                | 6G / ISO3                                                                                        |                | 6H / ISO2                                                                                        |                               | 6H / ISO2                                                                                                      |   | 6H / ISO2                                                                                                      |   |
| Anschnittform                                   | Chamfer form                                 |      | C                                                                                                |                | C                                                                                                |                | C                                                                                                |                               | B                                                                                                              |   | B                                                                                                              |   |
| Anschnittlänge, Gang                            | Chamfer length, threads                      |      | 2-3                                                                                              |                | 2-3                                                                                              |                | 2-3                                                                                              |                               | 4-5                                                                                                            |   | 4-5                                                                                                            |   |
| für Bohrungsart                                 | For holes                                    |      |                 |                |                |                |               |                               |                             |   |                             |   |
| Sonderwerkstoff                                 | Special material                             |      |                                                                                                  |                |                                                                                                  |                |                                                                                                  |                               |                                                                                                                |   |                                                                                                                |   |
| Zerspanungsgruppe,<br>siehe Ausklappseite links | Machinability-group,<br>See folder left page |      | <div>P<span> </span><span> </span><span> </span><span> </span><span> </span><span> </span></div> |                | <div>P<span> </span><span> </span><span> </span><span> </span><span> </span><span> </span></div> |                | <div>P<span> </span><span> </span><span> </span><span> </span><span> </span><span> </span></div> |                               | <div>P<span> </span><span> </span><span> </span><span> </span><span> </span><span>N</span><span> </span></div> |   | <div>P<span> </span><span> </span><span> </span><span> </span><span> </span><span>N</span><span> </span></div> |   |
| Oberfläche                                      | Surface                                      |      |                                                                                                  |                |                                                                                                  |                |                                                                                                  |                               |                                                                                                                |   | TiN                                                                                                            |   |
| Ausführung                                      | Variation                                    |      |                                                                                                  |                | Aufmaß<br>Oversize                                                                               |                | Links<br>Left hand                                                                               |                               |                                                                                                                |   |                                                                                                                |   |
| Typenbeschreibung ab Seite                      |                                              |      | Type description from page                                                                       |                | T2                                                                                               |                | T2                                                                                               |                               | T2                                                                                                             |   | T2                                                                                                             |   |
| d                                               | P                                            | Code | l <sub>1</sub>                                                                                   | l <sub>2</sub> | l <sub>3</sub>                                                                                   | d <sub>2</sub> | a                                                                                                | Verfügbarkeit<br>Availability |                                                                                                                |   |                                                                                                                |   |
| mm                                              |                                              |      |                                                                                                  |                |                                                                                                  |                |                                                                                                  |                               |                                                                                                                |   |                                                                                                                |   |
| M 1                                             | 0,25                                         | 01   | 40                                                                                               | 5,5            |                                                                                                  | 2,5            | 2,1                                                                                              | 0,75                          |                                                                                                                |   |                                                                                                                |   |
| M 1,1                                           | 0,25                                         | 01,1 | 40                                                                                               | 5,5            |                                                                                                  | 2,5            | 2,1                                                                                              | 0,85                          |                                                                                                                |   |                                                                                                                |   |
| M 1,2                                           | 0,25                                         | 01,2 | 40                                                                                               | 5,5            |                                                                                                  | 2,5            | 2,1                                                                                              | 0,95                          |                                                                                                                |   |                                                                                                                |   |
| M 1,4                                           | 0,3                                          | 01,4 | 40                                                                                               | 7              |                                                                                                  | 2,5            | 2,1                                                                                              | 1,10                          | x                                                                                                              |   |                                                                                                                |   |
| M 1,6                                           | 0,35                                         | 01,6 | 40                                                                                               | 8              |                                                                                                  | 2,5            | 2,1                                                                                              | 1,25                          | x                                                                                                              |   |                                                                                                                |   |
| M 1,7*                                          | 0,35                                         | 01,7 | 40                                                                                               | 8              |                                                                                                  | 2,5            | 2,1                                                                                              | 1,30                          | x                                                                                                              |   |                                                                                                                |   |
| M 1,8                                           | 0,35                                         | 01,8 | 40                                                                                               | 8              |                                                                                                  | 2,5            | 2,1                                                                                              | 1,45                          | x                                                                                                              |   |                                                                                                                |   |
| M 2                                             | 0,4                                          | 02   | 45                                                                                               | 6              | 10                                                                                               | 2,8            | 2,1                                                                                              | 1,60                          | x                                                                                                              |   | x                                                                                                              |   |
| M 2,2                                           | 0,45                                         | 02,2 | 45                                                                                               | 6              | 10                                                                                               | 2,8            | 2,1                                                                                              | 1,75                          | x                                                                                                              |   |                                                                                                                |   |
| M 2,3*                                          | 0,4                                          | 02,3 | 50                                                                                               | 9              | 14                                                                                               | 2,8            | 2,1                                                                                              | 1,90                          | x                                                                                                              |   |                                                                                                                |   |
| M 2,5                                           | 0,45                                         | 02,5 | 50                                                                                               | 9              | 14                                                                                               | 2,8            | 2,1                                                                                              | 2,05                          | x                                                                                                              |   | x                                                                                                              |   |
| M 2,6*                                          | 0,45                                         | 02,6 | 50                                                                                               | 9              | 14                                                                                               | 2,8            | 2,1                                                                                              | 2,10                          | x                                                                                                              |   |                                                                                                                |   |
| M 3                                             | 0,5                                          | 03   | 56                                                                                               | 10             | 18                                                                                               | 3,5            | 2,7                                                                                              | 2,50                          | x                                                                                                              | x |                                                                                                                | x |
| M 3,5                                           | 0,6                                          | 03,5 | 56                                                                                               | 11             | 20                                                                                               | 4,0            | 3,0                                                                                              | 2,90                          | x                                                                                                              | x |                                                                                                                | x |
| M 4                                             | 0,7                                          | 04   | 63                                                                                               | 12             | 23                                                                                               | 4,5            | 3,4                                                                                              | 3,30                          | x                                                                                                              | x |                                                                                                                | x |
| M 4,5                                           | 0,75                                         | 04,5 | 70                                                                                               | 14             | 25                                                                                               | 6,0            | 4,9                                                                                              | 3,70                          |                                                                                                                | x |                                                                                                                |   |
| M 5                                             | 0,8                                          | 05   | 70                                                                                               | 14             | 25                                                                                               | 6,0            | 4,9                                                                                              | 4,20                          | x                                                                                                              | x |                                                                                                                | x |
| M 6                                             | 1                                            | 06   | 80                                                                                               | 17             | 30                                                                                               | 6,0            | 4,9                                                                                              | 5,00                          | x                                                                                                              | x |                                                                                                                | x |
| M 7                                             | 1                                            | 07   | 80                                                                                               | 17             | 30                                                                                               | 7,0            | 5,5                                                                                              | 6,00                          | x                                                                                                              | x |                                                                                                                |   |
| M 8                                             | 1,25                                         | 08   | 90                                                                                               | 18             | 35                                                                                               | 8,0            | 6,2                                                                                              | 6,80                          | x                                                                                                              | x |                                                                                                                | x |
| M 9                                             | 1,25                                         | 09   | 90                                                                                               | 18             | 35                                                                                               | 9,0            | 7,0                                                                                              | 7,80                          | x                                                                                                              | x |                                                                                                                |   |
| M 10                                            | 1,5                                          | 10   | 100                                                                                              | 20             | 39                                                                                               | 10,0           | 8,0                                                                                              | 8,50                          | x                                                                                                              | x |                                                                                                                | x |
| M 12                                            | 1,75                                         | 12   | 110                                                                                              | 22             | 44                                                                                               | 12,0           | 9,0                                                                                              | 10,20                         | x                                                                                                              | x |                                                                                                                |   |
|                                                 |                                              |      |                                                                                                  |                |                                                                                                  |                |                                                                                                  |                               |                                                                                                                |   |                                                                                                                |   |
|                                                 |                                              |      |                                                                                                  |                |                                                                                                  |                |                                                                                                  |                               |                                                                                                                |   |                                                                                                                |   |

\* DIN Profil  
\* Thread profile accord. to DIN

Bis einschl. M 1,4 Toleranz 4H / ISO1  
up to M 1,4 incl. tolerance 4H / ISO1

x = ab Lager, Zwischenverkauf vorbehalten  
o = nur solange Lagervorrat vorhanden  
x = normally ex stock  
o = available while stocks last

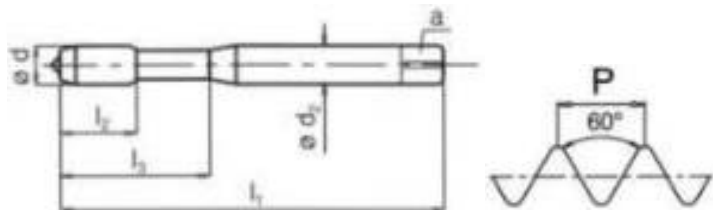
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Metrisches ISO-Regelgewinde DIN 13

Baumaße DIN 371, verstärkter Schaft

ISO Metric Coarse Threads, DIN 13

Dimensions DIN 371, Reinforced shank



| Katalog Nr.<br>Bezeichnung                      | Catalogue No.<br>Name                        | 110 295<br>Dulofix TiCN                                                           | 110 202<br>Dulofix VAP                                                             | 110 206<br>Dulofix 4H                                                               | 110 207<br>Dulofix 6G                                                               | 110 214<br>Dulofix 6G TiN                                                           |     |                                                                                     |                               |   |  |
|-------------------------------------------------|----------------------------------------------|-----------------------------------------------------------------------------------|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-----|-------------------------------------------------------------------------------------|-------------------------------|---|--|
| Toleranz                                        | Tolerance                                    | 6H / ISO2                                                                         | 6H / ISO2                                                                          | 4H / ISO 1                                                                          | 6G / ISO3                                                                           | 6G/ ISO3                                                                            |     |                                                                                     |                               |   |  |
| Anschnittform                                   | Chamfer form                                 | B                                                                                 | B                                                                                  | B                                                                                   | B                                                                                   | B                                                                                   |     |                                                                                     |                               |   |  |
| Anschnittlänge, Gang                            | Chamfer length, threads                      | 4-5                                                                               | 4-5                                                                                | 4-5                                                                                 | 4-5                                                                                 | 4-5                                                                                 |     |                                                                                     |                               |   |  |
| für Bohrungsart                                 | For holes                                    |  |  |  |  |  |     |                                                                                     |                               |   |  |
| Sonderwerkstoff                                 | Special material                             |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |     |                                                                                     |                               |   |  |
| Zerspanungsgruppe,<br>siehe Ausklappseite links | Machinability-group,<br>See folder left page | <div><div>P</div><div></div><div></div><div></div><div>N</div><div></div></div>   | <div><div>P</div><div></div><div></div><div></div><div></div><div></div></div>     | <div><div>P</div><div></div><div></div><div>N</div><div></div><div></div></div>     | <div><div>P</div><div></div><div></div><div>N</div><div></div><div></div></div>     | <div><div>P</div><div></div><div></div><div>N</div><div></div><div></div></div>     |     |                                                                                     |                               |   |  |
| Oberfläche                                      | Surface                                      | TiCN                                                                              | VAP                                                                                |                                                                                     |                                                                                     | TiN                                                                                 |     |                                                                                     |                               |   |  |
| Ausführung                                      | Variation                                    |                                                                                   |                                                                                    | enge Toleranz<br>Tight tolerance                                                    | Aufmaß<br>Oversize                                                                  | Aufmaß<br>Oversize                                                                  |     |                                                                                     |                               |   |  |
| Typenbeschreibung ab Seite                      | Type description from page                   | T2                                                                                | T2                                                                                 | T2                                                                                  | T2                                                                                  | T2                                                                                  |     |                                                                                     |                               |   |  |
| d                                               | P                                            | Code                                                                              | l <sub>1</sub>                                                                     | l <sub>2</sub>                                                                      | l <sub>3</sub>                                                                      | d <sub>2</sub>                                                                      | a   |  | Verfügbarkeit<br>Availability |   |  |
| mm                                              |                                              |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |     |                                                                                     |                               |   |  |
| M 1                                             | 0,25                                         | 01                                                                                | 40                                                                                 | 5,5                                                                                 |                                                                                     | 2,5                                                                                 | 2,1 | 0,75                                                                                |                               |   |  |
| M 1,1                                           | 0,25                                         | 01,1                                                                              | 40                                                                                 | 5,5                                                                                 |                                                                                     | 2,5                                                                                 | 2,1 | 0,85                                                                                |                               |   |  |
| M 1,2                                           | 0,25                                         | 01,2                                                                              | 40                                                                                 | 5,5                                                                                 |                                                                                     | 2,5                                                                                 | 2,1 | 0,95                                                                                |                               |   |  |
| M 1,4                                           | 0,3                                          | 01,4                                                                              | 40                                                                                 | 7                                                                                   |                                                                                     | 2,5                                                                                 | 2,1 | 1,10                                                                                |                               |   |  |
| M 1,6                                           | 0,35                                         | 01,6                                                                              | 40                                                                                 | 8                                                                                   |                                                                                     | 2,5                                                                                 | 2,1 | 1,25                                                                                |                               |   |  |
| M 1,7*                                          | 0,35                                         | 01,7                                                                              | 40                                                                                 | 8                                                                                   |                                                                                     | 2,5                                                                                 | 2,1 | 1,30                                                                                |                               |   |  |
| M 1,8                                           | 0,35                                         | 01,8                                                                              | 40                                                                                 | 8                                                                                   |                                                                                     | 2,5                                                                                 | 2,1 | 1,45                                                                                |                               |   |  |
| M 2                                             | 0,4                                          | 02                                                                                | 45                                                                                 | 6                                                                                   | 10                                                                                  | 2,8                                                                                 | 2,1 | 1,60                                                                                |                               |   |  |
| M 2,2                                           | 0,45                                         | 02,2                                                                              | 45                                                                                 | 6                                                                                   | 10                                                                                  | 2,8                                                                                 | 2,1 | 1,75                                                                                |                               |   |  |
| M 2,3*                                          | 0,4                                          | 02,3                                                                              | 50                                                                                 | 9                                                                                   | 14                                                                                  | 2,8                                                                                 | 2,1 | 1,90                                                                                |                               |   |  |
| M 2,5                                           | 0,45                                         | 02,5                                                                              | 50                                                                                 | 9                                                                                   | 14                                                                                  | 2,8                                                                                 | 2,1 | 2,05                                                                                |                               |   |  |
| M 2,6*                                          | 0,45                                         | 02,6                                                                              | 50                                                                                 | 9                                                                                   | 14                                                                                  | 2,8                                                                                 | 2,1 | 2,10                                                                                |                               |   |  |
| M 3                                             | 0,5                                          | 03                                                                                | 56                                                                                 | 10                                                                                  | 18                                                                                  | 3,5                                                                                 | 2,7 | 2,50                                                                                | x                             | x |  |
| M 3,5                                           | 0,6                                          | 03,5                                                                              | 56                                                                                 | 11                                                                                  | 20                                                                                  | 4,0                                                                                 | 3,0 | 2,90                                                                                | x                             | x |  |
| M 4                                             | 0,7                                          | 04                                                                                | 63                                                                                 | 12                                                                                  | 23                                                                                  | 4,5                                                                                 | 3,4 | 3,30                                                                                | x                             | x |  |
| M 4,5                                           | 0,75                                         | 04,5                                                                              | 70                                                                                 | 14                                                                                  | 25                                                                                  | 6,0                                                                                 | 4,9 | 3,70                                                                                |                               |   |  |
| M 5                                             | 0,8                                          | 05                                                                                | 70                                                                                 | 14                                                                                  | 25                                                                                  | 6,0                                                                                 | 4,9 | 4,20                                                                                | x                             | x |  |
| M 6                                             | 1                                            | 06                                                                                | 80                                                                                 | 17                                                                                  | 30                                                                                  | 6,0                                                                                 | 4,9 | 5,00                                                                                | x                             | x |  |
| M 7                                             | 1                                            | 07                                                                                | 80                                                                                 | 17                                                                                  | 30                                                                                  | 7,0                                                                                 | 5,5 | 6,00                                                                                |                               |   |  |
| M 8                                             | 1,25                                         | 08                                                                                | 90                                                                                 | 18                                                                                  | 35                                                                                  | 8,0                                                                                 | 6,2 | 6,80                                                                                | x                             | x |  |
| M 9                                             | 1,25                                         | 09                                                                                | 90                                                                                 | 18                                                                                  | 35                                                                                  | 9,0                                                                                 | 7,0 | 7,80                                                                                |                               |   |  |
| M 10                                            | 1,5                                          | 10                                                                                | 100                                                                                | 20                                                                                  | 39                                                                                  | 10,0                                                                                | 8,0 | 8,50                                                                                | x                             | x |  |
| M 12                                            | 1,75                                         | 12                                                                                | 110                                                                                | 22                                                                                  | 44                                                                                  | 12,0                                                                                | 9,0 | 10,20                                                                               |                               |   |  |
|                                                 |                                              |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |     |                                                                                     |                               |   |  |
|                                                 |                                              |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |     |                                                                                     |                               |   |  |

\* DIN Profil  
\* Thread profile accord. to DIN

x = ab Lager, Zwischenverkauf vorbehalten  
o = nur solange Lagervorrat vorhanden  
x = normally ex stock  
o = available while stocks last

M



|        | 110 208<br>Dulofix 7G                                                                                                                                                                                                                                       | 110 220<br>Dulofix +0,1                                                                                                                                                                                                            | 110 212<br>Dulofix LH                                                                                                                                                                                                              | 110 209<br>Dulofix AZ                                                                                                                                                                                                              | 110 215<br>Standfest 0                                                                                                                                                                                                             | 110 216<br>Standfest 2                                                                                                                                                                                                             | 110 219<br>Standfest 2 6G                                                                                                                                                                                                          | 110 218<br>Spiralo 15                                                                                                                                                                                                              | 110 224<br>Spiralo 15 TiN                                                                                                                                                                                                          |
|--------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|        | 7G<br>B<br>4-5                                                                                                                                                                                                                                              | 6H +0,1<br>B<br>4-5                                                                                                                                                                                                                | 6H / ISO2<br>B<br>4-5                                                                                                                                                                                                              | 6H / ISO2<br>B<br>4-5                                                                                                                                                                                                              | 6H / ISO2<br>B<br>4-5                                                                                                                                                                                                              | 6H / ISO2<br>B<br>4-5                                                                                                                                                                                                              | 6G / ISO3<br>B<br>4-5                                                                                                                                                                                                              | 6H / ISO2<br>C<br>2-3                                                                                                                                                                                                              | 6H / ISO2<br>C<br>2-3                                                                                                                                                                                                              |
|        |                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                    |
|        |                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                    | weiches Material<br>soft material<br>1.1.0                                                                                                                                                                                         |                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                    |
|        | P <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> | P <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> | P <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> | P <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> | P <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> | P <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> | P <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> | P <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> | P <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> |
|        | Aufmaß<br>Oversize                                                                                                                                                                                                                                          | Aufmaß<br>Oversize                                                                                                                                                                                                                 | Links<br>Left hand                                                                                                                                                                                                                 | ausgesetzte Zähne<br>Interrupted teeth                                                                                                                                                                                             | ohne Nuten<br>Fluteless                                                                                                                                                                                                            | 2 Schmiernuten<br>2 oilgrooves                                                                                                                                                                                                     | Aufmaß<br>Oversize                                                                                                                                                                                                                 |                                                                                                                                                                                                                                    | TiN                                                                                                                                                                                                                                |
|        | T2                                                                                                                                                                                                                                                          | T2                                                                                                                                                                                                                                 | T2                                                                                                                                                                                                                                 | T2                                                                                                                                                                                                                                 | T2                                                                                                                                                                                                                                 | T2                                                                                                                                                                                                                                 | T2                                                                                                                                                                                                                                 | T2                                                                                                                                                                                                                                 | T2                                                                                                                                                                                                                                 |
| d      | P<br>mm                                                                                                                                                                                                                                                     | Verfügbarkeit<br>Availability                                                                                                                                                                                                      |                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                    |
| M 1    | 0,25                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                    | x                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                    |
| M 1,1  | 0,25                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                    | x                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                    |
| M 1,2  | 0,25                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                    | x                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                    |
| M 1,4  | 0,3                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                    | x                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                    |
| M 1,6  | 0,35                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                    | x                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                    |
| M 1,7  | 0,35                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                    | x                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                    |
| M 1,8  | 0,35                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                    | x                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                    |
| M 2    | 0,4                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                    | x                                                                                                                                                                                                                                  | x                                                                                                                                                                                                                                  | x                                                                                                                                                                                                                                  | x                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                    |
| M 2,2  | 0,45                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                    | x                                                                                                                                                                                                                                  | x                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                    | x                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                    |
| M 2,3* | 0,4                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                    | x                                                                                                                                                                                                                                  | x                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                    | x                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                    |
| M 2,5  | 0,45                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                    | x                                                                                                                                                                                                                                  | x                                                                                                                                                                                                                                  | x                                                                                                                                                                                                                                  | x                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                    |
| M 2,6* | 0,45                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                    | x                                                                                                                                                                                                                                  | x                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                    | x                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                    |
| M 3    | 0,5                                                                                                                                                                                                                                                         | x                                                                                                                                                                                                                                  | x                                                                                                                                                                                                                                  | x                                                                                                                                                                                                                                  | o                                                                                                                                                                                                                                  | x                                                                                                                                                                                                                                  | x                                                                                                                                                                                                                                  | x                                                                                                                                                                                                                                  | x                                                                                                                                                                                                                                  |
| M 3,5  | 0,6                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                    | x                                                                                                                                                                                                                                  | o                                                                                                                                                                                                                                  | x                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                    | x                                                                                                                                                                                                                                  | o                                                                                                                                                                                                                                  |
| M 4    | 0,7                                                                                                                                                                                                                                                         | x                                                                                                                                                                                                                                  | x                                                                                                                                                                                                                                  | x                                                                                                                                                                                                                                  | o                                                                                                                                                                                                                                  | x                                                                                                                                                                                                                                  | x                                                                                                                                                                                                                                  | x                                                                                                                                                                                                                                  | x                                                                                                                                                                                                                                  |
| M 4,5  | 0,75                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                    | x                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                    |
| M 5    | 0,8                                                                                                                                                                                                                                                         | x                                                                                                                                                                                                                                  | x                                                                                                                                                                                                                                  | x                                                                                                                                                                                                                                  | o                                                                                                                                                                                                                                  | o                                                                                                                                                                                                                                  | o                                                                                                                                                                                                                                  | x                                                                                                                                                                                                                                  | x                                                                                                                                                                                                                                  |
| M 6    | 1                                                                                                                                                                                                                                                           | x                                                                                                                                                                                                                                  | x                                                                                                                                                                                                                                  | x                                                                                                                                                                                                                                  | o                                                                                                                                                                                                                                  | o                                                                                                                                                                                                                                  | o                                                                                                                                                                                                                                  | x                                                                                                                                                                                                                                  | x                                                                                                                                                                                                                                  |
| M 7    | 1                                                                                                                                                                                                                                                           |                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                    | x                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                    |
| M 8    | 1,25                                                                                                                                                                                                                                                        | x                                                                                                                                                                                                                                  | x                                                                                                                                                                                                                                  | x                                                                                                                                                                                                                                  | o                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                    | x                                                                                                                                                                                                                                  | x                                                                                                                                                                                                                                  |
| M 9    | 1,25                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                    | x                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                    |
| M 10   | 1,5                                                                                                                                                                                                                                                         | x                                                                                                                                                                                                                                  | x                                                                                                                                                                                                                                  | x                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                    | x                                                                                                                                                                                                                                  | x                                                                                                                                                                                                                                  |
| M 12   | 1,75                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                    |

\* DIN Profil

\* Thread profile accord. to DIN

Bis einschl. M 1,4 Toleranz 4H / ISO1  
up to M 1,4 incl. tolerance 4H / ISO1

x = ab Lager, Zwischenverkauf vorbehalten

o = nur solange Lagervorrat vorhanden

x = normally ex stock

o = available while stocks last

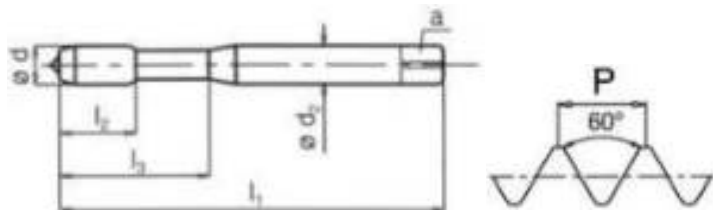
## M

## Metrisches ISO-Regelgewinde DIN 13

Baumaße DIN 371, verstärkter Schaft

### ISO Metric Coarse Threads, DIN 13

*Dimensions DIN 371, Reinforced shank*



| Katalog Nr.<br>Bezeichnung                                                              | Catalogue No.<br>Name                        | 110 225<br>Spiralo 15 TiCN                                                      | 110 221<br>Spiralo 15 6G                                                        | 110 223<br>Spiralo 15 AZ                                                        | 110 226<br>Spiralo 35                                                           | 110 235<br>Spiralo 35 TiN                                                       |
|-----------------------------------------------------------------------------------------|----------------------------------------------|---------------------------------------------------------------------------------|---------------------------------------------------------------------------------|---------------------------------------------------------------------------------|---------------------------------------------------------------------------------|---------------------------------------------------------------------------------|
| Toleranz                                                                                | Tolerance                                    | 6H / ISO2                                                                       | 6G / ISO3                                                                       | 6H / ISO2                                                                       | 6H / ISO2                                                                       | 6H / ISO2                                                                       |
| Anschnittform                                                                           | Chamfer form                                 | C                                                                               | C                                                                               | C                                                                               | C                                                                               | C                                                                               |
| Anschnittlänge, Gang                                                                    | Chamfer length, threads                      | 2-3                                                                             | 2-3                                                                             | 2-3                                                                             | 2-3                                                                             | 2-3                                                                             |
| für Bohrungsart                                                                         | For holes                                    |                                                                                 |                                                                                 |                                                                                 |                                                                                 |                                                                                 |
| Sonderwerkstoff                                                                         | Special material                             | Alu-Guss<br>Alu-castings<br>4.16                                                |                                                                                 | weiches Material<br>soft material<br>1.1.0/3.20/4.14                            |                                                                                 |                                                                                 |
| Zerspanungsgruppe,<br>siehe Ausklappseite links                                         | Machinability-group,<br>See folder left page | <div><div>P</div><div></div><div></div><div></div><div>N</div><div></div></div> | <div><div>P</div><div></div><div></div><div></div><div>N</div><div></div></div> | <div><div>P</div><div></div><div></div><div></div><div>N</div><div></div></div> | <div><div>P</div><div></div><div></div><div></div><div>N</div><div></div></div> | <div><div>P</div><div></div><div></div><div></div><div>N</div><div></div></div> |
| Oberfläche                                                                              | Surface                                      | TiCN                                                                            |                                                                                 |                                                                                 |                                                                                 | TiN                                                                             |
| Ausführung                                                                              | Variation                                    |                                                                                 | Aufmaß<br>Oversize                                                              | ausgesetzte Zähne<br>Interrupted teeth                                          |                                                                                 |                                                                                 |
| Typenbeschreibung ab Seite                                                              | Type description from page                   | T2                                                                              | T2                                                                              | T2                                                                              | T2                                                                              | T2                                                                              |
| dPCodeI <sub>1</sub> I <sub>2</sub> I <sub>2</sub> SSP**I <sub>3</sub> d <sub>2</sub> a | Verfügbarkeit<br>Availability                |                                                                                 |                                                                                 |                                                                                 |                                                                                 |                                                                                 |
| M 20,402456102,82,11,60                                                                 |                                              |                                                                                 |                                                                                 |                                                                                 | x                                                                               | x                                                                               |
| M 2,20,4502,2456102,82,11,75                                                            |                                              |                                                                                 |                                                                                 |                                                                                 | x                                                                               |                                                                                 |
| M 2,3*0,402,3509142,82,11,90                                                            |                                              |                                                                                 |                                                                                 |                                                                                 | x                                                                               |                                                                                 |
| M 2,50,4502,5509142,82,11,2,05                                                          |                                              |                                                                                 |                                                                                 |                                                                                 | x                                                                               | x                                                                               |
| M 2,6*0,4502,6509142,82,11,2,10                                                         |                                              |                                                                                 |                                                                                 |                                                                                 | x                                                                               |                                                                                 |
| M 30,50356106183,52,72,50                                                               | x                                            | x                                                                               | x                                                                               | x                                                                               | x                                                                               | x                                                                               |
| M 3,50,603,556117204,03,02,90                                                           |                                              |                                                                                 |                                                                                 | o                                                                               | x                                                                               | x                                                                               |
| M 40,70463127234,53,43,30                                                               | x                                            | x                                                                               | x                                                                               | x                                                                               | x                                                                               | x                                                                               |
| M 50,80570149256,04,94,20                                                               | x                                            | x                                                                               | x                                                                               | x                                                                               | x                                                                               | x                                                                               |
| M 6106801710306,04,95,00                                                                | x                                            | x                                                                               | x                                                                               | x                                                                               | x                                                                               | x                                                                               |
| M 7107801710307,05,56,00                                                                |                                              |                                                                                 |                                                                                 |                                                                                 | x                                                                               |                                                                                 |
| M 81,2508901812358,06,26,80                                                             | x                                            | x                                                                               | x                                                                               | x                                                                               | x                                                                               | x                                                                               |
| M 101,51010020143910,08,08,50                                                           | x                                            | x                                                                               | x                                                                               | x                                                                               | x                                                                               | x                                                                               |
| M 121,751211022164412,09,010,20                                                         |                                              |                                                                                 |                                                                                 |                                                                                 | x                                                                               |                                                                                 |
|                                                                                         |                                              |                                                                                 |                                                                                 |                                                                                 |                                                                                 |                                                                                 |
|                                                                                         |                                              |                                                                                 |                                                                                 |                                                                                 |                                                                                 |                                                                                 |
|                                                                                         |                                              |                                                                                 |                                                                                 |                                                                                 |                                                                                 |                                                                                 |
|                                                                                         |                                              |                                                                                 |                                                                                 |                                                                                 |                                                                                 |                                                                                 |
|                                                                                         |                                              |                                                                                 |                                                                                 |                                                                                 |                                                                                 |                                                                                 |

\* DIN Profil

\* Thread profile accord. to DIN

x = ab Lager, Zwischenverkauf vorbehalten

o = nur solange Lagervorrat vorhanden

$x$  = normally ex stock

$o$  = available while stocks last

## M

[illegible]

- \* DIN Profil
- \* *Thread profile accord. to DIN*

**x** = ab Lager, Zwischenverkauf vorbehalten  
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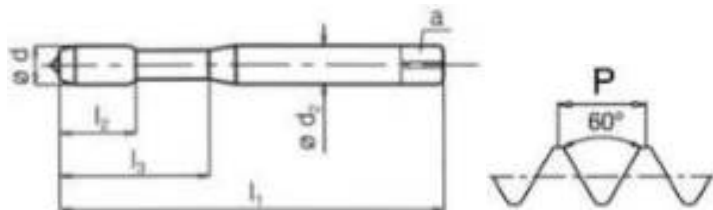
## M

## Metrisches ISO-Regelgewinde DIN 13

Baumaße DIN 371, verstärkter Schaft

### ISO Metric Coarse Threads, DIN 13

*Dimensions DIN 371, Reinforced shank*

[illegible]

\* DIN Profil

\* Thread profile accord. to DIN

\*\*SSP = Steilspirale

\*\*SSP = quick spiral

x = ab Lager, Zwischenverkauf vorbehalten

o = nur solange Lagervorrat vorhanden

$x$  = normally ex stock

$o$  = available while stocks last

## M

[illegible]

- \* DIN Profil
- \* *Thread profile accord. to DIN*

**x** = ab Lager, Zwischenverkauf vorbehalten  
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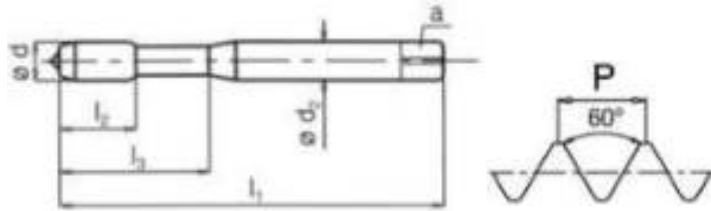
M

Metrisches ISO-Regelgewinde DIN 13

Baumaße DIN 371, verstärkter Schaft

ISO Metric Coarse Threads, DIN 13

Dimensions DIN 371, Reinforced shank



HSS-EP



| Katalog Nr.<br>Bezeichnung                      |         | Catalogue No.<br>Name                        |                | 110 260<br>Nirofix                                                                |                         | 110 261<br>Nirofix AZ                                                              |                | 110 266<br>Nirofix TiN                                                              |                                                                                                                   | 110 269<br>Nirofix-Z STY/WC                                                         |   |   |
|-------------------------------------------------|---------|----------------------------------------------|----------------|-----------------------------------------------------------------------------------|-------------------------|------------------------------------------------------------------------------------|----------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|---|---|
| Toleranz                                        |         | Tolerance                                    |                | 6H / ISO2                                                                         |                         | 6H / ISO2                                                                          |                | 6H / ISO2                                                                           |                                                                                                                   | 6HX                                                                                 |   |   |
| Anschnittform                                   |         | Chamfer form                                 |                | B                                                                                 |                         | B                                                                                  |                | B                                                                                   |                                                                                                                   | B                                                                                   |   |   |
| Anschnittlänge, Gang                            |         | Chamfer length, threads                      |                | 4-5                                                                               |                         | 4-5                                                                                |                | 4-5                                                                                 |                                                                                                                   | 4-5                                                                                 |   |   |
| für Bohrungsart                                 |         | For holes                                    |                |  |                         |  |                |  |                                                                                                                   |  |   |   |
| Sonderwerkstoff                                 |         | Special material                             |                |                                                                                   |                         | rostfreie Stähle<br>Stainless steels<br>1.9.4                                      |                |                                                                                     |                                                                                                                   | rostfreie Stähle<br>Stainless steels<br>1.9.5 / 3.20                                |   |   |
| Zerspanungsgruppe,<br>siehe Ausklappseite links |         | Machinability-group,<br>See folder left page |                |  |                         |  |                |  |                                                                                                                   |  |   |   |
| Oberfläche                                      |         | Surface                                      |                | VAP                                                                               |                         | VAP                                                                                |                | TiN                                                                                 |                                                                                                                   | STY/WC                                                                              |   |   |
| Ausführung                                      |         | Variation                                    |                |                                                                                   |                         | ausgesetzte Zähne<br>Interrupted teeth                                             |                |                                                                                     |                                                                                                                   |                                                                                     |   |   |
| Typenbeschreibung ab Seite                      |         |                                              |                | Type description from page                                                        |                         |                                                                                    |                | T2                                                                                  |                                                                                                                   | T2                                                                                  |   |   |
| d                                               | P<br>mm | Code                                         | l <sub>1</sub> | l <sub>2</sub>                                                                    | l <sub>2</sub><br>SSP** | l <sub>3</sub>                                                                     | d <sub>2</sub> | a                                                                                   |  Verfügbarkeit<br>Availability |                                                                                     |   |   |
| M 2                                             | 0,4     | 02                                           | 45             | 6                                                                                 |                         | 10                                                                                 | 2,8            | 2,1                                                                                 | 1,60                                                                                                              | x                                                                                   |   | x |
| M 2,2                                           | 0,45    | 02,2                                         | 45             | 6                                                                                 |                         | 10                                                                                 | 2,8            | 2,1                                                                                 | 1,75                                                                                                              | x                                                                                   |   |   |
| M 2,3***                                        | 0,4     | 02,3                                         | 50             | 9                                                                                 |                         | 14                                                                                 | 2,8            | 2,1                                                                                 | 1,90                                                                                                              | o                                                                                   |   |   |
| M 2,5                                           | 0,45    | 02,5                                         | 50             | 9                                                                                 |                         | 14                                                                                 | 2,8            | 2,1                                                                                 | 2,05                                                                                                              | x                                                                                   |   | x |
| M 2,6***                                        | 0,45    | 02,6                                         | 50             | 9                                                                                 |                         | 14                                                                                 | 2,8            | 2,1                                                                                 | 2,10                                                                                                              |                                                                                     |   |   |
| M 3                                             | 0,5     | 03                                           | 56             | 10                                                                                | 6                       | 18                                                                                 | 3,5            | 2,7                                                                                 | 2,50                                                                                                              | x                                                                                   | x | x |
| M 3,5                                           | 0,6     | 03,5                                         | 56             | 11                                                                                | 7                       | 20                                                                                 | 4,0            | 3,0                                                                                 | 2,90                                                                                                              | x                                                                                   | o |   |
| M 4                                             | 0,7     | 04                                           | 63             | 12                                                                                | 7                       | 23                                                                                 | 4,5            | 3,4                                                                                 | 3,30                                                                                                              | x                                                                                   | x | x |
| M 5                                             | 0,8     | 05                                           | 70             | 14                                                                                | 9                       | 25                                                                                 | 6,0            | 4,9                                                                                 | 4,20                                                                                                              | x                                                                                   | x | x |
| M 6                                             | 1       | 06                                           | 80             | 17                                                                                | 10                      | 30                                                                                 | 6,0            | 4,9                                                                                 | 5,00                                                                                                              | x                                                                                   | x | x |
| M 8                                             | 1,25    | 08                                           | 90             | 18                                                                                | 12                      | 35                                                                                 | 8,0            | 6,2                                                                                 | 6,80                                                                                                              | x                                                                                   | x | x |
| M 10                                            | 1,5     | 10                                           | 100            | 20                                                                                | 14                      | 39                                                                                 | 10,0           | 8,0                                                                                 | 8,50                                                                                                              | x                                                                                   | x | x |
|                                                 |         |                                              |                |                                                                                   |                         |                                                                                    |                |                                                                                     |                                                                                                                   |                                                                                     |   |   |
|                                                 |         |                                              |                |                                                                                   |                         |                                                                                    |                |                                                                                     |                                                                                                                   |                                                                                     |   |   |
|                                                 |         |                                              |                |                                                                                   |                         |                                                                                    |                |                                                                                     |                                                                                                                   |                                                                                     |   |   |
|                                                 |         |                                              |                |                                                                                   |                         |                                                                                    |                |                                                                                     |                                                                                                                   |                                                                                     |   |   |
|                                                 |         |                                              |                |                                                                                   |                         |                                                                                    |                |                                                                                     |                                                                                                                   |                                                                                     |   |   |
|                                                 |         |                                              |                |                                                                                   |                         |                                                                                    |                |                                                                                     |                                                                                                                   |                                                                                     |   |   |

\*\*\* DIN Profil

\*\*\* Thread profile accord. to DIN

\*\*SSP = Steilschneide

\*\*SSP = quick spiral

x = ab Lager, Zwischenverkauf vorbehalten

o = nur solange Lagerbestand vorhanden

x = normally ex stock

o = available while stocks last

## Machine Taps

## HAHNREITER HSS-E / HSS-EP\*

\* Pulvermetallurgisch erzeugter Schnellstahl / *Made from powder metallurgy material*

M

[illegible]

\*\*\* DIN Profil

\*\*\* Thread profile accord. to DIN

**x = ab Lager, Zwischenverkauf vorbehalten**

o = nur solange Lagervorrat vorhanden

$x = \text{normally ex stock}$

$x$  = normally ex stock  
 $o$  = available while stocks last



## Machine Taps

## HAHNREITER HSS-EP

Pulvermetallurgisch erzeugter Schnellstahl / *Made from powder metallurgy material*

M

HSS-EP

HSS-EP

HSS-EP

HSS-EP

HSS-EP

[illegible]

**x** = ab Lager, Zwischenverkauf vorbehalten  
**o** = nur solange Lagervorrat vorhanden  
*x* = normally ex stock  
*o* = available while stocks last

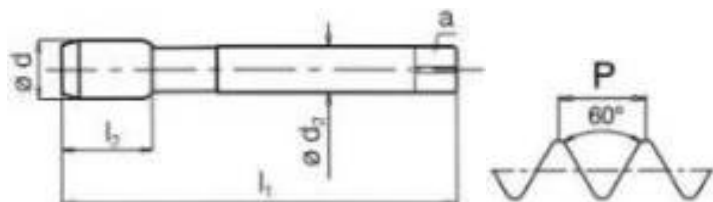
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Metrisches ISO-Regelgewinde DIN 13

Baumaße DIN 376, Überlaufschaft

ISO Metric Coarse Threads, DIN 13

Dimensions DIN 376, Reduced shank



| Katalog Nr.<br>Bezeichnung                                 | Catalogue No.<br>Name                        | 110 300<br>Hahnreiter                                                                                                                | 110 301<br>Hahnreiter 6G                                                                                                             | 110 304<br>Hahnreiter LH                                                                                                             | 110 305<br>Dulofix                                                                                                                              | 110 310<br>Dulofix TiN                                                                                                                          |                               |   |   |   |
|------------------------------------------------------------|----------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------|---|---|---|
| Toleranz                                                   | Tolerance                                    | 6H / ISO2                                                                                                                            | 6G / ISO3                                                                                                                            | 6H / ISO2                                                                                                                            | 6H / ISO2                                                                                                                                       | 6H / ISO2                                                                                                                                       |                               |   |   |   |
| Anschnittform                                              | Chamfer form                                 | C                                                                                                                                    | C                                                                                                                                    | C                                                                                                                                    | B                                                                                                                                               | B                                                                                                                                               |                               |   |   |   |
| Anschnittlänge, Gang                                       | Chamfer length, threads                      | 2-3                                                                                                                                  | 2-3                                                                                                                                  | 2-3                                                                                                                                  | 4-5                                                                                                                                             | 4-5                                                                                                                                             |                               |   |   |   |
| für Bohrungsart                                            | For holes                                    |                                                                                                                                      |                                                                                                                                      |                                                                                                                                      |                                                                                                                                                 |                                                                                                                                                 |                               |   |   |   |
| Sonderwerkstoff                                            | Special material                             |                                                                                                                                      |                                                                                                                                      |                                                                                                                                      |                                                                                                                                                 |                                                                                                                                                 |                               |   |   |   |
| Zerspanungsgruppe,<br>siehe Ausklappseite links            | Machinability-group,<br>See folder left page | <div>P<input type="checkbox"/><input type="checkbox"/><input type="checkbox"/><input type="checkbox"/><input type="checkbox"/></div> | <div>P<input type="checkbox"/><input type="checkbox"/><input type="checkbox"/><input type="checkbox"/><input type="checkbox"/></div> | <div>P<input type="checkbox"/><input type="checkbox"/><input type="checkbox"/><input type="checkbox"/><input type="checkbox"/></div> | <div>P<input type="checkbox"/><input type="checkbox"/><input type="checkbox"/><input checked="" type="checkbox"/><input type="checkbox"/></div> | <div>P<input type="checkbox"/><input type="checkbox"/><input type="checkbox"/><input checked="" type="checkbox"/><input type="checkbox"/></div> |                               |   |   |   |
| Oberfläche                                                 | Surface                                      |                                                                                                                                      |                                                                                                                                      |                                                                                                                                      |                                                                                                                                                 | TiN                                                                                                                                             |                               |   |   |   |
| Ausführung                                                 | Variation                                    |                                                                                                                                      | Aufmaß<br>Oversize                                                                                                                   | Links<br>Left hand                                                                                                                   |                                                                                                                                                 |                                                                                                                                                 |                               |   |   |   |
| Typenbeschreibung ab Seite                                 | Type description from page                   | T2                                                                                                                                   | T2                                                                                                                                   | T2                                                                                                                                   | T2                                                                                                                                              | T2                                                                                                                                              |                               |   |   |   |
| d                                                          | P                                            | Code                                                                                                                                 | l <sub>1</sub>                                                                                                                       | l <sub>2</sub>                                                                                                                       | d <sub>2</sub>                                                                                                                                  | a                                                                                                                                               | Verfügbarkeit<br>Availability |   |   |   |
| mm                                                         |                                              |                                                                                                                                      |                                                                                                                                      |                                                                                                                                      |                                                                                                                                                 |                                                                                                                                                 |                               |   |   |   |
| M 3                                                        | 0,5                                          | 03                                                                                                                                   | 56                                                                                                                                   | 10                                                                                                                                   | 2,2                                                                                                                                             | 2,50                                                                                                                                            | x                             |   |   | x |
| M 3,5                                                      | 0,6                                          | 03,5                                                                                                                                 | 56                                                                                                                                   | 11                                                                                                                                   | 2,5                                                                                                                                             | 2,1                                                                                                                                             |                               |   |   | x |
| M 4                                                        | 0,7                                          | 04                                                                                                                                   | 63                                                                                                                                   | 11                                                                                                                                   | 2,8                                                                                                                                             | 2,1                                                                                                                                             | x                             |   |   | x |
| M 5                                                        | 0,8                                          | 05                                                                                                                                   | 70                                                                                                                                   | 15                                                                                                                                   | 3,5                                                                                                                                             | 2,7                                                                                                                                             | x                             |   |   | x |
| M 6                                                        | 1                                            | 06                                                                                                                                   | 80                                                                                                                                   | 17                                                                                                                                   | 4,5                                                                                                                                             | 3,4                                                                                                                                             | x                             | x |   | x |
| M 8                                                        | 1,25                                         | 08                                                                                                                                   | 90                                                                                                                                   | 20                                                                                                                                   | 6,0                                                                                                                                             | 4,9                                                                                                                                             | x                             | x |   | x |
| M 9                                                        | 1,25                                         | 09                                                                                                                                   | 90                                                                                                                                   | 17                                                                                                                                   | 7,0                                                                                                                                             | 5,5                                                                                                                                             | x                             |   |   | x |
| M 10                                                       | 1,5                                          | 10                                                                                                                                   | 100                                                                                                                                  | 20                                                                                                                                   | 7,0                                                                                                                                             | 5,5                                                                                                                                             | x                             | x |   | x |
| M 12                                                       | 1,75                                         | 12                                                                                                                                   | 110                                                                                                                                  | 22                                                                                                                                   | 9,0                                                                                                                                             | 7,0                                                                                                                                             | x                             | x | x | x |
| M 14                                                       | 2                                            | 14                                                                                                                                   | 110                                                                                                                                  | 25                                                                                                                                   | 11,0                                                                                                                                            | 9,0                                                                                                                                             | x                             | x | x | x |
| M 16                                                       | 2                                            | 16                                                                                                                                   | 110                                                                                                                                  | 25                                                                                                                                   | 12,0                                                                                                                                            | 9,0                                                                                                                                             | x                             | x | x | x |
| M 18                                                       | 2,5                                          | 18                                                                                                                                   | 125                                                                                                                                  | 32                                                                                                                                   | 14,0                                                                                                                                            | 11,0                                                                                                                                            | x                             | x | x | x |
| M 20                                                       | 2,5                                          | 20                                                                                                                                   | 140                                                                                                                                  | 32                                                                                                                                   | 16,0                                                                                                                                            | 12,0                                                                                                                                            | x                             | x | x | x |
| M 22                                                       | 2,5                                          | 22                                                                                                                                   | 140                                                                                                                                  | 32                                                                                                                                   | 18,0                                                                                                                                            | 14,5                                                                                                                                            | x                             | x | x | x |
| M 24                                                       | 3                                            | 24                                                                                                                                   | 160                                                                                                                                  | 36                                                                                                                                   | 18,0                                                                                                                                            | 14,5                                                                                                                                            | x                             | x | x | x |
| M 27                                                       | 3                                            | 27                                                                                                                                   | 160                                                                                                                                  | 36                                                                                                                                   | 20,0                                                                                                                                            | 16,0                                                                                                                                            | x                             |   |   | x |
| M 30                                                       | 3,5                                          | 30                                                                                                                                   | 180                                                                                                                                  | 40                                                                                                                                   | 22,0                                                                                                                                            | 18,0                                                                                                                                            | x                             |   |   | x |
| M 33                                                       | 3,5                                          | 33                                                                                                                                   | 180                                                                                                                                  | 40                                                                                                                                   | 25,0                                                                                                                                            | 20,0                                                                                                                                            | x                             |   |   | x |
| M 36                                                       | 4                                            | 36                                                                                                                                   | 200                                                                                                                                  | 45                                                                                                                                   | 28,0                                                                                                                                            | 22,0                                                                                                                                            | x                             |   |   | x |
| M 39                                                       | 4                                            | 39                                                                                                                                   | 200                                                                                                                                  | 45                                                                                                                                   | 32,0                                                                                                                                            | 24,0                                                                                                                                            | x                             |   |   | x |
| M 42                                                       | 4,5                                          | 42                                                                                                                                   | 200                                                                                                                                  | 50                                                                                                                                   | 32,0                                                                                                                                            | 24,0                                                                                                                                            | x                             |   |   | x |
| M 45                                                       | 4,5                                          | 45                                                                                                                                   | 220                                                                                                                                  | 50                                                                                                                                   | 36,0                                                                                                                                            | 29,0                                                                                                                                            | x                             |   |   | x |
| M 48                                                       | 5                                            | 48                                                                                                                                   | 250                                                                                                                                  | 56                                                                                                                                   | 36,0                                                                                                                                            | 29,0                                                                                                                                            | x                             |   |   |   |
| M 52                                                       | 5                                            | 52                                                                                                                                   | 250                                                                                                                                  | 56                                                                                                                                   | 40,0                                                                                                                                            | 32,0                                                                                                                                            | x                             |   |   |   |
| <div>Größere Ø auf Anfrage.<br/>Bigger Ø on request.</div> |                                              |                                                                                                                                      |                                                                                                                                      |                                                                                                                                      |                                                                                                                                                 |                                                                                                                                                 |                               |   |   |   |

x = ab Lager, Zwischenverkauf vorbehalten  
o = nur solange Lagervorrat vorhanden  
x = normally ex stock  
o = available while stocks last

M



|       | 110 395<br>Dulofix TiCN                                                         | 110 302<br>Dulofix VAP                                                         | 110 307<br>Dulofix 6G                                                           | 110 320<br>Dulofix +0,1                                                         | 110 312<br>Dulofix LH                                                           | 110 309<br>Dulofix AZ                                                           | 110 318<br>Spiralo 15                                                           | 110 324<br>Spiralo 15 TiN                                                       | 110 325<br>Spiralo 15 TiCN                                                      |
|-------|---------------------------------------------------------------------------------|--------------------------------------------------------------------------------|---------------------------------------------------------------------------------|---------------------------------------------------------------------------------|---------------------------------------------------------------------------------|---------------------------------------------------------------------------------|---------------------------------------------------------------------------------|---------------------------------------------------------------------------------|---------------------------------------------------------------------------------|
|       | 6H / ISO2<br>B<br>4-5                                                           | 6H / ISO2<br>B<br>4-5                                                          | 6G / ISO3<br>B<br>4-5                                                           | 6H + 0,1<br>B<br>4-5                                                            | 6H / ISO2<br>B<br>4-5                                                           | 6H / ISO2<br>B<br>4-5                                                           | 6H / ISO2<br>C<br>2-3                                                           | 6H / ISO2<br>C<br>2-3                                                           | 6H / ISO2<br>C<br>2-3                                                           |
|       |                                                                                 |                                                                                |                                                                                 |                                                                                 |                                                                                 |                                                                                 |                                                                                 |                                                                                 |                                                                                 |
|       |                                                                                 |                                                                                |                                                                                 |                                                                                 |                                                                                 | weiches Material<br>soft material<br>1.1.0 / 3.20 / 4.14                        |                                                                                 |                                                                                 | Alu-Guss<br>Alu-castings<br>4.16                                                |
|       | <div><div>P</div><div></div><div></div><div></div><div>N</div><div></div></div> | <div><div>P</div><div></div><div></div><div></div><div></div><div></div></div> | <div><div>P</div><div></div><div></div><div></div><div>N</div><div></div></div> | <div><div>P</div><div></div><div></div><div></div><div>N</div><div></div></div> | <div><div>P</div><div></div><div></div><div></div><div>N</div><div></div></div> | <div><div>P</div><div></div><div></div><div></div><div>N</div><div></div></div> | <div><div>P</div><div></div><div></div><div></div><div>N</div><div></div></div> | <div><div>P</div><div></div><div></div><div></div><div>N</div><div></div></div> | <div><div>P</div><div></div><div></div><div></div><div>N</div><div></div></div> |
|       | TiCN                                                                            | VAP                                                                            |                                                                                 |                                                                                 |                                                                                 |                                                                                 |                                                                                 | TiN                                                                             | TiCN                                                                            |
|       |                                                                                 |                                                                                | Aufmaß<br>Oversize<br>T2                                                        | Aufmaß<br>Oversize<br>T2                                                        | Links<br>Left hand<br>T2                                                        | ausgesetzte Zähne<br>Interrupted teeth<br>T2                                    |                                                                                 |                                                                                 |                                                                                 |
|       | T2                                                                              | T2                                                                             | T2                                                                              | T2                                                                              | T2                                                                              | T2                                                                              | T2                                                                              | T2                                                                              | T2                                                                              |
| d     | P<br>mm                                                                         | Verfügbarkeit<br>Availability                                                  |                                                                                 |                                                                                 |                                                                                 |                                                                                 |                                                                                 |                                                                                 |                                                                                 |
| M 3   | 0,5                                                                             |                                                                                |                                                                                 |                                                                                 |                                                                                 |                                                                                 | X                                                                               |                                                                                 |                                                                                 |
| M 3,5 | 0,6                                                                             |                                                                                |                                                                                 |                                                                                 |                                                                                 |                                                                                 | X                                                                               |                                                                                 |                                                                                 |
| M 4   | 0,7                                                                             |                                                                                |                                                                                 |                                                                                 |                                                                                 | O                                                                               | X                                                                               |                                                                                 |                                                                                 |
| M 5   | 0,8                                                                             |                                                                                |                                                                                 |                                                                                 |                                                                                 | O                                                                               | X                                                                               |                                                                                 |                                                                                 |
| M 6   | 1                                                                               |                                                                                |                                                                                 |                                                                                 |                                                                                 | O                                                                               | X                                                                               |                                                                                 |                                                                                 |
| M 8   | 1,25                                                                            |                                                                                | X                                                                               |                                                                                 |                                                                                 | O                                                                               | X                                                                               |                                                                                 |                                                                                 |
| M 9   | 1,25                                                                            |                                                                                |                                                                                 |                                                                                 |                                                                                 |                                                                                 |                                                                                 |                                                                                 |                                                                                 |
| M 10  | 1,5                                                                             |                                                                                | X                                                                               |                                                                                 |                                                                                 | X                                                                               | X                                                                               |                                                                                 |                                                                                 |
| M 12  | 1,75                                                                            | X                                                                              | X                                                                               | X                                                                               | X                                                                               | X                                                                               | X                                                                               | X                                                                               | X                                                                               |
| M 14  | 2                                                                               |                                                                                | X                                                                               | X                                                                               | X                                                                               | X                                                                               | X                                                                               | O                                                                               |                                                                                 |
| M 16  | 2                                                                               | X                                                                              | X                                                                               | X                                                                               | X                                                                               | X                                                                               | X                                                                               | X                                                                               | X                                                                               |
| M 18  | 2,5                                                                             |                                                                                | X                                                                               |                                                                                 | X                                                                               | X                                                                               | X                                                                               |                                                                                 |                                                                                 |
| M 20  | 2,5                                                                             | X                                                                              | X                                                                               | X                                                                               | X                                                                               | X                                                                               | X                                                                               | X                                                                               | X                                                                               |
| M 22  | 2,5                                                                             |                                                                                |                                                                                 |                                                                                 | X                                                                               | X                                                                               | X                                                                               |                                                                                 |                                                                                 |
| M 24  | 3                                                                               |                                                                                | X                                                                               |                                                                                 | X                                                                               | X                                                                               | X                                                                               |                                                                                 |                                                                                 |
| M 27  | 3                                                                               |                                                                                |                                                                                 |                                                                                 |                                                                                 |                                                                                 | X                                                                               |                                                                                 |                                                                                 |
| M 30  | 3,5                                                                             |                                                                                |                                                                                 |                                                                                 |                                                                                 |                                                                                 | X                                                                               |                                                                                 |                                                                                 |
| M 33  | 3,5                                                                             |                                                                                |                                                                                 |                                                                                 |                                                                                 |                                                                                 | X                                                                               |                                                                                 |                                                                                 |
| M 36  | 4                                                                               |                                                                                |                                                                                 |                                                                                 |                                                                                 |                                                                                 | X                                                                               |                                                                                 |                                                                                 |
| M 39  | 4                                                                               |                                                                                |                                                                                 |                                                                                 |                                                                                 |                                                                                 | X                                                                               |                                                                                 |                                                                                 |
| M 42  | 4,5                                                                             |                                                                                |                                                                                 |                                                                                 |                                                                                 |                                                                                 | X                                                                               |                                                                                 |                                                                                 |
| M 45  | 4,5                                                                             |                                                                                |                                                                                 |                                                                                 |                                                                                 |                                                                                 | X                                                                               |                                                                                 |                                                                                 |
| M 48  | 5                                                                               |                                                                                |                                                                                 |                                                                                 |                                                                                 |                                                                                 | X                                                                               |                                                                                 |                                                                                 |
| M 52  | 5                                                                               |                                                                                |                                                                                 |                                                                                 |                                                                                 |                                                                                 | X                                                                               |                                                                                 |                                                                                 |
|       |                                                                                 |                                                                                |                                                                                 |                                                                                 |                                                                                 |                                                                                 |                                                                                 |                                                                                 |                                                                                 |
|       |                                                                                 |                                                                                |                                                                                 |                                                                                 |                                                                                 |                                                                                 |                                                                                 |                                                                                 |                                                                                 |

x = ab Lager, Zwischenverkauf vorbehalten  
o = nur solange Lagervorrat vorhanden  
x = normally ex stock  
o = available while stocks last

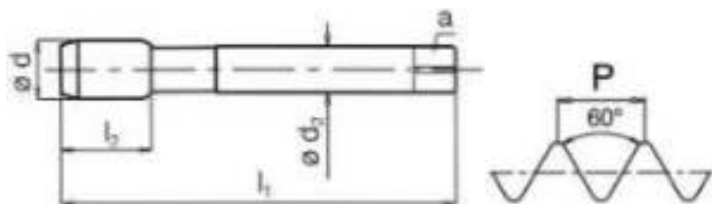
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Metrisches ISO-Regelgewinde DIN 13

Baumaße DIN 376, Überlaufschaft

ISO Metric Coarse Threads, DIN 13

Dimensions DIN 376, Reduced shank



| Katalog Nr.<br>Bezeichnung                      | Catalogue No.<br>Name                        | 110 323<br>Spiralo 15 AZ                                                          | 110 326<br>Spiralo 35                                                              | 110 335<br>Spiralo 35 TiN                                                           | 110 396<br>Spiralo 35 TiCN                                                          | 110 336<br>Spiralo 35 VAP                                                           |      |                                                                                     |                               |   |   |   |   |  |  |
|-------------------------------------------------|----------------------------------------------|-----------------------------------------------------------------------------------|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|------|-------------------------------------------------------------------------------------|-------------------------------|---|---|---|---|--|--|
| Toleranz                                        | Tolerance                                    | 6H / ISO2                                                                         | 6H / ISO2                                                                          | 6H / ISO2                                                                           | 6H / ISO2                                                                           | 6H / ISO2                                                                           |      |                                                                                     |                               |   |   |   |   |  |  |
| Anschnittform                                   | Chamfer form                                 | C                                                                                 | C                                                                                  | C                                                                                   | C                                                                                   | C                                                                                   |      |                                                                                     |                               |   |   |   |   |  |  |
| Anschnittlänge, Gang                            | Chamfer length, threads                      | 2-3                                                                               | 2-3                                                                                | 2-3                                                                                 | 2-3                                                                                 | 2-3                                                                                 |      |                                                                                     |                               |   |   |   |   |  |  |
| für Bohrungsart                                 | For holes                                    |  |  |  |  |  |      |                                                                                     |                               |   |   |   |   |  |  |
| Sonderwerkstoff                                 | Special material                             | weiches Material<br>soft material<br>1.1.0 / 3.20 / 4.14                          |                                                                                    |                                                                                     |                                                                                     |                                                                                     |      |                                                                                     |                               |   |   |   |   |  |  |
| Zerspanungsgruppe,<br>siehe Ausklappseite links | Machinability-group,<br>See folder left page | <div><div>P</div><div></div><div></div><div></div><div>N</div><div></div></div>   | <div><div>P</div><div></div><div></div><div></div><div>N</div><div></div></div>    | <div><div>P</div><div></div><div></div><div></div><div>N</div><div></div></div>     | <div><div>P</div><div></div><div></div><div></div><div>N</div><div></div></div>     | <div><div>P</div><div></div><div></div><div></div><div>N</div><div></div></div>     |      |                                                                                     |                               |   |   |   |   |  |  |
| Oberfläche                                      | Surface                                      |                                                                                   |                                                                                    | TiN                                                                                 | TiCN                                                                                | VAP                                                                                 |      |                                                                                     |                               |   |   |   |   |  |  |
| Ausführung                                      | Variation                                    |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |      |                                                                                     |                               |   |   |   |   |  |  |
| Typenbeschreibung ab Seite                      | Type description from page                   | T2                                                                                | T2                                                                                 | T2                                                                                  | T2                                                                                  | T2                                                                                  |      |                                                                                     |                               |   |   |   |   |  |  |
| d                                               | P<br>mm                                      | Code                                                                              | l <sub>1</sub>                                                                     | l <sub>2</sub>                                                                      | l <sub>2</sub><br>SSP**                                                             | d <sub>2</sub>                                                                      | a    |  | Verfügbarkeit<br>Availability |   |   |   |   |  |  |
| M 3                                             | 0,5                                          | 03                                                                                | 56                                                                                 | 10                                                                                  | 6                                                                                   | 2,2                                                                                 |      | 2,50                                                                                |                               | x |   |   |   |  |  |
| M 3,5                                           | 0,6                                          | 03,5                                                                              | 56                                                                                 | 11                                                                                  | 6                                                                                   | 2,5                                                                                 | 2,1  | 2,90                                                                                |                               | x |   |   |   |  |  |
| M 4                                             | 0,7                                          | 04                                                                                | 63                                                                                 | 11                                                                                  | 7                                                                                   | 2,8                                                                                 | 2,1  | 3,30                                                                                |                               | x | x |   |   |  |  |
| M 5                                             | 0,8                                          | 05                                                                                | 70                                                                                 | 15                                                                                  | 9                                                                                   | 3,5                                                                                 | 2,7  | 4,20                                                                                |                               | x | x |   |   |  |  |
| M 6                                             | 1                                            | 06                                                                                | 80                                                                                 | 17                                                                                  | 10                                                                                  | 4,5                                                                                 | 3,4  | 5,00                                                                                | o                             | x | x |   |   |  |  |
| M 8                                             | 1,25                                         | 08                                                                                | 90                                                                                 | 20                                                                                  | 13                                                                                  | 6,0                                                                                 | 4,9  | 6,80                                                                                | o                             | x | x |   |   |  |  |
| M 10                                            | 1,5                                          | 10                                                                                | 100                                                                                | 20                                                                                  | 14                                                                                  | 7,0                                                                                 | 5,5  | 8,50                                                                                | o                             | x | x |   |   |  |  |
| M 12                                            | 1,75                                         | 12                                                                                | 110                                                                                | 22                                                                                  | 16                                                                                  | 9,0                                                                                 | 7,0  | 10,20                                                                               | o                             | x | x | x | x |  |  |
| M 14                                            | 2                                            | 14                                                                                | 110                                                                                | 25                                                                                  | 20                                                                                  | 11,0                                                                                | 9,0  | 12,00                                                                               |                               | x | x |   | o |  |  |
| M 16                                            | 2                                            | 16                                                                                | 110                                                                                | 25                                                                                  | 20                                                                                  | 12,0                                                                                | 9,0  | 14,00                                                                               | o                             | x | x | x | x |  |  |
| M 18                                            | 2,5                                          | 18                                                                                | 125                                                                                | 32                                                                                  | 25                                                                                  | 14,0                                                                                | 11,0 | 15,50                                                                               |                               | x | x |   |   |  |  |
| M 20                                            | 2,5                                          | 20                                                                                | 140                                                                                | 32                                                                                  | 25                                                                                  | 16,0                                                                                | 12,0 | 17,50                                                                               | o                             | x | x | x | x |  |  |
| M 22                                            | 2,5                                          | 22                                                                                | 140                                                                                | 32                                                                                  | 25                                                                                  | 18,0                                                                                | 14,5 | 19,50                                                                               |                               | x | x |   |   |  |  |
| M 24                                            | 3                                            | 24                                                                                | 160                                                                                | 36                                                                                  | 30                                                                                  | 18,0                                                                                | 14,5 | 21,00                                                                               | o                             | x | x |   |   |  |  |
| M 27                                            | 3                                            | 27                                                                                | 160                                                                                | 36                                                                                  | 30                                                                                  | 20,0                                                                                | 16,0 | 24,00                                                                               |                               | x | x |   |   |  |  |
| M 30                                            | 3,5                                          | 30                                                                                | 180                                                                                | 40                                                                                  | 35                                                                                  | 22,0                                                                                | 18,0 | 26,50                                                                               |                               | x | x |   |   |  |  |
| M 33                                            | 3,5                                          | 33                                                                                | 180                                                                                | 40                                                                                  | 35                                                                                  | 25,0                                                                                | 20,0 | 29,50                                                                               |                               | x | x |   |   |  |  |
| M 36                                            | 4                                            | 36                                                                                | 200                                                                                | 45                                                                                  | 40                                                                                  | 28,0                                                                                | 22,0 | 32,00                                                                               |                               | x | x |   |   |  |  |
| M 39                                            | 4                                            | 39                                                                                | 200                                                                                | 45                                                                                  | 40                                                                                  | 32,0                                                                                | 24,0 | 35,00                                                                               |                               | x | x |   |   |  |  |
| M 42                                            | 4,5                                          | 42                                                                                | 200                                                                                | 50                                                                                  | 45                                                                                  | 32,0                                                                                | 24,0 | 37,50                                                                               |                               | x | x |   |   |  |  |
| M 45                                            | 4,5                                          | 45                                                                                | 220                                                                                | 50                                                                                  | 45                                                                                  | 36,0                                                                                | 29,0 | 40,50                                                                               |                               | x | x |   |   |  |  |
|                                                 |                                              |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |      |                                                                                     |                               |   |   |   |   |  |  |
|                                                 |                                              |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |      |                                                                                     |                               |   |   |   |   |  |  |
|                                                 |                                              |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |      |                                                                                     |                               |   |   |   |   |  |  |

\*\* SSP = Steilschneidspiral  
\*\* SSP = quick spiral

x = ab Lager, Zwischenverkauf vorbehalten  
o = nur solange Lagerbestand vorhanden  
x = normally ex stock  
o = available while stocks last

M



|       | 110 329<br>Spiralo 35 6G                                                                                                                                                                                                                                    | 110 333<br>Spiralo 35 +0,1                                                                                                                                                                                                         | 110 331<br>Spiralo 35 E                                                                                                                                                                                                            | 110 332<br>Spiralo 35 TS                                                                                                                                                                                                           | 110 334<br>Spiralo 35 AZ                                                                                                                                                                                                           | 110 338<br>Spiralo 35 LH                                                                                                                                                                                                           | 110 327<br>Spiralo 45 ZB TiN/VAP                                                                                                                                                                                                   | 110 353<br>Spiralo 48 TS TiN                                                                                                                                                                                                       | 110 354<br>Spiralo 48 TS TiN                                                                                                                                                                                                       |
|-------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|       | 6G / ISO3<br>C<br>2-3                                                                                                                                                                                                                                       | 6H +0,1<br>C<br>2-3                                                                                                                                                                                                                | 6H / ISO2<br>E<br>1,5-2                                                                                                                                                                                                            | 6H / ISO2<br>C<br>2-3                                                                                                                                                                                                              | 6H / ISO2<br>C<br>2-3                                                                                                                                                                                                              | 6H / ISO2<br>C<br>2-3                                                                                                                                                                                                              | 6H / ISO2<br>C<br>2-3                                                                                                                                                                                                              | 6H / ISO2<br>C<br>2-3                                                                                                                                                                                                              | 6G / ISO3<br>C<br>2-3                                                                                                                                                                                                              |
|       |                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                    |
|       |                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                    |
|       | P <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> | P <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> | P <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> | P <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> | P <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> | P <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> | P <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> | P <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> | P <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> |
|       | Aufmaß<br>Oversize                                                                                                                                                                                                                                          | Aufmaß<br>Oversize                                                                                                                                                                                                                 | Anschn.extra kurz<br>Chamf.extra short                                                                                                                                                                                             | tiefe Sacklöcher<br>Deep blind holes                                                                                                                                                                                               | ausgesetzte Zähne<br>Interrupted teeth                                                                                                                                                                                             | Links<br>left hand                                                                                                                                                                                                                 | TiN/VAP                                                                                                                                                                                                                            | TiN                                                                                                                                                                                                                                | TiN                                                                                                                                                                                                                                |
|       | T2                                                                                                                                                                                                                                                          | T2                                                                                                                                                                                                                                 | T2                                                                                                                                                                                                                                 | T2                                                                                                                                                                                                                                 | T2                                                                                                                                                                                                                                 | T2                                                                                                                                                                                                                                 | T2                                                                                                                                                                                                                                 | T2                                                                                                                                                                                                                                 | T2                                                                                                                                                                                                                                 |
| d     | P<br>mm                                                                                                                                                                                                                                                     | Verfügbarkeit<br>Availability                                                                                                                                                                                                      |                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                    |
| M 3   | 0,5                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                    |
| M 3,5 | 0,6                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                    |
| M 4   | 0,7                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                    |
| M 5   | 0,8                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                    |
| M 6   | 1                                                                                                                                                                                                                                                           |                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                    |
| M 8   | 1,25                                                                                                                                                                                                                                                        | x                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                    | x                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                    |
| M 10  | 1,5                                                                                                                                                                                                                                                         | x                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                    | x                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                    |
| M 12  | 1,75                                                                                                                                                                                                                                                        | x                                                                                                                                                                                                                                  | x                                                                                                                                                                                                                                  | x                                                                                                                                                                                                                                  | x                                                                                                                                                                                                                                  | x                                                                                                                                                                                                                                  | x                                                                                                                                                                                                                                  | x                                                                                                                                                                                                                                  | x                                                                                                                                                                                                                                  |
| M 14  | 2                                                                                                                                                                                                                                                           | x                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                    | x                                                                                                                                                                                                                                  | x                                                                                                                                                                                                                                  | x                                                                                                                                                                                                                                  | x                                                                                                                                                                                                                                  | x                                                                                                                                                                                                                                  |
| M 16  | 2                                                                                                                                                                                                                                                           | x                                                                                                                                                                                                                                  | x                                                                                                                                                                                                                                  | x                                                                                                                                                                                                                                  | x                                                                                                                                                                                                                                  | x                                                                                                                                                                                                                                  | x                                                                                                                                                                                                                                  | x                                                                                                                                                                                                                                  | x                                                                                                                                                                                                                                  |
| M 18  | 2,5                                                                                                                                                                                                                                                         | x                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                    | x                                                                                                                                                                                                                                  | o                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                    |
| M 20  | 2,5                                                                                                                                                                                                                                                         | x                                                                                                                                                                                                                                  | x                                                                                                                                                                                                                                  | x                                                                                                                                                                                                                                  | x                                                                                                                                                                                                                                  | x                                                                                                                                                                                                                                  | x                                                                                                                                                                                                                                  | x                                                                                                                                                                                                                                  | x                                                                                                                                                                                                                                  |
| M 22  | 2,5                                                                                                                                                                                                                                                         | x                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                    | x                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                    |
| M 24  | 3                                                                                                                                                                                                                                                           | x                                                                                                                                                                                                                                  | x                                                                                                                                                                                                                                  | x                                                                                                                                                                                                                                  | o                                                                                                                                                                                                                                  | x                                                                                                                                                                                                                                  | x                                                                                                                                                                                                                                  | x                                                                                                                                                                                                                                  | x                                                                                                                                                                                                                                  |
| M 27  | 3                                                                                                                                                                                                                                                           |                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                    | x                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                    |
| M 30  | 3,5                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                    | x                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                    |
| M 33  | 3,5                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                    | x                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                    |
| M 36  | 4                                                                                                                                                                                                                                                           |                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                    | x                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                    |
| M 39  | 4                                                                                                                                                                                                                                                           |                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                    |
| M 42  | 4,5                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                    | x                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                    |
| M 45  | 4,5                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                    |

x = ab Lager, Zwischenverkauf vorbehalten  
o = nur solange Lagervorrat vorhanden  
x = normally ex stock  
o = available while stocks last

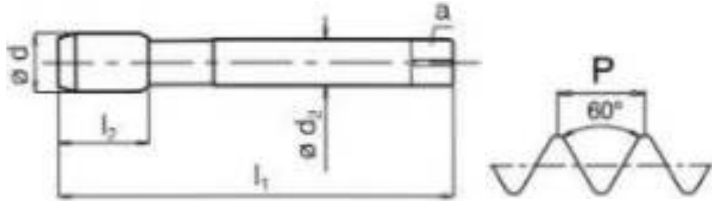
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Metrisches ISO-Regelgewinde DIN 13

Baumaße DIN 376, Überlaufschaft

ISO Metric Coarse Threads, DIN 13

Dimensions DIN 376, Reduced shank



| Katalog Nr.<br>Bezeichnung                      | Catalogue No.<br>Name                        | 110 352<br>Spiralo 45                                               | 110 380<br>Hahnreiter MS                                            | 110 383<br>Hahnreiter MS                                            | 110 381<br>Gussfix                                                  | 110 382<br>Gussfix TiN                                              |      |       |                               |   |  |
|-------------------------------------------------|----------------------------------------------|---------------------------------------------------------------------|---------------------------------------------------------------------|---------------------------------------------------------------------|---------------------------------------------------------------------|---------------------------------------------------------------------|------|-------|-------------------------------|---|--|
| Toleranz                                        | Tolerance                                    | 6H / ISO2                                                           | 6H / ISO2                                                           | 6H / ISO2                                                           | 6HX                                                                 | 6HX                                                                 |      |       |                               |   |  |
| Anschnittform                                   | Chamfer form                                 | C                                                                   | C                                                                   | E                                                                   | C                                                                   | C                                                                   |      |       |                               |   |  |
| Anschnittlänge, Gang                            | Chamfer length, threads                      | 2-3                                                                 | 2-3                                                                 | 1,5-2                                                               | 2-3                                                                 | 2-3                                                                 |      |       |                               |   |  |
| für Bohrungsart                                 | For holes                                    |                                                                     |                                                                     |                                                                     |                                                                     |                                                                     |      |       |                               |   |  |
| Sonderwerkstoff                                 | Special material                             | Aluminium                                                           | Messing<br>Brass                                                    |                                                                     | Grauguss<br>Grey cast iron                                          |                                                                     |      |       |                               |   |  |
| Zerspanungsgruppe,<br>siehe Ausklappseite links | Machinability-group,<br>See folder left page | 4.14                                                                | 3.21                                                                |                                                                     | 2.11                                                                | 2.11 / 3.24 / 4.17                                                  |      |       |                               |   |  |
|                                                 |                                              | <div><div></div><div></div><div></div><div>N</div><div></div></div> | <div><div></div><div></div><div></div><div>N</div><div></div></div> | <div><div></div><div></div><div></div><div>N</div><div></div></div> | <div><div></div><div></div><div>K</div><div></div><div></div></div> | <div><div></div><div></div><div>K</div><div></div><div></div></div> |      |       |                               |   |  |
| Oberfläche                                      | Surface                                      |                                                                     |                                                                     |                                                                     | Nit                                                                 | TiN                                                                 |      |       |                               |   |  |
| Ausführung                                      | Variation                                    |                                                                     |                                                                     |                                                                     |                                                                     |                                                                     |      |       |                               |   |  |
| Typenbeschreibung ab Seite                      | Type description from page                   | T2                                                                  | T2                                                                  | T2                                                                  | T2                                                                  | T2                                                                  |      |       |                               |   |  |
| d                                               | P<br>mm                                      | Code                                                                | l <sub>1</sub>                                                      | l <sub>2</sub>                                                      | l <sub>2</sub><br>SSP**                                             | d <sub>2</sub>                                                      | a    |       | Verfügbarkeit<br>Availability |   |  |
| M 3                                             | 0,5                                          | 03                                                                  | 56                                                                  | 10                                                                  | 6                                                                   | 2,2                                                                 | 2,50 |       |                               |   |  |
| M 3,5                                           | 0,6                                          | 03,5                                                                | 56                                                                  | 11                                                                  | 6                                                                   | 2,5                                                                 | 2,1  | 2,90  |                               |   |  |
| M 4                                             | 0,7                                          | 04                                                                  | 63                                                                  | 11                                                                  | 7                                                                   | 2,8                                                                 | 2,1  | 3,30  |                               |   |  |
| M 5                                             | 0,8                                          | 05                                                                  | 70                                                                  | 15                                                                  | 9                                                                   | 3,5                                                                 | 2,7  | 4,20  |                               |   |  |
| M 6                                             | 1                                            | 06                                                                  | 80                                                                  | 17                                                                  | 10                                                                  | 4,5                                                                 | 3,4  | 5,00  | x                             | o |  |
| M 8                                             | 1,25                                         | 08                                                                  | 90                                                                  | 20                                                                  | 13                                                                  | 6,0                                                                 | 4,9  | 6,80  | x                             | o |  |
| M 10                                            | 1,5                                          | 10                                                                  | 100                                                                 | 20                                                                  | 14                                                                  | 7,0                                                                 | 5,5  | 8,50  | x                             | o |  |
| M 12                                            | 1,75                                         | 12                                                                  | 110                                                                 | 22                                                                  | 16                                                                  | 9,0                                                                 | 7,0  | 10,20 | x                             | o |  |
| M 14                                            | 2                                            | 14                                                                  | 110                                                                 | 25                                                                  | 20                                                                  | 11,0                                                                | 9,0  | 12,00 | x                             | o |  |
| M 16                                            | 2                                            | 16                                                                  | 110                                                                 | 25                                                                  | 20                                                                  | 12,0                                                                | 9,0  | 14,00 | x                             | o |  |
| M 18                                            | 2,5                                          | 18                                                                  | 125                                                                 | 32                                                                  | 25                                                                  | 14,0                                                                | 11,0 | 15,50 |                               | o |  |
| M 20                                            | 2,5                                          | 20                                                                  | 140                                                                 | 32                                                                  | 25                                                                  | 16,0                                                                | 12,0 | 17,50 | x                             | o |  |
| M 22                                            | 2,5                                          | 22                                                                  | 140                                                                 | 32                                                                  | 25                                                                  | 18,0                                                                | 14,5 | 19,50 |                               |   |  |
| M 24                                            | 3                                            | 24                                                                  | 160                                                                 | 36                                                                  | 30                                                                  | 18,0                                                                | 14,5 | 21,00 | x                             |   |  |
| M 27                                            | 3                                            | 27                                                                  | 160                                                                 | 36                                                                  | 30                                                                  | 20,0                                                                | 16,0 | 24,00 |                               |   |  |
| M 30                                            | 3,5                                          | 30                                                                  | 180                                                                 | 40                                                                  | 35                                                                  | 22,0                                                                | 18,0 | 26,50 |                               |   |  |
| M 33                                            | 3,5                                          | 33                                                                  | 180                                                                 | 40                                                                  | 35                                                                  | 25,0                                                                | 20,0 | 29,50 |                               |   |  |
| M 36                                            | 4                                            | 36                                                                  | 200                                                                 | 45                                                                  | 40                                                                  | 28,0                                                                | 22,0 | 32,00 |                               |   |  |
| M 39                                            | 4                                            | 39                                                                  | 200                                                                 | 45                                                                  | 40                                                                  | 32,0                                                                | 24,0 | 35,00 |                               |   |  |
| M 42                                            | 4,5                                          | 42                                                                  | 200                                                                 | 50                                                                  | 45                                                                  | 32,0                                                                | 24,0 | 37,50 |                               |   |  |
| M 45                                            | 4,5                                          | 45                                                                  | 220                                                                 | 50                                                                  | 45                                                                  | 36,0                                                                | 29,0 | 40,50 |                               |   |  |
|                                                 |                                              |                                                                     |                                                                     |                                                                     |                                                                     |                                                                     |      |       |                               |   |  |
|                                                 |                                              |                                                                     |                                                                     |                                                                     |                                                                     |                                                                     |      |       |                               |   |  |
|                                                 |                                              |                                                                     |                                                                     |                                                                     |                                                                     |                                                                     |      |       |                               |   |  |
|                                                 |                                              |                                                                     |                                                                     |                                                                     |                                                                     |                                                                     |      |       |                               |   |  |
|                                                 |                                              |                                                                     |                                                                     |                                                                     |                                                                     |                                                                     |      |       |                               |   |  |

x = ab Lager, Zwischenverkauf vorbehalten  
o = nur solange Lagerbestand vorhanden  
x = normally ex stock  
o = available while stocks last

\*\* SSP = Steilschneidspiral  
\*\* SSP = quick spiral

## Machine Taps

## HAHNREITER HSS-E / HSS-EP\*\*

\*\* Pulvermetallurgisch erzeugter Schnellstahl / *Made from powder metallurgy material*

M

[illegible]

**x** = ab Lager, Zwischenverkauf vorbehalten  
**o** = nur solange Lagervorrat vorhanden  
*x* = normally ex stock  
*o* = available while stocks last

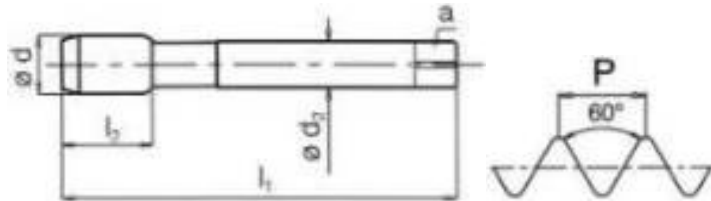
M

Metrisches ISO-Regelgewinde DIN 13

Baumaße DIN 376, Überlaufschaft

ISO Metric Coarse Threads, DIN 13

Dimensions DIN 376, Reduced shank



HSS-EP



| Katalog Nr.<br>Bezeichnung                      | Catalogue No.<br>Name                        | 110 370<br>Dulofix VS                                                                            | 110 371<br>Spiralo 35 VS                                                                         | 110 356<br>Multifix                                                                                                                        | 110 357<br>Multifix 35                                                                                                                     | 110 397<br>Spiralo 15 HF TiCN                                                                                               |      |                                                                                     |                               |   |
|-------------------------------------------------|----------------------------------------------|--------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------|------|-------------------------------------------------------------------------------------|-------------------------------|---|
| Toleranz                                        | Tolerance                                    | 6H / ISO2                                                                                        | 6H / ISO2                                                                                        | 6H / ISO2                                                                                                                                  | 6H / ISO2                                                                                                                                  | 6HX                                                                                                                         |      |                                                                                     |                               |   |
| Anschnittform                                   | Chamfer form                                 | B                                                                                                | C                                                                                                | B                                                                                                                                          | C                                                                                                                                          | C                                                                                                                           |      |                                                                                     |                               |   |
| Anschnittlänge, Gang                            | Chamfer length, threads                      | 4-5                                                                                              | 2-3                                                                                              | 4-5                                                                                                                                        | 2-3                                                                                                                                        | 2-3                                                                                                                         |      |                                                                                     |                               |   |
| für Bohrungsart                                 | For holes                                    |                 |                |                                                         |                                                         |                                          |      |                                                                                     |                               |   |
| Sonderwerkstoff                                 | Special material                             | Vergütungsstähle<br>Heat-treatable steels                                                        |                                                                                                  | Werkzeugstähle<br>Toolsteels<br>1.7 / 3.23                                                                                                 |                                                                                                                                            | ***<br>1.7 / 1.8                                                                                                            |      |                                                                                     |                               |   |
| Zerspanungsgruppe,<br>siehe Ausklappseite links | Machinability-group,<br>See folder left page | <div>P<span> </span><span> </span><span> </span><span> </span><span> </span><span> </span></div> | <div>P<span> </span><span> </span><span> </span><span> </span><span> </span><span> </span></div> | <div>P<span> </span><span> </span><span> </span><span> </span><span> </span><span>N</span><span> </span><span> </span><span> </span></div> | <div>P<span> </span><span> </span><span> </span><span> </span><span> </span><span>N</span><span> </span><span> </span><span> </span></div> | <div><span>M</span><span>K</span><span> </span><span> </span><span> </span><span> </span><span> </span><span> </span></div> |      |                                                                                     |                               |   |
| Oberfläche                                      | Surface                                      |                                                                                                  |                                                                                                  | Stygian                                                                                                                                    | Stygian                                                                                                                                    | TiCN                                                                                                                        |      |                                                                                     |                               |   |
| Ausführung                                      | Variation                                    |                                                                                                  |                                                                                                  |                                                                                                                                            |                                                                                                                                            | kurze Späne<br>short chips                                                                                                  |      |                                                                                     |                               |   |
| Typenbeschreibung ab Seite                      | Type description from page                   | T2                                                                                               | T2                                                                                               | T2                                                                                                                                         | T2                                                                                                                                         | T2                                                                                                                          |      |                                                                                     |                               |   |
| d                                               | P<br>mm                                      | Code                                                                                             | l <sub>1</sub>                                                                                   | l <sub>2</sub>                                                                                                                             | l <sub>2</sub><br>SSP**                                                                                                                    | d <sub>2</sub>                                                                                                              | a    |  | Verfügbarkeit<br>Availability |   |
| M 3                                             | 0,5                                          | 03                                                                                               | 56                                                                                               | 10                                                                                                                                         | 6                                                                                                                                          | 2,2                                                                                                                         |      | 2,50                                                                                |                               |   |
| M 3,5                                           | 0,6                                          | 03,5                                                                                             | 56                                                                                               | 11                                                                                                                                         | 6                                                                                                                                          | 2,5                                                                                                                         | 2,1  | 2,90                                                                                |                               |   |
| M 4                                             | 0,7                                          | 04                                                                                               | 63                                                                                               | 11                                                                                                                                         | 7                                                                                                                                          | 2,8                                                                                                                         | 2,1  | 3,30                                                                                |                               |   |
| M 5                                             | 0,8                                          | 05                                                                                               | 70                                                                                               | 15                                                                                                                                         | 9                                                                                                                                          | 3,5                                                                                                                         | 2,7  | 4,20                                                                                |                               |   |
| M 6                                             | 1                                            | 06                                                                                               | 80                                                                                               | 17                                                                                                                                         | 10                                                                                                                                         | 4,5                                                                                                                         | 3,4  | 5,00                                                                                |                               |   |
| M 8                                             | 1,25                                         | 08                                                                                               | 90                                                                                               | 20                                                                                                                                         | 13                                                                                                                                         | 6,0                                                                                                                         | 4,9  | 6,80                                                                                |                               | x |
| M 10                                            | 1,5                                          | 10                                                                                               | 100                                                                                              | 20                                                                                                                                         | 14                                                                                                                                         | 7,0                                                                                                                         | 5,5  | 8,50                                                                                |                               | x |
| M 12                                            | 1,75                                         | 12                                                                                               | 110                                                                                              | 22                                                                                                                                         | 16                                                                                                                                         | 9,0                                                                                                                         | 7,0  | 10,20                                                                               | x                             | x |
| M 14                                            | 2                                            | 14                                                                                               | 110                                                                                              | 25                                                                                                                                         | 20                                                                                                                                         | 11,0                                                                                                                        | 9,0  | 12,00                                                                               | x                             | x |
| M 16                                            | 2                                            | 16                                                                                               | 110                                                                                              | 25                                                                                                                                         | 20                                                                                                                                         | 12,0                                                                                                                        | 9,0  | 14,00                                                                               | x                             | x |
| M 18                                            | 2,5                                          | 18                                                                                               | 125                                                                                              | 32                                                                                                                                         | 25                                                                                                                                         | 14,0                                                                                                                        | 11,0 | 15,50                                                                               | x                             | x |
| M 20                                            | 2,5                                          | 20                                                                                               | 140                                                                                              | 32                                                                                                                                         | 25                                                                                                                                         | 16,0                                                                                                                        | 12,0 | 17,50                                                                               | x                             | x |
| M 22                                            | 2,5                                          | 22                                                                                               | 140                                                                                              | 32                                                                                                                                         | 25                                                                                                                                         | 18,0                                                                                                                        | 14,5 | 19,50                                                                               | x                             | x |
| M 24                                            | 3                                            | 24                                                                                               | 160                                                                                              | 36                                                                                                                                         | 30                                                                                                                                         | 18,0                                                                                                                        | 14,5 | 21,00                                                                               | x                             | x |
| M 27                                            | 3                                            | 27                                                                                               | 160                                                                                              | 36                                                                                                                                         | 30                                                                                                                                         | 20,0                                                                                                                        | 16,0 | 24,00                                                                               | x                             | x |
| M 30                                            | 3,5                                          | 30                                                                                               | 180                                                                                              | 40                                                                                                                                         | 35                                                                                                                                         | 22,0                                                                                                                        | 18,0 | 26,50                                                                               | x                             | x |
| M 33                                            | 3,5                                          | 33                                                                                               | 180                                                                                              | 40                                                                                                                                         | 35                                                                                                                                         | 25,0                                                                                                                        | 20,0 | 29,50                                                                               |                               |   |
| M 36                                            | 4                                            | 36                                                                                               | 200                                                                                              | 45                                                                                                                                         | 40                                                                                                                                         | 28,0                                                                                                                        | 22,0 | 32,00                                                                               | x                             | x |
| M 39                                            | 4                                            | 39                                                                                               | 200                                                                                              | 45                                                                                                                                         | 40                                                                                                                                         | 32,0                                                                                                                        | 24,0 | 35,00                                                                               |                               |   |
| M 42                                            | 4,5                                          | 42                                                                                               | 200                                                                                              | 50                                                                                                                                         | 45                                                                                                                                         | 32,0                                                                                                                        | 24,0 | 37,50                                                                               |                               |   |
| M 45                                            | 4,5                                          | 45                                                                                               | 220                                                                                              | 50                                                                                                                                         | 45                                                                                                                                         | 36,0                                                                                                                        | 29,0 | 40,50                                                                               |                               |   |

\*\*\*Geometrie bildet bei geeigneten Materialien kurze Späne.  
Für das sichere Ausspülen ist eine Hochdruck-Kühlung unerlässlich.  
\*\*\*Geometry creates short chips machining suitable materials.  
High-pressure cooling is essential for safe chip evacuation

x = ab Lager, Zwischenverkauf vorbehalten  
o = nur solange Lagervorrat vorhanden  
x = normally ex stock  
o = available while stocks last

\*\* SSP = Steilschneidspiral  
\*\* SSP = quick spiral

# Maschinen-Gewindebohrer

Machine Taps

# HAHNREITER HSS-EP

Pulvermetallurgisch erzeugter Schnellstahl / Made from powder metallurgy material

M



|       | 110 373<br>Dulofix HF                                         | 110 392<br>Dulofix HF TiCN    | 110 374<br>Spiralo 35 HF | 110 393<br>Spir.35 HF TiCN | 110 376<br>Dulofix Ni                      | 110 377<br>Spiralo 25 Ni | 110 378<br>Dulofix Ti                       | 110 379<br>Spiralo 25 Ti | 110 391<br>Spiralo 15 Ti-AZ            |
|-------|---------------------------------------------------------------|-------------------------------|--------------------------|----------------------------|--------------------------------------------|--------------------------|---------------------------------------------|--------------------------|----------------------------------------|
|       | 6H / ISO2<br>B<br>4-5                                         | 6H / ISO2<br>B<br>4-5         | 6H / ISO2<br>C<br>2-3    | 6H / ISO2<br>C<br>2-3      | 6H / ISO2<br>B<br>5                        | 6H / ISO2<br>C<br>3      | 6H / ISO2<br>B<br>5                         | 6H / ISO2<br>C<br>3      | 6HX<br>C<br>3                          |
|       |                                                               |                               |                          |                            |                                            |                          |                                             |                          |                                        |
|       | hochfeste Stähle<br>Hard materials<br>1.4.3/1.5.3 / 1.6.3/1.8 |                               |                          |                            | Nickellegierungen<br>Nickel alloys<br>5.25 |                          | Titanlegierungen<br>Titanium alloys<br>5.26 |                          |                                        |
|       | P                                                             | P                             | P                        | P                          |                                            | S                        |                                             | S                        | S                                      |
|       |                                                               | TiCN                          |                          | TiCN                       |                                            |                          | Nit                                         | Nit                      | Nit                                    |
|       | T2                                                            | T2                            | T2                       | T2                         | T2                                         | T2                       | T2                                          | T2                       | ausgesetzte Zähne<br>Interrupted teeth |
| d     | P                                                             | Verfügbarkeit<br>Availability |                          |                            |                                            |                          |                                             |                          |                                        |
|       | mm                                                            |                               |                          |                            |                                            |                          |                                             |                          |                                        |
| M 3   | 0,5                                                           |                               |                          |                            |                                            |                          |                                             |                          |                                        |
| M 3,5 | 0,6                                                           |                               |                          |                            |                                            |                          |                                             |                          |                                        |
| M 4   | 0,7                                                           |                               |                          |                            |                                            |                          |                                             |                          |                                        |
| M 5   | 0,8                                                           |                               |                          |                            |                                            |                          |                                             |                          |                                        |
| M 6   | 1                                                             |                               |                          |                            |                                            |                          |                                             |                          |                                        |
| M 8   | 1,25                                                          |                               |                          |                            |                                            |                          |                                             |                          |                                        |
| M 10  | 1,5                                                           |                               |                          |                            |                                            |                          |                                             |                          |                                        |
| M 12  | 1,75                                                          | x                             | x                        | x                          | x                                          | x                        | x                                           | x                        | x                                      |
| M 14  | 2                                                             | x                             | x                        | x                          | x                                          | x                        | x                                           | x                        | x                                      |
| M 16  | 2                                                             | x                             | x                        | x                          | x                                          | x                        | x                                           | x                        | x                                      |
| M 18  | 2,5                                                           | x                             | x                        | x                          | x                                          | x                        | x                                           | x                        |                                        |
| M 20  | 2,5                                                           | x                             | x                        | x                          | x                                          | x                        | x                                           | x                        |                                        |
| M 22  | 2,5                                                           |                               |                          |                            |                                            |                          |                                             |                          |                                        |
| M 24  | 3                                                             | x                             | x                        | x                          | x                                          |                          |                                             |                          |                                        |
| M 27  | 3                                                             | x                             | x                        | x                          | x                                          |                          |                                             |                          |                                        |
| M 30  | 3,5                                                           | x                             | x                        | x                          | x                                          |                          |                                             |                          |                                        |
| M 33  | 3,5                                                           |                               |                          |                            |                                            |                          |                                             |                          |                                        |
| M 36  | 4                                                             | x                             | x                        | x                          | x                                          |                          |                                             |                          |                                        |
| M 39  | 4                                                             |                               |                          |                            |                                            |                          |                                             |                          |                                        |
| M 42  | 4,5                                                           |                               |                          |                            |                                            |                          |                                             |                          |                                        |
| M 45  | 4,5                                                           |                               |                          |                            |                                            |                          |                                             |                          |                                        |
|       |                                                               |                               |                          |                            |                                            |                          |                                             |                          |                                        |
|       |                                                               |                               |                          |                            |                                            |                          |                                             |                          |                                        |
|       |                                                               |                               |                          |                            |                                            |                          |                                             |                          |                                        |

x = ab Lager, Zwischenverkauf vorbehalten  
o = nur solange Lagervorrat vorhanden  
x = normally ex stock  
o = available while stocks last



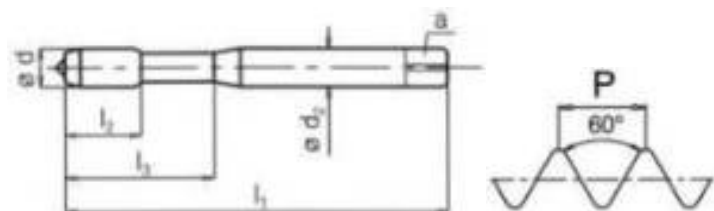
# M

## Metrisches ISO-Regelgewinde DIN 13

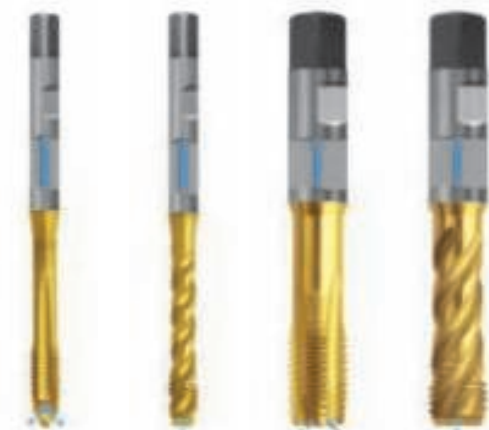
Baumaße Werksnorm

ISO Metric Coarse Threads, DIN 13

Dimensions manuf. standard



HSS-EP HSS-EP HSS-EP HSS-EP



| Katalog Nr.<br>Bezeichnung                                                                                       | Catalogue No.<br>Name                        | 110 288<br>Dulofix SYNC IKZ-R                                                                                    | 110 289<br>Spiralo 40 SYNC IKZ | 110 388<br>Dulofix SYNC IKZ-R | 110 389<br>Spiralo 40 SYNC IKZ |
|------------------------------------------------------------------------------------------------------------------|----------------------------------------------|------------------------------------------------------------------------------------------------------------------|--------------------------------|-------------------------------|--------------------------------|
| Toleranz                                                                                                         | Tolerance                                    | 6HX                                                                                                              | 6HX                            | 6HX                           | 6HX                            |
| Anschnittform                                                                                                    | Chamfer form                                 | B                                                                                                                | C                              | B                             | C                              |
| Anschnittlänge, Gang                                                                                             | Chamfer length, threads                      | 4-5                                                                                                              | 2-3                            | 4-5                           | 2-3                            |
| für Bohrungsart                                                                                                  | For holes                                    |                                                                                                                  |                                |                               |                                |
| Sonderwerkstoff                                                                                                  | Special material                             | Universal für langspanende Werkstoffe bis 1.100 N/mm²<br>universal for long chipping materials up to 1.100 N/mm² |                                |                               |                                |
| Zerspanungsgruppe,<br>siehe Ausklappseite links                                                                  | Machinability-group,<br>See folder left page |                                                                                                                  |                                |                               |                                |
| Oberfläche                                                                                                       | Surface                                      | TiN                                                                                                              | TiN                            | TiN                           | TiN                            |
| Ausführung                                                                                                       | Variation                                    | Schaft h6, mit Weldon Fläche, nur für CNC<br>shank h6, with Weldon flat, for CNC only                            |                                |                               |                                |
| Typenbeschreibung ab Seite                                                                                       | Type description from page                   | T2                                                                                                               | T2                             | T2                            | T2                             |
| d<br>P<br>mm<br>Code<br>l <sub>1</sub><br>l <sub>2</sub><br>SSP**<br>l <sub>3</sub><br>d <sub>2</sub><br>a       |                                              | Verfügbarkeit<br>Availability                                                                                    |                                |                               |                                |
| <b>Baumaße Werksnorm, verstärkter Schaft bis M 16</b><br>Dimensions manuf. standard, up to M 16 reinforced shank |                                              |                                                                                                                  |                                |                               |                                |
| M 3                                                                                                              | 0,5 03                                       | 70                                                                                                               | 7                              | 5                             | 22                             |
| M 4                                                                                                              | 0,7 04                                       | 70                                                                                                               | 10                             | 7                             | 30                             |
| M 5                                                                                                              | 0,8 05                                       | 70                                                                                                               | 11                             | 8                             | 30                             |
| M 6                                                                                                              | 1 06                                         | 80                                                                                                               | 14                             | 10                            | 35                             |
| M 8                                                                                                              | 1,25 08                                      | 90                                                                                                               | 16                             | 13                            | 40                             |
| M 10                                                                                                             | 1,5 10                                       | 100                                                                                                              | 20                             | 14                            | 44                             |
| M 12                                                                                                             | 1,75 12                                      | 110                                                                                                              | 19                             | 17                            | 50                             |
| M 14                                                                                                             | 2 14                                         | 110                                                                                                              | 28                             | 20                            | 56                             |
| M 16                                                                                                             | 2 16                                         | 110                                                                                                              | 28                             | 20                            | 56                             |
| <b>Baumaße DIN 376, Überlaufschaft</b><br>Dimensions DIN 376, Reduced shank                                      |                                              |                                                                                                                  |                                |                               |                                |
| M 20                                                                                                             | 2,5 20                                       | 140                                                                                                              | 32                             | 25                            | 16,0                           |
| M 24                                                                                                             | 3 24                                         | 160                                                                                                              | 36                             | 30                            | 18,0                           |

x = ab Lager, Zwischenverkauf vorbehalten  
o = nur solange Lagerinventar vorhanden  
x = normally ex stock  
o = available while stocks last

\*\* SSP = Steilschneide  
\*\* SSP = quick spiral

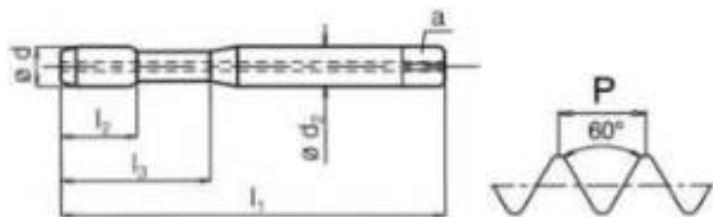
## M

## Metrisches ISO-Regelgewinde DIN 13

Baumaße DIN 371, verstärkter Schaft

**ISO Metric Coarse Threads, DIN 13**

Dimensions DIN 371, Reinforced shank

[illegible]

**x** = ab Lager, Zwischenverkauf vorbehalten  
**o** = nur solange Lagervorrat vorhanden  
*x* = normally ex stock  
*o* = available while stocks last

\*\* SSP = Steilspirale  
 \*\* SSP = *quick spiral*

M

HSS-EP



HSS-EP



|      |         |                                                                                   |  |  |                                                                                   |  |  |  |  |
|------|---------|-----------------------------------------------------------------------------------|--|--|-----------------------------------------------------------------------------------|--|--|--|--|
|      |         | <b>110 407</b>                                                                    |  |  | <b>110 408</b>                                                                    |  |  |  |  |
|      |         | Dulofix HF IKZ-R TiCN                                                             |  |  | Spiralo 15 HF IKZ TiCN                                                            |  |  |  |  |
|      |         | 6HX<br>B<br>4-5                                                                   |  |  | 6HX<br>C<br>2-3                                                                   |  |  |  |  |
|      |         |  |  |  |  |  |  |  |  |
|      |         | hochfeste Stähle<br>Hard materials<br>1.4.3 / 1.5.3 / 1.6.3 / 1.8                 |  |  | **<br>1.7 / 1.8                                                                   |  |  |  |  |
|      |         |  |  |  |  |  |  |  |  |
|      |         | TiCN                                                                              |  |  | TiCN                                                                              |  |  |  |  |
|      |         | radialer Kühlmittelaustritt<br>internal coolant supply, radial exit               |  |  | axialer Kühlmittelaustritt<br>internal coolant supply, axial exit                 |  |  |  |  |
|      |         | T2                                                                                |  |  | T2                                                                                |  |  |  |  |
| d    | P<br>mm | Verfügbarkeit<br>Availability                                                     |  |  | Verfügbarkeit<br>Availability                                                     |  |  |  |  |
| M 4  | 0,7     |                                                                                   |  |  | x                                                                                 |  |  |  |  |
| M 5  | 0,8     |                                                                                   |  |  | x                                                                                 |  |  |  |  |
| M 6  | 1       | x                                                                                 |  |  | x                                                                                 |  |  |  |  |
| M 8  | 1,25    | x                                                                                 |  |  | x                                                                                 |  |  |  |  |
| M 10 | 1,5     | x                                                                                 |  |  | x                                                                                 |  |  |  |  |
|      |         |                                                                                   |  |  |                                                                                   |  |  |  |  |
|      |         |                                                                                   |  |  |                                                                                   |  |  |  |  |
|      |         |                                                                                   |  |  |                                                                                   |  |  |  |  |
|      |         |                                                                                   |  |  |                                                                                   |  |  |  |  |
|      |         |                                                                                   |  |  |                                                                                   |  |  |  |  |
|      |         |                                                                                   |  |  |                                                                                   |  |  |  |  |
|      |         |                                                                                   |  |  |                                                                                   |  |  |  |  |
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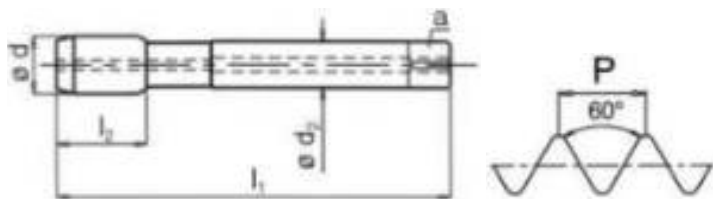
## M

## Metrisches ISO-Regelgewinde DIN 13

Baumaße DIN 376, Überlaufschicht

**ISO Metric Coarse Threads, DIN 13**

*Dimensions DIN 376, Reduced shank*

[illegible]

**x** = ab Lager, Zwischenverkauf vorbehalten  
**o** = nur solange Lagervorrat vorhanden  
*x* = normally ex stock  
*o* = available while stocks last

\*\* SSP = Steilspirale  
 \*\* SSP = *quick spiral*

M

HSS-EP



HSS-EP

[illegible]

x = ab Lager, Zwischenverkauf vorbehalten  
o = nur solange Lagervorrat vorhanden  
x = normally ex stock  
o = available while stocks last

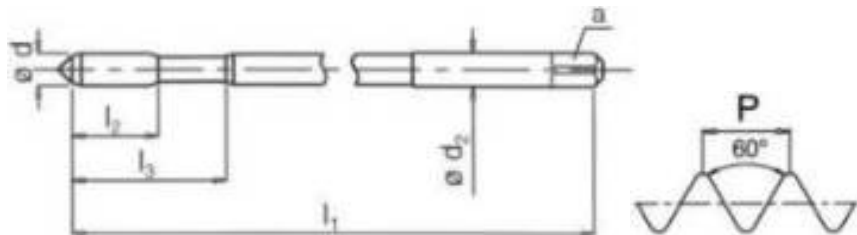
## M

## Metrisches ISO-Regelgewinde DIN 13

doppelte Länge wie DIN 371, verstärkter Schaft

**ISO Metric Coarse Threads, DIN 13**

*double length as DIN 371, Reinforced shank*

[illegible]

**x** = ab Lager, Zwischenverkauf vorbehalten  
**o** = nur solange Lagervorrat vorhanden  
*x* = normally ex stock  
*o* = available while stocks last

\*\* SSP = Steilspirale  
 \*\* SSP = *quick spiral*

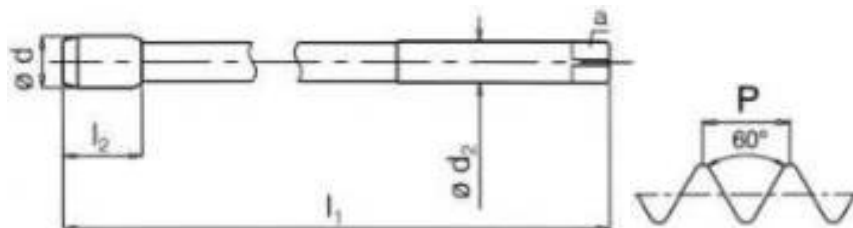
# M

## Metrisches ISO-Regelgewinde DIN 13

doppelte Länge wie DIN 376, Überlaufschaft

**ISO Metric Coarse Threads, DIN 13**

*double length as DIN 376, Reduced shank*

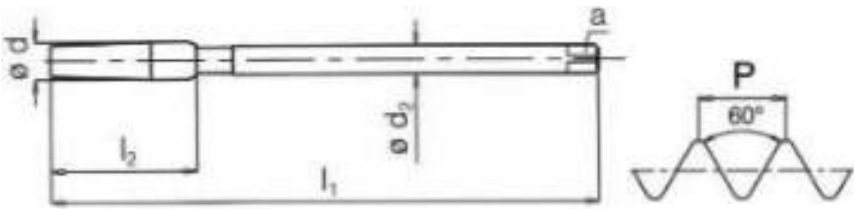
[illegible]

**x** = ab Lager, Zwischenverkauf vorbehalten  
**o** = nur solange Lagervorrat vorhanden  
*x* = normally ex stock  
*o* = available while stocks last

\*\* SSP = Steilspirale  
 \*\* SSP = *quick spiral*

M

Metrisches ISO-Regelgewinde DIN 13  
Baumaße DIN 357, Überlaufschaft  
ISO Metric Coarse Threads, DIN 13  
Dimensions DIN 357, Reduced shank



| Katalog Nr.                                  |         | Catalogue No.                             |                | 110 500        |                |      |                               |
|----------------------------------------------|---------|-------------------------------------------|----------------|----------------|----------------|------|-------------------------------|
| Bezeichnung                                  |         | Name                                      |                | Hahnreiter     |                |      |                               |
| Toleranz                                     |         | Tolerance                                 |                | 6H / ISO2      |                |      |                               |
| Anschnittform                                |         | Chamfer form                              |                | spezial        |                |      |                               |
| Anschnittlänge, Gang                         |         | Chamfer length, threads                   |                | ≈ 18           |                |      |                               |
| für Bohrungsart                              |         | For holes                                 |                |                |                |      |                               |
| Sonderwerkstoff                              |         | Special material                          |                |                |                |      |                               |
| Zerspanungsgruppe, siehe Ausklappseite links |         | Machinability-group, See folder left page |                |                |                |      |                               |
| Oberfläche                                   |         | Surface                                   |                |                |                |      |                               |
| Ausführung                                   |         | Variation                                 |                | für Muttern    |                |      |                               |
|                                              |         |                                           |                | for nuts       |                |      |                               |
| d                                            | P<br>mm | Code                                      | l <sub>1</sub> | l <sub>2</sub> | d <sub>2</sub> | a    | Verfügbarkeit<br>Availability |
| M 3                                          | 0,5     | 03                                        | 70             | 22             | 2,2            | 2,50 | x                             |
| M 3,5                                        | 0,6     | 03,5                                      | 80             | 22             | 2,5            | 2,1  | x                             |
| M 4                                          | 0,7     | 04                                        | 90             | 19             | 2,8            | 2,1  | x                             |
| M 5                                          | 0,8     | 05                                        | 100            | 22             | 3,5            | 2,7  | x                             |
| M 6                                          | 1       | 06                                        | 110            | 30             | 4,5            | 3,4  | x                             |
| M 8                                          | 1,25    | 08                                        | 125            | 34             | 6,0            | 4,9  | x                             |
| M 10                                         | 1,5     | 10                                        | 140            | 41             | 7,0            | 5,5  | x                             |
| M 12                                         | 1,75    | 12                                        | 180            | 48             | 9,0            | 7,0  | x                             |
| M 14                                         | 2       | 14                                        | 200            | 56             | 11,0           | 9,0  | x                             |
| M 16                                         | 2       | 16                                        | 200            | 54             | 12,0           | 9,0  | x                             |
| M 18                                         | 2,5     | 18                                        | 220            | 63             | 14,0           | 11,0 |                               |
| M 20                                         | 2,5     | 20                                        | 250            | 70             | 16,0           | 12,0 |                               |
| M 22                                         | 2,5     | 22                                        | 280            | 70             | 18,0           | 14,5 |                               |
| M 24                                         | 3       | 24                                        | 280            | 80             | 18,0           | 14,5 |                               |
| M 27                                         | 3       | 27                                        | 315            | 81             | 20,0           | 16,0 | o                             |

x = ab Lager, Zwischenverkauf vorbehalten  
o = nur solange Lagervorrat vorhanden  
x = normally ex stock  
o = available while stocks last



- Anschweissenden zum Selbstanschweissen
- Einlötspitzen zum Hart/Weichlöten
- Mit Anzugsgewinde zum Einschrauben
- Fertige Längen

- *Nib taps, for butt welding*
- *Nib taps, for brazing*
- *Nib taps, screw-in type*
- *Nut taps with straight or bent shank*

**Bitte fragen Sie uns an !**

***Please send us your enquiries !***

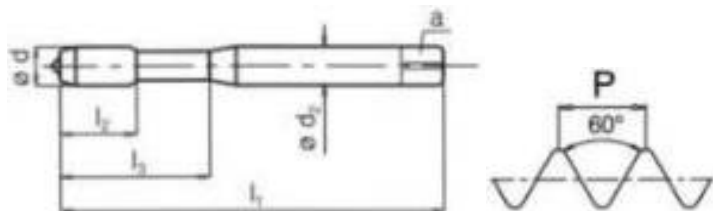
## M

## Metrisches ISO-Regelgewinde DIN 13

Baumaße DIN 2174 (371), verstärkter Schaft

**ISO Metric Coarse Threads, DIN 13**

*Dimensions DIN 2174 (371), Reinforced shank*

[illegible]

1) nur als Basis für beschichtete Varianten  
*only base for coated types*

Bis einschl. M 1,4 Toleranz 4HX  
up to M 1,4 incl. tolerance 4HX

**x = ab Lager, Zwischenverkauf vorbehalten**  
**o = nur solange Lagervorrat vorhanden**  
*x = normally ex stock*  
*o = available while stocks last*

M

HSS-EP

[illegible]

**x** = ab Lager, Zwischenverkauf vorbehalten  
**o** = nur solange Lagervorrat vorhanden  
*x* = normally ex stock  
*o* = available while stocks last

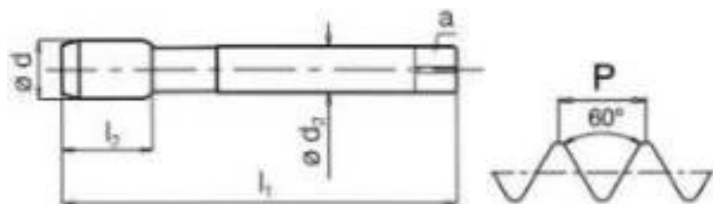
## M

## Metrisches ISO-Regelgewinde DIN 13

Baumaße DIN 2174 (376), Überlaufschacht

### ISO Metric Coarse Threads, DIN 13

*Dimensions DIN 2174 (376), Reduced shank*

[illegible]

1) nur als Basis für beschichtete Varianten  
*only base for coated types*

**x** = ab Lager, Zwischenverkauf vorbehalten  
**o** = nur solange Lagervorrat vorhanden  
*x* = normally ex stock  
*o* = available while stocks last

M

HSS-EP

[illegible]

x = ab Lager, Zwischenverkauf vorbehalten  
o = nur solange Lagervorrat vorhanden  
x = normally ex stock  
o = available while stocks last