



# Precision threading technology

2022

[www.threading-tools.com](http://www.threading-tools.com)



## Precision and Quality

Good quality is the best marketing, because satisfied customers underline our success.

Our most important principle which inspires us is the commitment for products of the highest standards to meet the requirements of our customers to their utmost satisfaction - a mission we try to fulfill for our corporate philosophy every day.

Our quality check starts with the receipt of goods and continues until the outgoing of the products. At BAER Company customer satisfaction does not come by chance. Ongoing quality testings also influence all new product developments. New ideas and the most modern production facilities improve our products and make them even more precise.



## Development and Improvement

Essential for the sustainability of our work is to invest continuously the long-term in new innovative products. Highest efforts in research and development focus on the needs of our customers. Our tools represent practical and reliable solutions which support an efficient and easy application.

Our cooperations with other industries, companies and research institutes make a strong networking possible. New inspirations are created in innovations, are produced, tested and adapted for practice.

This way we are always up to the latest standards of knowledge related to thread technologies. All members of our company contribute to our innovations with their individual know-how.



## Tradition and Experience

For more than 35 years we have been engaged in what we can do best: threading technology. With this far-reaching treasure trove of experience we have established ourselves as an expert by whom our customers can profit. We are proud to be a family company.

Our identification with the company is even stronger and more distinctive. Each customer, each modernization is at the same time an affair of the heart.

Tradition combined with innovation and progress - make us a flexible and competent partner when it is about threading tools.

Our claim: to contribute to a successful future and to develop tools which meet all kinds of requirements of our customers.



## Distributors

For ensure further deliveries to the customer as soon as possible at home and abroad, we are expanding our distributor network. BAER-distributors benefit from:

- The largest full range of products - for best price performance ratio
- Quality and reliability - for the highest demands
- Decades of experience in threading technology
- Reliable partnership - flexible and easy
- Sale supporting materials
- Exclusive products
- Exclusive sale territories
- Qualified product and sales trainings
- Attractive terms and conditions
- Innovative products

## M Metric coarse thread ISO DIN 13



Thread Cutting Sets  
p. 10-19



Short Machine Taps  
p. 20



Hand Tap Sets  
p. 21-23



Machine Taps  
p. 24-33



Forming Taps  
p. 34-35



Bit Taps  
p. 36-37



Round Dies  
p. 38-40



Hexagon Die Nuts  
p. 41

## MF Metric fine thread ISO DIN 13



Thread Cutting Sets  
p. 42-43



Short Machine Taps  
p. 44



Hand Tap Sets  
p. 45-52



Machine Taps  
p. 53-65



Forming Taps  
p. 66



Bit Taps  
p. 67



Round Dies  
p. 68-73



Hexagon Die Nuts  
p. 74-75

## G(BSP) British standard whitworth pipe thread DIN ISO 228



Thread Cutting Sets  
p. 76-77



Short Machine Taps  
p. 78



Hand Tap Sets  
p. 79



Machine Taps  
p. 80-81



Forming Taps  
p. 82



Round Dies  
p. 83



Hexagon Die Nuts  
p. 84

## UNC Unified coarse thread ANSI B1.1



Thread Cutting Sets  
p. 86-87



Short Machine Taps  
p. 88



Hand Tap Sets  
p. 88



Machine Taps  
p. 89-90



Forming Taps  
p. 91



Combined Bit Taps  
p. 92



Round Dies  
p. 93



Hexagon Die Nuts  
p. 94

## UNF Unified fine thread ANSI B1.1



Thread Cutting Sets  
p. 96-97



Short Machine Taps  
p. 98



Hand Tap Sets  
p. 98



Machine Taps  
p. 99-100



Forming Taps  
p. 101



Combined Bit Taps  
p. 102



Round Dies  
p. 103



Hexagon Die Nuts  
p. 104

## UNS Unified thread with special threads per inch (TPI)



Machine Taps  
p. 105



Round Dies  
p. 105

## UNEF Unified extra fine thread ANSI B1.1



Hand Tap Sets  
p. 106



Machine Taps  
p. 106



Round Dies  
p. 107

## 8-UN Unified thread series with 8-threads per inch (TPI)



Hand Tap Sets  
p. 108



Machine Taps  
p. 108



Round Dies  
p. 109



Hexagon Die Nuts  
p. 109

## 12-UN

Unified thread series with 12-threads per inch (TPI)



Hand Tap Sets  
p. 110

Machine Taps  
p. 110

Round Dies  
p. 111

## BSW

British standard BS 84 whitworth coarse thread



Thread Cutting Sets  
p. 112-113

Hand Tap Sets  
p. 114

Machine Taps  
p. 115

Round Dies  
p. 116

Hexagon Die Nuts  
p. 117

## BSF

British standard BS 84 whitworth fine thread



Thread Cutting Sets  
p. 118-119

Short Machine Taps  
p. 120

Hand Tap Sets  
p. 120

Round Dies  
p. 121

Hexagon Die Nuts  
p. 121

## TR

Trapezoidal thread DIN 103



Hand Tap Sets  
p. 122

Machine Nut Taps  
p. 123-124

Round Dies  
p. 125

## NPT

National standard taper 1:16 pipe thread ANSI B 1.20.1

## NPTF

National standard sealing pipe thread ANSI B 1.20.3



Short Machine Taps  
p. 126

Round Dies  
p. 127

Hexagon Die Nuts  
p. 127

## NPS

National standard straight pipe thread



Short Machine Taps  
p. 128

Round Dies  
p. 128

## RC (BSPT)

Whitworth tapered pipe thread DIN 2999

## RP(BSPP)

British standard whitworth pipe thread ISO 7-1

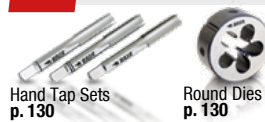


Short Machine Taps  
p. 129

Hexagon Die Nuts  
p. 129

## BA

British Association thread BS 93

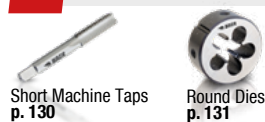


Hand Tap Sets  
p. 130

Round Dies  
p. 130

## W

Tapered whitworth DIN 477 for screw sockets taper 3:25



Short Machine Taps  
p. 130

Round Dies  
p. 131

## **PG** Steel Conduit Thread DIN 40430



Short Machine Taps  
p. 132



Round Dies  
p. 132

## **FG** Bicycle thread DIN 79012



Machine Taps  
p. 133



Round Dies  
p. 133

## **BSC** British bicycle thread RS 811

## **RD** Knuckle thread DIN 405



Machine Taps  
p. 134



Round Dies  
p. 134

## **RMS** Royal Microscopical Society DIN 58888

## **MINI** Metric Mini-thread and Nano-thread



Machine Taps  
p. 135

## **CAMERA-Tripod** Camera tripod and C-Mount thread DIN 4503



Short Machine Taps  
p. 136



Hand Tap Sets  
p. 136

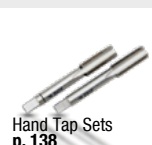


Round Dies  
p. 137

## **VG** Valve thread DIN 7756



Short Machine Taps  
p. 138



Hand Tap Sets  
p. 138



Machine Taps  
p. 138



Round Dies  
p. 139

## **Holding Tools**

## **Cutting Oil**



Tap holders with ratchet  
p. 140



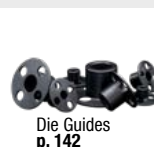
Adjustable Tap Wrenches  
p. 140



Die Stocks  
p. 141



Extension sleeves for taps  
p. 142



Die Guides  
p. 142



Cutting Paste  
p. 143



Countersinks  
p. 143

## **Technical Information**

p. 144 Tap Geometries

p. 144 Tap Centering

p. 145 Tap Construction dimensions

p. 145 Tap Chamfer Forms

p. 146 Tap flutes

p. 147 Tolerances

p. 148 Tap Surface Treatments

p. 148 Troubleshooting guide for tapping

p. 149 Tap Cutting speeds

p. 149 Lubrication and cooling

p. 150 Formula

p. 151 Round Dies Geometries

p. 151 Tolerances for Round Dies

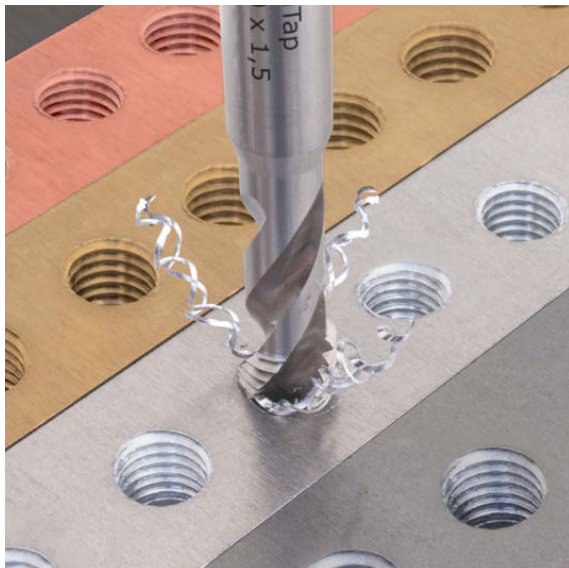
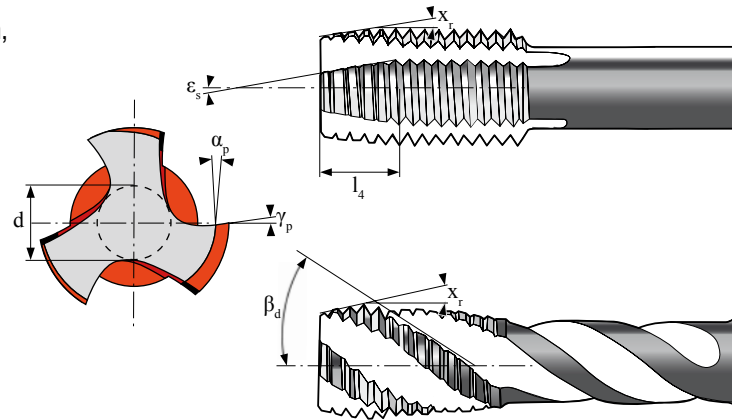
p. 152 Cutting speeds for Machine Forming Taps

## UNI-Tap - Unique cutting geometry

The unique geometry of UNI-Tap Taps is the result of years of research, which enables the user to machine all materials and makes the tap universally suitable for almost all applications.

During threading an internal thread, the major forces occur at the lead-in chamfer, which is strikingly relieved by structural changes in the UNI-Tap. The consequence is a reduced torque and a longer life time of the tap. In addition, the areas directly after the lead-in chamfer have been changed to lead the chip optimally and avoid possible jamming. An over-feeding of the thread is also not possible with this profile change.

The design sets new standards in ease of use, durability, and versatility



## A professional for all applications and materials

- Steels and Steel alloys up to 1200 N/mm
- Stainless Steels; Inoxidable Steels up to 1000 N/mm; VASsteels; INOX; V2A; V4A
- Pure Aluminium; Aluminium Cast and Wrought Alloys
- Grey Cast Iron; Ductile/Nodular/Spheroidal Graphite Cast
- Iron; Malleable Cast Iron up to 1000 N/mm
- Pure Titanium and Titanium alloys up to 900 N/mm
- Pure Nickel and Nickel alloys up to 900 N/mm
- Pure Copper; Copper alloys; Brass; Bronze (all chip lengths)

## Cost savings and flexibility

Due to its universal application possibilities, one UNI-Tap can do the work of several conventional taps.

As a result you can save about 90% of expenses.

### Comparison of expenses:

| Machine Taps M6 for     | EUR / pc.     |
|-------------------------|---------------|
| normal steels           | 6,98          |
| stainless steels        | 11,68         |
| aluminium and alloys    | 34,57         |
| cast and grey cast iron | 19,64         |
| titanium and alloys     | 47,30         |
| brass and copper        | 11,81         |
| <b>total:</b>           | <b>131,98</b> |



same result with



BAER HSSE UNI-Tap Machine Tap for through holes M 6 x 1,0

**17,33 EUR over 85% savings**

# Coatings

On request, taps are also available with a TIN or TiAlN coating. The TIN surface treatment (titanium-nitride gold-yellow) increases the surface hardness (approx. 2300 HV) and the sliding properties. As a result, it provides a better cutting performance and an increased tool life time. The TiAlN surface treatment increases the surface hardness (approx. 3300 HV), the sliding properties (friction coefficient: 0,25) and with the temperature resistance up to 800°C. As a result, it provides a better cutting performance and an increased tool life time.



## Examples of application materials and cutting speeds

| Soft Iron, Constructional Steel, Free Cutting Steel, Cementation Steel |                         | cutting speed $v_c$ in m/min for machine taps for through holes | cutting speed $v_c$ in m/min for machine taps for blind holes | Carbon Steel, Spring Steel, Alloy Steel, Heat-treatable Steel   |                              | cutting speed $v_c$ in m/min for machine taps for through holes | cutting speed $v_c$ in m/min for machine taps for blind holes |
|--|-------------------------|---|---|---|------------------------------|---|---|
| 1.1014   | RFe80                   | 25 - 50   | 25 - 50   | 1.0503  | C45                          | 20 - 30   | 20 - 30   |
| 1.0570   | St52-3                  | 25 - 50   | 25 - 50   | 1.1269  | Ck85                         | 20 - 30   | 20 - 30   |
| 1.0718   | 9SMnPb28                | 25 - 50   | 25 - 50   | 1.7218  | 25CrMo4                      | 6 - 30  | 6 - 30  |
| 1.6523   | 20NiCrMo2               | 6 - 30  | 6 - 30  | 1.2344  | X40CrMoV5-1                  | 6 - 30  | 6 - 30  |
| Stainless Steel, Inoxidable Steel (ferritic, austenitic, martensitic)  |                         | cutting speed $v_c$ in m/min for machine taps for through holes | cutting speed $v_c$ in m/min for machine taps for blind holes | Pure Nickel and Nickel alloys   |                              | cutting speed $v_c$ in m/min for machine taps for through holes | cutting speed $v_c$ in m/min for machine taps for blind holes |
| 1.4104   | X14CrMoS17              | 12 - 35   | 12 - 35   | 1.3926  | RNi12                        | 3 - 10  | 3 - 10  |
| 1.4301   | X5CrNi18-10 (V2A)       | 12 - 15   | 12 - 15   | 2.4668  | NiCr19Fe19NbMo (Inconel 718) | 3 - 10  | 3 - 10  |
| 1.4571   | X6CrNiMoTi17-12-2 (V4A) | 12 - 15   | 12 - 15   | 2.4630  | Ni-Cr20Ti (Nimonic 75)       | 1 - 5   | 1 - 5   |
| 1.4125   | X105CrMo17              | 12 - 15   | 12 - 15   | 2.4665  | NiCr22Fe18Mo (Hastelloy X)   | 1 - 5   | 1 - 5   |
| Grey Cast Iron   |                         | cutting speed $v_c$ in m/min for machine taps for through holes | cutting speed $v_c$ in m/min for machine taps for blind holes | Ductile/Nodular/ Spheroidal Graphite Cast Iron, Malleable Cast Iron   |                              | cutting speed $v_c$ in m/min for machine taps for through holes | cutting speed $v_c$ in m/min for machine taps for blind holes |
| 0.6010   | GG10                    | 35 - 50   | 35 - 50   | 0.7040  | GGG40                        | 12 - 45   | 12 - 45   |
| 0.6020   | GG20                    | 35 - 50   | 35 - 50   | 0.7060  | GGG60                        | 12 - 45   | 12 - 45   |
| 0.6030   | GG30                    | 35 - 50   | 35 - 50   | 0.7070  | GGG70                        | 12 - 45   | 12 - 45   |
| 0.6040   | GG40                    | 35 - 50   | 35 - 50   | 0.8035  | GTW35-04                     | 10 - 25   | 10 - 25   |
| Pure Titanium and Titanium alloys                                      |                         | cutting speed $v_c$ in m/min for machine taps for through holes | cutting speed $v_c$ in m/min for machine taps for blind holes | Pure Copper and Copper alloys, Brass, Bronze (all chip lengths)   |                              | cutting speed $v_c$ in m/min for machine taps for through holes | cutting speed $v_c$ in m/min for machine taps for blind holes |
| 3.7024   | Ti99.5                  | 3 - 15  | 3 - 15  | 2.0065  | E-Cu 58                      | 50 - 60   | 50 - 60   |
| 3.7034   | Ti99.7                  | 3 - 15  | 3 - 15  | 2.1247  | CuBe2                        | 30 - 65   | 30 - 65   |
| 3.7165   | TiAl6V4                 | 1 - 5   | 1 - 5   | 2.0360  | CuZn40                       | 30 - 65   | 30 - 65   |
| 3.7174   | TiAl6V4Sn2              | 1 - 5   | 1 - 5   | 2.1020  | CuSn6                        | 12 - 20   | 12 - 20   |
| Pure Aluminium, Aluminium Cast and Wrought Alloys (all chip lengths)   |                         | cutting speed $v_c$ in m/min for machine taps for through holes | cutting speed $v_c$ in m/min for machine taps for blind holes | cutting speed $v_c$ [m/min] = (diameter * $\pi$ * number of rotations) / 1000   |                              |   |   |
| 3.0205   | Al99                    | 50 - 65   | 50 - 65   | number of rotations n [1/min] = (cutting speed in m/min * 1000) / (diameter * $\pi$ )   |                              |   |   |
| 3.1645   | AlCuMgPb                | 50 - 65   | 50 - 65   | feed programming [mm/min] = number of rotations * pitch   |                              |   |   |
| 3.2373   | G-AlSi9Mg               | 40 - 65   | 40 - 65   | Please keep in mind that the cutting speeds as stated above serve only as guidelines. The right cutting speed depends on lubrication and application. |                              |   |   |
| 3.2583   | G-AlSi12(Cu)            | 40 - 65   | 40 - 65   | Cutting paste, cutting oil or emulsion is recommended.  |                              |   |   |

## Custom-made products

### Special tools on request

Our customers benefit from our flexibility and our technical know-how when it comes to design and manufacture special threading tools.

- special thread profiles
- special Taps
- special sizes
- special Dies
- intermediate sizes
- special material
- special geometries
- express-productions

### Examples of our custom-made products



## Custom-made products



## Send us your inquiry

BAER Vertriebs GmbH  
Robert-Bosch-Str. 5  
68542 Heddesheim  
Germany

Tel: +49 (0) 6203 4048 790  
Fax: +49 (0) 6203 4048 791  
E-Mail: [info@gewindebohrer.de](mailto:info@gewindebohrer.de)  
[www.threading-tools.com](http://www.threading-tools.com)

**M**

metric coarse thread / ISO DIN 13

**193,20 €**

 Item No.:  
UNISD312

net prices without VAT or tax



## BAER UNiTap Set M 3 - M 12

 HSSE UNiTap Machine Taps for through holes  
incl. HSSE/Co extreme drill bits for core holes

 through  
holes up to  
4 x D

 chip removal  
(like picture)

 Form B with  
spiral point


4-5 threads

**TOL**


ISO2/6H

### Set Content

|   |   |
|---|---|
| BAER UNiTap HSSE<br>Machine Taps<br>for through holes | M 3 x 0,5   M 4 x 0,7   M 5 x 0,8<br>M 6 x 1,0   M 8 x 1,25   M 10 x 1,5<br>M 12 x 1,75 |
|---|---|

|   |  |
|---|--|
| BAER HSSE/Co extreme drill<br>bits for core holes | 2,5 mm   3,3 mm   4,2 mm   5,0 mm  <br>6,8 mm   8,5 mm   10,2 mm |
|---|--|

## BAER UNiTap Set M 3 - M 12

 HSSE UNiTap Machine Taps for blind holes  
incl. HSSE/Co Extreme drill bits for core holes

**195,30 €**

 Item No.:  
UNISS312

net prices without VAT or tax


 blind holes  
up to 3 x D

 chip removal  
(like picture)

 Form C 40°  
right spiral  
flutes


2-3 threads

**TOL**


ISO2/6H

### Set Content

|   |   |
|---|---|
| BAER UNiTap HSSE<br>Machine Taps<br>for through holes | M 3 x 0,5   M 4 x 0,7   M 5 x 0,8<br>M 6 x 1,0   M 8 x 1,25   M 10 x 1,5<br>M 12 x 1,75 |
|---|---|

|   |  |
|---|--|
| BAER HSSE/Co extreme drill<br>bits for core holes | 2,5 mm   3,3 mm   4,2 mm   5,0 mm  <br>6,8 mm   8,5 mm   10,2 mm |
|---|--|



**M**

metric coarse thread / ISO DIN 13

## BAER Short Machine Taps Set M 3 - M 12

HSSG Short Machine Taps

incl. HSS drill bits for core holes and tap wrench



through- &amp; blind holes up to 2 x D



Chip removal (like picture)



Form C straight flutes



2-3 threads

**TOL**


ISO2/6H

### Set Content

|                              |  |
|------------------------------|--|
| BAER HSSG Short Machine Taps | M 3 x 0,5   M 4 x 0,7   M 5 x 0,8   M 6 x 1,0<br>M 8 x 1,25   M 10 x 1,5   M 12 x 1,75 |
|------------------------------|--|

|                                     |  |
|-------------------------------------|--|
| BAER HSSG Drill bits for core holes | 2,5 mm   3,3 mm   4,2 mm   5,0 mm  <br>6,8 mm   8,5 mm   10,2 mm |
|-------------------------------------|--|

|  |                           |
|--|---------------------------|
| BAER adjustable Tap Wrenches - zinc die cast | M 1-12   1/16-1/2   G 1/8 |
|--|---------------------------|

**61,60 €**

Item No.: B1928

net prices without VAT or tax

**105,00 €**

Item No.: B1929

net prices without VAT or tax


## BAER Short Machine Taps Set M 3 - M 12

HSSG Short Machine Taps (3 pcs. each dimension)

incl. HSS drill bits for core holes



through- &amp; blind holes up to 2 x D



Chip removal (like picture)



Form C straight flutes



2-3 threads

**TOL**


ISO2/6H

### Set Content

|                              |   |
|------------------------------|---|
| BAER HSSG Short Machine Taps | M 3 x 0,5   M 4 x 0,7   M 5 x 0,8<br>M 6 x 1,0   M 8 x 1,25   M 10 x 1,5<br>M 12 x 1,75 |
|------------------------------|---|

|                                     |  |
|-------------------------------------|--|
| BAER HSSG Drill bits for core holes | 2,5 mm   3,3 mm   4,2 mm   5,0 mm  <br>6,8 mm   8,5 mm   10,2 mm |
|-------------------------------------|--|

## BAER Machine Taps Set M 3 - M 12

HSSE Machine Taps for through hole

incl. HSS Drill bits for core holes



through holes up to 4 x D



Chip removal (like picture)



Form B with spiral point



4-5 threads

**TOL**


ISO2/6H

### Set Content

|                                     |   |
|-------------------------------------|---|
| BAER HSSE Machine Taps through hole | M 3 x 0,5   M 4 x 0,7   M 5 x 0,8<br>M 6 x 1,0   M 8 x 1,25   M 10 x 1,5<br>M 12 x 1,75 |
|-------------------------------------|---|

|                                     |  |
|-------------------------------------|--|
| BAER HSSG Drill bits for core holes | 2,5 mm   3,3 mm   4,2 mm   5,0 mm  <br>6,8 mm   8,5 mm   10,2 mm |
|-------------------------------------|--|

**78,70 €**

Item No.: B1933E

net prices without VAT or tax


**M**

Metric coarse thread / ISO DIN 13

**90,25 €**

Item No.:  
B1935E

net prices without VAT or tax



## BAER Machine Taps Set M 3 - M 12

HSSE Machine Taps for blind holes  
incl. HSS Drill bits for core holes



blind holes  
up to 3 x D



Chip removal  
(like picture)



Form C with  
right spiral  
flutes



2-3 threads

**TOL**



ISO2/6H

### Set Content

|  |   |
|--|---|
| BAER HSSE<br>Machine Taps<br>for blind holes | M 3 x 0,5   M 4 x 0,7   M 5 x 0,8<br>M 6 x 1,0   M 8 x 1,25   M 10 x 1,5<br>M 12 x 1,75 |
|--|---|

|  |  |
|--|--|
| BAER HSSG<br>Drill bits for core holes | 2,5 mm   3,3 mm   4,2 mm   5,0 mm  <br>6,8 mm   8,5 mm   10,2 mm |
|--|--|

## BAER Machine Taps Set M 3 - M 12

HSSE-TIN Machine Taps for through hole  
incl. HSS-TIN Drill bits for core holes

**131,18 €**

Item No.:  
B1932

net prices without VAT or tax



through- &  
blind holes  
up to 4 x D



chip removal  
(like picture)



Form B with  
spiral point



4-5 threads

**TOL**



ISO2/6H

### Set Content

|   |   |
|---|---|
| BAER HSSE-TIN<br>Machine Taps<br>through hole | M 3 x 0,5   M 4 x 0,7   M 5 x 0,8<br>M 6 x 1,0   M 8 x 1,25   M 10 x 1,5<br>M 12 x 1,75 |
|---|---|

|  |  |
|--|--|
| BAER HSSG-TIN<br>Drill bits for core holes | 2,5 mm   3,3 mm   4,2 mm   5,0 mm  <br>6,8 mm   8,5 mm   10,2 mm |
|--|--|



## BAER Machine Taps Set M 3 - M 12

HSSE-TIN Machine Taps for through hole  
incl. HSS-TIN Drill bits for core holes

**134,33 €**

Item No.:  
B1934

net prices without VAT or tax



blind holes  
up to 3 x D



Chip removal  
(like picture)



Form B with  
spiral point



2-3 threads

**TOL**



ISO2/6H

### Set Content

|  |   |
|--|---|
| BAER HSSE<br>Machine Taps<br>for blind holes | M 3 x 0,5   M 4 x 0,7   M 5 x 0,8<br>M 6 x 1,0   M 8 x 1,25   M 10 x 1,5<br>M 12 x 1,75 |
|--|---|

|  |  |
|--|--|
| BAER HSSG<br>Drill bits for core holes | 2,5 mm   3,3 mm   4,2 mm   5,0 mm  <br>6,8 mm   8,5 mm   10,2 mm |
|--|--|

**M** metric coarse thread / ISO DIN 13

## BAER Machine Taps Set M 3 - M 12 for stainless steel

HSSE Machine Taps for through hole  
incl. HSSE/Co Extreme drill bits for core holes



through holes  
up to 4 x D



chip removal  
(like picture)



Form B with  
spiral point



4-5 threads

**TOL**



ISO2/6H

**131,19 €**

Item No.:  
B1931

net prices without VAT or tax



### Set Content

|   |   |
|---|---|
| BAER HSSE Stainless steel<br>Machine Taps<br>through hole | M 3 x 0,5   M 4 x 0,7   M 5 x 0,8<br>M 6 x 1,0   M 8 x 1,25   M 10 x 1,5<br>M 12 x 1,75 |
| BAER HSSE/Co<br>Extreme drill bits for core<br>holes      | 2,5 mm   3,3 mm   4,2 mm   5,0 mm  <br>6,8 mm   8,5 mm   10,2 mm                        |

**156,37 €**

Item No.:  
B1930

net prices without VAT or tax



## BAER Machine Taps Set M 3 - M 12 for stainless steel

HSSE Machine Taps for blind holes  
incl. HSSE/Co Extreme drill bits for core holes



blind holes  
up to 3 x D



Chip removal  
(like picture)



Form C with  
right spiral  
flutes



2-3 threads

**TOL**



ISO2/6H

### Set Content

|  |   |
|--|---|
| BAER HSSE Stainless steel<br>Machine Taps<br>for blind holes | M 3 x 0,5   M 4 x 0,7   M 5 x 0,8<br>M 6 x 1,0   M 8 x 1,25   M 10 x 1,5<br>M 12 x 1,75 |
| BAER HSSE/Co<br>Extreme drill bits for core holes            | 2,5 mm   3,3 mm   4,2 mm   5,0 mm  <br>6,8 mm   8,5 mm   10,2 mm                        |

## BAER Machine Taps Set M 3 - M 12 Left Hand

HSSE Machine Taps for through hole  
incl. HSS Drill bits for core holes



through holes  
up to 4 x D



Chip removal  
(like picture)



Form B with  
spiral point



4-5 threads

**TOL**



ISO2/6H

**171,15 €**

Item No.:  
B1936E

net prices without VAT or tax



### Set Content

|  |   |
|--|---|
| BAER HSSE Left<br>Machine Taps<br>through hole | M 3 x 0,5   M 4 x 0,7   M 5 x 0,8<br>M 6 x 1,0   M 8 x 1,25   M 10 x 1,5<br>M 12 x 1,75 |
| BAER HSSG<br>Drill bits for core holes         | 2,5 mm   3,3 mm   4,2 mm   5,0 mm  <br>6,8 mm   8,5 mm   10,2 mm                        |

**M**

Metric coarse thread / ISO DIN 13

**179,55 €**

Item No.:  
B1937E

net prices without VAT or tax



## BAER Machine Taps Set M 3 - M 12 Left Hand

HSSE Machine Taps for blind holes  
incl. HSS Drill bits for core holes



blind holes  
up to 3 x D



Chip removal  
(like picture)



Form C with  
right spiral  
flutes



2-3 threads

**TOL**



ISO2/6H

### Set Content

BAER HSSE Left Machine Taps for blind holes  
M 3 x 0,5 | M 4 x 0,7 | M 5 x 0,8  
M 6 x 1,0 | M 8 x 1,25 | M 10 x 1,5  
M 12 x 1,75

BAER HSSG Drill bits for core holes  
2,5 mm | 3,3 mm | 4,2 mm | 5,0 mm |  
6,8 mm | 8,5 mm | 10,2 mm

## BAER Bit Short Machine Taps Set M 3 - M 10

HSSG-Bit Taps  
incl. Bit-Adapter



through- &  
blind holes  
up to 2 x D



Chip removal  
(like picture)



Form D  
straight  
flutes



3-4 threads

**TOL**



ISO2/6H

### Set Content

BAER HSSG-Bit Short Machine Taps  
M 3 x 0,5 | M 4 x 0,7 | M 5 x 0,8  
M 6 x 1,0 | M 8 x 1,25 | M 10 x 1,5

1/4" Hexagonal-Bit-Adapter



**44,10 €**

Item No.:  
B1938

net prices without VAT or tax

**53,10 €**

Item No.:  
B1939

net prices without VAT or tax



## BAER Combined Bit Taps Set M 3 - M 10

HSSG-Combined Bit Taps  
incl. Bit-Adapter



through hole  
up to 1 x D



Chip removal  
(like picture)

**TOL**



ISO2/6H

### Set Content

BAER HSSG-Combined Bit-Taps  
M 3 x 0,5 | M 4 x 0,7 | M 5 x 0,8  
M 6 x 1,0 | M 8 x 1,25 | M 10 x 1,5

1/4" Hexagonal-Bit-Adapter

**M** metric coarse thread / ISO DIN 13

**BAER Taps and Dies Sets M 3 - M 12**  
(example picture)



**BAER UNITap Set M 3 - M 12**  
**HSSE UNITap Machine Taps through hole & blind hole**  
**HSSE Round Dies**

UNITAP

**507,15**  
€/Set

|  |   |
|--|---|
| BAER UNITap HSSE Machine Taps for through hole (up to 4 x D) | M 3 x 0,5   M 4 x 0,7   M 5 x 0,8   M 6 x 1,0   M 8 x 1,25   M 10 x 1,5   M 12 x 1,75 |
| BAER UNITap HSSE Machine Taps for through hole (up to 4 x D) | M 3 x 0,5   M 4 x 0,7   M 5 x 0,8   M 6 x 1,0   M 8 x 1,25   M 10 x 1,5   M 12 x 1,75 |
| BAER HSSE Round Dies with spiral entry                       | M 3 x 0,5   M 4 x 0,7   M 5 x 0,8   M 6 x 1,0   M 8 x 1,25   M 10 x 1,5   M 12 x 1,75 |

No.:  
BB12U

**BAER Set M 3 - M 12**  
**HSSE Machine Taps & Drill bits for core holes**  
**HSS Round Dies**

**148,13**  
€/Set

|   |   |
|---|---|
| BAER HSSE Machine Taps Form C for through hole & blind hole (up to 2 x D) | M 3 x 0,5   M 4 x 0,7   M 5 x 0,8   M 6 x 1,0   M 8 x 1,25   M 10 x 1,5   M 12 x 1,75 |
| BAER HSSG Drill bits for core holes                                       | 2,5 mm   3,3 mm   4,2 mm   5,0 mm   6,8 mm   8,5 mm   10,2 mm                         |
| BAER HSS Round Dies   | M 3 x 0,5   M 4 x 0,7   M 5 x 0,8   M 6 x 1,0   M 8 x 1,25   M 10 x 1,5   M 12 x 1,75 |

No.:  
BB2E

**BAER Set M 3 - M 12**  
**HSSE Machine Taps through hole & blind hole**  
**HSS Round Dies**

**223,00**  
€/Set

|  |   |
|--|---|
| BAER HSSE Machine Taps Form B with spiral point for through hole (up to 4 x D)       | M 3 x 0,5   M 4 x 0,7   M 5 x 0,8   M 6 x 1,0   M 8 x 1,25   M 10 x 1,5   M 12 x 1,75 |
| BAER HSSE Machine Taps Form C with right spiral flutes for blind holes (up to 3 x D) | M 3 x 0,5   M 4 x 0,7   M 5 x 0,8   M 6 x 1,0   M 8 x 1,25   M 10 x 1,5   M 12 x 1,75 |
| BAER HSS Round Dies  | M 3 x 0,5   M 4 x 0,7   M 5 x 0,8   M 6 x 1,0   M 8 x 1,25   M 10 x 1,5   M 12 x 1,75 |

No.:  
BB1E

**BAER Left Hand Set M 3 - M 12**  
**HSSE Left Hand Machine Taps & Drill bits for core holes**  
**HSS Left Hand Round Dies**

**215,11**  
€/Set

|  |   |
|--|---|
| BAER HSSE Machine Taps Left Form C for through hole & blind hole (up to 2 x D) | M 3 x 0,5   M 4 x 0,7   M 5 x 0,8   M 6 x 1,0   M 8 x 1,25   M 10 x 1,5   M 12 x 1,75 |
| BAER HSSG Drill bits for core holes  | 2,5 mm   3,3 mm   4,2 mm   5,0 mm   6,8 mm   8,5 mm   10,2 mm                         |
| BAER HSS Round Dies Left   | M 3 x 0,5   M 4 x 0,7   M 5 x 0,8   M 6 x 1,0   M 8 x 1,25   M 10 x 1,5   M 12 x 1,75 |

No.:  
BB7E

**BAER TIN Set M 3 - M 12**  
**HSSE-TIN Machine Taps through hole & blind hole**  
**HSS Round Dies**

**276,71**  
€/Set

|  |   |
|--|---|
| BAER HSSE-TIN Machine Taps Form B with spiral point for through hole (up to 4 x D)       | M 3 x 0,5   M 4 x 0,7   M 5 x 0,8   M 6 x 1,0   M 8 x 1,25   M 10 x 1,5   M 12 x 1,75 |
| BAER HSSE-TIN Machine Taps Form C with right spiral flutes for blind holes (up to 3 x D) | M 3 x 0,5   M 4 x 0,7   M 5 x 0,8   M 6 x 1,0   M 8 x 1,25   M 10 x 1,5   M 12 x 1,75 |
| BAER HSS Round Dies  | M 3 x 0,5   M 4 x 0,7   M 5 x 0,8   M 6 x 1,0   M 8 x 1,25   M 10 x 1,5   M 12 x 1,75 |

No.:  
BB4

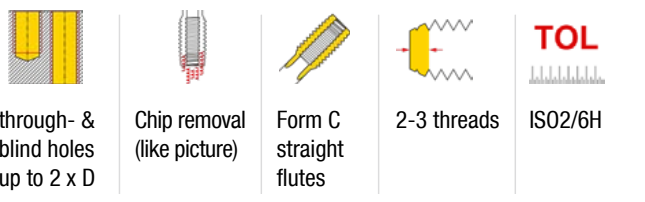
**BAER Stainless steel Set M 3 - M 12**  
**HSSE-Stainless steel Machine Taps through hole & blind hole**  
**HSSE-Stainless steel Round Dies**

**314,66**  
€/Set

|   |   |
|---|---|
| BAER HSSE Stainless steel Machine Taps for through hole (up to 4 x D) | M 3 x 0,5   M 4 x 0,7   M 5 x 0,8   M 6 x 1,0   M 8 x 1,25   M 10 x 1,5   M 12 x 1,75 |
| BAER HSSE Stainless steel Machine Taps for blind holes (up to 3 x D)  | M 3 x 0,5   M 4 x 0,7   M 5 x 0,8   M 6 x 1,0   M 8 x 1,25   M 10 x 1,5   M 12 x 1,75 |
| BAER HSSE Stainless steel Round Dies                                  | M 3 x 0,5   M 4 x 0,7   M 5 x 0,8   M 6 x 1,0   M 8 x 1,25   M 10 x 1,5   M 12 x 1,75 |

No.:  
BB9

## BAER ULTRA Threading Tools Set



### Set Content M 3 - M 12

|                                     |  |
|-------------------------------------|--|
| BAER Ultra Hand Tap Sets (3 parts)  | M 3 x 0,5   M 4 x 0,7   M 5 x 0,8   M 6 x 1,0<br>M 8 x 1,25   M 10 x 1,5   M 12 x 1,75 |
| BAER Round Dies acc. to DIN         | M 3 x 0,5   M 4 x 0,7   M 5 x 0,8   M 6 x 1,0<br>M 8 x 1,25   M 10 x 1,5   M 12 x 1,75 |
| BAER HSSG Drill bits for core holes | 2,5 mm   3,3 mm   4,2 mm   5,0 mm   6,8 mm   8,5 mm   10,2 mm                          |
| BAER PRO adjustable Tap Wrenches    | No. 1: M 1-10   1/16-3/8   G 1/8<br>No. 2: M 4-12   5/32-1/2   G 1/8                   |
| BAER PRO Die Stocks                 | 20 x 5   20 x 7   25 x 9   30 x 11   38 x 14   |
| BAER Tap Holder Ratchet             | M 3-10   M 5-12  |
| BAER PRO Die Guides                 | M 3 x 0,5   M 4 x 0,7   M 5 x 0,8   M 6 x 1,0<br>M 8 x 1,25   M 10 x 1,5   M 12 x 1,75 |
| BAER Cutting Paste                  | 100 ml   |
| Thread pitch gauge                  | for metric threads   |
| Screw extractor                     |  |

\* contains HSSE Drill bits

### M 3 - 12

**416,80 €**

Item No.: BU312



HSSG Hand Tap Sets: taper tap with pilot nose



HSS Round Dies acc. to DIN 223

### M 3 - 12 stainless steels\*

**573,90 €**

Item No.: BU312VA



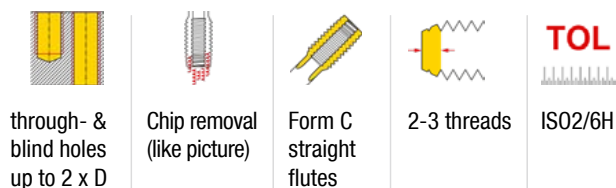
HSSE-VAP Hand Tap Sets: taper tap with pilot nose



HSSE-NT Round Dies acc. to DIN 223

## BAER Short Machine Taps Set M 3 - M 12

HSSG Short Machine Taps incl. HSS drill bits for core holes and tap wrench in metal box



### Set Content

|  |  |
|--|--|
| BAER HSSG Short Machine Taps                 | M 3 x 0,5   M 4 x 0,7   M 5 x 0,8   M 6 x 1,0<br>M 8 x 1,25   M 10 x 1,5   M 12 x 1,75 |
| BAER HSSG Drill bits for core holes          | 2,5 mm   3,3 mm   4,2 mm   5,0 mm   6,8 mm   8,5 mm   10,2 mm                          |
| BAER adjustable Tap Wrenches - zinc die cast | M 1-12   1/16-1/2   G 1/8  |

**44,00 €**

Item No.: B1928M

net prices without VAT or tax



**M**

metric coarse thread / ISO DIN 13

## BAER Hand-Tap Sets, Round Dies and Tools Set



through- &amp; blind holes up to 2 x D



Chip removal (like picture)



Form C straight flutes



2-3 threads

**TOL**

ISO2/6H

### Set Content M 3 - M 12

|                                   |  |
|-----------------------------------|--|
| BAER HSSG Hand Tap Sets (3 parts) | M 3 x 0,5   M 4 x 0,7   M 5 x 0,8   M 6 x 1,0<br>M 8 x 1,25   M 10 x 1,5   M 12 x 1,75 |
| BAER HSS Round Dies acc. to DIN   | M 3 x 0,5   M 4 x 0,7   M 5 x 0,8   M 6 x 1,0<br>M 8 x 1,25   M 10 x 1,5   M 12 x 1,75 |
| BAER adjustable Tap Wrench        | No. 1.1/2: M 1-12   1/16-1/2   G 1/8   |
| BAER Die Stock                    | 25 x 9   |
| Thread pitch gauge                | for metric threads   |
| Screw extractor                   |  |

**99,25 €**

 Item No.:  
BMK312

net prices without VAT or tax



## Drill Bit Sets



### Wood drill set Ø 3 - 10 mm (15 pieces)

#### Set Content

 3 x 3 mm | 2 x 3,5 mm | 2 x 4 mm | 1 x 4,5 mm  
1 x 5 mm | 1 x 5,5 mm | 1 x 6 mm | 1 x 6,5 mm  
1 x 7 mm | 1 x 8 mm | 1 x 10 mm

**17,10 €**

 Item No.:  
BW0001

net prices without VAT or tax



### Concrete- & masonry drill bit set Ø 3 - 10 mm (15 pieces)

#### Set Content

 3 x 3 mm | 3 x 4 mm | 3 x 5 mm  
2 x 6 mm | 2 x 8 mm | 2 x 10 mm

**18,40 €**

 Item No.:  
BS0001

net prices without VAT or tax



### SDS-Plus Hammer Drill Set Ø 5 - 12 mm (7 pieces) - 160mm

#### Set Content

 1 x 5 mm | 2 x 6 mm | 2 x 8 mm  
1 x 10 mm | 1 x 12 mm

**37,70 €**

 Item No.:  
BS0002

net prices without VAT or tax

**M**

Metric coarse thread / ISO DIN 13



**M 3 - 12  
Standard**

**254,29 €**

Item No.:  
10360009046

**M 3 - 12  
Left**

**309,59 €**

Item No.:  
10360009046LH

**M 3 - 12  
stainless  
steels\***

**483,00 €**

Item No.:  
10360009046VA

\* contains HSSE Taps and Dies

## BAER Hand-Tap Sets, Round Dies and Tools Sets



through- &  
blind holes  
up to 2 x D



Chip removal  
(like picture)



Form C  
straight  
flutes



2-3 threads



ISO2/6H

### Set Content M 3 - M 12

|  |  |
|--|--|
| BAER HSSG<br>Hand Tap Sets (3 parts)   | M 3 x 0,5   M 4 x 0,7   M 5 x 0,8   M 6 x 1,0<br>M 8 x 1,25   M 10 x 1,5   M 12 x 1,75 |
| BAER HSS<br>Round Dies acc. to DIN     | M 3 x 0,5   M 4 x 0,7   M 5 x 0,8   M 6 x 1,0<br>M 8 x 1,25   M 10 x 1,5   M 12 x 1,75 |
| BAER HSSG Drill bits for<br>core holes | 2,5 mm   3,3 mm   4,2 mm   5,0 mm  <br>6,8 mm   8,5 mm   10,2 mm                       |
| BAER adjustable<br>Tap Wrenches        | M 1-10   1/16-3/8   G 1/8<br>M 4-12   5/32-1/2   G 1/8                                 |
| BAER Die Stocks                        | 20 x 5   20 x 7   25 x 9   30 x 11   38 x 14   |
| BAER Tap Holder Ratchet                | M 3-10   M 5-12  |
| Thread pitch gauge                     | for metric threads   |
| Screw extractor                        |  |

### Set Content M 3 - M 20

|                                      |  |
|--------------------------------------|--|
| BAER HSSG<br>Hand Tap Sets (3 parts) | M 3 x 0,5   M 4 x 0,7   M 5 x 0,8   M 6 x 1,0<br>M 8 x 1,25   M 10 x 1,5   M 12 x 1,75<br>M 14 x 2,0   M 16 x 2,0   M 18 x 2,5<br>M 20 x 2,5 |
| BAER HSS<br>Round Dies acc. to DIN   | M 3 x 0,5   M 4 x 0,7   M 5 x 0,8   M 6 x 1,0<br>M 8 x 1,25   M 10 x 1,5   M 12 x 1,75<br>M 14 x 2,0   M 16 x 2,0   M 18 x 2,5<br>M 20 x 2,5 |
| BAER adjustable<br>Tap Wrenches      | M 1-10   1/16-3/8   G 1/8<br>M 5-20   7/32-3/4   G 1/8-G 1/2   |
| BAER Die Stocks                      | 20 x 5   20 x 7   25 x 9   30 x 11<br>38 x 14   45 x 18  |
| BAER Tap Holder Ratchet              | M 3-10   M 5-12  |
| BAER Tap Holder Ratchet              | M 3-10   M 5-12  |
| Thread pitch gauge                   | for metric threads   |
| Screw extractor                      |  |



**M 3 - 20  
Standard**

**403,71 €**

Item No.:  
10360009146

**M 3 - 20  
Left**

**634,93 €**

Item No.:  
10360009146LH

**M 3 - 20  
stainless  
steels\***

**1.047,38 €**

Item No.:  
10360009146VA

\* contains HSSE Taps and Dies

**M** metric coarse thread / ISO DIN 13

## BAER Hand-Tap Sets, Round Dies and Tools Sets (example picture)



### BAER Set M 3 - M 12 (incl. intermediate sizes) HSSG Hand Tap Sets & HSS Round Dies & Tools

|  |   |
|--|---|
| BAER HSSG Hand Tap Sets (3 parts)            | M 3 x 0,5   M 4 x 0,7   M 5 x 0,8   M 6 x 1,0   M 7 x 1,0   M 8 x 1,25   M 9 x 1,25   M 10 x 1,5   M 11 x 1,5   M 12 x 1,75 |
| BAER HSS Round Dies                          | M 3 x 0,5   M 4 x 0,7   M 5 x 0,8   M 6 x 1,0   M 7 x 1,0   M 8 x 1,25   M 9 x 1,25   M 10 x 1,5   M 11 x 1,5   M 12 x 1,75 |
| BAER adjustable Tap Wrenches - zinc die cast | M 1-10   1/16-3/8   G 1/8 & M 4-12   5/32-1/2   G 1/8   |
| BAER Die Stocks - zinc die cast              | 20 x 5   20 x 7   25 x 9   30 x 11   38 x 14  |
| Screw extractor                              |   |

**403,24**  
€/Set

No.:  
264800301

### BAER Set M 5 - M 12 (incl. intermediate sizes) HSSG Hand Tap Sets & HSS Round Dies & Tools

|  |   |
|--|---|
| BAER HSSG Hand Tap Sets (3 parts)            | M 5 x 0,8   M 6 x 1,0   M 7 x 1,0   M 8 x 1,25   M 9 x 1,25   M 10 x 1,5   M 11 x 1,5   M 12 x 1,75 |
| BAER HSS Round Dies                          | M 5 x 0,8   M 6 x 1,0   M 7 x 1,0   M 8 x 1,25   M 9 x 1,25   M 10 x 1,5   M 11 x 1,5   M 12 x 1,75 |
| BAER adjustable Tap Wrenches - zinc die cast | M 1-10   1/16-3/8   G 1/8 & M 4-12   5/32-1/2   G 1/8   |
| BAER Die Stocks - zinc die cast              | 20 x 7   25 x 9   30 x 11   38 x 14   |
| Screw extractor                              |   |

**368,67**  
€/Set

No.:  
264800401

### BAER Set M 5 - M 20 (incl. intermediate sizes) HSSG Hand Tap Sets & HSS Round Dies & Tools

|  |   |
|--|---|
| BAER HSSG Hand Tap Sets (3 parts)            | M 5 x 0,8   M 6 x 1,0   M 7 x 1,0   M 8 x 1,25   M 9 x 1,25   M 10 x 1,5   M 11 x 1,5   M 12 x 1,75   M 14 x 2,0   M 16 x 2,0   M 18 x 2,5   M 20 x 2,5 |
| BAER HSS Round Dies                          | M 5 x 0,8   M 6 x 1,0   M 7 x 1,0   M 8 x 1,25   M 9 x 1,25   M 10 x 1,5   M 11 x 1,5   M 12 x 1,75   M 14 x 2,0   M 16 x 2,0   M 18 x 2,5   M 20 x 2,5 |
| BAER adjustable Tap Wrenches - zinc die cast | M 1-10   1/16-3/8   G 1/8 & M 5-20   7/32-3/4   G 1/8-G 1/2   |
| BAER Die Stocks - zinc die cast              | 20 x 7   25 x 9   30 x 11   38 x 14   45 x 18   |
| Screw extractor                              |   |

**622,14**  
€/Set

No.:  
264800501

### BAER Set M 3 - M 24 HSSG Hand Tap Sets & HSS Round Dies & Tools

|  |   |
|--|---|
| BAER HSSG Hand Tap Sets (3 parts)            | M 3 x 0,5   M 4 x 0,7   M 5 x 0,8   M 6 x 1,0   M 8 x 1,25   M 10 x 1,5   M 12 x 1,75   M 14 x 2,0   M 16 x 2,0   M 18 x 2,5   M 20 x 2,5   M 22 x 2,5   M 24 x 3,0 |
| BAER HSS Round Dies                          | M 3 x 0,5   M 4 x 0,7   M 5 x 0,8   M 6 x 1,0   M 8 x 1,25   M 10 x 1,5   M 12 x 1,75   M 14 x 2,0   M 16 x 2,0   M 18 x 2,5   M 20 x 2,5   M 22 x 2,5   M 24 x 3,0 |
| BAER adjustable Tap Wrenches - zinc die cast | M 1-10   1/16-3/8   G 1/8 & M 11-27   7/16-1"   G 1/4-G 3/4   |
| BAER Die Stocks - zinc die cast              | 20 x 5   20 x 7   25 x 9   30 x 11   38 x 14   45 x 18   55 x 22  |
| Screw extractor                              |   |

**794,95**  
€/Set

No.:  
264800601

### BAER Set M 5 - M 30 HSSG Hand Tap Sets & HSS Round Dies & Tools

|  |   |
|--|---|
| BAER HSSG Hand Tap Sets (3 parts)            | M 5 x 0,8   M 6 x 1,0   M 8 x 1,25   M 10 x 1,5   M 12 x 1,75   M 14 x 2,0   M 16 x 2,0   M 18 x 2,5   M 20 x 2,5   M 22 x 2,5   M 24 x 3,0   M 27 x 3,0   M 30 x 3,5 |
| BAER HSS Round Dies                          | M 5 x 0,8   M 6 x 1,0   M 8 x 1,25   M 10 x 1,5   M 12 x 1,75   M 14 x 2,0   M 16 x 2,0   M 18 x 2,5   M 20 x 2,5   M 22 x 2,5   M 24 x 3,0   M 27 x 3,0   M 30 x 3,5 |
| BAER adjustable Tap Wrenches - zinc die cast | M 1-10   1/16-3/8   G 1/8 & M 5-20   7/32-3/4"   G 1/8-G 1/2 & M 13-32   1/2-1.1/4"   G 1/4-1"  |
| BAER Die Stocks - zinc die cast              | 20 x 7   25 x 9   30 x 11   38 x 14   45 x 18   55 x 22   65 x 25   |
| Screw extractor                              |   |

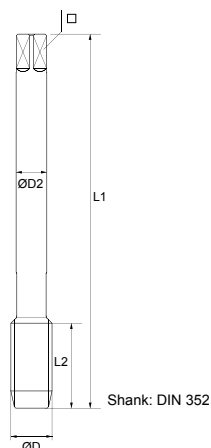
**1.461,08**  
€/Set

No.:  
264800701

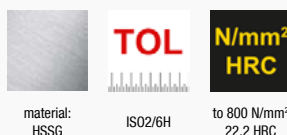
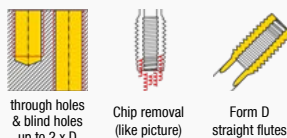
- ✓ Efficient internal thread cutting.
- ✓ The short structural type makes that tap usable by machine and hand.

### Application:

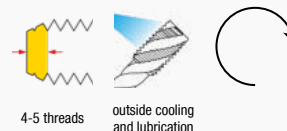
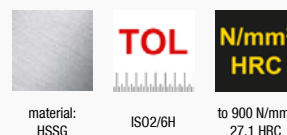
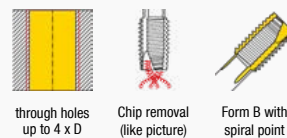
- ⚙ non abrasive material up to 900 N/mm<sup>2</sup>
- ⚙ unalloyed and low alloyed steel



### Short Machine Taps Form D for through holes and blind holes



### Short Machine Taps Form B for through holes



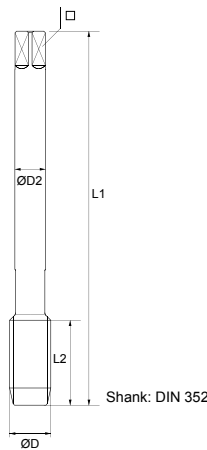
| M            | D1   | D2   | L1  | L2 | □    |       | No.       | €     | No.       | €     |
|--------------|------|------|-----|----|------|-------|-----------|-------|-----------|-------|
| M 2 x 0,4    | 2,0  | 2,8  | 36  | 8  | 2,1  | 1,60  | 110101001 | 7,50  | 110201001 | 7,33  |
| M 2,5 x 0,45 | 2,5  | 2,8  | 40  | 9  | 2,1  | 2,05  | 110101002 | 7,50  | 110201002 | 7,33  |
| M 3 x 0,5    | 3,0  | 3,5  | 40  | 11 | 2,7  | 2,50  | 110101003 | 4,04  | 110201003 | 4,29  |
| M 3,5 x 0,6  | 3,5  | 4,0  | 45  | 13 | 3,0  | 2,90  | 110101004 | 4,45  | 110201004 | 4,50  |
| M 4 x 0,7    | 4,0  | 4,5  | 45  | 13 | 3,4  | 3,30  | 110101005 | 4,04  | 110201005 | 4,29  |
| M 5 x 0,8    | 5,0  | 6,0  | 50  | 16 | 4,9  | 4,20  | 110101006 | 4,16  | 110201006 | 4,61  |
| M 6 x 1,0    | 6,0  | 6,0  | 50  | 19 | 4,9  | 5,00  | 110101007 | 4,50  | 110201007 | 4,71  |
| M 8 x 1,25   | 8,0  | 6,0  | 56  | 22 | 4,9  | 6,80  | 110101008 | 5,76  | 110201008 | 6,18  |
| M 10 x 1,5   | 10,0 | 7,0  | 70  | 24 | 5,5  | 8,50  | 110101009 | 6,74  | 110201009 | 7,54  |
| M 12 x 1,75  | 12,0 | 9,0  | 75  | 29 | 7,0  | 10,20 | 110101010 | 9,52  | 110201010 | 10,58 |
| M 14 x 2,0   | 14,0 | 11,0 | 80  | 30 | 9,0  | 12,00 | 110101011 | 11,71 | 110201011 | 13,83 |
| M 16 x 2,0   | 16,0 | 12,0 | 80  | 32 | 9,0  | 14,00 | 110101012 | 16,01 | 110201012 | 16,76 |
| M 18 x 2,5   | 18,0 | 14,0 | 95  | 40 | 11,0 | 15,50 | 110101013 | 20,21 | 110201013 | 23,98 |
| M 20 x 2,5   | 20,0 | 16,0 | 95  | 40 | 12,0 | 17,50 | 110101014 | 22,18 | 110201014 | 27,02 |
| M 22 x 2,5   | 22,0 | 18,0 | 100 | 40 | 14,5 | 19,50 | 110101015 | 30,93 | 110201015 | 31,94 |
| M 24 x 3,0   | 24,0 | 18,0 | 110 | 50 | 14,5 | 21,00 | 110101016 | 36,38 | 110201016 | 36,45 |
| M 27 x 3,0   | 27,0 | 20,0 | 110 | 50 | 16,0 | 24,00 | 110101017 | 46,99 | 110201017 | 50,90 |
| M 30 x 3,5   | 30,0 | 22,0 | 125 | 56 | 18,0 | 26,50 | 110101018 | 65,84 | 110201018 | 67,87 |

**M** metric coarse thread / ISO DIN 13

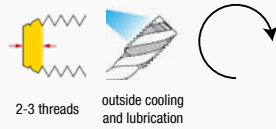
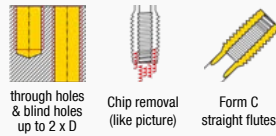
- Efficient internal thread cutting.
- The short structural type makes that tap usable by hand.

**A Hand-Tap-Set includes 3 taps:**

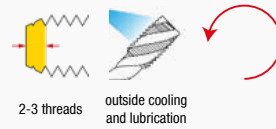
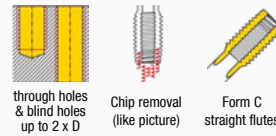
- Taper Tap
- Intermediate Tap
- Finish Tap



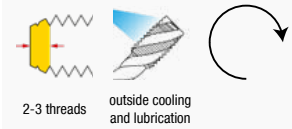
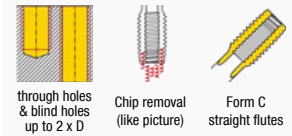
## Hand Tap Sets for general use



## Hand Tap Sets for general use Left Hand



## Hand Tap Sets for stainless steels



| M              | D1   | D2   | L1 | L2 | □   | 🔩     | No.       | €      | No.       | €     | No.       | €     |
|----------------|------|------|----|----|-----|-------|-----------|--------|-----------|-------|-----------|-------|
| M 1 x 0,25     | 1,0  | 2,5  | 32 | 6  | 2,1 | 0,75  | 110301001 | 20,74  |           |       |           |       |
| M 1,1 x 0,25   | 1,1  | 2,5  | 32 | 6  | 2,1 | 0,85  | 110301002 | 20,74  |           |       |           |       |
| M 1,2 x 0,25   | 1,2  | 2,5  | 32 | 6  | 2,1 | 0,95  | 110301003 | 20,74  |           |       |           |       |
| M 1,4 x 0,3    | 1,4  | 2,5  | 32 | 7  | 2,1 | 1,10  | 110301004 | 20,74  |           |       |           |       |
| M 1,6 x 0,35   | 1,6  | 2,5  | 32 | 8  | 2,1 | 1,25  | 110301005 | 20,74  |           |       |           |       |
| M 1,7 x 0,35   | 1,7  | 2,5  | 32 | 8  | 2,1 | 1,30  | 110301006 | 20,74  |           |       |           |       |
| M 1,8 x 0,35   | 1,8  | 2,5  | 32 | 8  | 2,1 | 1,45  | 110301007 | 20,74  |           |       |           |       |
| M 2 x 0,4      | 2,0  | 2,8  | 36 | 8  | 2,1 | 1,60  | 110301008 | 14,77  |           |       |           |       |
| M 2,2 x 0,45   | 2,2  | 2,8  | 36 | 9  | 2,1 | 1,75  | 110301009 | 14,77  |           |       |           |       |
| M 2,3 x 0,4    | 2,3  | 2,8  | 36 | 9  | 2,1 | 1,90  | 110301010 | 14,77  |           |       |           |       |
| M 2,5 x 0,45   | 2,5  | 2,8  | 40 | 9  | 2,1 | 2,05  | 110301011 | 14,77  |           |       |           |       |
| M 2,6 x 0,45   | 2,6  | 2,8  | 40 | 9  | 2,1 | 2,10  | 110301012 | 14,77  |           |       |           |       |
| M 3 x 0,5      | 3,0  | 3,5  | 40 | 11 | 2,7 | 2,50  | 110301013 | 7,54   | 110302001 | 13,22 | 110305001 | 26,13 |
| M 3 x 0,6 *    | 3,0  | 3,5  | 40 | 11 | 2,7 | 2,40  | 110301014 | 11,00  |           |       |           |       |
| M 3,5 x 0,6    | 3,5  | 4,0  | 45 | 13 | 3,0 | 2,90  | 110301015 | 11,00  |           |       |           |       |
| M 3,5 x 0,75 * | 3,5  | 4,0  | 45 | 13 | 3,0 | 2,75  | 110301016 | 206,17 |           |       |           |       |
| M 4 x 0,7      | 4,0  | 4,5  | 45 | 13 | 3,4 | 3,30  | 110301017 | 7,54   | 110302002 | 13,22 | 110305002 | 26,45 |
| M 4 x 0,75     | 4,0  | 4,5  | 45 | 13 | 3,4 | 3,25  | 110301018 | 11,00  |           |       |           |       |
| M 4,5 x 0,75   | 4,5  | 6,0  | 50 | 16 | 4,9 | 3,70  | 110301019 | 11,00  |           |       |           |       |
| M 5 x 0,8      | 5,0  | 6,0  | 50 | 16 | 4,9 | 4,20  | 110301020 | 8,48   | 110302003 | 15,11 | 110305003 | 28,02 |
| M 5 x 0,9 *    | 5,0  | 6,0  | 50 | 16 | 4,9 | 4,10  | 110301021 | 11,00  |           |       |           |       |
| M 5,5 x 0,9    | 5,5  | 6,0  | 50 | 18 | 4,9 | 4,60  | 110301022 | 13,83  |           |       |           |       |
| M 6 x 1,0      | 6,0  | 6,0  | 50 | 19 | 4,9 | 5,00  | 110301023 | 8,48   | 110302004 | 15,74 | 110305004 | 28,02 |
| M 7 x 1,0      | 7,0  | 6,0  | 50 | 19 | 4,9 | 6,00  | 110301024 | 13,83  |           |       |           |       |
| M 8 x 1,25     | 8,0  | 6,0  | 56 | 22 | 4,9 | 6,80  | 110301025 | 11,00  | 110302005 | 17,95 | 110305005 | 38,10 |
| M 9 x 1,25     | 9,0  | 7,0  | 63 | 22 | 5,5 | 7,80  | 110301026 | 18,54  |           |       |           |       |
| M 10 x 1,5     | 10,0 | 7,0  | 70 | 24 | 5,5 | 8,50  | 110301027 | 14,45  | 110302006 | 24,56 | 110305006 | 49,75 |
| M 11 x 1,5     | 11,0 | 8,0  | 70 | 24 | 6,2 | 9,50  | 110301028 | 23,57  |           |       |           |       |
| M 12 x 1,75    | 12,0 | 9,0  | 75 | 29 | 7,0 | 10,20 | 110301029 | 18,85  | 110302007 | 32,11 | 110305007 | 61,71 |
| M 14 x 2,0     | 14,0 | 11,0 | 80 | 30 | 9,0 | 12,00 | 110301030 | 21,68  | 110302008 | 35,58 |           |       |

\* special pitch

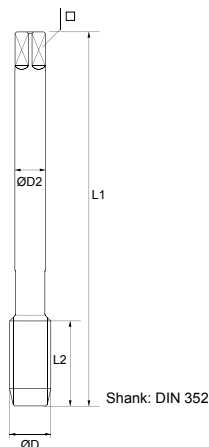
**M**

metric coarse thread / ISO DIN 13

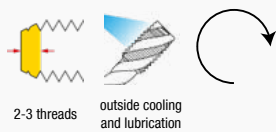
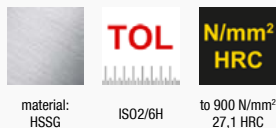
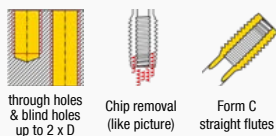
- ☑ Efficient internal thread cutting.
- ☑ The short structural type makes that tap usable by hand.

**A Hand-Tap-Set includes 3 taps:**

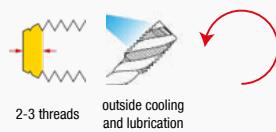
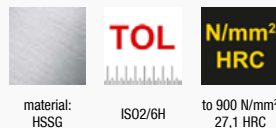
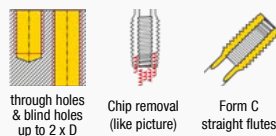
- ⚙ Taper Tap
- ⚙ Intermediate Tap
- ⚙ Finish Tap



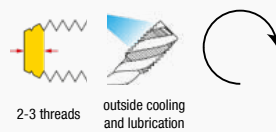
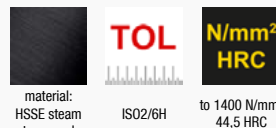
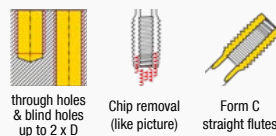
## Hand Tap Sets for general use



## Hand Tap Sets for general use Left Hand



## Hand Tap Sets for stainless steels


**M**

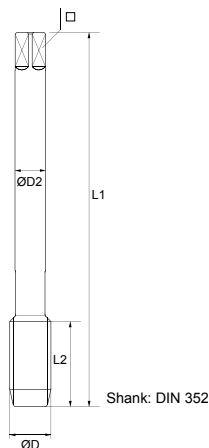
|             | D1    | D2   | L1  | L2 | □    |       | No.       | €        | No.       | €      | No. | € |
|-------------|-------|------|-----|----|------|-------|-----------|----------|-----------|--------|-----|---|
| M 15 x 2,0  | 15,0  | 12,0 | 80  | 32 | 9,0  | 13,00 | 110301031 | 25,77    |           |        |     |   |
| M 16 x 2,0  | 16,0  | 12,0 | 80  | 32 | 9,0  | 14,00 | 110301032 | 27,02    | 110302009 | 44,39  |     |   |
| M 18 x 2,5  | 18,0  | 14,0 | 95  | 40 | 11,0 | 15,50 | 110301033 | 35,51    | 110302010 | 57,62  |     |   |
| M 20 x 2,5  | 20,0  | 16,0 | 95  | 40 | 12,0 | 17,50 | 110301034 | 40,85    | 110302011 | 64,54  |     |   |
| M 22 x 2,5  | 22,0  | 18,0 | 100 | 40 | 14,5 | 19,50 | 110301035 | 50,59    | 110302012 | 78,71  |     |   |
| M 24 x 3,0  | 24,0  | 18,0 | 110 | 50 | 14,5 | 21,00 | 110301036 | 62,84    | 110302013 | 110,19 |     |   |
| M 27 x 3,0  | 27,0  | 20,0 | 110 | 50 | 16,0 | 24,00 | 110301037 | 97,41    | 110302014 | 176,31 |     |   |
| M 30 x 3,5  | 30,0  | 22,0 | 125 | 56 | 18,0 | 26,50 | 110301038 | 131,97   | 110302015 | 214,09 |     |   |
| M 33 x 3,5  | 33,0  | 25,0 | 125 | 56 | 20,0 | 29,50 | 110301039 | 169,67   | 110302016 | 264,47 |     |   |
| M 36 x 4,0  | 36,0  | 28,0 | 150 | 63 | 22,0 | 32,00 | 110301040 | 201,09   | 110302017 | 317,99 |     |   |
| M 39 x 4,0  | 39,0  | 32,0 | 150 | 63 | 24,0 | 35,00 | 110301041 | 257,65   | 110302018 | 409,29 |     |   |
| M 42 x 4,5  | 42,0  | 32,0 | 150 | 63 | 24,0 | 37,50 | 110301042 | 289,07   | 110302019 | 462,82 |     |   |
| M 45 x 4,5  | 45,0  | 36,0 | 160 | 70 | 29,0 | 40,50 | 110301043 | 351,92   | 110302020 | 557,27 |     |   |
| M 48 x 5,0  | 48,0  | 36,0 | 180 | 75 | 29,0 | 43,00 | 110301044 | 493,31   | 110302021 | 790,25 |     |   |
| M 52 x 5,0  | 52,0  | 40,0 | 180 | 75 | 32,0 | 47,00 | 110301045 | 493,31   | 110302022 | 790,25 |     |   |
| M 56 x 5,5  | 56,0  | 45,0 | 200 | 85 | 35,0 | 50,50 | 110301046 | 637,85   |           |        |     |   |
| M 60 x 5,5  | 60,0  | 45,0 | 200 | 85 | 35,0 | 54,50 | 110301047 | 848,37   |           |        |     |   |
| M 64 x 6,0  | 64,0  | 50,0 | 220 | 90 | 39,0 | 58,00 | 110301048 | 942,63   |           |        |     |   |
| M 68 x 6,0  | 68,0  | 50,0 | 220 | 90 | 39,0 | 62,00 | 110301049 | 1.178,29 |           |        |     |   |
| M 72 x 6,0  | 72,0  | 50,0 | 240 | 80 | 39,0 | 66,00 | 110301050 | 2.388,00 |           |        |     |   |
| M 76 x 6,0  | 76,0  | 50,0 | 240 | 80 | 39,0 | 70,00 | 110301051 | 2.906,45 |           |        |     |   |
| M 80 x 6,0  | 80,0  | 50,0 | 260 | 85 | 39,0 | 74,00 | 110301052 | 3.204,95 |           |        |     |   |
| M 84 x 6,0  | 84,0  | 50,0 | 260 | 85 | 39,0 | 78,00 | 110301053 | 3.707,68 |           |        |     |   |
| M 88 x 6,0  | 88,0  | 50,0 | 260 | 85 | 39,0 | 82,00 | 110301054 | 4.901,68 |           |        |     |   |
| M 90 x 6,0  | 90,0  | 50,0 | 260 | 85 | 39,0 | 84,00 | 110301055 | 5.278,74 |           |        |     |   |
| M 92 x 6,0  | 92,0  | 56,0 | 280 | 90 | 44,0 | 86,00 | 110301056 | 5.655,79 |           |        |     |   |
| M 96 x 6,0  | 96,0  | 56,0 | 280 | 90 | 44,0 | 90,00 | 110301057 | 6.409,89 |           |        |     |   |
| M 100 x 6,0 | 100,0 | 56,0 | 280 | 90 | 44,0 | 94,00 | 110301058 | 7.164,00 |           |        |     |   |

\* special pitch

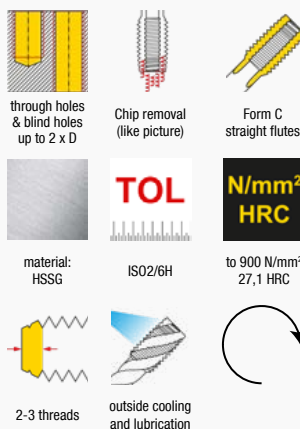
- ✓ Efficient internal thread cutting.
- ✓ The short structural type makes that tap usable by machine and hand.

**A Hand-Tap-Set includes 3 taps:**

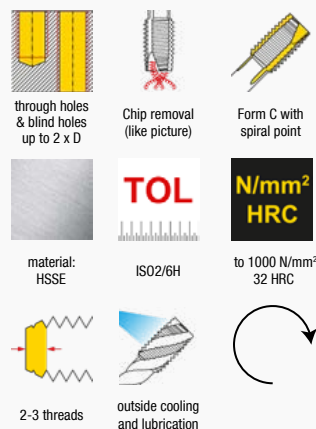
- ⚙ Taper Tap
- ⚙ Intermediate Tap
- ⚙ Finish Tap



## Hand Tap Sets with conical profile



## Hand Tap Sets HSSE for higher demands

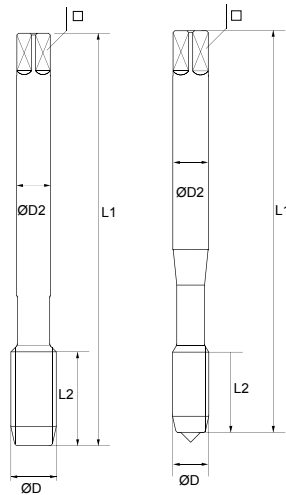

**M**

|              | D1   | D2   | L1  | L2 | □    |       | No.       | €      | No.       | €      |
|--------------|------|------|-----|----|------|-------|-----------|--------|-----------|--------|
| M 2 x 0,4    | 2,0  | 2,8  | 36  | 8  | 2,1  | 1,60  | 110313001 | 14,80  |           |        |
| M 2,5 x 0,45 | 2,5  | 2,8  | 40  | 9  | 2,1  | 2,05  | 110313002 | 14,80  |           |        |
| M 3 x 0,5    | 3,0  | 3,5  | 40  | 11 | 2,7  | 2,50  | 110313003 | 7,56   | 110304001 | 14,48  |
| M 4 x 0,7    | 4,0  | 4,5  | 45  | 13 | 3,4  | 3,30  | 110313004 | 7,56   | 110304002 | 14,80  |
| M 5 x 0,8    | 5,0  | 6,0  | 50  | 16 | 4,9  | 4,20  | 110313005 | 8,50   | 110304003 | 15,43  |
| M 6 x 1,0    | 6,0  | 6,0  | 50  | 19 | 4,9  | 5,00  | 110313006 | 8,50   | 110304004 | 15,43  |
| M 8 x 1,25   | 8,0  | 6,0  | 56  | 22 | 4,9  | 6,80  | 110313007 | 11,02  | 110304005 | 21,09  |
| M 9 x 1,25   | 9,0  | 7,0  | 63  | 22 | 5,5  | 7,80  | 110313008 | 18,58  |           |        |
| M 10 x 1,5   | 10,0 | 7,0  | 70  | 24 | 5,5  | 8,50  | 110313009 | 14,48  | 110304006 | 27,71  |
| M 11 x 1,5   | 11,0 | 8,0  | 70  | 24 | 6,2  | 9,50  | 110313010 | 23,61  |           |        |
| M 12 x 1,75  | 12,0 | 9,0  | 75  | 29 | 7,0  | 10,20 | 110313011 | 18,89  | 110304007 | 34,32  |
| M 13 x 1,75  | 12,0 | 9,0  | 75  | 29 | 7,0  | 11,20 | 110313012 | 26,13  |           |        |
| M 14 x 2,0   | 14,0 | 11,0 | 80  | 30 | 9,0  | 12,00 | 110313013 | 21,72  | 110304008 | 39,04  |
| M 16 x 2,0   | 16,0 | 12,0 | 80  | 32 | 9,0  | 14,00 | 110313014 | 27,08  | 110304009 | 50,69  |
| M 18 x 2,5   | 18,0 | 14,0 | 95  | 40 | 11,0 | 15,50 | 110313015 | 35,58  | 110304010 | 63,91  |
| M 19 x 2,5   | 18,0 | 14,0 | 95  | 40 | 11,0 | 16,50 | 110313016 | 48,80  |           |        |
| M 20 x 2,5   | 20,0 | 16,0 | 95  | 40 | 12,0 | 17,50 | 110313017 | 40,93  | 110304011 | 73,99  |
| M 22 x 2,5   | 22,0 | 18,0 | 100 | 40 | 14,5 | 19,50 | 110313018 | 50,69  | 110304012 | 89,42  |
| M 24 x 3,0   | 24,0 | 18,0 | 110 | 50 | 14,5 | 21,00 | 110313019 | 62,97  | 110304013 | 111,14 |
| M 27 x 3,0   | 27,0 | 20,0 | 110 | 50 | 16,0 | 24,00 | 110313020 | 97,60  | 110304014 | 168,44 |
| M 30 x 3,5   | 30,0 | 22,0 | 125 | 56 | 18,0 | 26,50 | 110313021 | 132,23 | 110304015 | 229,21 |
| M 33 x 3,5   | 33,0 | 25,0 | 125 | 56 | 20,0 | 29,50 | 110313022 | 170,01 |           |        |
| M 36 x 4,0   | 36,0 | 28,0 | 150 | 63 | 22,0 | 32,00 | 110313023 | 201,50 |           |        |
| M 39 x 4,0   | 39,0 | 32,0 | 150 | 63 | 24,0 | 35,00 | 110313024 | 258,17 |           |        |
| M 42 x 4,5   | 42,0 | 32,0 | 150 | 63 | 24,0 | 37,50 | 110313025 | 289,65 |           |        |

**M**

metric coarse thread / ISO DIN 13

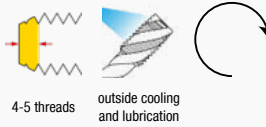
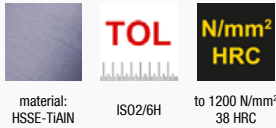
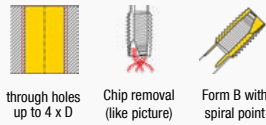
- ✓ Tap for machine use in through hole.
- ✓ The spiral point pushes the chips ahead.



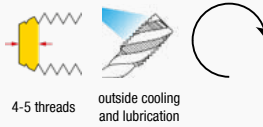
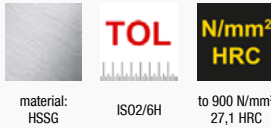
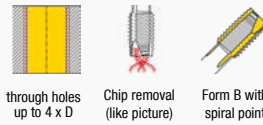
Shank: DIN 376

Shank: DIN 371

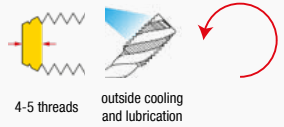
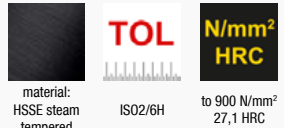
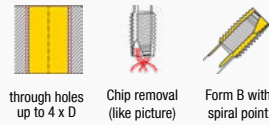
## Machine Tap for universal use

**UNITAP**


## Machine Tap for general use



## Machine Tap for general use Left-hand thread

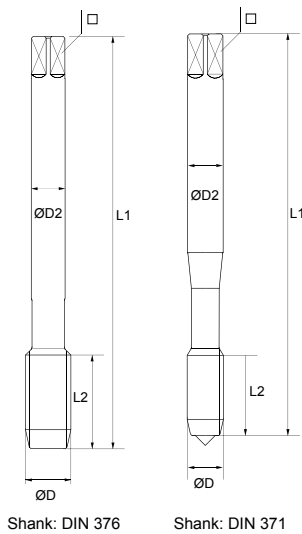


| M              | D1   | D2   | L1  | L2 | □    | 🔩     | No.       | €      | No.       | €      | No.       | €      |
|----------------|------|------|-----|----|------|-------|-----------|--------|-----------|--------|-----------|--------|
| <b>DIN 371</b> |      |      |     |    |      |       |           |        |           |        |           |        |
| M 2 x 0,4      | 2,0  | 2,8  | 45  | 8  | 2,1  | 1,60  | 110403001 | 28,02  | 110401001 | 8,69   |           |        |
| M 2,2 x 0,45   | 2,2  | 2,8  | 45  | 8  | 2,1  | 1,75  | 110403002 | 31,13  |           |        |           |        |
| M 2,5 x 0,45   | 2,5  | 2,8  | 50  | 9  | 2,1  | 2,05  | 110403003 | 23,78  | 110401002 | 8,69   |           |        |
| M 3 x 0,5      | 3,0  | 3,5  | 56  | 11 | 2,7  | 2,50  | 110403004 | 18,17  | 110401003 | 6,60   | 110402001 | 13,83  |
| M 3,5 x 0,6    | 3,5  | 4,0  | 56  | 13 | 3,0  | 2,90  | 110403005 | 21,53  | 110401004 | 7,33   |           |        |
| M 4 x 0,7      | 4,0  | 4,5  | 63  | 13 | 3,4  | 3,30  | 110403006 | 17,49  | 110401005 | 6,70   | 110402002 | 13,83  |
| M 5 x 0,8      | 5,0  | 6,0  | 70  | 16 | 4,9  | 4,20  | 110403007 | 18,17  | 110401006 | 7,12   | 110402003 | 14,45  |
| M 6 x 1,0      | 6,0  | 6,0  | 80  | 19 | 4,9  | 5,00  | 110403008 | 18,75  | 110401007 | 7,12   | 110402004 | 14,45  |
| M 7 x 1,0      | 7,0  | 7,0  | 80  | 19 | 5,5  | 6,00  |           |        | 110401008 | 10,05  | 110402005 | 18,75  |
| M 8 x 1,25     | 8,0  | 8,0  | 90  | 22 | 6,2  | 6,80  | 110403009 | 22,69  | 110401009 | 8,90   | 110402006 | 17,60  |
| M 10 x 1,5     | 10,0 | 10,0 | 100 | 24 | 8,0  | 8,50  | 110403010 | 27,81  | 110401010 | 11,21  | 110402007 | 19,90  |
| <b>DIN 376</b> |      |      |     |    |      |       |           |        |           |        |           |        |
| M 3 x 0,5      | 3,0  | 2,2  | 56  | 11 | -    | 2,50  |           |        | 110401011 | 7,12   | 110402008 | 13,83  |
| M 4 x 0,7      | 4,0  | 2,8  | 63  | 13 | 2,1  | 3,30  |           |        | 110401012 | 7,12   | 110402009 | 13,83  |
| M 5 x 0,8      | 5,0  | 3,5  | 70  | 16 | 2,7  | 4,20  |           |        | 110401013 | 7,75   | 110402010 | 14,45  |
| M 6 x 1,0      | 6,0  | 4,5  | 80  | 19 | 3,4  | 5,00  |           |        | 110401014 | 7,75   | 110402011 | 14,45  |
| M 8 x 1,25     | 8,0  | 6,0  | 90  | 22 | 4,9  | 6,80  |           |        | 110401015 | 9,53   | 110402012 | 17,60  |
| M 10 x 1,5     | 10,0 | 7,0  | 100 | 24 | 5,5  | 8,50  |           |        | 110401016 | 11,42  | 110402013 | 19,90  |
| M 12 x 1,75    | 12,0 | 9,0  | 110 | 29 | 7,0  | 10,20 | 110403011 | 33,71  | 110401017 | 13,41  | 110402014 | 25,03  |
| M 14 x 2,0     | 14,0 | 11,0 | 110 | 30 | 9,0  | 12,00 | 110403012 | 48,78  | 110401018 | 16,97  | 110402015 | 31,74  |
| M 16 x 2,0     | 16,0 | 12,0 | 110 | 32 | 9,0  | 14,00 | 110403013 | 61,14  | 110401019 | 19,27  | 110402016 | 36,76  |
| M 18 x 2,5     | 18,0 | 14,0 | 125 | 34 | 11,0 | 15,50 | 110403014 | 77,21  | 110401020 | 27,76  | 110402017 | 49,96  |
| M 20 x 2,5     | 20,0 | 16,0 | 140 | 34 | 12,0 | 17,50 | 110403015 | 91,77  | 110401021 | 35,82  | 110402018 | 70,70  |
| M 22 x 2,5     | 22,0 | 18,0 | 140 | 34 | 14,5 | 19,50 | 110403016 | 118,23 | 110401022 | 46,50  | 110402019 | 77,92  |
| M 24 x 3,0     | 24,0 | 18,0 | 160 | 38 | 14,5 | 21,00 | 110403017 | 124,73 | 110401023 | 49,02  | 110402020 | 84,21  |
| M 27 x 3,0     | 27,0 | 20,0 | 160 | 38 | 16,0 | 24,00 | 110403018 | 199,02 | 110401024 | 81,69  | 110402021 | 138,25 |
| M 30 x 3,5     | 30,0 | 22,0 | 180 | 45 | 18,0 | 26,50 | 110403019 | 240,94 | 110401025 | 84,21  | 110402022 | 144,54 |
| M 33 x 3,5     | 33,0 | 25,0 | 180 | 50 | 20,0 | 29,50 |           |        | 110401026 | 118,14 | 110402023 | 196,91 |
| M 36 x 4,0     | 36,0 | 28,0 | 200 | 56 | 22,0 | 32,00 |           |        | 110401027 | 192,30 | 110402024 | 328,87 |
| M 39 x 4,0     | 39,0 | 32,0 | 200 | 60 | 24,0 | 35,00 |           |        | 110401028 | 247,60 | 110402025 | 412,66 |
| M 42 x 4,5     | 42,0 | 32,0 | 200 | 60 | 24,0 | 37,50 |           |        | 110401029 | 289,07 | 110402026 | 490,17 |
| M 45 x 4,5     | 45,0 | 36,0 | 220 | 65 | 29,0 | 40,50 |           |        | 110401030 | 326,78 | 110402027 | 540,44 |
| M 48 x 5,0     | 48,0 | 36,0 | 250 | 70 | 29,0 | 43,00 |           |        | 110401031 | 358,20 | 110402028 | 597,00 |
| M 52 x 5,0     | 52,0 | 40,0 | 250 | 70 | 32,0 | 47,00 |           |        | 110401032 | 437,38 | 110402029 | 706,97 |

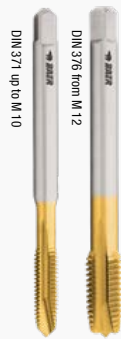
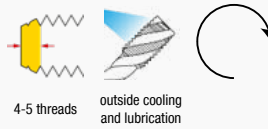
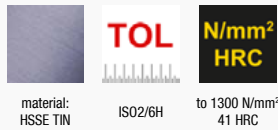
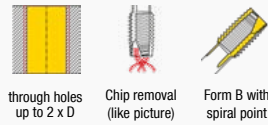
**M**

metric coarse thread / ISO DIN 13

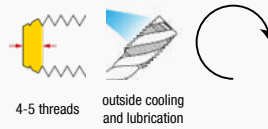
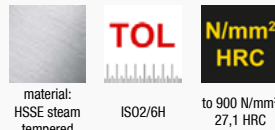
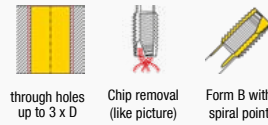
- ✓ Tap for machine use in through hole.
- ✓ The spiral point pushes the chips ahead.



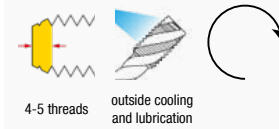
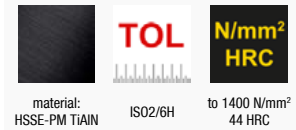
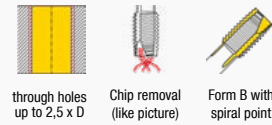
## Machine Tap for high-alloyed steels and longer tool life time



## Machine Tap ECO for stainless steels with high tool life time

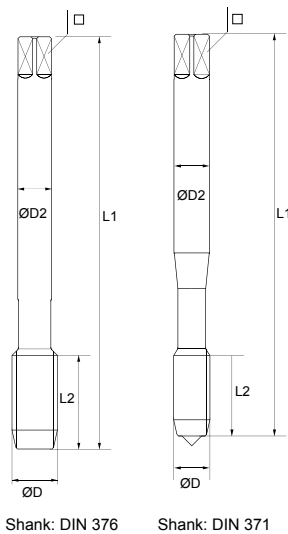


## Machine Tap for high alloyed stainless steels and high-tensile materials

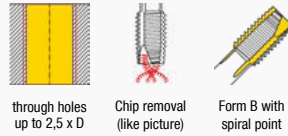


| M            | D1   | D2   | L1  | L2 | □    | ▣     | No.       | €     | No.       | €      | No.       | €     |
|--------------|------|------|-----|----|------|-------|-----------|-------|-----------|--------|-----------|-------|
| M 2 x 0,4    | 2,0  | 2,8  | 45  | 8  | 2,1  | 1,60  | 110404001 | 14,90 | 110405001 | *      | 110406001 | *     |
| M 2,5 x 0,45 | 2,5  | 2,8  | 50  | 9  | 2,1  | 2,05  | 110404002 | 14,90 | 110405002 | *      | 110406002 | *     |
| M 3 x 0,5    | 3,0  | 3,5  | 56  | 11 | 2,7  | 2,50  | 110404003 | 10,26 | 110405003 | 10,89  | 110406003 | 23,02 |
| M 3,5 x 0,6  | 3,5  | 4,0  | 56  | 13 | 3,0  | 2,90  | 110404004 | *     |           |        |           |       |
| M 4 x 0,7    | 4,0  | 4,5  | 63  | 13 | 3,4  | 3,30  | 110404005 | 10,26 | 110405004 | 10,89  | 110406004 | 23,02 |
| M 5 x 0,8    | 5,0  | 6,0  | 70  | 16 | 4,9  | 4,20  | 110404006 | 10,68 | 110405005 | 11,84  | 110406005 | 24,30 |
| M 6 x 1,0    | 6,0  | 6,0  | 80  | 19 | 4,9  | 5,00  | 110404007 | 11,21 | 110405006 | 11,84  | 110406006 | 26,86 |
| M 7 x 1,0    | 7,0  | 7,0  | 80  | 19 | 5,5  | 6,00  | 110404008 | 18,46 |           |        |           |       |
| M 8 x 1,25   | 8,0  | 8,0  | 90  | 22 | 6,2  | 6,80  | 110404009 | 13,93 | 110405007 | 14,14  | 110406007 | 31,97 |
| M 9 x 1,25   | 9,0  | 9,0  | 90  | 18 | 6,2  | 7,80  | 110404010 | *     |           |        |           |       |
| M 10 x 1,5   | 10,0 | 10,0 | 100 | 24 | 8,0  | 8,50  | 110404011 | 17,81 | 110405008 | 19,90  | 110406008 | 39,59 |
| M 12 x 1,75  | 12,0 | 9,0  | 110 | 29 | 7,0  | 10,20 | 110404012 | 23,67 | 110405009 | 25,24  | 110406009 | 54,74 |
| M 14 x 2,0   | 14,0 | 11,0 | 110 | 30 | 9,0  | 12,00 | 110404013 | 28,38 | 110405010 | 28,59  | 110406010 | 80,53 |
| M 16 x 2,0   | 16,0 | 12,0 | 110 | 32 | 9,0  | 14,00 | 110404014 | 31,63 | 110405011 | 30,79  | 110406011 | 94,21 |
| M 18 x 2,5   | 18,0 | 14,0 | 125 | 34 | 11,0 | 15,50 | 110404015 | 46,92 | 110405012 | 46,50  | 110406012 | *     |
| M 20 x 2,5   | 20,0 | 16,0 | 140 | 34 | 12,0 | 17,50 | 110404016 | 56,98 | 110405013 | 65,36  | 110406013 | *     |
| M 22 x 2,5   | 22,0 | 18,0 | 140 | 34 | 14,5 | 19,50 | 110404017 | *     | 110405014 | 93,22  | 110406014 | *     |
| M 24 x 3,0   | 24,0 | 18,0 | 160 | 38 | 14,5 | 21,00 | 110404018 | *     | 110405015 | 101,27 | 110406015 | *     |
| M 27 x 3,0   | 27,0 | 20,0 | 160 | 38 | 16,0 | 24,00 | 110404019 | *     |           |        |           |       |
| M 30 x 3,5   | 30,0 | 22,0 | 180 | 45 | 18,0 | 26,50 | 110404020 | *     |           |        |           |       |

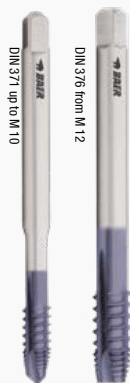
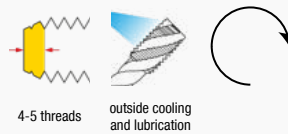
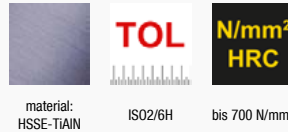
- ✓ Tap for machine use in through hole.
- ✓ The spiral point pushes the chips ahead.



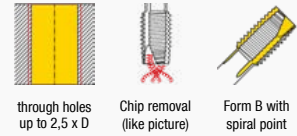
## Machine Tap for aluminum



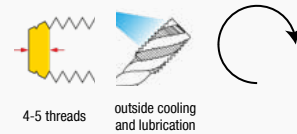
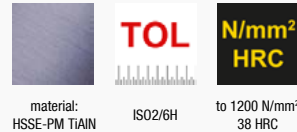
through holes up to 2,5 x D    Chip removal (like picture)    Form B with spiral point



## Machine Tap for special alloys (Inconel, Hastelloy etc.)



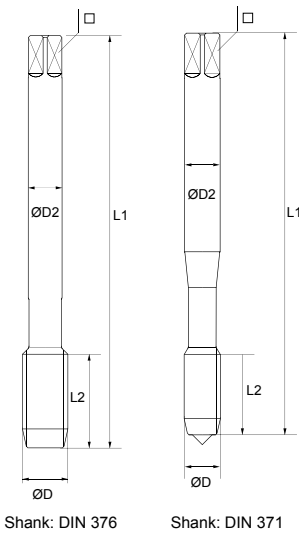
through holes up to 2,5 x D    Chip removal (like picture)    Form B with spiral point



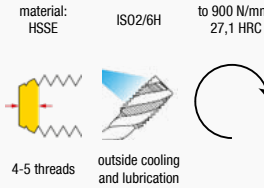
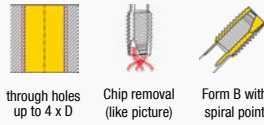
| M            | D1   | D2   | L1  | L2 | □    |       | No.       | €     | No.       | €      |
|--------------|------|------|-----|----|------|-------|-----------|-------|-----------|--------|
| M 2 x 0,4    | 2,0  | 2,8  | 45  | 8  | 2,1  | 1,60  |           |       | 110412001 | 32,28  |
| M 2,5 x 0,45 | 2,5  | 2,8  | 50  | 9  | 2,1  | 2,05  |           |       | 110412002 | 32,28  |
| M 3 x 0,5    | 3,0  | 3,5  | 56  | 11 | 2,7  | 2,50  | 110407001 | 27,16 | 110412003 | 25,01  |
| M 4 x 0,7    | 4,0  | 4,5  | 63  | 13 | 3,4  | 3,30  | 110407002 | 27,34 | 110412004 | 26,30  |
| M 5 x 0,8    | 5,0  | 6,0  | 70  | 16 | 4,9  | 4,20  | 110407003 | 30,96 | 110412005 | 29,75  |
| M 6 x 1,0    | 6,0  | 6,0  | 80  | 19 | 4,9  | 5,00  | 110407004 | 32,32 | 110412006 | 31,13  |
| M 8 x 1,25   | 8,0  | 8,0  | 90  | 22 | 6,2  | 6,80  | 110407005 | 32,68 | 110412007 | 42,83  |
| M 10 x 1,5   | 10,0 | 10,0 | 100 | 24 | 8,0  | 8,50  | 110407006 | 36,84 | 110412008 | 46,74  |
| M 12 x 1,75  | 12,0 | 9,0  | 110 | 29 | 7,0  | 10,20 | 110407007 | 41,82 | 110412009 | 77,64  |
| M 14 x 2,0   | 14,0 | 11,0 | 110 | 30 | 9,0  | 12,00 | 110407008 | 69,75 | 110412010 | 102,05 |
| M 16 x 2,0   | 16,0 | 12,0 | 110 | 32 | 9,0  | 14,00 | 110407009 | 87,40 | 110412011 | 111,26 |
| M 18 x 2,5   | 18,0 | 14,0 | 125 | 34 | 11,0 | 15,50 |           |       | 110412012 | 142,99 |
| M 20 x 2,5   | 20,0 | 16,0 | 140 | 34 | 12,0 | 17,50 |           |       | 110412013 | 160,68 |
| M 24 x 3,0   | 24,0 | 18,0 | 160 | 38 | 14,5 | 21,00 |           |       | 110412014 | 190,89 |
| M 27 x 3,0   | 27,0 | 20,0 | 160 | 38 | 16,0 | 24,00 |           |       | 110412015 | 253,01 |
| M 30 x 3,5   | 30,0 | 22,0 | 180 | 45 | 18,0 | 26,50 |           |       | 110412016 | 293,63 |

**M** metric coarse thread / ISO DIN 13

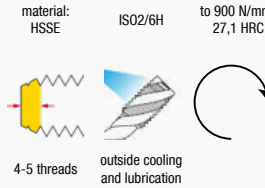
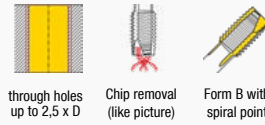
- ☑ Tap for machine use in through hole.
- ☑ The spiral point pushes the chips ahead.



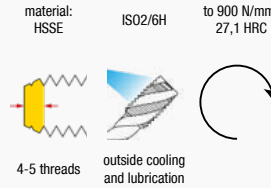
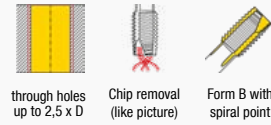
## Machine Tap for general use **overlengthed (long shank)**



## Machine Tap for general use **oversized (diameter)**



## Machine Tap for general use **undersized (diameter)**



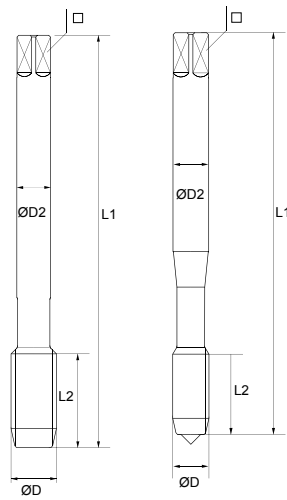
| M                        | D1 D2 L1 L2 □            |      |     |    |      |       | No.       | €  | Tol. 6G: threads with large clearance |           | Tol. 4H: threads with small clearance |       |
|--------------------------|--------------------------|------|-----|----|------|-------|-----------|--|---------------------------------------|-----------|---------------------------------------|-------|
|                          | Total length L1 = 100 mm |      |     |    |      |       |           |  | No.                                   | €         | No.                                   | €     |
| M 2 x 0,4                | 2,0                      | 2,8  | 45  | 8  | 2,1  | 1,60  |           |  |                                       | 110420001 | 30,16                                 |       |
| M 2,5 x 0,45             | 2,5                      | 2,8  | 50  | 9  | 2,1  | 2,05  |           |  | 110417001                             | 8,90      | 110420002                             | 29,34 |
| M 3 x 0,5                | 3,0                      | 3,5  | 56  | 11 | 2,7  | 2,50  | 110414001 | 10,58  | 110417002                             | 8,90      | 110420003                             | 9,05  |
| M 4 x 0,7                | 4,0                      | 4,5  | 63  | 13 | 3,4  | 3,30  | 110414002 | 10,58  | 110417003                             | 8,90      | 110420004                             | 9,05  |
| M 5 x 0,8                | 5,0                      | 6,0  | 70  | 16 | 4,9  | 4,20  | 110414003 | 11,21  | 110417004                             | 9,22      | 110420005                             | 9,47  |
| M 6 x 1,0                | 6,0                      | 6,0  | 80  | 19 | 4,9  | 5,00  | 110414004 | 11,21  | 110417005                             | 9,22      | 110420006                             | 9,47  |
| M 8 x 1,25               | 8,0                      | 8,0  | 90  | 22 | 6,2  | 6,80  | 110414005 | 13,51  | 110417006                             | 11,31     | 110420007                             | 12,00 |
| M 10 x 1,5               | 10,0                     | 10,0 | 100 | 24 | 8,0  | 8,50  | 110414006 | 14,14  | 110417007                             | 12,99     | 110420008                             | 14,32 |
| M 12 x 1,75              | 12,0                     | 9,0  | 110 | 29 | 7,0  | 10,20 | 110414007 | 15,92  | 110417008                             | 15,61     | 110420009                             | 16,53 |
| M 14 x 2,0               | 14,0                     | 11,0 | 110 | 30 | 9,0  | 12,00 |           |  | 110417009                             | 22,41     | 110420010                             | 22,53 |
| M 16 x 2,0               | 16,0                     | 12,0 | 110 | 32 | 9,0  | 14,00 |           |  | 110417010                             | 25,87     | 110420011                             | 26,00 |
| M 18 x 2,5               | 18,0                     | 14,0 | 125 | 34 | 11,0 | 15,50 |           |  | 110417011                             | 35,30     |                                       |       |
| M 20 x 2,5               | 20,0                     | 16,0 | 140 | 34 | 12,0 | 17,50 |           |  | 110417012                             | 49,44     |                                       |       |
| Total length L1 = 120 mm |                          |      |     |    |      |       |           | Tol. 7G: for disorted threads (heat treatment) |                                       |           |                                       |       |
| M 3 x 0,5                | 3,0                      | 3,5  | 56  | 11 | 2,7  | 2,50  |           |  | 110418001                             | 9,01      |                                       |       |
| M 4 x 0,7                | 4,0                      | 4,5  | 63  | 13 | 3,4  | 3,30  | 110415001 | 11,21  | 110418002                             | 9,01      |                                       |       |
| M 5 x 0,8                | 5,0                      | 6,0  | 70  | 16 | 4,9  | 4,20  | 110415002 | 12,25  | 110418003                             | 9,43      |                                       |       |
| M 6 x 1,0                | 6,0                      | 6,0  | 80  | 19 | 4,9  | 5,00  | 110415003 | 12,25  | 110418004                             | 9,43      |                                       |       |
| M 8 x 1,25               | 8,0                      | 8,0  | 90  | 22 | 6,2  | 6,80  | 110415004 | 14,24  | 110418005                             | 11,94     |                                       |       |
| M 10 x 1,5               | 10,0                     | 10,0 | 100 | 24 | 8,0  | 8,50  | 110415005 | 16,13  | 110418006                             | 14,24     |                                       |       |
| M 12 x 1,75              | 12,0                     | 9,0  | 110 | 29 | 7,0  | 10,20 | 110415006 | 18,75  | 110418007                             | 16,44     |                                       |       |
| Total length L1 = 150 mm |                          |      |     |    |      |       |           | Tol. 6H +0,1 mm: for electroplating allowance  |                                       |           |                                       |       |
| M 3 x 0,5                | 3,0                      | 3,5  | 56  | 11 | 2,7  | 2,50  |           |  | 110419001                             | 9,01      |                                       |       |
| M 4 x 0,7                | 4,0                      | 4,5  | 63  | 13 | 3,4  | 3,30  | 110416001 | 11,84  | 110419002                             | 9,01      |                                       |       |
| M 5 x 0,8                | 5,0                      | 6,0  | 70  | 16 | 4,9  | 4,20  | 110416002 | 13,09  | 110419003                             | 9,43      |                                       |       |
| M 6 x 1,0                | 6,0                      | 6,0  | 80  | 19 | 4,9  | 5,00  | 110416003 | 13,09  | 110419004                             | 9,43      |                                       |       |
| M 8 x 1,25               | 8,0                      | 8,0  | 90  | 22 | 6,2  | 6,80  | 110416004 | 16,02  | 110419005                             | 11,94     |                                       |       |
| M 10 x 1,5               | 10,0                     | 10,0 | 100 | 24 | 8,0  | 8,50  | 110416005 | 19,48  | 110419006                             | 14,24     |                                       |       |
| M 12 x 1,75              | 12,0                     | 9,0  | 110 | 29 | 7,0  | 10,20 | 110416006 | 22,94  | 110419007                             | 16,44     |                                       |       |

# Machine Taps - Form C (straight flutes) for through holes and blind holes

**M**

metric coarse thread / ISO DIN 13

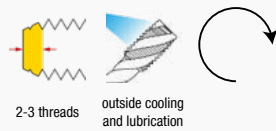
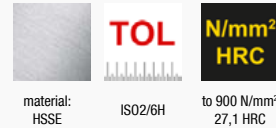
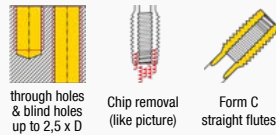
- ✓ Tap for machine use in through hole and blind hole.
- ✓ The short lead-in chamfer makes that tap universal in application. The flutes can hold the most part of the chips.



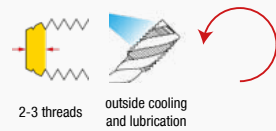
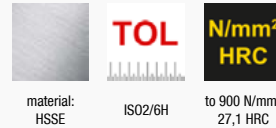
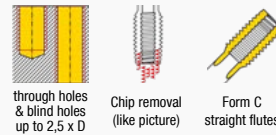
Shank: DIN 376

Shank: DIN 371

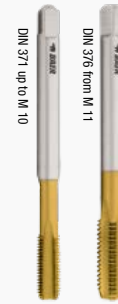
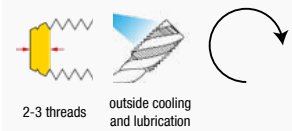
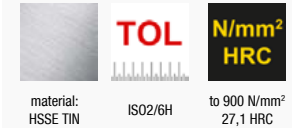
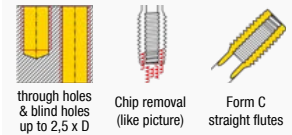
## Machine Tap for general use



## Machine Tap for general use Left-hand thread



## Machine Tap with longer tool life time

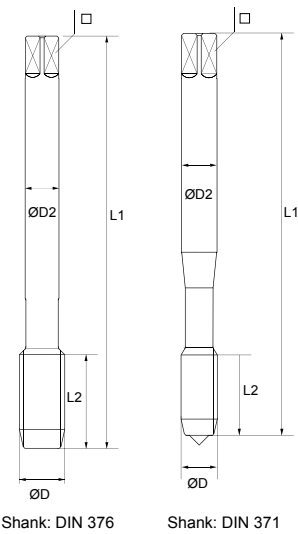


| <b>M</b>       | D1   | D2   | L1  | L2 |      |       | No.       | €      | No.       | €     | No.       | €      |
|----------------|------|------|-----|----|------|-------|-----------|--------|-----------|-------|-----------|--------|
| <b>DIN 371</b> |      |      |     |    |      |       |           |        |           |       |           |        |
| M 2 x 0,4      | 2,0  | 2,8  | 45  | 8  | 2,1  | 1,60  | 110501001 | 8,80   |           |       | 110504001 | 25,10  |
| M 2,2 x 0,45   | 2,2  | 2,8  | 45  | 8  | 2,1  | 1,75  |           |        |           |       | 110504002 | 29,09  |
| M 2,3 x 0,4    | 2,3  | 2,8  | 45  | 9  | 2,1  | 1,90  | 110501002 | 8,80   |           |       | 110504003 | 31,97  |
| M 2,5 x 0,45   | 2,5  | 2,8  | 50  | 9  | 2,1  | 2,05  | 110501003 | 8,80   |           |       | 110504004 | 23,10  |
| M 2,6 x 0,45   | 2,6  | 2,8  | 50  | 9  | 2,1  | 2,10  | 110501004 | 8,80   |           |       | 110504005 | 22,26  |
| M 3 x 0,5      | 3,0  | 3,5  | 56  | 11 | 2,7  | 2,50  | 110501005 | 6,28   | 110502001 | 12,25 | 110504006 | 15,34  |
| M 3,5 x 0,6    | 3,5  | 4,0  | 56  | 13 | 3,0  | 2,90  | 110501006 | 7,02   |           |       | 110504007 | 19,16  |
| M 4 x 0,7      | 4,0  | 4,5  | 63  | 13 | 3,4  | 3,30  | 110501007 | 6,28   | 110502002 | 12,25 | 110504008 | 15,35  |
| M 5 x 0,8      | 5,0  | 6,0  | 70  | 16 | 4,9  | 4,20  | 110501008 | 6,70   | 110502003 | 12,78 | 110504009 | 17,78  |
| M 6 x 1,0      | 6,0  | 6,0  | 80  | 19 | 4,9  | 5,00  | 110501009 | 6,70   | 110502004 | 12,78 | 110504010 | 17,96  |
| M 7 x 1,0      | 7,0  | 7,0  | 80  | 19 | 5,5  | 6,00  | 110501010 | 9,32   |           |       | 110504011 | 19,94  |
| M 8 x 1,25     | 8,0  | 8,0  | 90  | 22 | 6,2  | 6,80  | 110501011 | 8,38   | 110502005 | 15,29 | 110504012 | 23,81  |
| M 9 x 1,25     | 9,0  | 9,0  | 90  | 18 | 6,2  | 7,80  |           |        |           |       | 110504013 | 36,11  |
| M 10 x 1,5     | 10,0 | 10,0 | 100 | 24 | 8,0  | 8,50  | 110501012 | 10,47  | 110502006 | 17,39 | 110504014 | 36,80  |
| <b>DIN 376</b> |      |      |     |    |      |       |           |        |           |       |           |        |
| M 3 x 0,5      | 3,0  | 2,2  | 56  | 11 | -    | 2,50  | 110501013 | 6,91   |           |       |           |        |
| M 4 x 0,7      | 4,0  | 2,8  | 63  | 13 | 2,1  | 3,30  | 110501014 | 6,91   |           |       |           |        |
| M 5 x 0,8      | 5,0  | 3,5  | 70  | 16 | 2,7  | 4,20  | 110501015 | 7,33   |           |       |           |        |
| M 6 x 1,0      | 6,0  | 4,5  | 80  | 19 | 3,4  | 5,00  | 110501016 | 7,33   |           |       |           |        |
| M 8 x 1,25     | 8,0  | 6,0  | 90  | 22 | 4,9  | 6,80  | 110501017 | 8,69   |           |       |           |        |
| M 10 x 1,5     | 10,0 | 7,0  | 100 | 24 | 5,5  | 8,50  | 110501018 | 11,00  |           |       |           |        |
| M 11 x 1,5     | 11,0 | 8,0  | 100 | 22 | 6,2  | 9,50  |           |        |           |       | 110504015 | 41,08  |
| M 12 x 1,75    | 12,0 | 9,0  | 110 | 29 | 7,0  | 10,20 | 110501019 | 12,36  | 110502007 | 20,63 | 110504016 | 45,41  |
| M 14 x 2,0     | 14,0 | 11,0 | 110 | 30 | 9,0  | 12,00 | 110501020 | 16,23  | 110502008 | 30,58 | 110504017 | 56,19  |
| M 16 x 2,0     | 16,0 | 12,0 | 110 | 32 | 9,0  | 14,00 | 110501021 | 17,91  | 110502009 | 34,56 | 110504018 | 60,21  |
| M 18 x 2,5     | 18,0 | 14,0 | 125 | 34 | 11,0 | 15,50 | 110501022 | 28,91  | 110502010 | 47,13 | 110504019 | 78,74  |
| M 20 x 2,5     | 20,0 | 16,0 | 140 | 34 | 12,0 | 17,50 | 110501023 | 40,22  | 110502011 | 66,61 | 110504020 | 93,55  |
| M 22 x 2,5     | 22,0 | 18,0 | 140 | 34 | 14,5 | 19,50 | 110501024 | 43,99  | 110502012 | 69,55 | 110504021 | 119,85 |
| M 24 x 3,0     | 24,0 | 18,0 | 160 | 38 | 14,5 | 21,00 | 110501025 | 47,76  | 110502013 | 72,27 | 110504022 | 124,23 |
| M 27 x 3,0     | 27,0 | 20,0 | 160 | 38 | 16,0 | 24,00 | 110501026 | 75,41  |           |       | 110504023 | 157,37 |
| M 30 x 3,5     | 30,0 | 22,0 | 180 | 45 | 18,0 | 26,50 | 110501027 | 80,44  |           |       | 110504024 | 186,50 |
| M 33 x 3,5     | 33,0 | 25,0 | 180 | 50 | 20,0 | 29,50 | 110501028 | 113,12 |           |       | 110504025 | 264,03 |
| M 36 x 4,0     | 36,0 | 28,0 | 200 | 56 | 22,0 | 32,00 | 110501029 | 184,34 |           |       | 110504026 | 354,88 |
| M 39 x 4,0     | 39,0 | 32,0 | 200 | 60 | 24,0 | 35,00 | 110501030 | 232,52 |           |       |           |        |
| M 42 x 4,5     | 42,0 | 32,0 | 200 | 60 | 24,0 | 37,50 | 110501031 | 273,36 |           |       |           |        |
| M 45 x 4,5     | 45,0 | 36,0 | 220 | 65 | 29,0 | 40,50 | 110501032 | 314,21 |           |       |           |        |
| M 48 x 5,0     | 48,0 | 36,0 | 250 | 70 | 29,0 | 43,00 | 110501033 | 339,35 |           |       |           |        |
| M 52 x 5,0     | 52,0 | 40,0 | 250 | 70 | 32,0 | 47,00 | 110501034 | 414,76 |           |       |           |        |

# Machine Taps - Form C (straight flutes) for through holes and blind holes

**M** metric coarse thread / ISO DIN 13

- ✓ Tap for machine use in through hole and blind hole.
- ✓ The short lead-in chamfer makes that tap universal in application. The flutes can hold the most part of the chips.



## Machine Tap for cast materials

through holes & blind holes up to 2,5 x D

Chip removal (like picture)

Form C straight flutes

material: HSSE TiCN

TOL ISO2/6H

N/mm<sup>2</sup> HRC to 1000 N/mm<sup>2</sup> 32 HRC

2-3 threads

outside cooling and lubrication

DIN 371 up to M 10

DIN 376 from M 11

## Machine Tap for titanium and titanium alloys

through holes & blind holes up to 2,5 x D

Chip removal (like picture)

Form C straight flutes

material: HSSE

TOL ISO2/6H

N/mm<sup>2</sup> HRC to 1000 N/mm<sup>2</sup> 32 HRC

2-3 threads

outside cooling and lubrication

DIN 371 up to M 10

DIN 376 from M 12

## Machine Tap for brass (short-chipping)

through holes & blind holes up to 2,5 x D

Chip removal (like picture)

Form C straight flutes

material: HSSE TiN

TOL ISO2/6H

N/mm<sup>2</sup> HRC to 600 N/mm<sup>2</sup>

2-3 threads

outside cooling and lubrication

DIN 371 up to M 10

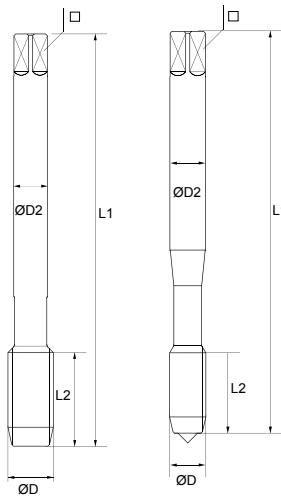
DIN 376 from M 12

| M            | D1   | D2   | L1  | L2 | □    | 🔩     | No.       | €      | No.       | €      | No.       | €     |
|--------------|------|------|-----|----|------|-------|-----------|--------|-----------|--------|-----------|-------|
| M 2 x 0,4    | 2,0  | 2,8  | 45  | 8  | 2,1  | 1,60  |           |        | 110511001 | 46,97  |           |       |
| M 2,5 x 0,45 | 2,5  | 2,8  | 50  | 9  | 2,1  | 2,05  |           |        | 110511002 | 46,97  |           |       |
| M 3 x 0,5    | 3,0  | 3,5  | 56  | 11 | 2,7  | 2,50  | 110510001 | 10,95  | 110511003 | 45,53  | 110509001 | 10,89 |
| M 3,5 x 0,6  | 3,5  | 4,0  | 56  | 13 | 3,0  | 2,90  | 110510002 | 26,47  |           |        |           |       |
| M 4 x 0,7    | 4,0  | 4,5  | 63  | 13 | 3,4  | 3,30  | 110510003 | 10,95  | 110511004 | 48,41  | 110509002 | 10,89 |
| M 5 x 0,8    | 5,0  | 6,0  | 70  | 16 | 4,9  | 4,20  | 110510004 | 11,89  | 110511005 | 49,13  | 110509003 | 11,84 |
| M 6 x 1,0    | 6,0  | 6,0  | 80  | 19 | 4,9  | 5,00  | 110510005 | 11,89  | 110511006 | 49,67  | 110509004 | 11,84 |
| M 7 x 1,0    | 7,0  | 7,0  | 80  | 19 | 5,5  | 6,00  | 110510006 | 35,44  |           |        |           |       |
| M 8 x 1,25   | 8,0  | 8,0  | 90  | 22 | 6,2  | 6,80  | 110510007 | 14,00  | 110511007 | 57,77  | 110509005 | 13,93 |
| M 9 x 1,25   | 9,0  | 9,0  | 90  | 18 | 6,2  | 7,80  | 110510008 | 42,77  |           |        |           |       |
| M 10 x 1,5   | 10,0 | 10,0 | 100 | 24 | 8,0  | 8,50  | 110510009 | 19,16  | 110511008 | 69,10  | 110509006 | 19,06 |
| M 11 x 1,5   | 11,0 | 8,0  | 100 | 22 | 6,2  | 9,50  | 110510010 | 52,75  |           |        |           |       |
| M 12 x 1,75  | 12,0 | 9,0  | 110 | 29 | 7,0  | 10,20 | 110510011 | 24,74  | 110511009 | 98,97  | 110509007 | 24,61 |
| M 14 x 2,0   | 14,0 | 11,0 | 110 | 30 | 9,0  | 12,00 | 110510012 | 28,21  | 110511010 | 125,97 | 110509008 | 28,07 |
| M 16 x 2,0   | 16,0 | 12,0 | 110 | 32 | 9,0  | 14,00 | 110510013 | 30,42  | 110511011 | 142,35 | 110509009 | 30,27 |
| M 18 x 2,5   | 18,0 | 14,0 | 125 | 34 | 11,0 | 15,50 | 110510014 | 41,16  | 110511012 | 202,81 |           |       |
| M 20 x 2,5   | 20,0 | 16,0 | 140 | 34 | 12,0 | 17,50 | 110510015 | 57,47  | 110511013 | 224,58 |           |       |
| M 22 x 2,5   | 22,0 | 18,0 | 140 | 34 | 14,5 | 19,50 | 110510016 | 132,30 |           |        |           |       |
| M 24 x 3,0   | 24,0 | 18,0 | 160 | 38 | 14,5 | 21,00 | 110510017 | 158,95 |           |        |           |       |
| M 27 x 3,0   | 27,0 | 20,0 | 160 | 38 | 16,0 | 24,00 | 110510018 | 231,77 |           |        |           |       |
| M 30 x 3,5   | 30,0 | 22,0 | 180 | 45 | 18,0 | 26,50 | 110510019 | 300,20 |           |        |           |       |
| M 33 x 3,5   | 33,0 | 25,0 | 180 | 50 | 20,0 | 29,50 | 110510020 | 461,73 |           |        |           |       |

# Machine Taps - Form C (with spiral flutes) for blind holes

**M** metric coarse thread / ISO DIN 13

- ✓ Tap for machine use in blind holes.
- ✓ The fast spiral flutes provide good chip removal from the blind hole.

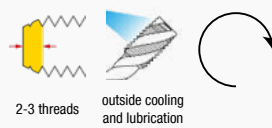
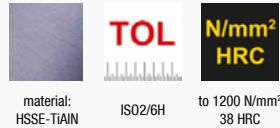
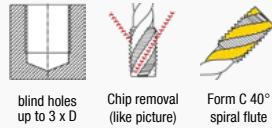


Shank: DIN 376

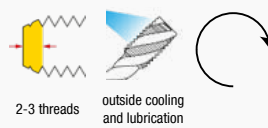
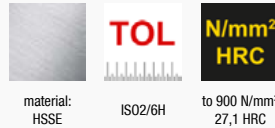
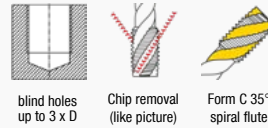
Shank: DIN 371

## Machine Tap for universal use

**UNITAP**

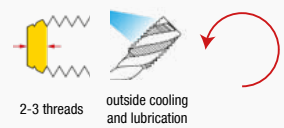
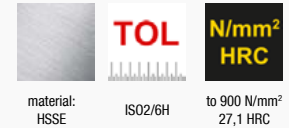
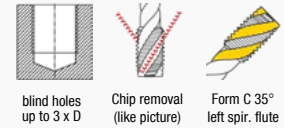


## Machine Tap for general use



## Machine Tap for general use

**Left-hand thread**

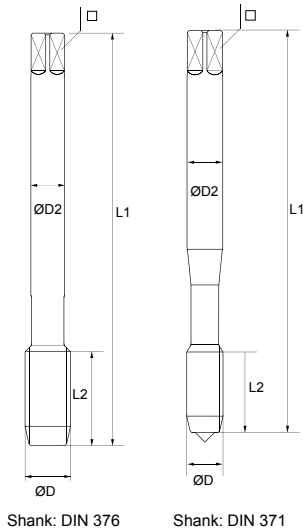


| M              | D1   | D2   | L1  | L2 | □    | Image | No.       | €      | No.       | €      | No.       | €      |
|----------------|------|------|-----|----|------|-------|-----------|--------|-----------|--------|-----------|--------|
| <b>DIN 371</b> |      |      |     |    |      |       |           |        |           |        |           |        |
| M 2 x 0,4      | 2,0  | 2,8  | 45  | 6  | 2,1  | 1,60  | 110603001 | 15,52  | 110601001 | 9,43   |           |        |
| M 2,2 x 0,45   | 2,2  | 2,8  | 45  | 6  | 2,1  | 1,75  | 110603002 | 30,52  |           |        |           |        |
| M 2,5 x 0,45   | 2,5  | 2,8  | 50  | 6  | 2,1  | 2,05  | 110603003 | 15,24  | 110601002 | 9,43   |           |        |
| M 3 x 0,5      | 3,0  | 3,5  | 56  | 6  | 2,7  | 2,50  | 110603004 | 18,90  | 110601003 | 7,96   | 110602001 | 16,23  |
| M 3,5 x 0,6    | 3,5  | 4,0  | 56  | 13 | 3,0  | 2,90  | 110603005 | 21,17  | 110601004 | 8,69   |           |        |
| M 4 x 0,7      | 4,0  | 4,5  | 63  | 7  | 3,4  | 3,30  | 110603006 | 18,52  | 110601005 | 7,96   | 110602002 | 16,23  |
| M 5 x 0,8      | 5,0  | 6,0  | 70  | 8  | 4,9  | 4,20  | 110603007 | 18,74  | 110601006 | 8,80   | 110602003 | 17,39  |
| M 6 x 1,0      | 6,0  | 6,0  | 80  | 10 | 4,9  | 5,00  | 110603008 | 19,56  | 110601007 | 8,80   | 110602004 | 17,39  |
| M 7 x 1,0      | 7,0  | 7,0  | 80  | 19 | 5,5  | 6,00  |           |        | 110601008 | 12,15  |           |        |
| M 8 x 1,25     | 8,0  | 8,0  | 90  | 14 | 6,2  | 6,80  | 110603009 | 23,05  | 110601009 | 10,68  | 110602005 | 20,74  |
| M 10 x 1,5     | 10,0 | 10,0 | 100 | 16 | 8,0  | 8,50  | 110603010 | 28,14  | 110601010 | 13,41  | 110602006 | 23,67  |
| <b>DIN 376</b> |      |      |     |    |      |       |           |        |           |        |           |        |
| M 3 x 0,5      | 3,0  | 2,2  | 56  | 6  | -    | 2,50  |           |        | 110601011 | 8,69   | 110602007 | 16,23  |
| M 4 x 0,7      | 4,0  | 2,8  | 63  | 7  | 2,1  | 3,30  |           |        | 110601012 | 8,69   | 110602008 | 16,23  |
| M 5 x 0,8      | 5,0  | 3,5  | 70  | 8  | 2,7  | 4,20  |           |        | 110601013 | 9,22   | 110602009 | 17,39  |
| M 6 x 1,0      | 6,0  | 4,5  | 80  | 10 | 3,4  | 5,00  |           |        | 110601014 | 9,22   | 110602010 | 17,39  |
| M 8 x 1,25     | 8,0  | 6,0  | 90  | 14 | 4,9  | 6,80  |           |        | 110601015 | 11,21  | 110602011 | 20,74  |
| M 10 x 1,5     | 10,0 | 7,0  | 100 | 16 | 5,5  | 8,50  |           |        | 110601016 | 13,41  | 110602012 | 23,67  |
| M 12 x 1,75    | 12,0 | 9,0  | 110 | 18 | 7,0  | 10,20 | 110603011 | 35,28  | 110601017 | 15,71  | 110602013 | 26,92  |
| M 14 x 2,0     | 14,0 | 11,0 | 110 | 20 | 9,0  | 12,00 | 110603012 | 45,15  | 110601018 | 20,21  | 110602014 | 34,35  |
| M 16 x 2,0     | 16,0 | 12,0 | 110 | 22 | 9,0  | 14,00 | 110603013 | 56,83  | 110601019 | 22,41  | 110602015 | 39,59  |
| M 18 x 2,5     | 18,0 | 14,0 | 125 | 25 | 11,0 | 15,50 | 110603014 | 77,27  | 110601020 | 33,31  | 110602016 | 52,79  |
| M 20 x 2,5     | 20,0 | 16,0 | 140 | 25 | 12,0 | 17,50 | 110603015 | 82,32  | 110601021 | 43,99  | 110602017 | 75,41  |
| M 22 x 2,5     | 22,0 | 18,0 | 140 | 27 | 14,5 | 19,50 | 110603016 | 87,90  | 110601022 | 57,81  | 110602018 | 84,52  |
| M 24 x 3,0     | 24,0 | 18,0 | 160 | 30 | 14,5 | 21,00 | 110603017 | 94,21  | 110601023 | 60,33  | 110602019 | 87,14  |
| M 27 x 3,0     | 27,0 | 20,0 | 160 | 30 | 16,0 | 24,00 | 110603018 | 113,79 | 110601024 | 98,03  | 110602020 | 149,77 |
| M 30 x 3,5     | 30,0 | 22,0 | 180 | 35 | 18,0 | 26,50 | 110603019 | 242,08 | 110601025 | 103,06 | 110602021 | 155,01 |
| M 33 x 3,5     | 33,0 | 25,0 | 180 | 35 | 20,0 | 29,50 |           |        | 110601026 | 147,05 | 110602022 | 215,76 |
| M 36 x 4,0     | 36,0 | 28,0 | 200 | 40 | 22,0 | 32,00 |           |        | 110601027 | 232,52 | 110602023 | 362,39 |
| M 39 x 4,0     | 39,0 | 32,0 | 200 | 40 | 24,0 | 35,00 |           |        | 110601028 | 295,36 | 110602024 | 445,13 |
| M 42 x 4,5     | 42,0 | 32,0 | 200 | 45 | 24,0 | 37,50 |           |        | 110601029 | 351,92 | 110602025 | 519,49 |
| M 45 x 4,5     | 45,0 | 36,0 | 220 | 45 | 29,0 | 40,50 |           |        | 110601030 | 395,91 | 110602026 | 589,67 |
| M 48 x 5,0     | 48,0 | 36,0 | 250 | 50 | 29,0 | 43,00 |           |        | 110601031 | 433,61 | 110602027 | 644,13 |
| M 52 x 5,0     | 52,0 | 40,0 | 250 | 50 | 32,0 | 47,00 |           |        | 110601032 | 515,31 | 110602028 | 752,01 |

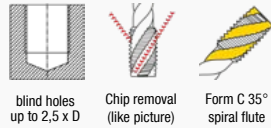
# Machine Taps - Form C (with spiral flutes) for blind holes

**M** metric coarse thread / ISO DIN 13

- ✓ Tap for machine use in blind holes.
- The fast spiral flutes provide good chip removal from the blind hole.

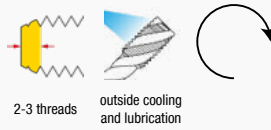


## Machine Tap for high-alloyed steels and longer tool life time

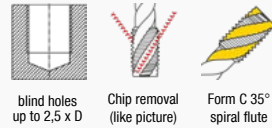


blind holes up to 2,5 x D  
Chip removal (like picture)  
Form C 35° spiral flute

material: HSSE TiN  
ISO2/6H  
to 1300 N/mm<sup>2</sup>  
41 HRC

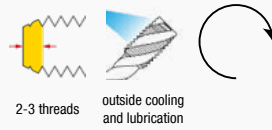


## Machine Tap ECO for stainless steels with high tool life time

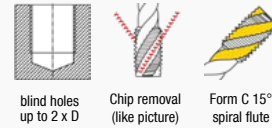


blind holes up to 2,5 x D  
Chip removal (like picture)  
Form C 35° spiral flute

material: HSSE steam tempered  
ISO2/6H  
to 900 N/mm<sup>2</sup>  
27,1 HRC

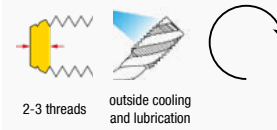


## Machine Tap for high alloyed stainless steels and high-tensile materials



blind holes up to 2 x D  
Chip removal (like picture)  
Form C 15° spiral flute

material: HSSE-PM TiAlN  
ISO2/6H  
to 1400 N/mm<sup>2</sup>  
44 HRC

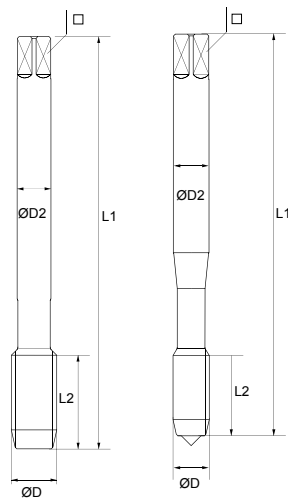


| M            | D1   | D2   | L1  | L2 | □    | ▣     | No.       | €      | No.       | €     | No.       | €      |
|--------------|------|------|-----|----|------|-------|-----------|--------|-----------|-------|-----------|--------|
| M 2 x 0,4    | 2,0  | 2,8  | 45  | 6  | 2,1  | 1,60  | 110604001 | 14,05  |           |       | 110606001 | 30,79  |
| M 2,5 x 0,45 | 2,5  | 2,8  | 50  | 6  | 2,1  | 2,05  | 110604002 | 14,05  |           |       | 110606002 | 30,79  |
| M 3 x 0,5    | 3,0  | 3,5  | 56  | 6  | 2,7  | 2,50  | 110604003 | 11,63  | 110605001 | 12,99 | 110606003 | 24,94  |
| M 3,5 x 0,6  | 3,5  | 4,0  | 56  | 13 | 3,0  | 2,90  | 110604004 | 15,96  |           |       |           |        |
| M 4 x 0,7    | 4,0  | 4,5  | 63  | 7  | 3,4  | 3,30  | 110604005 | 11,63  | 110605002 | 12,99 | 110606004 | 24,94  |
| M 5 x 0,8    | 5,0  | 6,0  | 70  | 8  | 4,9  | 4,20  | 110604006 | 12,36  | 110605003 | 14,24 | 110606005 | 26,86  |
| M 6 x 1,0    | 6,0  | 6,0  | 80  | 10 | 4,9  | 5,00  | 110604007 | 12,88  | 110605004 | 14,24 | 110606006 | 30,05  |
| M 7 x 1,0    | 7,0  | 7,0  | 80  | 19 | 5,5  | 6,00  | 110604008 | 13,71  |           |       |           |        |
| M 8 x 1,25   | 8,0  | 8,0  | 90  | 14 | 6,2  | 6,80  | 110604009 | 15,82  | 110605005 | 16,97 | 110606007 | 37,09  |
| M 9 x 1,25   | 9,0  | 9,0  | 90  | 15 | 7,0  | 7,80  | 110604010 | *      |           |       |           |        |
| M 10 x 1,5   | 10,0 | 10,0 | 100 | 16 | 8,0  | 8,50  | 110604011 | 20,00  | 110605006 | 23,98 | 110606008 | 46,68  |
| M 11 x 1,5   | 11,0 | 8,0  | 100 | 18 | 6,2  | 9,50  | 110604012 | *      |           |       |           |        |
| M 12 x 1,75  | 12,0 | 9,0  | 110 | 18 | 7,0  | 10,20 | 110604013 | 26,18  | 110605007 | 30,27 | 110606009 | 65,87  |
| M 14 x 2,0   | 14,0 | 11,0 | 110 | 20 | 9,0  | 12,00 | 110604014 | 31,72  | 110605008 | 34,25 | 110606010 | 90,19  |
| M 16 x 2,0   | 16,0 | 12,0 | 110 | 22 | 9,0  | 14,00 | 110604015 | 34,97  | 110605009 | 36,97 | 110606011 | 98,74  |
| M 18 x 2,5   | 18,0 | 14,0 | 125 | 25 | 11,0 | 15,50 | 110604016 | 53,82  | 110605010 | 49,75 | 110606012 | 111,66 |
| M 20 x 2,5   | 20,0 | 16,0 | 140 | 25 | 12,0 | 17,50 | 110604017 | 65,75  | 110605011 | 69,96 | 110606013 | 146,52 |
| M 22 x 2,5   | 22,0 | 18,0 | 140 | 27 | 14,5 | 19,50 | 110604018 | 76,49  | 110605012 | 91,92 | 110606014 | 223,79 |
| M 24 x 3,0   | 24,0 | 18,0 | 160 | 30 | 14,5 | 21,00 | 110604019 | 82,70  | 110605013 | 99,36 | 110606015 | 308,30 |
| M 27 x 3,0   | 27,0 | 20,0 | 160 | 30 | 16,0 | 24,00 | 110604020 | 98,03  |           |       |           |        |
| M 30 x 3,5   | 30,0 | 22,0 | 180 | 35 | 18,0 | 26,50 | 110604021 | 103,06 |           |       |           |        |

# Machine Taps - Form C (with spiral flutes) for blind holes

**M** metric coarse thread / ISO DIN 13

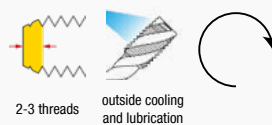
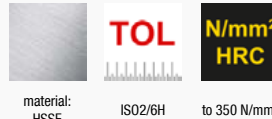
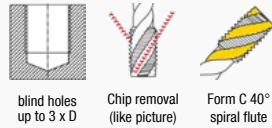
- ✓ Tap for machine use in blind holes.
- ✓ The fast spiral flutes provide good chip removal from the blind hole.



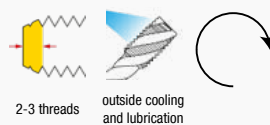
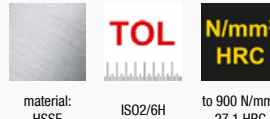
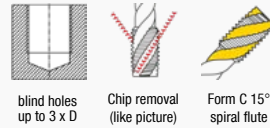
Shank: DIN 376

Shank: DIN 371

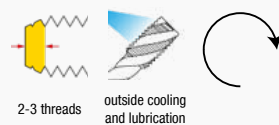
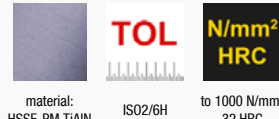
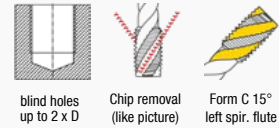
## Machine Tap for aluminum (long-chipping)



## Machine Tap for long-chipping materials



## Machine Tap for special alloys (Inconel, Hastelloy etc.)

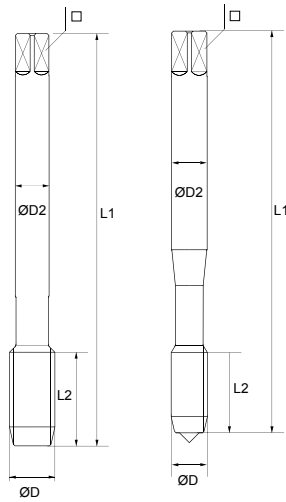


| <b>M</b>       | D1   | D2   | L1  | L2 | □    | ▣     | No.       | €     | No.       | €     | No.       | €      |
|----------------|------|------|-----|----|------|-------|-----------|-------|-----------|-------|-----------|--------|
| <b>DIN 371</b> |      |      |     |    |      |       |           |       |           |       |           |        |
| M 3 x 0,5      | 3,0  | 3,5  | 56  | 6  | 2,7  | 2,50  | 110607001 | 11,94 | 110608001 | 9,89  | 110612001 | 28,56  |
| M 3,5 x 0,6    | 3,5  | 4,0  | 56  | 13 | 3,0  | 2,90  |           |       | 110608002 | 10,21 |           |        |
| M 4 x 0,7      | 4,0  | 4,5  | 63  | 7  | 3,4  | 3,30  | 110607002 | 11,94 | 110608003 | 9,89  | 110612002 | 31,59  |
| M 5 x 0,8      | 5,0  | 6,0  | 70  | 8  | 4,9  | 4,20  | 110607003 | 13,09 | 110608004 | 10,63 | 110612003 | 32,68  |
| M 6 x 1,0      | 6,0  | 6,0  | 80  | 10 | 4,9  | 5,00  | 110607004 | 13,09 | 110608005 | 10,63 | 110612004 | 33,87  |
| M 7 x 1,0      | 7,0  | 7,0  | 80  | 19 | 5,5  | 6,00  |           |       | 110608006 | 13,37 |           |        |
| M 8 x 1,25     | 8,0  | 8,0  | 90  | 14 | 6,2  | 6,80  | 110607005 | 15,08 | 110608007 | 13,05 | 110612005 | 40,69  |
| M 10 x 1,5     | 10,0 | 10,0 | 100 | 16 | 8,0  | 8,50  | 110607006 | 22,41 | 110608008 | 15,05 | 110612006 | 54,00  |
| <b>DIN 376</b> |      |      |     |    |      |       |           |       |           |       |           |        |
| M 3 x 0,5      | 3,0  | 2,2  | 56  | 11 | -    | 2,50  |           |       | 110608009 | 11,16 |           |        |
| M 4 x 0,7      | 4,0  | 2,8  | 63  | 13 | 2,1  | 3,30  |           |       | 110608010 | 11,16 |           |        |
| M 5 x 0,8      | 5,0  | 3,5  | 70  | 16 | 2,7  | 4,20  |           |       | 110608011 | 11,89 |           |        |
| M 6 x 1,0      | 6,0  | 4,5  | 80  | 19 | 3,4  | 5,00  |           |       | 110608012 | 11,89 |           |        |
| M 8 x 1,25     | 8,0  | 6,0  | 90  | 22 | 4,9  | 6,80  |           |       | 110608013 | 14,63 |           |        |
| M 10 x 1,5     | 10,0 | 7,0  | 100 | 24 | 5,5  | 8,50  |           |       | 110608014 | 16,95 |           |        |
| M 12 x 1,75    | 12,0 | 9,0  | 110 | 18 | 7,0  | 10,20 | 110607007 | 29,12 | 110608015 | 20,21 | 110612007 | 78,77  |
| M 14 x 2,0     | 14,0 | 11,0 | 110 | 20 | 9,0  | 12,00 | 110607008 | 31,42 | 110608016 | 27,16 | 110612008 | 90,19  |
| M 16 x 2,0     | 16,0 | 12,0 | 110 | 22 | 9,0  | 14,00 | 110607009 | 34,77 | 110608017 | 29,47 | 110612009 | 111,08 |
| M 18 x 2,5     | 18,0 | 14,0 | 125 | 25 | 11,0 | 15,50 |           |       | 110608018 | 42,32 | 110612010 | 125,62 |
| M 20 x 2,5     | 20,0 | 16,0 | 140 | 25 | 12,0 | 17,50 |           |       | 110608019 | 54,95 | 110612011 | 164,84 |
| M 22 x 2,5     | 22,0 | 18,0 | 140 | 27 | 14,5 | 19,50 |           |       | 110608020 | 63,16 |           |        |
| M 24 x 3,0     | 24,0 | 18,0 | 160 | 30 | 14,5 | 21,00 |           |       | 110608021 | 66,95 |           |        |

# Machine Taps - Form C (with spiral flutes) for blind holes

**M** metric coarse thread / ISO DIN 13

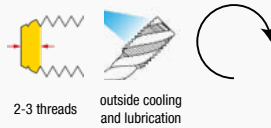
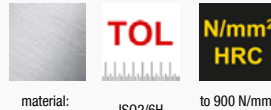
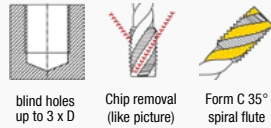
- ✓ Tap for machine use in blind holes.
- ✓ The fast spiral flutes provide good chip removal from the blind hole.



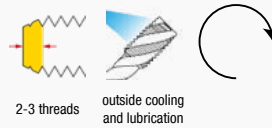
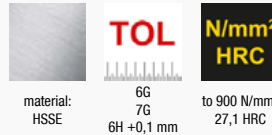
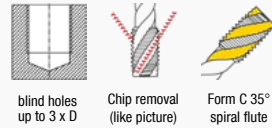
Shank: DIN 376

Shank: DIN 371

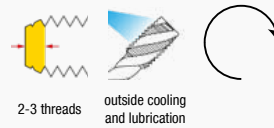
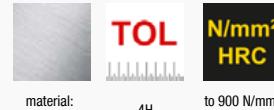
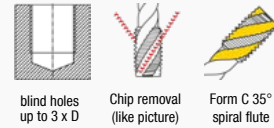
## Machine Tap for general use **overlengthened (long shank)**



## Machine Tap for general use **oversized (diameter)**



## Machine Tap for general use **undersized (diameter)**



| M                        | D1   | D2   | L1  | L2 | □    | ⚙️    | No.   | €     | No.                                      | €     | No.       | €     |
|--------------------------|------|------|-----|----|------|-------|---|-------|--|-------|-----------|-------|
| Total length L1 = 100 mm |      |      |     |    |      |       |   |       |  |       |           |       |
| M 2 x 0,4                | 2,0  | 2,8  | 45  | 6  | 2,1  | 1,60  | Tol. 6G:<br>threads with large clearance          |       | Tol. 4H:<br>threads with small clearance |       |           |       |
| M 2,5 x 0,45             | 2,5  | 2,8  | 50  | 6  | 2,1  | 2,05  |   |       | 110620001                                | 30,77 | 110620002 | 29,60 |
| M 3 x 0,5                | 3,0  | 3,5  | 56  | 6  | 2,7  | 2,50  | 110614001   | 12,78 | 110617001                                | 10,68 | 110620003 | 10,95 |
| M 4 x 0,7                | 4,0  | 4,5  | 63  | 7  | 3,4  | 3,30  | 110614002   | 12,78 | 110617002                                | 10,68 | 110620004 | 10,95 |
| M 5 x 0,8                | 5,0  | 6,0  | 70  | 8  | 4,9  | 4,20  | 110614003   | 13,72 | 110617003                                | 11,10 | 110620005 | 11,68 |
| M 6 x 1,0                | 6,0  | 6,0  | 80  | 10 | 4,9  | 5,00  | 110614004   | 13,72 | 110617004                                | 11,10 | 110620006 | 11,68 |
| M 8 x 1,25               | 8,0  | 8,0  | 90  | 14 | 6,2  | 6,80  | 110614005   | 15,92 | 110617005                                | 13,51 | 110620007 | 15,05 |
| M 10 x 1,5               | 10,0 | 10,0 | 100 | 16 | 8,0  | 8,50  | 110614006   | 17,18 | 110617006                                | 15,71 | 110620008 | 17,79 |
| M 12 x 1,75              | 12,0 | 9,0  | 110 | 18 | 7,0  | 10,20 | 110614007   | 17,39 | 110617007                                | 17,07 | 110620009 | 19,16 |
| M 14 x 2,0               | 14,0 | 11,0 | 110 | 20 | 9,0  | 12,00 |   |       | 110617008                                | 24,61 |           |       |
| M 16 x 2,0               | 16,0 | 12,0 | 110 | 22 | 9,0  | 14,00 |   |       | 110617009                                | 25,77 |           |       |
| M 18 x 2,5               | 18,0 | 14,0 | 125 | 25 | 11,0 | 15,50 |   |       | 110617010                                | 38,65 |           |       |
| M 20 x 2,5               | 20,0 | 16,0 | 140 | 25 | 12,0 | 17,50 |   |       | 110617011                                | 53,83 |           |       |
| Total length L1 = 120 mm |      |      |     |    |      |       |   |       |  |       |           |       |
| M 3 x 0,5                | 3,0  | 3,5  | 56  | 6  | 2,7  | 2,50  | Tol. 7G:<br>for disorted threads (heat treatment) |       |  |       |           |       |
| M 4 x 0,7                | 4,0  | 4,5  | 63  | 7  | 3,4  | 3,30  | 110615001   | 13,20 | 110618001                                | 10,89 | 110618002 | 10,89 |
| M 5 x 0,8                | 5,0  | 6,0  | 70  | 8  | 4,9  | 4,20  | 110615002   | 14,66 | 110618003                                | 11,63 | 110618004 | 11,63 |
| M 6 x 1,0                | 6,0  | 6,0  | 80  | 10 | 4,9  | 5,00  | 110615003   | 14,66 | 110618005                                | 11,63 | 110618006 | 11,63 |
| M 8 x 1,25               | 8,0  | 8,0  | 90  | 14 | 6,2  | 6,80  | 110615004   | 16,76 | 110618007                                | 14,98 | 110618008 | 14,98 |
| M 10 x 1,5               | 10,0 | 10,0 | 100 | 16 | 8,0  | 8,50  | 110615005   | 19,17 | 110618009                                | 17,70 | 110618010 | 17,70 |
| M 12 x 1,75              | 12,0 | 9,0  | 110 | 18 | 7,0  | 10,20 | 110615006   | 20,32 | 110618011                                | 19,06 | 110618012 | 19,06 |
| Total length L1 = 150 mm |      |      |     |    |      |       |   |       |  |       |           |       |
| M 3 x 0,5                | 3,0  | 3,5  | 56  | 6  | 2,7  | 2,50  | Tol. 6H +0,1 mm:<br>for electroplating allowance  |       |  |       |           |       |
| M 4 x 0,7                | 4,0  | 4,5  | 63  | 7  | 3,4  | 3,30  | 110616001   | 13,72 | 110619001                                | 10,89 | 110619002 | 10,89 |
| M 5 x 0,8                | 5,0  | 6,0  | 70  | 8  | 4,9  | 4,20  | 110616002   | 15,61 | 110619003                                | 11,63 | 110619004 | 11,63 |
| M 6 x 1,0                | 6,0  | 6,0  | 80  | 10 | 4,9  | 5,00  | 110616003   | 15,61 | 110619005                                | 11,63 | 110619006 | 11,63 |
| M 8 x 1,25               | 8,0  | 8,0  | 90  | 14 | 6,2  | 6,80  | 110616004   | 18,54 | 110619007                                | 14,98 | 110619008 | 14,98 |
| M 10 x 1,5               | 10,0 | 10,0 | 100 | 16 | 8,0  | 8,50  | 110616005   | 22,41 | 110619009                                | 17,70 | 110619010 | 17,70 |
| M 12 x 1,75              | 12,0 | 9,0  | 110 | 18 | 7,0  | 10,20 | 110616006   | 24,30 | 110619011                                | 19,06 | 110619012 | 19,06 |

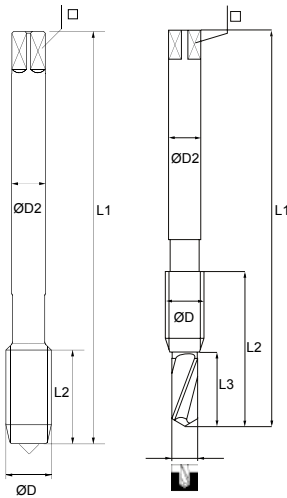
**M** metric coarse thread / ISO DIN 13

## Machine Nut Tap

Machine Tap for threading nuts up to 1,0 D. The flutes can hold the most part of the chips.

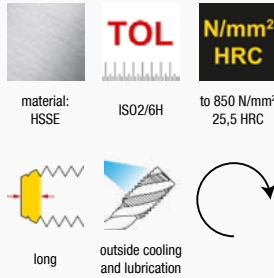
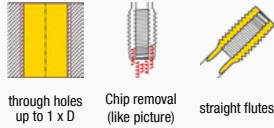
## Combined Machine Tap

Machine Tap, which allows core hole drilling and thread tapping in one fluent process without changing tools.

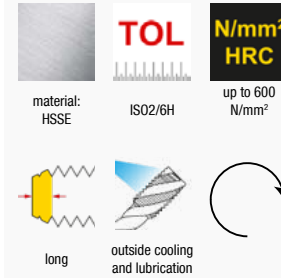
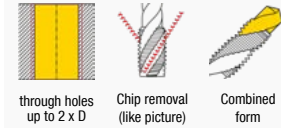


Shank: DIN 357

## Machine Nut Tap for general use



## Combined Machine Tap for general use

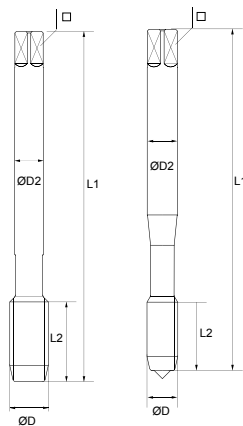


| M           | D1   | D2   | L1  | L2 | □    | No.   | €         |       |      |     |    | □  | No. | €         |       |
|-------------|------|------|-----|----|------|-------|-----------|-------|------|-----|----|----|-----|-----------|-------|
|             |      |      |     |    |      |       |           | D2    | L1   | L2  | L3 |    |     |           |       |
| M 3 x 0,5   | 3,0  | 2,2  | 70  | 22 | -    | 2,50  | 110901001 | 17,18 | 3,0  | 56  | 22 | 11 | 2,4 | 111001001 | 20,32 |
| M 4 x 0,7   | 4,0  | 2,8  | 90  | 25 | 2,1  | 3,30  | 110901002 | 17,18 | 4,0  | 63  | 28 | 14 | 3,0 | 111001002 | 20,32 |
| M 5 x 0,8   | 5,0  | 3,5  | 100 | 28 | 2,7  | 4,20  | 110901003 | 18,43 | 5,0  | 71  | 36 | 18 | 3,8 | 111001003 | 20,32 |
| M 6 x 1,0   | 6,0  | 4,5  | 110 | 32 | 3,4  | 5,00  | 110901004 | 18,43 | 6,0  | 80  | 44 | 22 | 4,9 | 111001004 | 22,62 |
| M 8 x 1,25  | 8,0  | 6,0  | 125 | 40 | 4,9  | 6,80  | 110901005 | 21,16 | 8,0  | 95  | 50 | 25 | 6,2 | 111001005 | 25,87 |
| M 10 x 1,5  | 10,0 | 7,0  | 140 | 45 | 5,5  | 8,50  | 110901006 | 27,65 | 10,0 | 106 | 62 | 31 | 8,0 | 111001006 | 28,38 |
| M 12 x 1,75 | 12,0 | 9,0  | 180 | 50 | 7,0  | 10,20 | 110901007 | 38,96 | 12,0 | 115 | 70 | 35 | 9,0 | 111001007 | 33,31 |
| M 14 x 2,0  | 14,0 | 11,0 | 200 | 56 | 9,0  | 12,00 | 110901008 | 48,81 |      |     |    |    |     |           |       |
| M 16 x 2,0  | 16,0 | 12,0 | 200 | 63 | 9,0  | 14,00 | 110901009 | 59,49 |      |     |    |    |     |           |       |
| M 18 x 2,5  | 18,0 | 14,0 | 220 | 63 | 11,0 | 15,50 | 110901010 | 67,24 |      |     |    |    |     |           |       |
| M 20 x 2,5  | 20,0 | 16,0 | 250 | 70 | 12,0 | 17,50 | 110901011 | 73,94 |      |     |    |    |     |           |       |
| M 22 x 2,5  | 22,0 | 18,0 | 280 | 80 | 14,5 | 19,50 | 110901012 | 88,50 |      |     |    |    |     |           |       |
| M 24 x 3,0  | 24,0 | 18,0 | 280 | 80 | 14,5 | 21,00 | 110901013 | 99,29 |      |     |    |    |     |           |       |

**M** metric coarse thread / ISO DIN 13

## Machine Forming Taps have following advantages:

- No chips
- Up to 20 times longer lifetime (compared to taps)
- Same forming tap for through and blind hole
- Wide range of materials can be processed
- Intersection of the thread is impossible
- Very high trueness
- Increased strength of the thread
- Higher surface quality
- Much higher cutting speed



Shank: DIN 376

Shank: DIN 371

## Machine Forming Taps for universal use

through holes & blind holes up to 2,5 x D

Threading with no chips

with oil grooves

**TOL** ISO2/6HX

**N/mm<sup>2</sup> HRC** to 850 N/mm<sup>2</sup> 25,5 HRC

material: HSSE TIN

2-3 threads outside cooling and lubrication



## Machine Forming Taps for higher demands

through holes & blind holes up to 3 x D

Threading with no chips

with oil grooves

**TOL** ISO2/6HX

**N/mm<sup>2</sup> HRC** to 1200 N/mm<sup>2</sup> 37,1 HRC

material: HSSE-PM TIN

2-3 threads outside cooling and lubrication



## Machine Forming Taps for universal use oversized (diameter)

blind holes up to 3 x D

Chip removal (like picture)

with oil grooves

**TOL** ISO3/6GX

**N/mm<sup>2</sup> HRC** to 850 N/mm<sup>2</sup> 25,5 HRC

material: HSSE TIN

2-3 threads outside cooling and lubrication



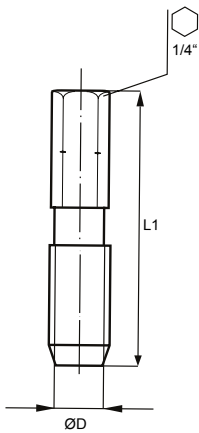
| M            | D1   | D2   | L1  | L2 | □    | □     | Tol. 6HX: standard tolerance |        | Tol. 6GX: standard tolerance |        | Tol. 6GX: threads with large clearance |        |
|--------------|------|------|-----|----|------|-------|------------------------------|--------|------------------------------|--------|--|--------|
|              |      |      |     |    |      |       | No.                          | €      | No.                          | €      | No.                                    | €      |
| M 2 x 0,4    | 2,0  | 2,8  | 45  | 8  | 2,1  | 1,85  | 111101001                    | 38,95  | 111104001                    | 64,79  | 111117001                              | 52,36  |
| M 2,2 x 0,45 | 2,2  | 2,8  | 45  | 8  | 2,1  | 2,03  | 111101002                    | 54,53  |                              |        |  |        |
| M 2,3 x 0,4  | 2,3  | 2,8  | 45  | 8  | 2,1  | 2,15  | 111101003                    | 42,77  |                              |        |  |        |
| M 2,5 x 0,45 | 2,5  | 2,8  | 50  | 9  | 2,1  | 2,33  | 111101004                    | 38,95  | 111104002                    | 61,73  | 111117002                              | 50,21  |
| M 2,6 x 0,45 | 2,6  | 2,8  | 50  | 9  | 2,1  | 2,43  | 111101005                    | 40,89  |                              |        |  |        |
| M 3 x 0,5    | 3,0  | 3,5  | 56  | 11 | 2,7  | 2,80  | 111101006                    | 15,50  | 111104003                    | 27,60  | 111117003                              | 47,32  |
| M 3,5 x 0,6  | 3,5  | 4,0  | 56  | 13 | 3,0  | 3,25  | 111101007                    | 36,70  | 111104004                    | 58,49  | 111117004                              | 47,32  |
| M 4 x 0,7    | 4,0  | 4,5  | 63  | 13 | 3,4  | 3,70  | 111101008                    | 17,07  | 111104005                    | 27,60  | 111117005                              | 50,57  |
| M 4,5 x 0,75 | 4,5  | 6,0  | 70  | 14 | 4,9  | 4,20  | 111101009                    | 39,10  |                              |        |  |        |
| M 5 x 0,8    | 5,0  | 6,0  | 70  | 16 | 4,9  | 4,65  | 111101010                    | 18,43  | 111104006                    | 27,60  | 111117006                              | 50,57  |
| M 6 x 1,0    | 6,0  | 6,0  | 80  | 19 | 4,9  | 5,10  | 111101011                    | 18,96  | 111104007                    | 33,65  | 111117007                              | 50,57  |
| M 8 x 1,25   | 8,0  | 8,0  | 90  | 22 | 6,2  | 7,45  | 111101012                    | 23,04  | 111104008                    | 39,04  | 111117008                              | 62,99  |
| M 10 x 1,5   | 10,0 | 10,0 | 100 | 24 | 8,0  | 9,35  | 111101013                    | 27,65  | 111104009                    | 47,66  | 111117009                              | 76,66  |
| M 12 x 1,75  | 12,0 | 9,0  | 110 | 29 | 7,0  | 11,25 | 111101014                    | 37,18  | 111104010                    | 59,83  | 111117010                              | 100,05 |
| M 14 x 2,0   | 14,0 | 11,0 | 110 | 30 | 9,0  | 13,10 | 111101015                    | 56,35  | 111104011                    | 81,30  | 111117011                              | 138,02 |
| M 16 x 2,0   | 16,0 | 12,0 | 110 | 32 | 9,0  | 15,10 | 111101016                    | 66,40  | 111104012                    | 212,89 | 111117012                              | 175,46 |
| M 18 x 2,5   | 18,0 | 14,0 | 125 | 34 | 11,0 | 16,85 | 111101017                    | 172,26 | 111104013                    | 300,16 |  |        |
| M 20 x 2,5   | 20,0 | 16,0 | 140 | 34 | 12,0 | 18,85 | 111101018                    | 225,60 | 111104014                    | 419,48 |  |        |

**M** metric coarse thread / ISO DIN 13

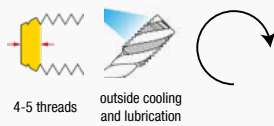
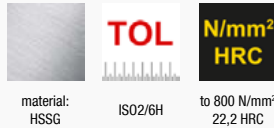
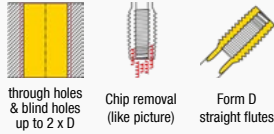
Efficient internal thread cutting with batterypowered screwdriver (min. 7,5 Volt).

### Application:

- ⚙ non abrasive material up to 900 N/mm unalloyed and low alloyed steel



### Bit-Taps Form D for through holes and blind holes



| M            | D1   | L1 | L2 | Hex  | Shank | No.       | €    |
|--------------|------|----|----|------|-------|-----------|------|
| M 3 x 0,5    | 3,0  | 33 | 11 | 1/4" | 2,50  | 111201001 | 3,79 |
| M 3,5 x 0,6  | 3,5  | 34 | 10 | 1/4" | 2,90  | 111201002 | 5,16 |
| M 4 x 0,7    | 4,0  | 35 | 12 | 1/4" | 3,30  | 111201003 | 3,79 |
| M 4,5 x 0,75 | 4,5  | 35 | 12 | 1/4" | 3,70  | 111201004 | 5,16 |
| M 5 x 0,8    | 5,0  | 36 | 15 | 1/4" | 4,20  | 111201005 | 4,84 |
| M 5,5 x 0,9  | 5,5  | 35 | 15 | 1/4" | 4,60  | 111201006 | 5,89 |
| M 6 x 1,0    | 6,0  | 39 | 18 | 1/4" | 5,00  | 111201007 | 4,84 |
| M 7 x 1,0    | 7,0  | 38 | 16 | 1/4" | 6,00  | 111201008 | 6,42 |
| M 8 x 1,25   | 8,0  | 40 | 19 | 1/4" | 6,80  | 111201009 | 6,84 |
| M 9 x 1,25   | 9,0  | 41 | 18 | 1/4" | 7,80  | 111201010 | 9,89 |
| M 10 x 1,5   | 10,0 | 41 | 21 | 1/4" | 8,50  | 111201011 | 8,11 |

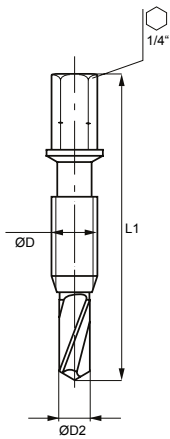
**M** metric coarse thread / ISO DIN 13

Efficient internal thread cutting with batterypowered screwdriver (min. 7,5 Volt).

Core hole drilling and thread tapping in one fluent process.

### Application:

- ⚙ non abrasive material up to 600 N/mm<sup>2</sup> unalloyed and low alloyed steel



### Kombi-Bit-Taps for through holes

through holes up to 1 x D

Chip removal (like picture)

Combined form

material: HSSG

ISO2/6H

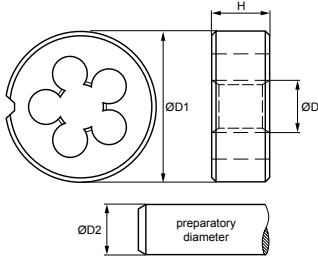
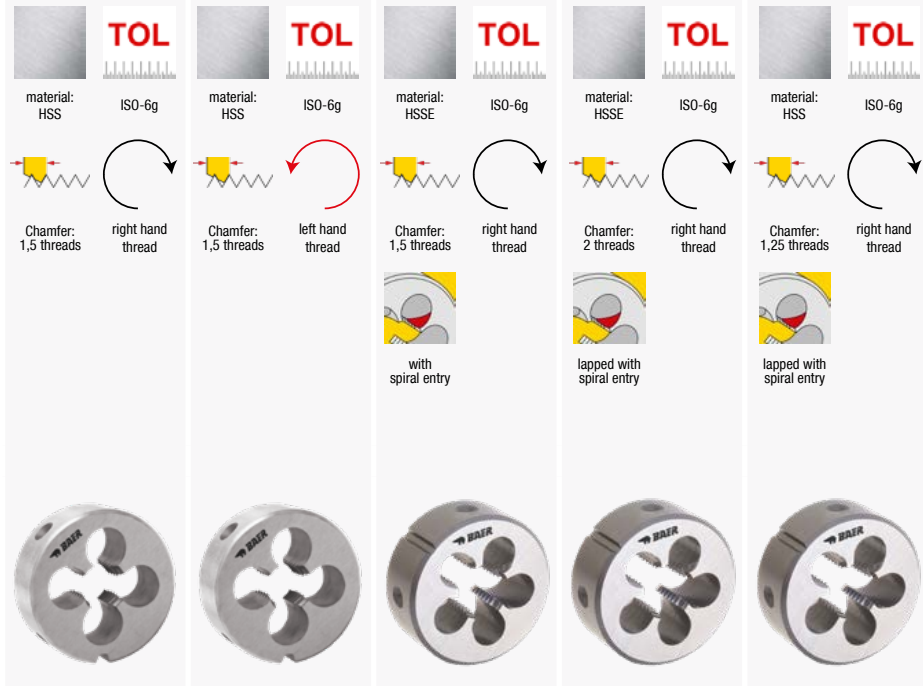
N/mm<sup>2</sup> HRC to 600 N/mm<sup>2</sup>

4-5 threads

outside cooling and lubrication



| M          | D1   | D2  | L1 | Hex  | No.       | €     |
|------------|------|-----|----|------|-----------|-------|
| M 3 x 0,5  | 3,0  | 2,5 | 36 | 1/4" | 111301001 | 7,16  |
| M 4 x 0,7  | 4,0  | 3,3 | 39 | 1/4" | 111301002 | 7,16  |
| M 5 x 0,8  | 5,0  | 4,2 | 41 | 1/4" | 111301003 | 7,16  |
| M 6 x 1,0  | 6,0  | 5,0 | 44 | 1/4" | 111301004 | 7,16  |
| M 8 x 1,25 | 8,0  | 6,8 | 50 | 1/4" | 111301005 | 9,89  |
| M 10 x 1,5 | 10,0 | 8,5 | 59 | 1/4" | 111301006 | 11,89 |

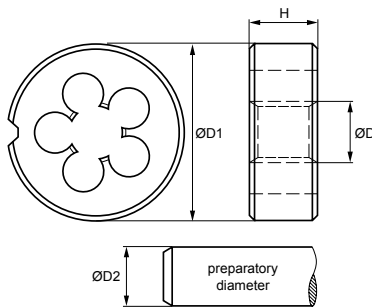
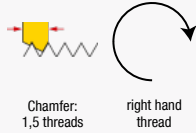
**Round Dies for general use**
**Round Dies for general use  
Left Hand**
**Round Dies for higher demands**
**Round Dies for stainless steels**
**Round Dies for brass**


|              | D    | D1 | H  | D2    | No.       | €     | No.       | €     | No.       | €     | No.       | €     | No.       | €     |
|--------------|------|----|----|-------|-----------|-------|-----------|-------|-----------|-------|-----------|-------|-----------|-------|
| M 1 x 0,25   | 1,0  | 16 | 5  | 0,96  | 111401001 | 12,95 |           |       |           |       |           |       |           |       |
| M 1,1 x 0,25 | 1,1  | 16 | 5  | 1,05  | 111401002 | 12,95 |           |       |           |       |           |       |           |       |
| M 1,2 x 0,25 | 1,2  | 16 | 5  | 1,15  | 111401003 | 12,95 |           |       |           |       |           |       |           |       |
| M 1,4 x 0,3  | 1,4  | 16 | 5  | 1,36  | 111401004 | 12,95 |           |       |           |       | 111405001 | 99,19 |           |       |
| M 1,6 x 0,35 | 1,6  | 16 | 5  | 1,55  | 111401005 | 12,95 |           |       |           |       | 111405002 | 96,04 |           |       |
| M 1,7 x 0,35 | 1,7  | 16 | 5  | 1,64  | 111401006 | 12,95 |           |       |           |       | 111405003 | 96,04 |           |       |
| M 1,8 x 0,35 | 1,8  | 16 | 5  | 1,75  | 111401007 | 11,26 |           |       |           |       |           |       |           |       |
| M 2 x 0,4    | 2,0  | 16 | 5  | 1,95  | 111401008 | 11,26 | 111402001 | 20,94 |           |       | 111405004 | 78,08 | 111409001 | 75,24 |
| M 2,2 x 0,45 | 2,2  | 16 | 5  | 2,15  | 111401009 | 11,26 |           |       |           |       |           |       |           |       |
| M 2,3 x 0,4  | 2,3  | 16 | 5  | 2,23  | 111401010 | 11,26 |           |       |           |       | 111405005 | 78,08 |           |       |
| M 2,5 x 0,45 | 2,5  | 16 | 5  | 2,42  | 111401011 | 11,26 |           |       |           |       | 111405006 | 67,99 | 111409002 | 65,16 |
| M 2,6 x 0,45 | 2,6  | 16 | 5  | 2,53  | 111401012 | 11,26 |           |       |           |       | 111405007 | 70,82 | 111409003 | 65,16 |
| M 3 x 0,5    | 3,0  | 20 | 5  | 2,92  | 111401013 | 5,37  | 111402002 | 9,65  | 111404001 | 10,21 | 111405008 | 21,05 | 111409004 | 15,47 |
| M 3,5 x 0,6  | 3,5  | 20 | 5  | 3,41  | 111401014 | 8,32  |           |       |           |       | 111405009 | 47,97 | 111409005 | 67,03 |
| M 4 x 0,7    | 4,0  | 20 | 5  | 3,90  | 111401015 | 5,37  | 111402003 | 9,65  | 111404002 | 10,21 | 111405010 | 21,05 | 111409006 | 15,47 |
| M 4,5 x 0,75 | 4,5  | 20 | 7  | 4,40  | 111401016 | 8,32  |           |       |           |       |           |       |           |       |
| M 5 x 0,8    | 5,0  | 20 | 7  | 4,90  | 111401017 | 5,68  | 111402004 | 10,36 | 111404003 | 10,63 | 111405011 | 21,05 | 111409007 | 15,47 |
| M 5 x 0,9    | 5,0  | 20 | 7  | 4,89  | 111401018 | 11,79 |           |       |           |       |           |       |           |       |
| M 5,5 x 0,9  | 5,5  | 20 | 7  | 5,44  | 111401019 | 8,32  |           |       |           |       |           |       |           |       |
| M 6 x 1,0    | 6,0  | 20 | 7  | 5,88  | 111401020 | 5,68  | 111402005 | 10,36 | 111404004 | 10,63 | 111405012 | 21,05 | 111409008 | 15,47 |
| M 7 x 1,0    | 7,0  | 25 | 9  | 6,88  | 111401021 | 9,05  |           |       |           |       | 111405013 | 69,63 | 111409009 | 58,51 |
| M 8 x 1,25   | 8,0  | 25 | 9  | 7,86  | 111401022 | 6,00  | 111402006 | 11,99 | 111404005 | 15,05 | 111405014 | 24,95 | 111409010 | 16,63 |
| M 9 x 1,25   | 9,0  | 25 | 9  | 8,86  | 111401023 | 10,21 |           |       |           |       |           |       |           |       |
| M 10 x 1,5   | 10,0 | 30 | 11 | 9,85  | 111401024 | 9,05  | 111402007 | 15,71 | 111404006 | 21,37 | 111405015 | 30,95 | 111409011 | 18,21 |
| M 11 x 1,5   | 11,0 | 30 | 11 | 10,85 | 111401025 | 12,42 |           |       |           |       |           |       |           |       |
| M 12 x 1,75  | 12,0 | 38 | 14 | 11,83 | 111401026 | 14,63 | 111402008 | 22,34 | 111404007 | 33,68 | 111405016 | 38,11 | 111409012 | 25,47 |
| M 14 x 2,0   | 14,0 | 38 | 14 | 13,82 | 111401027 | 14,63 | 111402009 | 25,60 | 111404008 | 33,68 | 111405017 | 38,11 | 111409013 | 27,68 |
| M 15 x 2,0   | 15,0 | 38 | 14 | 14,91 | 111401028 | 22,63 |           |       |           |       |           |       |           |       |
| M 16 x 2,0   | 16,0 | 45 | 18 | 15,82 | 111401029 | 22,63 | 111402010 | 35,48 | 111404009 | 50,95 | 111405018 | 57,47 |           |       |
| M 18 x 2,5   | 18,0 | 45 | 18 | 17,79 | 111401030 | 22,63 | 111402011 | 35,48 | 111404010 | 50,95 | 111405019 | 57,47 |           |       |
| M 19 x 2,5   | 19,0 | 45 | 18 | 18,89 | 111401031 | 32,63 |           |       |           |       |           |       |           |       |
| M 20 x 2,5   | 20,0 | 45 | 18 | 19,79 | 111401032 | 22,63 | 111402012 | 35,48 | 111404011 | 50,95 | 111405020 | 57,47 |           |       |
| M 22 x 2,5   | 22,0 | 55 | 22 | 21,79 | 111401033 | 44,21 | 111402013 | 53,52 | 111404012 | 90,42 | 111405021 | 94,00 |           |       |

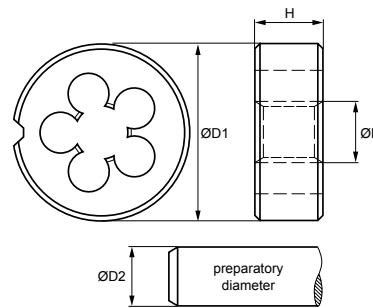
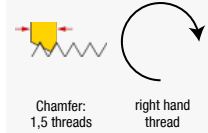
| Round Dies for general use                    | Round Dies for general use<br>Left Hand      | Round Dies for higher demands  | Round Dies for stainless steels   | Round Dies for brass   |
|---|--|--|---|--|
| <br>material: HSS<br>ISO-6g                   | <br>material: HSS<br>ISO-6g                  | <br>material: HSSE<br>ISO-6g   | <br>material: HSSE<br>ISO-6g  | <br>material: HSS<br>ISO-6g  |
| <br>Chamfer: 1,5 threads<br>right hand thread | <br>Chamfer: 1,5 threads<br>left hand thread | <br>Chamfer: 1,5 threads<br>right hand thread<br><br><br>with spiral entry | <br>Chamfer: 2 threads<br>right hand thread<br><br><br>lapped with spiral entry | <br>Chamfer: 1,25 threads<br>right hand thread<br><br><br>lapped with spiral entry |
|   |  |  |   |  |

| M           | D     | D1  | H  | D2    | No.       | €      | No.       | €      | No.       | €      | No.       | €      | No. | € |
|-------------|-------|-----|----|-------|-----------|--------|-----------|--------|-----------|--------|-----------|--------|-----|---|
| M 24 x 3,0  | 24,0  | 55  | 22 | 23,76 | 111401034 | 44,21  | 111402014 | 53,80  | 111404013 | 90,42  | 111405022 | 94,00  |     |   |
| M 27 x 3,0  | 27,0  | 65  | 25 | 26,76 | 111401035 | 59,16  | 111402015 | 97,06  | 111404014 | 133,89 | 111405023 | 148,11 |     |   |
| M 30 x 3,5  | 30,0  | 65  | 25 | 29,73 | 111401036 | 59,16  | 111402016 | 97,06  | 111404015 | 133,89 | 111405024 | 148,11 |     |   |
| M 33 x 3,5  | 33,0  | 65  | 25 | 32,73 | 111401037 | 63,16  | 111402017 | 97,06  |           |        |           |        |     |   |
| M 36 x 4,0  | 36,0  | 65  | 25 | 35,70 | 111401038 | 63,16  | 111402018 | 97,06  |           |        |           |        |     |   |
| M 39 x 4,0  | 39,0  | 75  | 30 | 38,70 | 111401039 | 103,16 | 111402019 | 163,73 |           |        |           |        |     |   |
| M 42 x 4,5  | 42,0  | 75  | 30 | 41,68 | 111401040 | 103,16 | 111402020 | 163,73 |           |        |           |        |     |   |
| M 45 x 4,5  | 45,0  | 90  | 36 | 44,68 | 111401041 | 175,79 | 111402021 | 257,26 |           |        |           |        |     |   |
| M 48 x 5,0  | 48,0  | 90  | 36 | 47,66 | 111401042 | 175,79 | 111402022 | 257,26 |           |        |           |        |     |   |
| M 52 x 5,0  | 52,0  | 90  | 36 | 51,66 | 111401043 | 175,79 | 111402023 | 257,26 |           |        |           |        |     |   |
| M 56 x 5,5  | 56,0  | 105 | 36 | 55,65 | 111401044 | 395,79 |           |        |           |        |           |        |     |   |
| M 60 x 5,5  | 60,0  | 105 | 36 | 59,65 | 111401045 | 395,79 |           |        |           |        |           |        |     |   |
| M 64 x 6,0  | 64,0  | 120 | 36 | 63,62 | 111401046 | 524,21 |           |        |           |        |           |        |     |   |
| M 68 x 6,0  | 68,0  | 120 | 36 | 67,62 | 111401047 | 524,21 |           |        |           |        |           |        |     |   |
| M 72 x 6,0  | 72,0  | 120 | 36 |       | 111401048 | 391,58 |           |        |           |        |           |        |     |   |
| M 76 x 6,0  | 76,0  | 120 | 36 |       | 111401049 | 391,58 |           |        |           |        |           |        |     |   |
| M 80 x 6,0  | 80,0  | 120 | 36 |       | 111401050 | 391,58 |           |        |           |        |           |        |     |   |
| M 84 x 6,0  | 84,0  | 130 | 36 |       | 111401051 | 498,95 |           |        |           |        |           |        |     |   |
| M 88 x 6,0  | 88,0  | 140 | 36 |       | 111401052 | 768,42 |           |        |           |        |           |        |     |   |
| M 90 x 6,0  | 90,0  | 140 | 36 |       | 111401053 | 768,42 |           |        |           |        |           |        |     |   |
| M 92 x 6,0  | 92,0  | 140 | 36 |       | 111401054 | 768,42 |           |        |           |        |           |        |     |   |
| M 96 x 6,0  | 96,0  | 140 | 36 |       | 111401055 | 768,42 |           |        |           |        |           |        |     |   |
| M 100 x 6,0 | 100,0 | 150 | 36 |       | 111401056 | 890,53 |           |        |           |        |           |        |     |   |

## Round Dies for general use undersized


 material: HSS  
 Ge


## Round Dies for general use dimensions: 25 x 9


 material: HSS  
 ISO-6g


| <b>M</b>    | D    | D1 | H  | D2    | No.       | €     |
|-------------|------|----|----|-------|-----------|-------|
| M 3 x 0,5   | 3,0  | 20 | 5  | 2,89  | 111421001 | 9,31  |
| M 4 x 0,7   | 4,0  | 20 | 5  | 3,87  | 111421002 | 9,31  |
| M 5 x 0,8   | 5,0  | 20 | 7  | 4,86  | 111421003 | 9,66  |
| M 6 x 1,0   | 6,0  | 20 | 7  | 5,85  | 111421004 | 9,66  |
| M 8 x 1,25  | 8,0  | 25 | 9  | 7,83  | 111421005 | 10,36 |
| M 10 x 1,5  | 10,0 | 30 | 11 | 9,81  | 111421006 | 13,39 |
| M 12 x 1,75 | 12,0 | 38 | 14 | 11,81 | 111421007 | 20,71 |
| M 14 x 2,0  | 14,0 | 38 | 14 | 13,87 | 111421008 | 26,76 |
| M 16 x 2,0  | 16,0 | 45 | 18 | 15,87 | 111421009 | 40,26 |
| M 18 x 2,5  | 18,0 | 45 | 18 | 17,75 | 111421010 | 40,26 |
| M 20 x 2,5  | 20,0 | 45 | 18 | 19,75 | 111421011 | 40,26 |

| <b>M</b>    | D    | D1 | H | D2    | No.       | €    |
|-------------|------|----|---|-------|-----------|------|
| M 3 x 0,5   | 3,0  | 25 | 9 | 2,92  | 111422001 | 5,97 |
| M 4 x 0,7   | 4,0  | 25 | 9 | 3,90  | 111422002 | 5,97 |
| M 5 x 0,8   | 5,0  | 25 | 9 | 4,90  | 111422003 | 5,97 |
| M 6 x 1,0   | 6,0  | 25 | 9 | 5,88  | 111422004 | 5,97 |
| M 8 x 1,25  | 8,0  | 25 | 9 | 7,86  | 111422005 | 5,97 |
| M 10 x 1,5  | 10,0 | 25 | 9 | 9,85  | 111422006 | 5,97 |
| M 12 x 1,75 | 12,0 | 25 | 9 | 11,83 | 111422007 | 5,97 |

## Hexagon Die Nuts for general use

## Hexagon Die Nuts for general use Left Hand


**TOL**

material: HSS ISO-6g



Chamfer: 1,5 threads

right hand thread

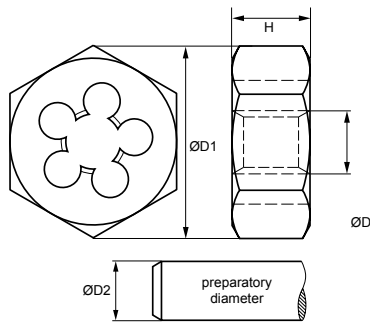

**TOL**

material: HSS ISO-6g



Chamfer: 1,5 threads

left hand thread


**M**

|             | D    | D1  | H  | D2    | No.       | €      | No.       | €      |
|-------------|------|-----|----|-------|-----------|--------|-----------|--------|
| M 3 x 0,5   | 3,0  | 19  | 5  | 2,92  | 111501001 | 11,26  | 111502001 | 13,47  |
| M 3,5 x 0,6 | 3,5  | 19  | 5  | 3,41  | 111501002 | 11,26  |           |        |
| M 4 x 0,7   | 4,0  | 19  | 5  | 3,90  | 111501003 | 11,26  | 111502002 | 13,47  |
| M 5 x 0,8   | 4,5  | 19  | 7  | 4,40  | 111501004 | 11,26  | 111502003 | 14,63  |
| M 6 x 1,0   | 6,0  | 19  | 7  | 5,88  | 111501005 | 11,26  | 111502004 | 14,63  |
| M 7 x 1,0   | 7,0  | 22  | 9  | 6,88  | 111501006 | 12,42  |           |        |
| M 8 x 1,25  | 8,0  | 22  | 9  | 7,86  | 111501007 | 12,42  | 111502005 | 16,32  |
| M 9 x 1,25  | 9,0  | 22  | 9  | 8,86  | 111501008 | 12,42  |           |        |
| M 10 x 1,5  | 10,0 | 27  | 11 | 9,85  | 111501009 | 14,63  | 111502006 | 23,05  |
| M 11 x 1,5  | 11,0 | 27  | 11 | 10,85 | 111501010 | 14,63  |           |        |
| M 12 x 1,75 | 12,0 | 36  | 14 | 11,83 | 111501011 | 20,32  | 111502007 | 35,47  |
| M 14 x 2,0  | 14,0 | 36  | 14 | 13,82 | 111501012 | 20,32  | 111502008 | 35,47  |
| M 16 x 2,0  | 16,0 | 41  | 18 | 15,82 | 111501013 | 28,74  | 111502009 | 55,16  |
| M 18 x 2,5  | 18,0 | 41  | 18 | 17,79 | 111501014 | 28,74  | 111502010 | 55,16  |
| M 20 x 2,5  | 20,0 | 41  | 18 | 19,79 | 111501015 | 28,74  | 111502011 | 55,16  |
| M 22 x 2,5  | 22,0 | 50  | 22 | 21,79 | 111501016 | 48,42  | 111502012 | 74,95  |
| M 24 x 3,0  | 24,0 | 50  | 22 | 23,76 | 111501017 | 58,53  | 111502013 | 74,95  |
| M 27 x 3,0  | 27,0 | 60  | 25 | 26,76 | 111501018 | 88,95  | 111502014 | 115,79 |
| M 30 x 3,5  | 30,0 | 60  | 25 | 29,73 | 111501019 | 88,95  | 111502015 | 115,79 |
| M 33 x 3,5  | 33,0 | 60  | 25 | 32,73 | 111501020 | 88,95  | 111502016 | 115,79 |
| M 36 x 4,0  | 36,0 | 60  | 25 | 35,70 | 111501021 | 88,95  | 111502017 | 115,79 |
| M 39 x 4,0  | 39,0 | 70  | 30 | 38,70 | 111501022 | 148,42 | 111502018 | 191,58 |
| M 42 x 4,5  | 42,0 | 70  | 30 | 41,68 | 111501023 | 148,42 | 111502019 | 191,58 |
| M 45 x 4,5  | 45,0 | 85  | 36 | 44,68 | 111501024 | 204,21 | 111502020 | 271,58 |
| M 48 x 5,0  | 48,0 | 85  | 36 | 47,66 | 111501025 | 204,21 | 111502021 | 271,58 |
| M 52 x 5,0  | 52,0 | 85  | 36 | 51,66 | 111501026 | 204,21 | 111502022 | 271,58 |
| M 56 x 5,5  | 56,0 | 100 | 36 | 55,65 | 111501027 | 368,42 |           |        |
| M 60 x 5,5  | 60,0 | 100 | 36 | 59,65 | 111501028 | 368,42 |           |        |
| M 64 x 6,0  | 64,0 | 100 | 36 | 63,62 | 111501029 | 404,21 |           |        |
| M 68 x 6,0  | 68,0 | 115 | 36 | 67,62 | 111501030 | 524,21 |           |        |

**MF** Metric fine thread / ISO DIN 13

## BAER Hand-Tap Sets, Round Dies and Tools Sets (example picture)



### BAER Set MF 3 - MF 12 HSSG Hand Tap Sets & HSS Round Dies & Tools

**299,55**  
€/Set

|  |   |
|--|---|
| BAER HSSG Hand Tap Sets (2 parts)            | MF 3 x 0,35   MF 4 x 0,5   MF 5 x 0,5   6 x 0,75   MF 8 x 0,75   MF 8 x 1,0   MF 10 x 1,0   MF 12 x 1,5 |
| BAER HSS Round Dies                          | MF 3 x 0,35   MF 4 x 0,5   MF 5 x 0,5   6 x 0,75   MF 8 x 0,75   MF 8 x 1,0   MF 10 x 1,0   MF 12 x 1,5 |
| BAER adjustable Tap Wrenches - zinc die cast | M 1-10   1/16-3/8   G 1/8 & M 4-12   5/32-1/2   G 1/8   |
| BAER Die Stocks - zinc die cast              | 20 x 5   20 x 7   25 x 9   30 x 11   38 x 10  |
| Screw extractor                              |   |

Item No.:  
264801002

### BAER Set MF 6 - MF 20 HSSG Hand Tap Sets & HSS Round Dies & Tools

**536,25**  
€/Set

|  |   |
|--|---|
| BAER HSSG Hand Tap Sets (2 parts)            | MF 6 x 0,75   MF 8 x 0,75   MF 8 x 1,0   MF 10 x 1,0   MF 12 x 1,0   MF 12 x 1,5   MF 14 x 1,25   MF 14 x 1,5   MF 16 x 1,5   MF 18 x 1,5   MF 20 x 1,5 |
| BAER HSS Round Dies                          | MF 6 x 0,75   MF 8 x 0,75   MF 8 x 1,0   MF 10 x 1,0   MF 12 x 1,0   MF 12 x 1,5   MF 14 x 1,25   MF 14 x 1,5   MF 16 x 1,5   MF 18 x 1,5   MF 20 x 1,5 |
| BAER adjustable Tap Wrenches - zinc die cast | M 1-10   1/16-3/8   G 1/8 & M 5-20   7/32-3/4   G 1/8-G 1/2   |
| BAER Die Stocks - zinc die cast              | 20 x 7   25 x 9   30 x 11   38 x 10   45 x 14   |
| Screw extractor                              |   |

Item No.:  
264801102

### BAER Set MF 6 - MF 24 HSSG Hand Tap Sets & HSS Round Dies & Tools

**783,43**  
€/Set

|  |   |
|--|---|
| BAER HSSG Hand Tap Sets (2 parts)            | MF 6 x 0,75   MF 8 x 0,75   MF 8 x 1,0   MF 10 x 1,0   MF 12 x 1,0   MF 12 x 1,5   MF 14 x 1,25   MF 14 x 1,5   MF 16 x 1,5   MF 18 x 1,5   MF 20 x 1,5   MF 22 x 1,5   MF 24 x 1,5 |
| BAER HSS Round Dies                          | MF 6 x 0,75   MF 8 x 0,75   MF 8 x 1,0   MF 10 x 1,0   MF 12 x 1,0   MF 12 x 1,5   MF 14 x 1,25   MF 14 x 1,5   MF 16 x 1,5   MF 18 x 1,5   MF 20 x 1,5   MF 22 x 1,5   MF 24 x 1,5 |
| BAER adjustable Tap Wrenches - zinc die cast | M 1-10   1/16-3/8   G 1/8 & M 11-27   7/16-1"   G 1/4-G 3/4   |
| BAER Die Stocks - zinc die cast              | 20 x 7   25 x 9   30 x 11   38 x 10   45 x 14   55 x 16   |
| Screw extractor                              |   |

Item No.:  
264801202

## BAER Short Machine Taps und Round Dies Sets MF 5 - MF 12 (example picture)



### BAER Set MF 5 - MF 12 HSSG Short Machine Taps & Drill bits for core holes HSS Round Dies

BAER HSSG Short Machine Tap    M 5 x 0,5 | M 6 x 0,75 | M 8 x 1,0 | M 10 x 1,0 | M 12 x 1,5  
Form D for through hole & blind hole  
(up to 4 x D)

BAER HSSG Drill bits for core holes    4,3 mm | 5,2 mm | 7,0 mm | 9,0 mm | 10,5 mm

BAER HSS Round Dies    M 5 x 0,5 | M 6 x 0,75 | M 8 x 1,0 | M 10 x 1,0 | M 12 x 1,5

**159,15**  
€/Set

Item No.:  
BES1

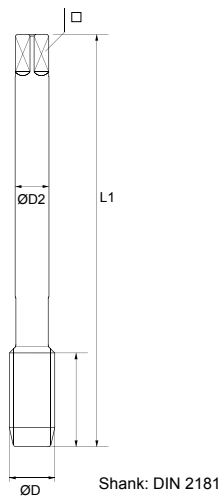
**MF** Metric fine thread / ISO DIN 13

Efficient internal thread cutting.

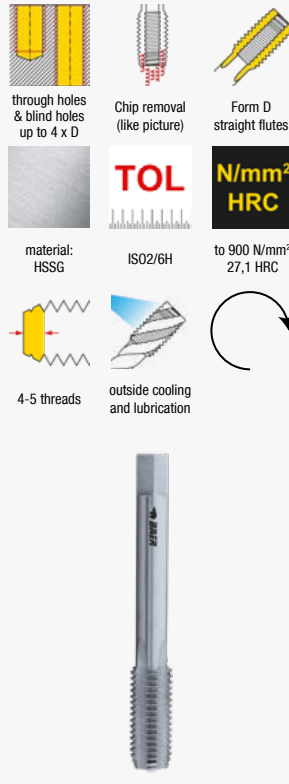
The short structural type makes that tap usable by machine and hand.

### Application:

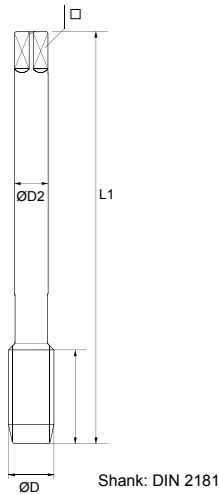
- non abrasive material up to 900 N/mm<sup>2</sup>
- unalloyed and low alloyed steel



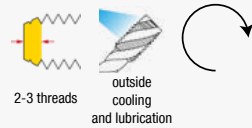
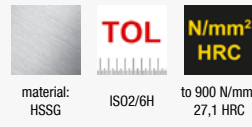
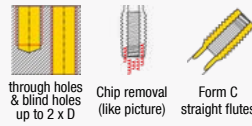
## Short Machine Taps Form D for through holes and blind holes



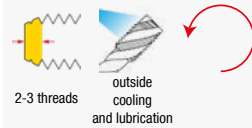
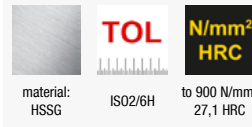
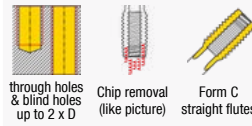
| MF           | D1   | D2   | L1 | L2 | □    |       | No.       | €     |
|--------------|------|------|----|----|------|-------|-----------|-------|
| MF 6 x 0,75  | 6,0  | 6,0  | 50 | 14 | 4,9  | 5,20  | 120101001 | 6,97  |
| MF 8 x 0,75  | 8,0  | 6,0  | 50 | 19 | 4,9  | 6,20  | 120101002 | 6,97  |
| MF 8 x 1,0   | 8,0  | 6,0  | 56 | 22 | 4,9  | 7,00  | 120101003 | 6,97  |
| MF 9 x 0,75  | 9,0  | 7,0  | 56 | 19 | 5,5  | 8,20  | 120101004 | 7,80  |
| MF 9 x 1,0   | 9,0  | 7,0  | 63 | 20 | 5,5  | 8,00  | 120101005 | 7,80  |
| MF 10 x 0,75 | 10,0 | 7,0  | 63 | 20 | 5,5  | 9,20  | 120101006 | 7,80  |
| MF 10 x 1,0  | 10,0 | 7,0  | 63 | 20 | 5,5  | 9,00  | 120101007 | 6,97  |
| MF 10 x 1,25 | 10,0 | 7,0  | 70 | 24 | 5,5  | 8,80  | 120101008 | 7,80  |
| MF 12 x 1,0  | 12,0 | 9,0  | 70 | 22 | 7,0  | 11,00 | 120101009 | 10,12 |
| MF 12 x 1,25 | 12,0 | 9,0  | 70 | 22 | 7,0  | 10,80 | 120101010 | 10,12 |
| MF 12 x 1,5  | 12,0 | 9,0  | 70 | 22 | 7,0  | 10,50 | 120101011 | 9,19  |
| MF 13 x 1,0  | 13,0 | 11,0 | 70 | 22 | 9,0  | 12,00 | 120101012 | 15,48 |
| MF 13 x 1,5  | 13,0 | 11,0 | 70 | 22 | 9,0  | 11,50 | 120101013 | 15,48 |
| MF 14 x 1,0  | 14,0 | 11,0 | 70 | 22 | 9,0  | 13,00 | 120101014 | 15,48 |
| MF 14 x 1,25 | 14,0 | 11,0 | 70 | 22 | 9,0  | 12,80 | 120101015 | 11,63 |
| MF 14 x 1,5  | 14,0 | 11,0 | 70 | 22 | 9,0  | 12,50 | 120101016 | 10,01 |
| MF 15 x 1,5  | 15,0 | 12,0 | 70 | 22 | 9,0  | 13,50 | 120101017 | 17,10 |
| MF 16 x 1,5  | 16,0 | 12,0 | 70 | 22 | 9,0  | 14,50 | 120101018 | 12,22 |
| MF 18 x 1,0  | 18,0 | 14,0 | 80 | 22 | 11,0 | 17,00 | 120101019 | 18,73 |
| MF 18 x 1,5  | 18,0 | 14,0 | 80 | 22 | 11,0 | 16,50 | 120101020 | 14,08 |
| MF 20 x 1,5  | 20,0 | 16,0 | 80 | 22 | 12,0 | 18,50 | 120101021 | 17,10 |
| MF 20 x 2,0  | 20,0 | 16,0 | 80 | 22 | 12,0 | 18,00 | 120101022 | 23,51 |
| MF 22 x 1,5  | 22,0 | 18,0 | 80 | 22 | 14,5 | 20,50 | 120101023 | 24,32 |
| MF 22 x 2,0  | 22,0 | 18,0 | 80 | 22 | 14,5 | 20,00 | 120101024 | 24,32 |
| MF 24 x 1,5  | 24,0 | 18,0 | 90 | 22 | 14,5 | 22,50 | 120101025 | 25,60 |
| MF 24 x 2,0  | 24,0 | 18,0 | 90 | 22 | 14,5 | 22,00 | 120101026 | 32,58 |
| MF 25 x 1,5  | 25,0 | 18,0 | 90 | 22 | 14,5 | 23,50 | 120101027 | 47,70 |
| MF 26 x 1,5  | 26,0 | 18,0 | 90 | 22 | 14,5 | 24,50 | 120101028 | 47,70 |
| MF 27 x 1,5  | 27,0 | 20,0 | 90 | 22 | 16,0 | 25,50 | 120101029 | 47,70 |
| MF 28 x 1,5  | 28,0 | 20,0 | 90 | 22 | 16,0 | 26,50 | 120101030 | 56,43 |
| MF 30 x 1,5  | 30,0 | 22,0 | 90 | 22 | 18,0 | 28,50 | 120101031 | 66,32 |
| MF 30 x 2,0  | 30,0 | 22,0 | 90 | 22 | 18,0 | 28,00 | 120101032 | 66,32 |
| MF 32 x 1,5  | 32,0 | 22,0 | 90 | 22 | 18,0 | 30,50 | 120101033 | 66,32 |



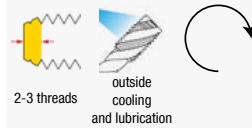
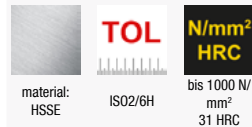
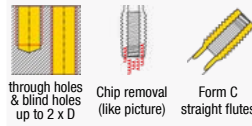
## Hand Tap Sets for general use



## Hand Tap Sets for general use Left Hand



## Hand Tap Sets HSSE for higher demands


**MF**

|               | D1   | D2   | L1 | L2 | □   |       | No.       | €     | No.       | €     | No.       | €     |
|---------------|------|------|----|----|-----|-------|-----------|-------|-----------|-------|-----------|-------|
| MF 2,5 x 0,35 | 2,5  | 2,8  | 40 | 9  | 2,1 | 2,15  | 120301001 | 15,59 |           |       |           |       |
| MF 2,6 x 0,35 | 2,6  | 2,8  | 40 | 9  | 2,1 | 2,25  | 120301002 | 15,59 |           |       |           |       |
| MF 3 x 0,35   | 3,0  | 3,5  | 40 | 9  | 2,7 | 2,65  | 120301003 | 15,59 |           |       |           |       |
| MF 3,5 x 0,35 | 3,5  | 4,0  | 45 | 10 | 3,0 | 3,15  | 120301004 | 15,59 |           |       |           |       |
| MF 4 x 0,35   | 4,0  | 4,5  | 45 | 10 | 3,4 | 3,65  | 120301005 | 15,59 |           |       |           |       |
| MF 4 x 0,5    | 4,0  | 4,5  | 45 | 10 | 3,4 | 3,50  | 120301006 | 15,59 |           |       |           |       |
| MF 4,5 x 0,5  | 4,5  | 6,0  | 50 | 12 | 4,9 | 4,00  | 120301007 | 15,59 |           |       |           |       |
| MF 5 x 0,5    | 5,0  | 6,0  | 50 | 12 | 4,9 | 4,50  | 120301008 | 15,59 |           |       |           |       |
| MF 5 x 0,75   | 5,0  | 6,0  | 50 | 12 | 4,9 | 4,25  | 120301009 | 15,59 |           |       |           |       |
| MF 5,5 x 0,5  | 5,5  | 6,0  | 50 | 12 | 4,9 | 5,00  | 120301010 | 15,59 |           |       |           |       |
| MF 6 x 0,5    | 6,0  | 6,0  | 50 | 14 | 4,9 | 5,50  | 120301011 | 15,59 |           |       |           |       |
| MF 6 x 0,75   | 6,0  | 6,0  | 50 | 14 | 4,9 | 5,20  | 120301012 | 13,97 | 120302001 | 20,82 | 120304001 | 18,71 |
| MF 7 x 0,5    | 7,0  | 6,0  | 50 | 14 | 4,9 | 6,50  | 120301013 | 13,97 |           |       |           |       |
| MF 7 x 0,75   | 7,0  | 6,0  | 50 | 14 | 4,9 | 6,20  | 120301014 | 13,97 |           |       |           |       |
| MF 8 x 0,5    | 8,0  | 6,0  | 50 | 19 | 4,9 | 7,50  | 120301015 | 13,97 |           |       |           |       |
| MF 8 x 0,75   | 8,0  | 6,0  | 50 | 19 | 4,9 | 7,20  | 120301016 | 13,97 | 120302002 | 20,82 | 120304002 | 18,71 |
| MF 8 x 1      | 8,0  | 6,0  | 56 | 22 | 4,9 | 7,00  | 120301017 | 13,97 | 120302003 | 20,82 | 120304003 | 18,71 |
| MF 9 x 0,5    | 9,0  | 7,0  | 56 | 19 | 5,5 | 8,50  | 120301018 | 15,59 |           |       |           |       |
| MF 9 x 0,75   | 9,0  | 7,0  | 56 | 19 | 5,5 | 8,25  | 120301019 | 15,59 |           |       |           |       |
| MF 9 x 1      | 9,0  | 7,0  | 63 | 20 | 5,5 | 8,00  | 120301020 | 15,59 |           |       |           |       |
| MF 10 x 0,5   | 10,0 | 7,0  | 63 | 20 | 5,5 | 9,50  | 120301021 | 15,59 |           |       |           |       |
| MF 10 x 0,75  | 10,0 | 7,0  | 63 | 20 | 5,5 | 9,20  | 120301022 | 15,59 |           |       |           |       |
| MF 10 x 1,0   | 10,0 | 7,0  | 63 | 20 | 5,5 | 9,00  | 120301023 | 13,97 | 120302004 | 20,82 | 120304004 | 20,35 |
| MF 10 x 1,25  | 10,0 | 7,0  | 70 | 24 | 5,5 | 8,80  | 120301024 | 15,59 | 120302005 | 23,38 | 120304005 | 23,38 |
| MF 11 x 0,75  | 11,0 | 8,0  | 63 | 20 | 6,2 | 10,20 | 120301025 | 20,24 |           |       |           |       |
| MF 11 x 1,0   | 11,0 | 8,0  | 63 | 20 | 6,2 | 10,00 | 120301026 | 20,24 |           |       |           |       |
| MF 11 x 1,25  | 11,0 | 8,0  | 63 | 22 | 6,2 | 10,80 | 120301027 | 20,24 |           |       |           |       |
| MF 12 x 0,5   | 12,0 | 9,0  | 70 | 22 | 7,0 | 11,50 | 120301028 | 20,24 |           |       |           |       |
| MF 12 x 0,75  | 12,0 | 9,0  | 70 | 22 | 7,0 | 10,20 | 120301029 | 20,24 |           |       |           |       |
| MF 12 x 1,0   | 12,0 | 9,0  | 70 | 22 | 7,0 | 11,00 | 120301030 | 20,24 | 120302006 | 30,88 | 120304006 | 28,30 |
| MF 12 x 1,25  | 12,0 | 9,0  | 70 | 22 | 7,0 | 10,80 | 120301031 | 20,24 | 120302007 | 30,88 | 120304007 | 28,30 |
| MF 12 x 1,5   | 12,0 | 9,0  | 70 | 22 | 7,0 | 10,50 | 120301032 | 18,39 | 120302008 | 28,30 | 120304008 | 28,30 |
| MF 13 x 0,5   | 13,0 | 11,0 | 70 | 22 | 9,0 | 12,50 | 120301033 | 30,95 |           |       |           |       |

**MF** Metric fine thread / ISO DIN 13

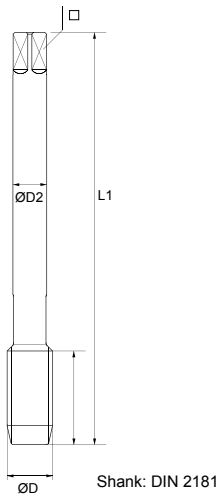
Efficient internal thread cutting.

The short structural type makes that tap usable by machine and hand.

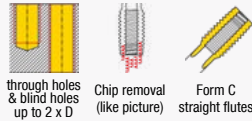
**A Hand-Tap-Set includes 2 taps:**

Taper Tap

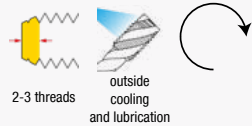
Finish Tap



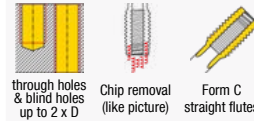
## Hand Tap Sets for general use



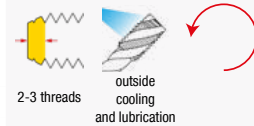
material: HSSG  
ISO2/6H  
TOL  
N/mm<sup>2</sup> HRC  
to 900 N/mm<sup>2</sup>  
27,1 HRC



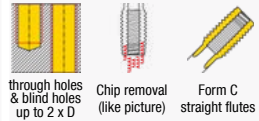
## Hand Tap Sets for general use Left Hand



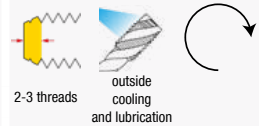
material: HSSG  
ISO2/6H  
TOL  
N/mm<sup>2</sup> HRC  
to 900 N/mm<sup>2</sup>  
27,1 HRC



## Hand Tap Sets HSSE for higher demands



material: HSSE  
ISO2/6H  
TOL  
N/mm<sup>2</sup> HRC  
bis 1000 N/mm<sup>2</sup>  
31 HRC



| MF           | D1   | D2   | L1 | L2 | □    |       | No.       | €     | No.       | €     | No.       | €     |
|--------------|------|------|----|----|------|-------|-----------|-------|-----------|-------|-----------|-------|
| MF 13 x 0,75 | 13,0 | 11,0 | 70 | 22 | 9,0  | 12,20 | 120301034 | 31,10 |           |       |           |       |
| MF 13 x 1,0  | 13,0 | 11,0 | 70 | 22 | 9,0  | 12,00 | 120301035 | 31,10 |           |       |           |       |
| MF 13 x 1,5  | 13,0 | 11,0 | 70 | 22 | 9,0  | 11,50 | 120301036 | 31,10 |           |       |           |       |
| MF 14 x 0,5  | 14,0 | 11,0 | 70 | 22 | 9,0  | 13,50 | 120301037 | 31,10 |           |       |           |       |
| MF 14 x 0,75 | 14,0 | 11,0 | 70 | 22 | 9,0  | 13,20 | 120301038 | 31,10 |           |       |           |       |
| MF 14 x 1,0  | 14,0 | 11,0 | 70 | 22 | 9,0  | 13,00 | 120301039 | 31,10 |           |       |           |       |
| MF 14 x 1,25 | 14,0 | 11,0 | 70 | 22 | 9,0  | 12,80 | 120301040 | 23,38 | 120302009 | 34,39 | 120304009 | 32,74 |
| MF 14 x 1,5  | 14,0 | 11,0 | 70 | 22 | 9,0  | 12,50 | 120301041 | 20,12 | 120302010 | 30,88 | 120304010 | 29,70 |
| MF 15 x 0,75 | 15,0 | 12,0 | 70 | 22 | 9,0  | 14,20 | 120301042 | 34,38 |           |       |           |       |
| MF 15 x 1,0  | 15,0 | 12,0 | 70 | 22 | 9,0  | 14,00 | 120301043 | 34,38 |           |       |           |       |
| MF 15 x 1,5  | 15,0 | 12,0 | 70 | 22 | 9,0  | 13,50 | 120301044 | 34,38 |           |       |           |       |
| MF 16 x 0,5  | 16,0 | 12,0 | 70 | 22 | 9,0  | 15,50 | 120301045 | 34,38 |           |       |           |       |
| MF 16 x 0,75 | 16,0 | 12,0 | 70 | 22 | 9,0  | 15,20 | 120301046 | 34,38 |           |       |           |       |
| MF 16 x 1,0  | 16,0 | 12,0 | 70 | 22 | 9,0  | 15,00 | 120301047 | 34,38 | 120302011 | 51,46 | 120304011 | 37,65 |
| MF 16 x 1,25 | 16,0 | 12,0 | 70 | 22 | 9,0  | 14,80 | 120301048 | 34,38 |           |       |           |       |
| MF 16 x 1,5  | 16,0 | 12,0 | 70 | 22 | 9,0  | 14,50 | 120301049 | 24,56 | 120302012 | 36,95 | 120304012 | 43,27 |
| MF 17 x 1    | 17,0 | 12,0 | 70 | 22 | 9,0  | 16,00 | 120301050 | 37,65 |           |       |           |       |
| MF 17 x 1,5  | 17,0 | 12,0 | 70 | 22 | 9,0  | 15,50 | 120301051 | 37,65 |           |       |           |       |
| MF 18 x 0,5  | 18,0 | 14,0 | 80 | 22 | 11,0 | 17,50 | 120301052 | 37,65 |           |       |           |       |
| MF 18 x 0,75 | 18,0 | 14,0 | 80 | 22 | 11,0 | 17,20 | 120301053 | 37,65 |           |       |           |       |
| MF 18 x 1,0  | 18,0 | 14,0 | 80 | 22 | 11,0 | 17,00 | 120301054 | 37,65 |           |       |           |       |
| MF 18 x 1,25 | 18,0 | 14,0 | 80 | 22 | 11,0 | 16,80 | 120301055 | 37,65 |           |       |           |       |
| MF 18 x 1,5  | 18,0 | 14,0 | 80 | 22 | 11,0 | 16,50 | 120301056 | 28,30 | 120302013 | 43,27 | 120304013 | 52,40 |
| MF 18 x 2,0  | 18,0 | 14,0 | 80 | 22 | 11,0 | 16,00 | 120301057 | 37,65 |           |       |           |       |
| MF 19 x 1    | 19,0 | 16,0 | 80 | 22 | 12,0 | 18,00 | 120301058 | 47,24 |           |       |           |       |
| MF 19 x 1,5  | 19,0 | 14,0 | 80 | 22 | 11,0 | 17,50 | 120301059 | 47,24 |           |       |           |       |
| MF 20 x 0,5  | 20,0 | 16,0 | 80 | 22 | 12,0 | 19,50 | 120301060 | 47,24 |           |       |           |       |
| MF 20 x 0,75 | 20,0 | 16,0 | 80 | 22 | 12,0 | 19,20 | 120301061 | 47,24 |           |       |           |       |
| MF 20 x 1,0  | 20,0 | 16,0 | 80 | 22 | 12,0 | 19,00 | 120301062 | 47,24 |           |       |           |       |
| MF 20 x 1,25 | 20,0 | 16,0 | 80 | 22 | 12,0 | 18,80 | 120301063 | 47,24 |           |       |           |       |
| MF 20 x 1,5  | 20,0 | 16,0 | 80 | 22 | 12,0 | 18,50 | 120301064 | 34,38 | 120302014 | 51,46 | 120304014 | 49,12 |
| MF 20 x 2,0  | 20,0 | 16,0 | 80 | 22 | 12,0 | 18,00 | 120301065 | 47,24 |           |       | 120304015 | 65,49 |
| MF 21 x 1    | 21,0 | 16,0 | 80 | 22 | 12,0 | 20,00 | 120301066 | 48,88 |           |       |           |       |

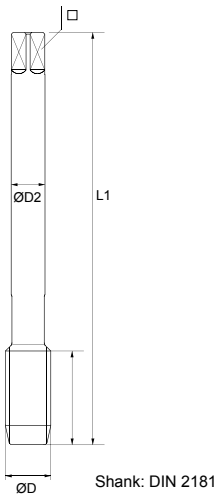
**MF** Metric fine thread / ISO DIN 13

Efficient internal thread cutting.

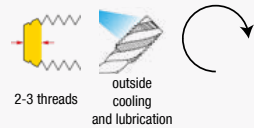
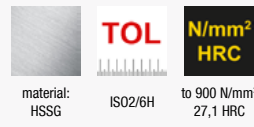
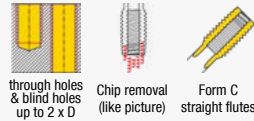
The short structural type makes that tap usable by machine and hand.

**A Hand-Tap-Set includes 2 taps:**

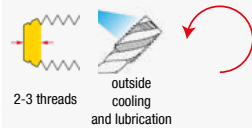
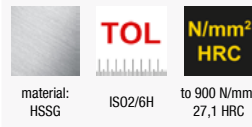
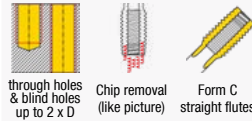
- Taper Tap
- Finish Tap



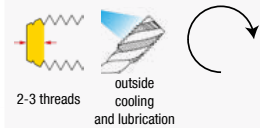
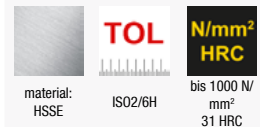
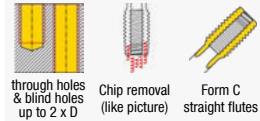
## Hand Tap Sets for general use



## Hand Tap Sets for general use Left Hand



## Hand Tap Sets HSSE for higher demands



| MF           | D1   | D2   | L1  | L2 | □    |       | No.       | €      | No.       | €      | No.       | €     |
|--------------|------|------|-----|----|------|-------|-----------|--------|-----------|--------|-----------|-------|
| MF 21 x 1,5  | 21,0 | 16,0 | 80  | 22 | 12,0 | 19,50 | 120301067 | 48,88  |           |        |           |       |
| MF 22 x 0,5  | 22,0 | 18,0 | 80  | 22 | 14,5 | 21,50 | 120301068 | 48,88  |           |        |           |       |
| MF 22 x 0,75 | 22,0 | 18,0 | 80  | 22 | 14,5 | 21,20 | 120301069 | 48,88  |           |        |           |       |
| MF 22 x 1,0  | 22,0 | 18,0 | 80  | 22 | 14,5 | 21,00 | 120301070 | 48,88  |           |        |           |       |
| MF 22 x 1,25 | 22,0 | 18,0 | 80  | 22 | 14,5 | 20,80 | 120301071 | 48,88  |           |        |           |       |
| MF 22 x 1,5  | 22,0 | 18,0 | 80  | 22 | 14,5 | 20,50 | 120301072 | 48,88  | 120302015 | 67,83  | 120304016 | 61,28 |
| MF 22 x 2,0  | 22,0 | 18,0 | 80  | 22 | 14,5 | 20,00 | 120301073 | 48,88  |           |        | 120304017 | 65,49 |
| MF 23 x 1    | 23,0 | 18,0 | 80  | 22 | 14,5 | 22,00 | 120301074 | 65,49  |           |        |           |       |
| MF 23 x 1,5  | 23,0 | 18,0 | 80  | 22 | 14,5 | 21,50 | 120301075 | 65,49  |           |        |           |       |
| MF 24 x 0,5  | 24,0 | 18,0 | 90  | 22 | 14,5 | 23,50 | 120301076 | 65,49  |           |        |           |       |
| MF 24 x 0,75 | 24,0 | 18,0 | 90  | 22 | 14,5 | 23,20 | 120301077 | 65,49  |           |        |           |       |
| MF 24 x 1,0  | 24,0 | 18,0 | 90  | 22 | 14,5 | 23,00 | 120301078 | 65,49  |           |        |           |       |
| MF 24 x 1,25 | 24,0 | 18,0 | 90  | 22 | 14,5 | 23,80 | 120301079 | 65,49  |           |        |           |       |
| MF 24 x 1,5  | 24,0 | 18,0 | 90  | 22 | 14,5 | 22,50 | 120301080 | 51,45  | 120302016 | 74,84  | 120304018 | 81,86 |
| MF 24 x 2,0  | 24,0 | 18,0 | 90  | 22 | 14,5 | 22,00 | 120301081 | 65,49  | 120302017 | 98,24  |           |       |
| MF 25 x 1,0  | 25,0 | 18,0 | 90  | 22 | 14,5 | 24,00 | 120301082 | 95,90  |           |        |           |       |
| MF 25 x 1,5  | 25,0 | 18,0 | 90  | 22 | 14,5 | 23,50 | 120301083 | 95,90  |           |        |           |       |
| MF 26 x 1,0  | 26,0 | 18,0 | 90  | 22 | 14,5 | 25,00 | 120301084 | 95,90  |           |        |           |       |
| MF 26 x 1,5  | 26,0 | 18,0 | 90  | 22 | 14,5 | 24,50 | 120301085 | 95,90  |           |        |           |       |
| MF 26 x 2,0  | 26,0 | 18,0 | 90  | 22 | 14,5 | 24,00 | 120301086 | 95,90  |           |        |           |       |
| MF 27 x 1    | 27,0 | 20,0 | 90  | 22 | 16,0 | 26,00 | 120301087 | 95,90  |           |        |           |       |
| MF 27 x 1,5  | 27,0 | 20,0 | 90  | 22 | 16,0 | 25,50 | 120301088 | 95,90  |           |        |           |       |
| MF 27 x 2,0  | 27,0 | 20,0 | 90  | 22 | 16,0 | 25,00 | 120301089 | 113,43 |           |        |           |       |
| MF 28 x 1,0  | 28,0 | 20,0 | 90  | 22 | 16,0 | 27,00 | 120301090 | 113,43 |           |        |           |       |
| MF 28 x 1,5  | 28,0 | 20,0 | 90  | 22 | 16,0 | 26,50 | 120301091 | 113,43 |           |        |           |       |
| MF 28 x 2,0  | 28,0 | 20,0 | 90  | 22 | 16,0 | 26,00 | 120301092 | 113,43 |           |        |           |       |
| MF 29 x 1,5  | 29,0 | 22,0 | 90  | 22 | 18,0 | 27,50 | 120301093 | 113,43 |           |        |           |       |
| MF 30 x 1,0  | 30,0 | 22,0 | 90  | 22 | 18,0 | 29,00 | 120301094 | 133,32 |           |        |           |       |
| MF 30 x 1,5  | 30,0 | 22,0 | 90  | 22 | 18,0 | 28,50 | 120301095 | 133,32 | 120302018 | 198,81 |           |       |
| MF 30 x 2,0  | 30,0 | 22,0 | 90  | 22 | 18,0 | 28,00 | 120301096 | 133,32 | 120302019 | 198,81 |           |       |
| MF 30 x 2,5  | 30,0 | 22,0 | 125 | 56 | 18,0 | 27,50 | 120301097 | 133,32 |           |        |           |       |
| MF 30 x 3,0  | 30,0 | 22,0 | 125 | 56 | 18,0 | 27,00 | 120301098 | 133,32 |           |        |           |       |
| MF 32 x 1    | 32,0 | 22,0 | 90  | 22 | 18,0 | 31,00 | 120301099 | 133,32 |           |        |           |       |

**MF** Metric fine thread / ISO DIN 13

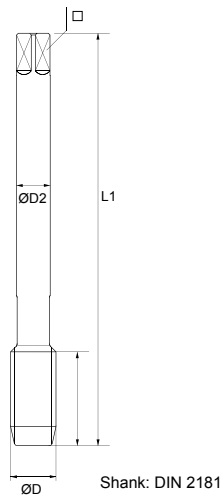
Efficient internal thread cutting.

The short structural type makes that tap usable by machine and hand.

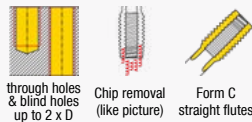
**A Hand-Tap-Set includes 2 taps:**

Taper Tap

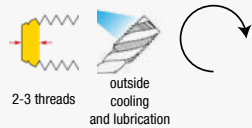
Finish Tap



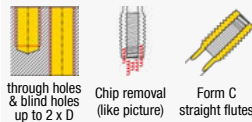
## Hand Tap Sets for general use



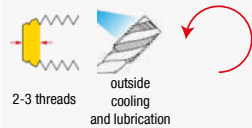
material: HSSG  
TOL ISO2/6H  
N/mm<sup>2</sup> HRC to 900 N/mm<sup>2</sup> 27,1 HRC



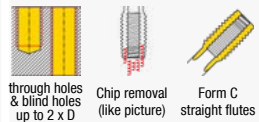
## Hand Tap Sets for general use Left Hand



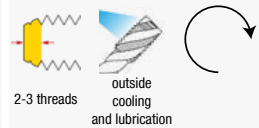
material: HSSG  
TOL ISO2/6H  
N/mm<sup>2</sup> HRC to 900 N/mm<sup>2</sup> 27,1 HRC



## Hand Tap Sets HSSE for higher demands



material: HSSE  
TOL ISO2/6H  
N/mm<sup>2</sup> HRC bis 1000 N/mm<sup>2</sup> 31 HRC



| MF          | D1   | D2   | L1  | L2 | □    |       | No.       | €      | No. | € | No. | € |
|-------------|------|------|-----|----|------|-------|-----------|--------|-----|---|-----|---|
| MF 32 x 1,5 | 32,0 | 22,0 | 90  | 22 | 18,0 | 30,50 | 120301100 | 133,32 |     |   |     |   |
| MF 32 x 2,0 | 32,0 | 22,0 | 90  | 22 | 18,0 | 30,00 | 120301101 | 133,32 |     |   |     |   |
| MF 32 x 3,0 | 32,0 | 22,0 | 125 | 56 | 18,0 | 29,00 | 120301102 | 133,32 |     |   |     |   |
| MF 33 x 1,5 | 33,0 | 25,0 | 100 | 25 | 20,0 | 31,50 | 120301103 | 133,32 |     |   |     |   |
| MF 33 x 2,0 | 33,0 | 25,0 | 100 | 25 | 20,0 | 31,00 | 120301104 | 163,72 |     |   |     |   |
| MF 33 x 3,0 | 33,0 | 25,0 | 125 | 56 | 20,0 | 30,00 | 120301105 | 163,72 |     |   |     |   |
| MF 34 x 1   | 34,0 | 28,0 | 100 | 25 | 22,0 | 33,00 | 120301106 | 163,72 |     |   |     |   |
| MF 34 x 1,5 | 34,0 | 28,0 | 100 | 25 | 22,0 | 32,50 | 120301107 | 163,72 |     |   |     |   |
| MF 34 x 2,0 | 34,0 | 28,0 | 125 | 40 | 22,0 | 32,00 | 120301108 | 163,72 |     |   |     |   |
| MF 35 x 1   | 35,0 | 28,0 | 100 | 25 | 22,0 | 34,00 | 120301109 | 163,72 |     |   |     |   |
| MF 35 x 1,5 | 35,0 | 28,0 | 100 | 25 | 22,0 | 33,50 | 120301110 | 163,72 |     |   |     |   |
| MF 35 x 2   | 35,0 | 28,0 | 125 | 40 | 22,0 | 33,00 | 120301111 | 163,72 |     |   |     |   |
| MF 36 x 1   | 36,0 | 28,0 | 100 | 25 | 22,0 | 35,00 | 120301112 | 170,74 |     |   |     |   |
| MF 36 x 1,5 | 36,0 | 28,0 | 100 | 25 | 22,0 | 34,50 | 120301113 | 170,74 |     |   |     |   |
| MF 36 x 2,0 | 36,0 | 28,0 | 125 | 40 | 22,0 | 34,00 | 120301114 | 170,74 |     |   |     |   |
| MF 36 x 3,0 | 36,0 | 28,0 | 125 | 40 | 22,0 | 33,00 | 120301115 | 170,74 |     |   |     |   |
| MF 37 x 1,5 | 37,0 | 28,0 | 100 | 25 | 22,0 | 35,50 | 120301116 | 212,84 |     |   |     |   |
| MF 38 x 1   | 38,0 | 28,0 | 100 | 25 | 22,0 | 37,00 | 120301117 | 212,84 |     |   |     |   |
| MF 38 x 1,5 | 38,0 | 28,0 | 100 | 25 | 22,0 | 36,50 | 120301118 | 212,84 |     |   |     |   |
| MF 38 x 2   | 38,0 | 28,0 | 125 | 40 | 22,0 | 36,00 | 120301119 | 212,84 |     |   |     |   |
| MF 38 x 3   | 38,0 | 28,0 | 125 | 40 | 22,0 | 35,00 | 120301120 | 212,84 |     |   |     |   |
| MF 39 x 1,5 | 39,0 | 32,0 | 110 | 25 | 24,0 | 37,50 | 120301121 | 212,84 |     |   |     |   |
| MF 39 x 2,0 | 39,0 | 32,0 | 125 | 40 | 24,0 | 37,00 | 120301122 | 212,84 |     |   |     |   |
| MF 39 x 3,0 | 39,0 | 32,0 | 125 | 40 | 24,0 | 36,00 | 120301123 | 212,84 |     |   |     |   |
| MF 40 x 1   | 40,0 | 32,0 | 110 | 25 | 24,0 | 39,00 | 120301124 | 212,84 |     |   |     |   |
| MF 40 x 1,5 | 40,0 | 32,0 | 110 | 25 | 24,0 | 38,50 | 120301125 | 212,84 |     |   |     |   |
| MF 40 x 2,0 | 40,0 | 32,0 | 125 | 40 | 24,0 | 38,00 | 120301126 | 212,84 |     |   |     |   |
| MF 40 x 3,0 | 40,0 | 32,0 | 125 | 40 | 24,0 | 37,00 | 120301127 | 212,84 |     |   |     |   |
| MF 42 x 1   | 42,0 | 32,0 | 110 | 25 | 24,0 | 41,00 | 120301128 | 212,84 |     |   |     |   |
| MF 42 x 1,5 | 42,0 | 32,0 | 110 | 25 | 24,0 | 40,50 | 120301129 | 212,84 |     |   |     |   |
| MF 42 x 2,0 | 42,0 | 32,0 | 125 | 40 | 24,0 | 40,00 | 120301130 | 222,21 |     |   |     |   |
| MF 42 x 3,0 | 42,0 | 32,0 | 125 | 40 | 24,0 | 39,00 | 120301131 | 222,21 |     |   |     |   |
| MF 44 x 1,5 | 44,0 | 36,0 | 110 | 25 | 29,0 | 42,50 | 120301132 | 250,27 |     |   |     |   |

**MF** Metric fine thread / ISO DIN 13

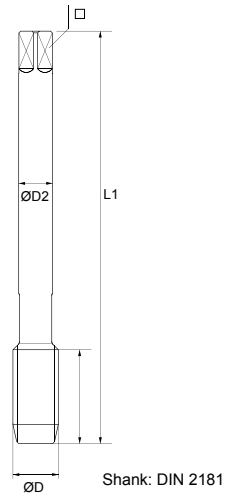
Efficient internal thread cutting.

The short structural type makes that tap usable by machine and hand.

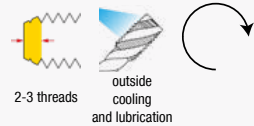
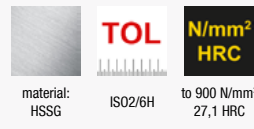
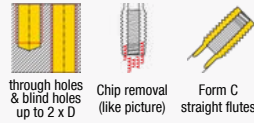
**A Hand-Tap-Set includes 2 taps:**

Taper Tap

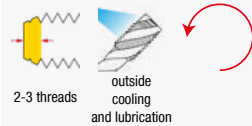
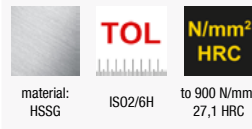
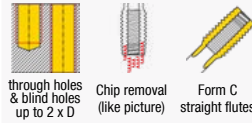
Finish Tap



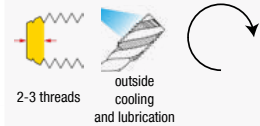
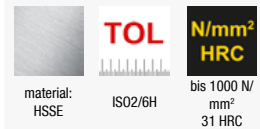
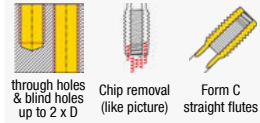
## Hand Tap Sets for general use



## Hand Tap Sets for general use Left Hand



## Hand Tap Sets HSSE for higher demands



| MF          | D1   | D2   | L1  | L2 | □    |       | No.       | €      | No. | € | No. | € |
|-------------|------|------|-----|----|------|-------|-----------|--------|-----|---|-----|---|
| MF 44 x 2   | 44,0 | 36,0 | 125 | 40 | 29,0 | 42,00 | 120301133 | 250,27 |     |   |     |   |
| MF 45 x 1   | 45,0 | 36,0 | 110 | 25 | 29,0 | 44,00 | 120301134 | 250,27 |     |   |     |   |
| MF 45 x 1,5 | 45,0 | 36,0 | 110 | 25 | 29,0 | 43,50 | 120301135 | 250,27 |     |   |     |   |
| MF 45 x 2,0 | 45,0 | 36,0 | 125 | 40 | 29,0 | 43,00 | 120301136 | 250,27 |     |   |     |   |
| MF 45 x 3,0 | 45,0 | 36,0 | 125 | 40 | 29,0 | 42,00 | 120301137 | 250,27 |     |   |     |   |
| MF 46 x 1,5 | 46,0 | 36,0 | 140 | 40 | 29,0 | 45,50 | 120301138 | 250,27 |     |   |     |   |
| MF 48 x 1   | 48,0 | 36,0 | 140 | 40 | 29,0 | 47,00 | 120301139 | 299,39 |     |   |     |   |
| MF 48 x 1,5 | 48,0 | 36,0 | 140 | 40 | 29,0 | 46,50 | 120301140 | 299,39 |     |   |     |   |
| MF 48 x 2,0 | 48,0 | 36,0 | 140 | 40 | 29,0 | 46,00 | 120301141 | 299,39 |     |   |     |   |
| MF 48 x 3,0 | 48,0 | 36,0 | 140 | 40 | 29,0 | 45,00 | 120301142 | 299,39 |     |   |     |   |
| MF 50 x 1,5 | 50,0 | 36,0 | 140 | 40 | 29,0 | 48,50 | 120301143 | 327,43 |     |   |     |   |
| MF 50 x 2,0 | 50,0 | 36,0 | 140 | 40 | 29,0 | 48,00 | 120301144 | 327,43 |     |   |     |   |
| MF 50 x 3,0 | 50,0 | 36,0 | 140 | 40 | 29,0 | 47,00 | 120301145 | 327,43 |     |   |     |   |
| MF 52 x 1,5 | 52,0 | 40,0 | 140 | 40 | 32,0 | 50,50 | 120301146 | 392,93 |     |   |     |   |
| MF 52 x 2,0 | 52,0 | 40,0 | 140 | 40 | 32,0 | 50,00 | 120301147 | 392,93 |     |   |     |   |
| MF 52 x 3,0 | 52,0 | 40,0 | 140 | 40 | 32,0 | 49,00 | 120301148 | 392,93 |     |   |     |   |
| MF 54 x 1   | 54,0 | 40,0 | 140 | 32 | 32,0 | 53,00 | 120301149 | 425,67 |     |   |     |   |
| MF 54 x 1,5 | 54,0 | 40,0 | 140 | 32 | 32,0 | 52,50 | 120301150 | 425,67 |     |   |     |   |
| MF 54 x 2,0 | 54,0 | 40,0 | 140 | 36 | 32,0 | 52,00 | 120301151 | 425,67 |     |   |     |   |
| MF 54 x 3,0 | 54,0 | 40,0 | 140 | 40 | 32,0 | 51,00 | 120301152 | 425,67 |     |   |     |   |
| MF 54 x 4,0 | 54,0 | 40,0 | 180 | 50 | 32,0 | 50,00 | 120301153 | 425,67 |     |   |     |   |
| MF 55 x 1,5 | 55,0 | 40,0 | 140 | 32 | 32,0 | 53,50 | 120301154 | 486,47 |     |   |     |   |
| MF 55 x 2,0 | 55,0 | 40,0 | 140 | 36 | 32,0 | 53,00 | 120301155 | 486,47 |     |   |     |   |
| MF 55 x 3,0 | 55,0 | 40,0 | 140 | 40 | 32,0 | 52,00 | 120301156 | 486,47 |     |   |     |   |
| MF 55 x 4,0 | 55,0 | 40,0 | 180 | 50 | 32,0 | 51,00 | 120301157 | 486,47 |     |   |     |   |
| MF 56 x 1   | 56,0 | 40,0 | 140 | 32 | 32,0 | 55,00 | 120301158 | 540,29 |     |   |     |   |
| MF 56 x 1,5 | 56,0 | 40,0 | 140 | 32 | 32,0 | 54,50 | 120301159 | 547,28 |     |   |     |   |
| MF 56 x 2,0 | 56,0 | 40,0 | 140 | 36 | 32,0 | 54,00 | 120301160 | 547,28 |     |   |     |   |
| MF 56 x 3,0 | 56,0 | 40,0 | 140 | 40 | 32,0 | 53,00 | 120301161 | 547,28 |     |   |     |   |
| MF 56 x 4,0 | 56,0 | 40,0 | 180 | 50 | 32,0 | 52,00 | 120301162 | 547,28 |     |   |     |   |
| MF 58 x 1   | 58,0 | 45,0 | 160 | 32 | 35,0 | 57,00 | 120301163 | 584,71 |     |   |     |   |
| MF 58 x 1,5 | 58,0 | 45,0 | 160 | 32 | 35,0 | 56,50 | 120301164 | 556,66 |     |   |     |   |
| MF 58 x 2,0 | 58,0 | 45,0 | 160 | 36 | 35,0 | 56,00 | 120301165 | 556,66 |     |   |     |   |
| MF 58 x 3,0 | 58   | 45   | 160 | 40 | 35   | 55    | 120301166 | 556,66 |     |   |     |   |

**MF** Metric fine thread / ISO DIN 13

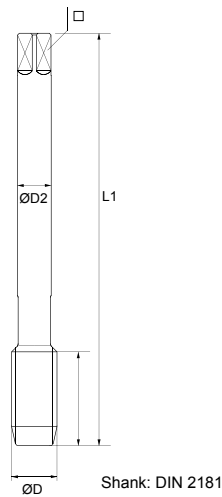
Efficient internal thread cutting.

The short structural type makes that tap usable by machine and hand.

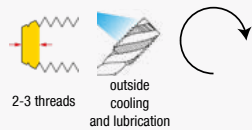
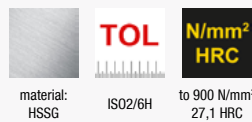
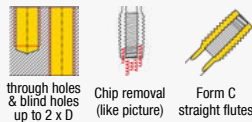
**A Hand-Tap-Set includes 2 taps:**

Taper Tap

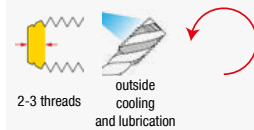
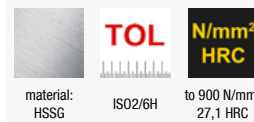
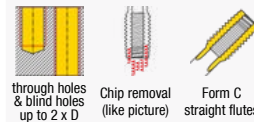
Finish Tap



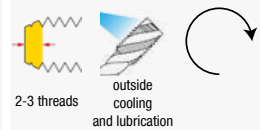
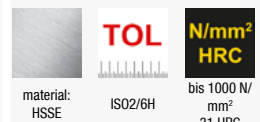
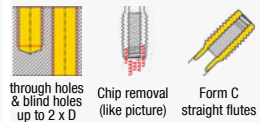
## Hand Tap Sets for general use



## Hand Tap Sets for general use Left Hand



## Hand Tap Sets HSSE for higher demands



| MF          | D1 | D2 | L1  | L2 | □  |      | No.       | €        | No. | € | No. | € |
|-------------|----|----|-----|----|----|------|-----------|----------|-----|---|-----|---|
| MF 58 x 4,0 | 58 | 45 | 200 | 55 | 35 | 54   | 120301167 | 556,66   |     |   |     |   |
| MF 60 x 1,5 | 60 | 45 | 160 | 34 | 35 | 58,5 | 120301168 | 582,39   |     |   |     |   |
| MF 60 x 2,0 | 60 | 45 | 160 | 36 | 35 | 58   | 120301169 | 582,39   |     |   |     |   |
| MF 60 x 3,0 | 60 | 45 | 160 | 40 | 35 | 57   | 120301170 | 582,39   |     |   |     |   |
| MF 60 x 4,0 | 60 | 45 | 200 | 55 | 35 | 56   | 120301171 | 582,39   |     |   |     |   |
| MF 62 x 1,5 | 62 | 50 | 160 | 34 | 39 | 60,5 | 120301172 | 666,61   |     |   |     |   |
| MF 62 x 2,0 | 62 | 50 | 160 | 36 | 39 | 60   | 120301173 | 666,61   |     |   |     |   |
| MF 62 x 3,0 | 62 | 50 | 180 | 45 | 39 | 59   | 120301174 | 666,61   |     |   |     |   |
| MF 62 x 4,0 | 62 | 50 | 220 | 55 | 39 | 58   | 120301175 | 666,61   |     |   |     |   |
| MF 63 x 1,5 | 63 | 50 | 160 | 32 | 39 | 61,5 | 120301176 | 685,31   |     |   |     |   |
| MF 64 x 1,5 | 64 | 50 | 160 | 34 | 39 | 62,5 | 120301177 | 685,31   |     |   |     |   |
| MF 64 x 2,0 | 64 | 50 | 160 | 36 | 39 | 62   | 120301178 | 685,31   |     |   |     |   |
| MF 64 x 3,0 | 64 | 50 | 180 | 45 | 39 | 61   | 120301179 | 685,31   |     |   |     |   |
| MF 64 x 4,0 | 64 | 50 | 220 | 60 | 39 | 60   | 120301180 | 696,99   |     |   |     |   |
| MF 65 x 1,5 | 65 | 50 | 160 | 34 | 39 | 63,5 | 120301181 | 725,03   |     |   |     |   |
| MF 65 x 2,0 | 65 | 50 | 160 | 36 | 39 | 63   | 120301182 | 725,03   |     |   |     |   |
| MF 65 x 3,0 | 65 | 50 | 180 | 45 | 39 | 62   | 120301183 | 725,03   |     |   |     |   |
| MF 65 x 4,0 | 65 | 50 | 220 | 60 | 39 | 61   | 120301184 | 725,03   |     |   |     |   |
| MF 68 x 1,5 | 68 | 50 | 160 | 36 | 39 | 66,5 | 120301185 | 748,44   |     |   |     |   |
| MF 68 x 2,0 | 68 | 50 | 160 | 40 | 39 | 66   | 120301186 | 748,44   |     |   |     |   |
| MF 68 x 3,0 | 68 | 50 | 180 | 50 | 39 | 65   | 120301187 | 748,44   |     |   |     |   |
| MF 68 x 4,0 | 68 | 50 | 220 | 60 | 39 | 64   | 120301188 | 748,44   |     |   |     |   |
| MF 70 x 1,5 | 70 | 50 | 160 | 36 | 39 | 68,5 | 120301189 | 1.414,74 |     |   |     |   |
| MF 70 x 2,0 | 70 | 50 | 160 | 40 | 39 | 68   | 120301190 | 1.414,74 |     |   |     |   |
| MF 70 x 3,0 | 70 | 50 | 200 | 50 | 39 | 67   | 120301191 | 1.604,21 |     |   |     |   |
| MF 70 x 4,0 | 70 | 50 | 240 | 60 | 39 | 66   | 120301192 | 1.604,21 |     |   |     |   |
| MF 72 x 1,5 | 72 | 50 | 160 | 36 | 39 | 70,5 | 120301193 | 1.414,74 |     |   |     |   |
| MF 72 x 2,0 | 72 | 50 | 160 | 40 | 39 | 70   | 120301194 | 1.414,74 |     |   |     |   |
| MF 72 x 3,0 | 72 | 50 | 200 | 50 | 39 | 69   | 120301195 | 1.604,21 |     |   |     |   |
| MF 72 x 4,0 | 72 | 50 | 240 | 60 | 39 | 68   | 120301196 | 1.604,21 |     |   |     |   |
| MF 74 x 1,5 | 74 | 50 | 160 | 36 | 39 | 72,5 | 120301197 | 1.566,32 |     |   |     |   |
| MF 74 x 2,0 | 74 | 50 | 160 | 40 | 39 | 72   | 120301198 | 1.566,32 |     |   |     |   |
| MF 74 x 3,0 | 74 | 50 | 200 | 50 | 39 | 71   | 120301199 | 1.844,21 |     |   |     |   |
| MF 74 x 4,0 | 74 | 50 | 240 | 60 | 39 | 70   | 120301200 | 1.844,21 |     |   |     |   |

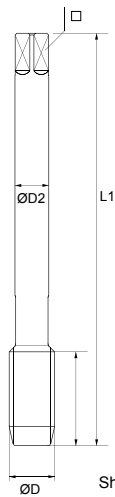
**MF** Metric fine thread / ISO DIN 13

Efficient internal thread cutting.

The short structural type makes that tap usable by machine and hand.

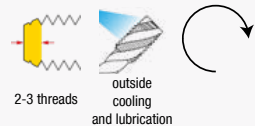
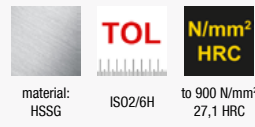
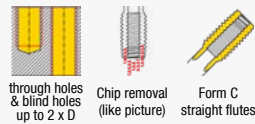
**A Hand-Tap-Set includes 2 taps:**

- Taper Tap
- Finish Tap

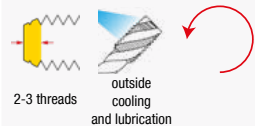
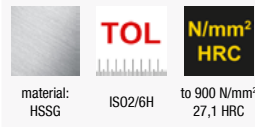
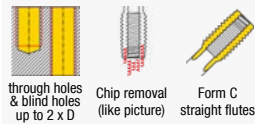


Shank: DIN 2181

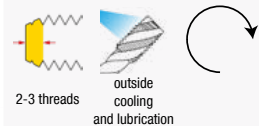
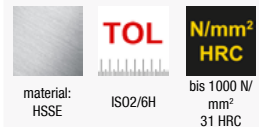
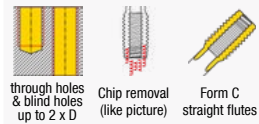
## Hand Tap Sets for general use



## Hand Tap Sets for general use Left Hand



## Hand Tap Sets HSSE for higher demands



| MF          | D1 | D2 | L1  | L2 | □  |      | No.       | €        | No. | € | No. | € |
|-------------|----|----|-----|----|----|------|-----------|----------|-----|---|-----|---|
| MF 75 x 1,5 | 75 | 50 | 160 | 36 | 39 | 73,5 | 120301201 | 1.578,95 |     |   |     |   |
| MF 75 x 2,0 | 75 | 50 | 160 | 40 | 39 | 73   | 120301202 | 1.578,95 |     |   |     |   |
| MF 75 x 3,0 | 75 | 50 | 200 | 50 | 39 | 72   | 120301203 | 1.856,84 |     |   |     |   |
| MF 75 x 4,0 | 75 | 50 | 240 | 60 | 39 | 71   | 120301204 | 1.856,84 |     |   |     |   |
| MF 76 x 1,5 | 76 | 50 | 160 | 36 | 39 | 74,5 | 120301205 | 1.604,21 |     |   |     |   |
| MF 76 x 2,0 | 76 | 50 | 160 | 40 | 39 | 74   | 120301206 | 1.604,21 |     |   |     |   |
| MF 76 x 3,0 | 76 | 50 | 220 | 50 | 39 | 73   | 120301207 | 1.983,16 |     |   |     |   |
| MF 76 x 4,0 | 76 | 50 | 260 | 60 | 39 | 72   | 120301208 | 1.983,16 |     |   |     |   |
| MF 78 x 1,5 | 78 | 50 | 160 | 36 | 39 | 76,5 | 120301209 | 1.604,21 |     |   |     |   |
| MF 78 x 2,0 | 78 | 50 | 160 | 40 | 39 | 76   | 120301210 | 1.604,21 |     |   |     |   |
| MF 78 x 3,0 | 78 | 50 | 220 | 55 | 39 | 75   | 120301211 | 1.983,16 |     |   |     |   |
| MF 78 x 4,0 | 78 | 50 | 260 | 65 | 39 | 74   | 120301212 | 1.983,16 |     |   |     |   |
| MF 80 x 1,5 | 80 | 50 | 160 | 36 | 39 | 78,5 | 120301213 | 1.743,16 |     |   |     |   |
| MF 80 x 2,0 | 80 | 50 | 160 | 40 | 39 | 78   | 120301214 | 1.743,16 |     |   |     |   |
| MF 80 x 3,0 | 80 | 50 | 220 | 55 | 39 | 77   | 120301215 | 2.172,63 |     |   |     |   |
| MF 80 x 4,0 | 80 | 50 | 260 | 65 | 39 | 76   | 120301216 | 2.172,63 |     |   |     |   |
| MF 82 x 1,5 | 82 | 50 | 160 | 36 | 39 | 80,5 | 120301217 | 1.743,16 |     |   |     |   |
| MF 82 x 2,0 | 82 | 50 | 160 | 40 | 39 | 80   | 120301218 | 1.743,16 |     |   |     |   |
| MF 82 x 3,0 | 82 | 50 | 220 | 55 | 39 | 79   | 120301219 | 2.172,63 |     |   |     |   |
| MF 82 x 4,0 | 82 | 50 | 260 | 65 | 39 | 78   | 120301220 | 2.172,63 |     |   |     |   |
| MF 84 x 1,5 | 84 | 50 | 160 | 36 | 39 | 82,5 | 120301221 | 2.033,68 |     |   |     |   |
| MF 84 x 2,0 | 84 | 50 | 160 | 40 | 39 | 82   | 120301222 | 2.033,68 |     |   |     |   |
| MF 84 x 3,0 | 84 | 50 | 220 | 55 | 39 | 81   | 120301223 | 2.456,84 |     |   |     |   |
| MF 84 x 4,0 | 84 | 50 | 260 | 65 | 39 | 80   | 120301224 | 2.456,84 |     |   |     |   |
| MF 85 x 1,5 | 85 | 50 | 160 | 36 | 39 | 83,5 | 120301225 | 2.652,63 |     |   |     |   |
| MF 85 x 2,0 | 85 | 50 | 160 | 40 | 39 | 83   | 120301226 | 2.652,63 |     |   |     |   |
| MF 85 x 3,0 | 85 | 50 | 220 | 55 | 39 | 82   | 120301227 | 3.284,21 |     |   |     |   |
| MF 85 x 4,0 | 85 | 50 | 260 | 65 | 39 | 81   | 120301228 | 3.284,21 |     |   |     |   |
| MF 86 x 1,5 | 86 | 50 | 160 | 36 | 39 | 84,5 | 120301229 | 2.652,63 |     |   |     |   |
| MF 86 x 2,0 | 86 | 50 | 160 | 40 | 39 | 84   | 120301230 | 2.652,63 |     |   |     |   |
| MF 86 x 3,0 | 86 | 50 | 220 | 55 | 39 | 83   | 120301231 | 3.233,68 |     |   |     |   |
| MF 86 x 4,0 | 86 | 50 | 260 | 65 | 39 | 82   | 120301232 | 3.233,68 |     |   |     |   |
| MF 88 x 1,5 | 88 | 50 | 160 | 38 | 39 | 86,5 | 120301233 | 2.905,26 |     |   |     |   |
| MF 88 x 2,0 | 88 | 50 | 160 | 40 | 39 | 86   | 120301234 | 2.905,26 |     |   |     |   |

**MF** Metric fine thread / ISO DIN 13

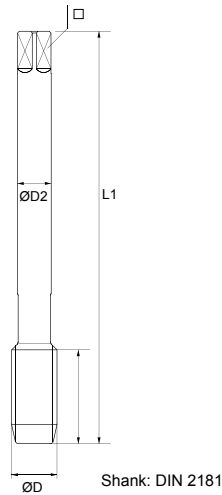
Efficient internal thread cutting.

The short structural type makes that tap usable by machine and hand.

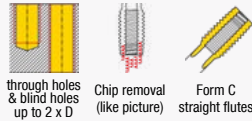
**A Hand-Tap-Set includes 2 taps:**

Taper Tap

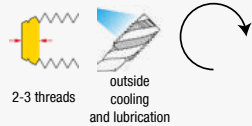
Finish Tap



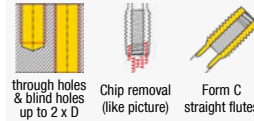
## Hand Tap Sets for general use



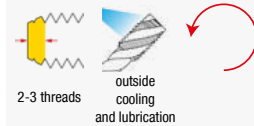
material: HSSG  
TOL ISO2/6H  
N/mm<sup>2</sup> HRC to 900 N/mm<sup>2</sup> 27,1 HRC



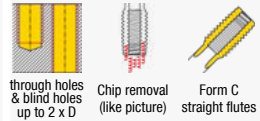
## Hand Tap Sets for general use Left Hand



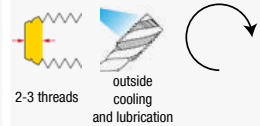
material: HSSG  
TOL ISO2/6H  
N/mm<sup>2</sup> HRC to 900 N/mm<sup>2</sup> 27,1 HRC



## Hand Tap Sets HSSE for higher demands



material: HSSE  
TOL ISO2/6H  
N/mm<sup>2</sup> HRC bis 1000 N/mm<sup>2</sup> 31 HRC

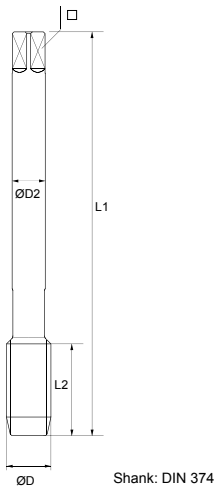


| MF           | D1  | D2 | L1  | L2 | □  |       | No.       | €        | No. | € | No. | € |
|--------------|-----|----|-----|----|----|-------|-----------|----------|-----|---|-----|---|
| MF 88 x 3,0  | 88  | 50 | 220 | 55 | 39 | 85    | 120301235 | 3.334,74 |     |   |     |   |
| MF 88 x 4,0  | 88  | 50 | 260 | 65 | 39 | 84    | 120301236 | 3.334,74 |     |   |     |   |
| MF 90 x 1,5  | 90  | 50 | 160 | 38 | 39 | 88,5  | 120301237 | 3.031,58 |     |   |     |   |
| MF 90 x 2,0  | 90  | 50 | 160 | 40 | 39 | 88    | 120301238 | 2.981,05 |     |   |     |   |
| MF 90 x 3,0  | 90  | 50 | 220 | 55 | 39 | 87    | 120301239 | 3.562,11 |     |   |     |   |
| MF 90 x 4,0  | 90  | 50 | 260 | 65 | 39 | 86    | 120301240 | 3.562,11 |     |   |     |   |
| MF 92 x 1,5  | 92  | 56 | 180 | 40 | 44 | 90,5  | 120301241 | 3.031,58 |     |   |     |   |
| MF 92 x 2,0  | 92  | 56 | 180 | 45 | 44 | 90    | 120301242 | 3.031,58 |     |   |     |   |
| MF 92 x 3,0  | 92  | 56 | 240 | 60 | 44 | 89    | 120301243 | 3.840,00 |     |   |     |   |
| MF 92 x 4,0  | 92  | 56 | 280 | 70 | 44 | 88    | 120301244 | 3.840,00 |     |   |     |   |
| MF 95 x 1,5  | 95  | 56 | 180 | 40 | 44 | 93,5  | 120301245 | 3.258,95 |     |   |     |   |
| MF 95 x 2,0  | 95  | 56 | 180 | 45 | 44 | 93    | 120301246 | 3.258,95 |     |   |     |   |
| MF 95 x 3,0  | 95  | 56 | 240 | 60 | 44 | 92    | 120301247 | 4.294,74 |     |   |     |   |
| MF 95 x 4,0  | 95  | 56 | 280 | 70 | 44 | 91    | 120301248 | 4.193,68 |     |   |     |   |
| MF 96 x 1,5  | 96  | 56 | 180 | 40 | 44 | 94,5  | 120301249 | 3.284,21 |     |   |     |   |
| MF 96 x 2,0  | 96  | 56 | 180 | 45 | 44 | 94    | 120301250 | 3.284,21 |     |   |     |   |
| MF 96 x 3,0  | 96  | 56 | 240 | 60 | 44 | 93    | 120301251 | 4.294,74 |     |   |     |   |
| MF 96 x 4,0  | 96  | 56 | 280 | 70 | 44 | 92    | 120301252 | 4.294,74 |     |   |     |   |
| MF 98 x 1,5  | 98  | 56 | 180 | 40 | 44 | 96,5  | 120301253 | 3.536,84 |     |   |     |   |
| MF 98 x 2,0  | 98  | 56 | 180 | 45 | 44 | 96    | 120301254 | 3.536,84 |     |   |     |   |
| MF 98 x 3,0  | 98  | 56 | 240 | 60 | 44 | 95    | 120301255 | 4.673,68 |     |   |     |   |
| MF 98 x 4,0  | 98  | 56 | 280 | 70 | 44 | 94    | 120301256 | 4.673,68 |     |   |     |   |
| MF 100 x 1,5 | 100 | 56 | 180 | 45 | 44 | 98,5  | 120301257 | 4.042,11 |     |   |     |   |
| MF 100 x 2,0 | 100 | 56 | 180 | 50 | 44 | 98    | 120301258 | 4.042,11 |     |   |     |   |
| MF 100 x 3,0 | 100 | 56 | 240 | 65 | 44 | 97    | 120301259 | 4.926,32 |     |   |     |   |
| MF 100 x 4,0 | 100 | 56 | 280 | 75 | 44 | 96    | 120301260 | 4.926,32 |     |   |     |   |
| MF 105 x 1,5 | 105 | 56 | 180 | 45 | 44 | 103,5 | 120301261 | 4.370,53 |     |   |     |   |
| MF 105 x 2,0 | 105 | 56 | 180 | 50 | 44 | 103   | 120301262 | 4.370,53 |     |   |     |   |
| MF 105 x 3,0 | 105 | 56 | 240 | 65 | 44 | 102   | 120301263 | 5.305,26 |     |   |     |   |
| MF 105 x 4,0 | 105 | 56 | 280 | 75 | 44 | 101   | 120301264 | 5.305,26 |     |   |     |   |
| MF 110 x 1,5 | 110 | 56 | 180 | 45 | 44 | 108,5 | 120301265 | 4.800,00 |     |   |     |   |
| MF 110 x 2,0 | 110 | 56 | 180 | 50 | 44 | 108   | 120301266 | 4.800,00 |     |   |     |   |
| MF 110 x 3,0 | 110 | 56 | 240 | 65 | 44 | 107   | 120301267 | 5.936,84 |     |   |     |   |
| MF 110 x 4,0 | 110 | 56 | 280 | 75 | 44 | 106   | 120301268 | 5.936,84 |     |   |     |   |

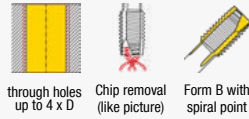
**MF**

Metric fine thread / ISO DIN 13

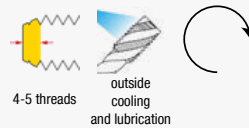
- ☑ Tap for machine use in through hole.
- ☑ The spiral point pushes the chips ahead.



## Machine Tap for general use



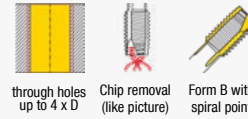
material: HSSE  
TOL ISO2/6H  
to 900 N/mm<sup>2</sup> 27,1 HRC



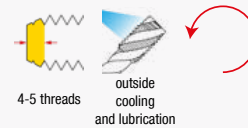
DIN 374



## Machine Tap for general use

**Left-hand thread**


material: HSSE  
TOL ISO2/6H  
to 900 N/mm<sup>2</sup> 27,1 HRC



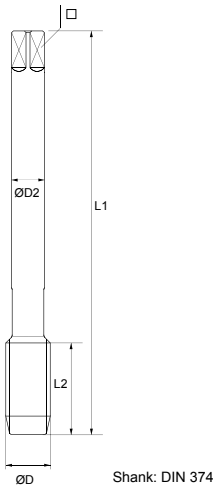
DIN 374


**MF**

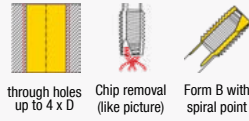
|              | D1   | D2   | L1  | L2 | □    |       | No.       | €     | No.       | €     |
|--------------|------|------|-----|----|------|-------|-----------|-------|-----------|-------|
| MF 3 x 0,35  | 3,0  | 2,2  | 56  | 9  | -    | 2,65  | 120401001 | 14,27 | 120402001 | 33,06 |
| MF 4 x 0,35  | 4,0  | 2,8  | 63  | 10 | 2,1  | 3,65  | 120401002 | 14,27 | 120402002 | 33,06 |
| MF 4 x 0,5   | 4,0  | 2,8  | 63  | 10 | 2,1  | 3,50  | 120401003 | 14,27 | 120402003 | 33,06 |
| MF 5 x 0,5   | 5,0  | 3,5  | 70  | 12 | 2,7  | 4,50  | 120401004 | 14,27 | 120402004 | 33,06 |
| MF 5 x 0,75  | 5,0  | 3,5  | 70  | 12 | 2,7  | 4,25  | 120401005 | 14,27 | 120402005 | 33,06 |
| MF 6 x 0,5   | 6,0  | 4,5  | 80  | 14 | 3,4  | 5,50  | 120401006 | 14,27 | 120402006 | 33,06 |
| MF 6 x 0,75  | 6,0  | 4,5  | 80  | 14 | 3,4  | 5,20  | 120401007 | 14,27 | 120402007 | 33,06 |
| MF 7 x 0,75  | 7,0  | 5,5  | 80  | 14 | 4,3  | 6,20  | 120401008 | 14,27 | 120402008 | 33,06 |
| MF 8 x 0,5   | 8,0  | 6,0  | 80  | 19 | 4,9  | 7,50  | 120401009 | 14,27 | 120402009 | 33,06 |
| MF 8 x 0,75  | 8,0  | 6,0  | 80  | 19 | 4,9  | 7,20  | 120401010 | 14,27 | 120402010 | 33,06 |
| MF 8 x 1,0   | 8,0  | 6,0  | 90  | 22 | 4,9  | 7,00  | 120401011 | 14,27 | 120402011 | 33,06 |
| MF 9 x 0,75  | 9,0  | 7,0  | 80  | 19 | 5,5  | 8,25  | 120401012 | 14,27 | 120402012 | 33,06 |
| MF 9 x 1,0   | 9,0  | 7,0  | 90  | 22 | 5,5  | 8,00  | 120401013 | 14,27 | 120402013 | 33,06 |
| MF 10 x 0,75 | 10,0 | 7,0  | 90  | 20 | 5,5  | 9,20  | 120401014 | 16,50 | 120402014 | 36,73 |
| MF 10 x 1,0  | 10,0 | 7,0  | 90  | 20 | 5,5  | 9,00  | 120401015 | 16,50 | 120402015 | 36,73 |
| MF 10 x 1,25 | 10,0 | 7,0  | 100 | 24 | 5,5  | 8,80  | 120401016 | 16,50 | 120402016 | 36,73 |
| MF 11 x 1,0  | 11,0 | 8,0  | 90  | 20 | 6,2  | 10,00 | 120401017 | 22,68 | 120402017 | 51,42 |
| MF 11 x 1,25 | 11,0 | 8,0  | 90  | 22 | 6,2  | 10,80 | 120401018 | 22,68 | 120402018 | 51,42 |
| MF 12 x 0,75 | 12,0 | 9,0  | 100 | 22 | 7,0  | 10,20 | 120401019 | 22,68 | 120402019 | 51,42 |
| MF 12 x 1,0  | 12,0 | 9,0  | 100 | 22 | 7,0  | 11,00 | 120401020 | 22,68 | 120402020 | 51,42 |
| MF 12 x 1,25 | 12,0 | 9,0  | 100 | 22 | 7,0  | 10,80 | 120401021 | 22,68 | 120402021 | 51,42 |
| MF 12 x 1,5  | 12,0 | 9,0  | 100 | 22 | 7,0  | 10,50 | 120401022 | 22,68 | 120402022 | 51,42 |
| MF 13 x 1,0  | 13,0 | 11,0 | 100 | 22 | 9,0  | 12,00 | 120401023 | 29,23 | 120402023 | 62,44 |
| MF 13 x 1,5  | 13,0 | 11,0 | 100 | 22 | 9,0  | 11,50 | 120401024 | 29,23 | 120402024 | 62,44 |
| MF 14 x 0,75 | 14,0 | 11,0 | 100 | 22 | 9,0  | 13,20 | 120401025 | 29,23 | 120402025 | 62,44 |
| MF 14 x 1,0  | 14,0 | 11,0 | 100 | 22 | 9,0  | 13,00 | 120401026 | 29,23 | 120402026 | 62,44 |
| MF 14 x 1,25 | 14,0 | 11,0 | 100 | 22 | 9,0  | 12,80 | 120401027 | 29,23 | 120402027 | 62,44 |
| MF 14 x 1,5  | 14,0 | 11,0 | 100 | 22 | 9,0  | 12,50 | 120401028 | 29,23 | 120402028 | 62,44 |
| MF 15 x 1,0  | 15,0 | 12,0 | 100 | 22 | 9,0  | 14,00 | 120401029 | 32,16 | 120402029 | 72,41 |
| MF 15 x 1,5  | 15,0 | 12,0 | 100 | 22 | 9,0  | 13,50 | 120401030 | 32,16 | 120402030 | 72,41 |
| MF 16 x 1,0  | 16,0 | 12,0 | 100 | 22 | 9,0  | 15,00 | 120401031 | 32,75 | 120402031 | 72,41 |
| MF 16 x 1,25 | 16,0 | 12,0 | 100 | 22 | 9,0  | 14,80 | 120401032 | 32,75 | 120402032 | 72,41 |
| MF 16 x 1,5  | 16,0 | 12,0 | 100 | 22 | 9,0  | 14,50 | 120401033 | 32,54 | 120402033 | 72,41 |
| MF 18 x 1,0  | 18,0 | 14,0 | 110 | 25 | 11,0 | 17,00 | 120401034 | 42,95 | 120402034 | 87,11 |
| MF 18 x 1,25 | 18,0 | 14,0 | 110 | 25 | 11,0 | 16,80 | 120401035 | 42,95 | 120402035 | 87,11 |

**MF** Metric fine thread / ISO DIN 13

- ✓ Tap for machine use in through hole.
- ✓ The spiral point pushes the chips ahead.

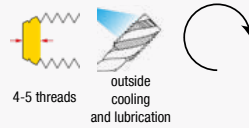


## Machine Tap for general use



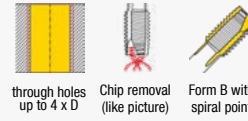
through holes up to 4 x D  
Chip removal (like picture)  
Form B with spiral point

material: HSSE  
TOL ISO2/6H  
to 900 N/mm<sup>2</sup> 27,1 HRC



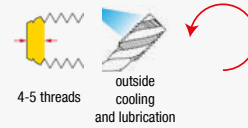
## Machine Tap for general use

**Left-hand thread**



through holes up to 4 x D  
Chip removal (like picture)  
Form B with spiral point

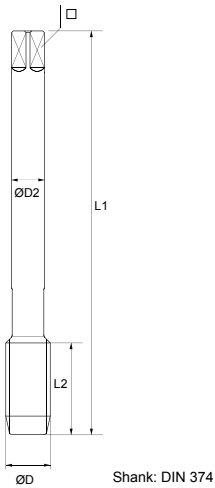
material: HSSE  
TOL ISO2/6H  
to 900 N/mm<sup>2</sup> 27,1 HRC



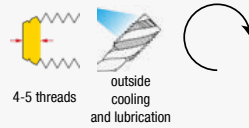
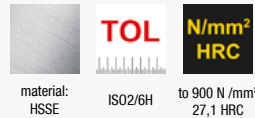
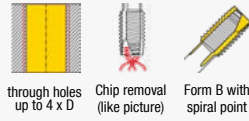
| MF           | D1   | D2   | L1  | L2 | □    | ✎     | No.       | €      | No.       | €      |
|--------------|------|------|-----|----|------|-------|-----------|--------|-----------|--------|
| MF 18 x 1,5  | 18,0 | 14,0 | 110 | 25 | 11,0 | 16,50 | 120401036 | 42,95  | 120402036 | 87,11  |
| MF 18 x 2,0  | 18,0 | 14,0 | 125 | 34 | 11,0 | 16,00 | 120401037 | 42,95  | 120402037 | 87,11  |
| MF 20 x 1,0  | 20,0 | 16,0 | 125 | 25 | 12,0 | 19,00 | 120401038 | 48,00  | 120402038 | 96,03  |
| MF 20 x 1,25 | 20,0 | 16,0 | 125 | 25 | 12,0 | 18,80 | 120401039 | 48,00  | 120402039 | 96,03  |
| MF 20 x 1,5  | 20,0 | 16,0 | 125 | 25 | 12,0 | 18,50 | 120401040 | 48,00  | 120402040 | 96,03  |
| MF 20 x 2,0  | 20,0 | 16,0 | 140 | 34 | 12,0 | 18,00 | 120401041 | 48,00  | 120402041 | 96,03  |
| MF 21 x 1,5  | 21,0 | 16,0 | 125 | 25 | 12,0 | 19,50 | 120401042 | 48,00  | 120402042 | 96,03  |
| MF 22 x 1,0  | 22,0 | 18,0 | 125 | 25 | 14,5 | 21,00 | 120401043 | 58,11  | 120402043 | 119,64 |
| MF 22 x 1,25 | 22,0 | 18,0 | 125 | 25 | 14,5 | 20,80 | 120401044 | 58,11  | 120402044 | 119,64 |
| MF 22 x 1,5  | 22,0 | 18,0 | 125 | 25 | 14,5 | 20,50 | 120401045 | 58,11  | 120402045 | 119,64 |
| MF 22 x 2,0  | 22,0 | 18,0 | 140 | 34 | 14,5 | 20,00 | 120401046 | 58,11  | 120402046 | 119,64 |
| MF 23 x 1,5  | 23,0 | 18,0 | 125 | 25 | 14,5 | 21,50 | 120401047 | 68,21  | 120402047 | 138,53 |
| MF 24 x 1,0  | 24,0 | 18,0 | 140 | 28 | 14,5 | 23,00 | 120401048 | 68,21  | 120402048 | 138,53 |
| MF 24 x 1,25 | 24,0 | 18,0 | 140 | 28 | 14,5 | 23,80 | 120401049 | 68,21  | 120402049 | 138,53 |
| MF 24 x 1,5  | 24,0 | 18,0 | 140 | 28 | 14,5 | 22,50 | 120401050 | 68,21  | 120402050 | 138,53 |
| MF 24 x 2,0  | 24,0 | 18,0 | 140 | 28 | 14,5 | 22,00 | 120401051 | 68,21  | 120402051 | 138,53 |
| MF 25 x 1,0  | 25,0 | 18,0 | 140 | 28 | 14,5 | 24,00 | 120401052 | 72,00  | 120402052 | 138,53 |
| MF 25 x 1,5  | 25,0 | 18,0 | 140 | 28 | 14,5 | 23,50 | 120401053 | 72,00  | 120402053 | 138,53 |
| MF 26 x 1,0  | 26,0 | 18,0 | 140 | 28 | 14,5 | 25,00 | 120401054 | 72,00  | 120402054 | 138,53 |
| MF 26 x 1,5  | 26,0 | 18,0 | 140 | 28 | 14,5 | 24,50 | 120401055 | 72,00  | 120402055 | 138,53 |
| MF 26 x 2,0  | 26,0 | 18,0 | 140 | 28 | 14,5 | 24,00 | 120401056 | 72,00  | 120402056 | 138,53 |
| MF 27 x 1,0  | 27,0 | 20,0 | 140 | 28 | 16,0 | 26,00 | 120401057 | 86,32  | 120402057 | 175,26 |
| MF 27 x 1,5  | 27,0 | 20,0 | 140 | 28 | 16,0 | 25,50 | 120401058 | 86,32  | 120402058 | 175,26 |
| MF 27 x 2,0  | 27,0 | 20,0 | 140 | 28 | 16,0 | 25,00 | 120401059 | 86,32  | 120402059 | 175,26 |
| MF 28 x 1,0  | 28,0 | 20,0 | 140 | 28 | 16,0 | 27,00 | 120401060 | 86,32  | 120402060 | 175,26 |
| MF 28 x 1,5  | 28,0 | 20,0 | 140 | 28 | 16,0 | 26,50 | 120401061 | 86,32  | 120402061 | 175,26 |
| MF 28 x 2,0  | 28,0 | 20,0 | 140 | 28 | 16,0 | 26,00 | 120401062 | 86,32  | 120402062 | 175,26 |
| MF 29 x 1,5  | 29,0 | 22,0 | 150 | 28 | 18,0 | 27,50 | 120401063 | 97,26  | 120402063 | 200,45 |
| MF 30 x 1,0  | 30,0 | 22,0 | 150 | 28 | 18,0 | 29,00 | 120401064 | 97,26  | 120402064 | 200,45 |
| MF 30 x 1,5  | 30,0 | 22,0 | 150 | 28 | 18,0 | 28,50 | 120401065 | 97,26  | 120402065 | 200,45 |
| MF 30 x 2,0  | 30,0 | 22,0 | 150 | 28 | 18,0 | 28,00 | 120401066 | 97,26  | 120402066 | 200,45 |
| MF 30 x 2,5  | 30,0 | 22,0 | 180 | 45 | 18,0 | 27,50 | 120401067 | 97,26  | 120402067 | 200,45 |
| MF 30 x 3,0  | 30,0 | 22,0 | 180 | 45 | 18,0 | 27,00 | 120401068 | 97,26  | 120402068 | 200,45 |
| MF 32 x 1,5  | 32,0 | 22,0 | 150 | 28 | 18,0 | 30,50 | 120401069 | 118,95 | 120402069 | 247,68 |
| MF 32 x 2,0  | 32,0 | 22,0 | 150 | 28 | 18,0 | 30,00 | 120401070 | 118,95 | 120402070 | 247,68 |

**MF** Metric fine thread / ISO DIN 13

- ✓ Tap for machine use in through hole.
- ✓ The spiral point pushes the chips ahead.

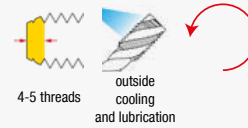
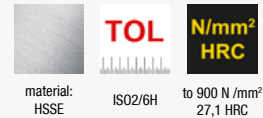
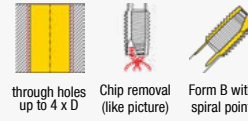


## Machine Tap for general use



## Machine Tap for general use

### Left-hand thread

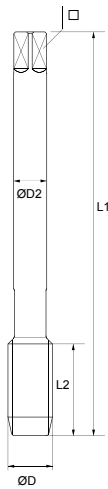


**MF**

|             | D1   | D2   | L1  | L2 | □    |  | No.       | €      | No.       | €      |
|-------------|------|------|-----|----|------|--|-----------|--------|-----------|--------|
| MF 32 x 3,0 | 32,0 | 22,0 | 180 | 50 | 18,0 |  | 120401071 | 118,95 | 120402071 | 247,68 |
| MF 33 x 1,5 | 33,0 | 25,0 | 160 | 30 | 20,0 |  | 120401072 | 118,95 | 120402072 | 247,68 |
| MF 33 x 2,0 | 33,0 | 25,0 | 160 | 30 | 20,0 |  | 120401073 | 118,95 | 120402073 | 247,68 |
| MF 33 x 3,0 | 33,0 | 25,0 | 180 | 50 | 20,0 |  | 120401074 | 118,95 | 120402074 | 247,68 |
| MF 34 x 1,5 | 34,0 | 28,0 | 170 | 30 | 22,0 |  | 120401075 | 118,95 | 120402075 | 247,68 |
| MF 34 x 2,0 | 34,0 | 28,0 | 170 | 30 | 22,0 |  | 120401076 | 118,95 | 120402076 | 247,68 |
| MF 35 x 1,5 | 35,0 | 28,0 | 170 | 30 | 22,0 |  | 120401077 | 118,95 | 120402077 | 247,68 |
| MF 36 x 1,5 | 36,0 | 28,0 | 170 | 30 | 22,0 |  | 120401078 | 149,47 | 120402078 | 310,64 |
| MF 36 x 2,0 | 36,0 | 28,0 | 170 | 30 | 22,0 |  | 120401079 | 149,47 | 120402079 | 310,64 |
| MF 36 x 3,0 | 36,0 | 28,0 | 200 | 56 | 22,0 |  | 120401080 | 149,47 | 120402080 | 310,64 |
| MF 38 x 1,5 | 38,0 | 28,0 | 170 | 30 | 22,0 |  | 120401081 | 157,89 | 120402081 | 327,44 |
| MF 39 x 1,5 | 39,0 | 32,0 | 170 | 30 | 24,0 |  | 120401082 | 157,89 | 120402082 | 327,44 |
| MF 39 x 2,0 | 39,0 | 32,0 | 170 | 30 | 24,0 |  | 120401083 | 157,89 | 120402083 | 327,44 |
| MF 39 x 3,0 | 39,0 | 32,0 | 200 | 60 | 24,0 |  | 120401084 | 157,89 | 120402084 | 327,44 |
| MF 40 x 1,5 | 40,0 | 32,0 | 170 | 30 | 24,0 |  | 120401085 | 174,74 | 120402085 | 358,92 |
| MF 40 x 2,0 | 40,0 | 32,0 | 170 | 30 | 24,0 |  | 120401086 | 174,74 | 120402086 | 358,92 |
| MF 40 x 3,0 | 40,0 | 32,0 | 200 | 60 | 24,0 |  | 120401087 | 174,74 | 120402087 | 358,92 |
| MF 42 x 1,5 | 42,0 | 32,0 | 170 | 30 | 24,0 |  | 120401088 | 197,89 | 120402088 | 400,90 |
| MF 42 x 2,0 | 42,0 | 32,0 | 170 | 30 | 24,0 |  | 120401089 | 197,89 | 120402089 | 400,90 |
| MF 42 x 3,0 | 42,0 | 32,0 | 200 | 60 | 24,0 |  | 120401090 | 197,89 | 120402090 | 400,90 |
| MF 45 x 1,5 | 45,0 | 36,0 | 180 | 32 | 29,0 |  | 120401091 | 230,53 | 120402091 | 472,26 |
| MF 45 x 2,0 | 45,0 | 36,0 | 180 | 32 | 29,0 |  | 120401092 | 230,53 | 120402092 | 472,26 |
| MF 45 x 3,0 | 45,0 | 36,0 | 200 | 50 | 29,0 |  | 120401093 | 230,53 | 120402093 | 472,26 |
| MF 48 x 1,5 | 48,0 | 36,0 | 190 | 32 | 29,0 |  | 120401094 | 275,79 | 120402094 | 569,86 |
| MF 48 x 2,0 | 48,0 | 36,0 | 190 | 32 | 29,0 |  | 120401095 | 275,79 | 120402095 | 569,86 |
| MF 48 x 3,0 | 48,0 | 36,0 | 225 | 50 | 29,0 |  | 120401096 | 275,79 | 120402096 | 569,86 |
| MF 50 x 1,5 | 50,0 | 36,0 | 190 | 32 | 29,0 |  | 120401097 | 324,21 | 120402097 | 661,17 |
| MF 50 x 2,0 | 50,0 | 36,0 | 190 | 32 | 29,0 |  | 120401098 | 324,21 | 120402098 | 661,17 |
| MF 50 x 3,0 | 50,0 | 36,0 | 225 | 50 | 29,0 |  | 120401099 | 324,21 | 120402099 | 661,17 |
| MF 52 x 1,5 | 52,0 | 40,0 | 190 | 32 | 32,0 |  | 120401100 | 353,68 | 120402100 | 730,43 |
| MF 52 x 2,0 | 52,0 | 40,0 | 190 | 32 | 32,0 |  | 120401101 | 353,68 | 120402101 | 730,43 |
| MF 52 x 3,0 | 52,0 | 40,0 | 225 | 50 | 32,0 |  | 120401102 | 353,68 | 120402102 | 730,43 |
| MF 63 x 1,5 | 63,0 | 50,0 | 275 | 50 | 39,0 |  | 120401103 | 629,47 |           |        |

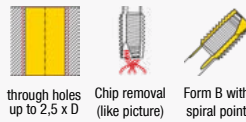
**MF** Metric fine thread / ISO DIN 13

- ✓ Tap for machine use in through hole.
- ✓ The spiral point pushes the chips ahead.



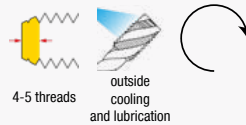
Shank: DIN 374

## Machine Tap for high-alloyed steels



through holes up to 2,5 x D  
 Chip removal (like picture)  
 Form B with spiral point

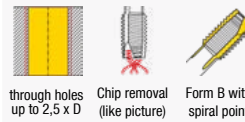
material: HSSE TiN  
 TOL ISO2/6H  
 N/mm<sup>2</sup> HRC to 1300  
 41 HRC



DIN 374

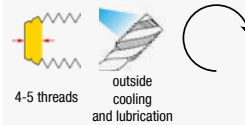


## Machine Tap for stainless steels



through holes up to 2,5 x D  
 Chip removal (like picture)  
 Form B with spiral point

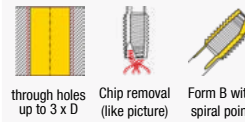
material: HSSE TiAlN  
 TOL ISO2/6H  
 N/mm<sup>2</sup> HRC to 1300  
 41 HRC



DIN 374

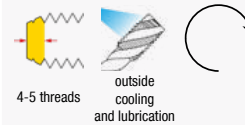


## Machine Tap for aluminum



through holes up to 3 x D  
 Chip removal (like picture)  
 Form B with spiral point

material: HSSE TiN  
 TOL ISO2/6H  
 N/mm<sup>2</sup> HRC to 900  
 27,1 HRC



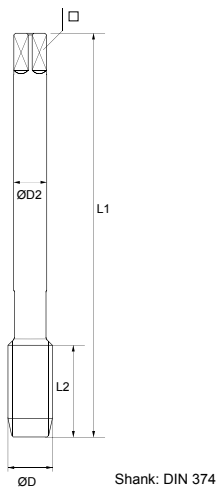
DIN 374



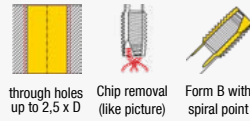
| MF           | D1   | D2   | L1  | L2 | □    | 🔩     | No.       | €     | No.       | €      | No.       | €      |
|--------------|------|------|-----|----|------|-------|-----------|-------|-----------|--------|-----------|--------|
| MF 6 x 0,75  | 6,0  | 4,5  | 80  | 14 | 3,4  | 5,20  | 120404001 | 32,50 | 120405001 | 39,47  | 120407001 | 39,47  |
| MF 8 x 1,0   | 8,0  | 6,0  | 90  | 22 | 4,9  | 7,00  | 120404002 | 34,22 | 120405002 | 42,38  | 120407002 | 42,38  |
| MF 10 x 1,0  | 10,0 | 7,0  | 90  | 20 | 5,5  | 9,00  | 120404003 | 35,81 | 120405003 | 44,41  | 120407003 | 44,41  |
| MF 10 x 1,25 | 10,0 | 7,0  | 100 | 24 | 5,5  | 8,80  | 120404004 | 44,03 | 120405004 | 49,64  | 120407004 | 49,64  |
| MF 12 x 1,0  | 12,0 | 9,0  | 100 | 22 | 7,0  | 11,00 | 120404005 | 48,80 | 120405005 | 55,43  | 120407005 | 55,43  |
| MF 12 x 1,25 | 12,0 | 9,0  | 100 | 22 | 7,0  | 10,80 | 120404006 | 49,92 | 120405006 | 60,08  | 120407006 | 60,08  |
| MF 12 x 1,5  | 12,0 | 9,0  | 100 | 22 | 7,0  | 10,50 | 120404007 | 50,66 | 120405007 | 52,97  | 120407007 | 52,97  |
| MF 14 x 1,25 | 14,0 | 11,0 | 100 | 22 | 9,0  | 12,80 | 120404008 | 54,12 | 120405008 | 68,93  | 120407008 | 68,93  |
| MF 14 x 1,5  | 14,0 | 11,0 | 100 | 22 | 9,0  | 12,50 | 120404009 | 66,93 | 120405009 | 68,93  | 120407009 | 68,93  |
| MF 16 x 1,5  | 16,0 | 12,0 | 100 | 22 | 9,0  | 14,50 | 120404010 | 81,75 | 120405010 | 76,62  | 120407010 | 76,62  |
| MF 18 x 1,5  | 18,0 | 14,0 | 110 | 25 | 11,0 | 16,50 | 120404011 | 85,99 | 120405011 | 95,05  | 120407011 | 95,05  |
| MF 20 x 1,5  | 20,0 | 16,0 | 125 | 25 | 12,0 | 18,50 | 120404012 | 95,36 | 120405012 | 103,91 | 120407012 | 103,91 |

**MF** Metric fine thread / ISO DIN 13

- ✓ Tap for machine use in through hole.
- ✓ The spiral point pushes the chips ahead.

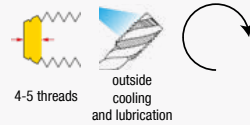


### Machine Tap for special alloys (Inconel, Hastelloy etc.)

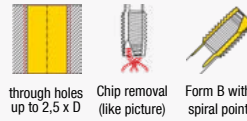


through holes up to 2,5 x D  
Chip removal (like picture)  
Form B with spiral point

material: HSSE-PM TiAlN  
TOL ISO2/6H  
N/mm<sup>2</sup> HRC to 1200 N/mm<sup>2</sup> 38 HRC

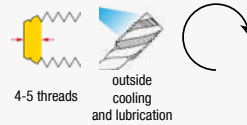


### Machine Tap with longer tool life time

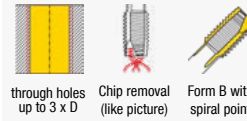


through holes up to 2,5 x D  
Chip removal (like picture)  
Form B with spiral point

material: HSSE TIN  
TOL ISO2/6H  
N/mm<sup>2</sup> HRC to 900 N/mm<sup>2</sup> 27,1 HRC

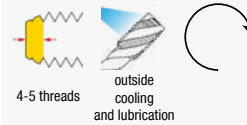


### Machine Tap for general use oversized (diameter)



through holes up to 3 x D  
Chip removal (like picture)  
Form B with spiral point

material: HSSE  
TOL ISO2/6H  
N/mm<sup>2</sup> HRC to 900 N/mm<sup>2</sup> 27,1 HRC



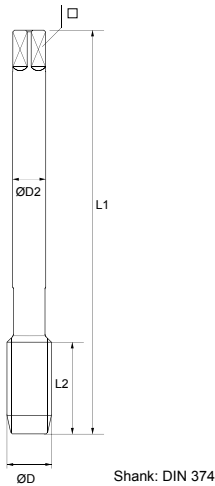
**MF**

|                     | D1                                       | D2   | L1  | L2 |      |       | No.       | €      | No.       | €     | No.       | €     |
|---------------------|--|------|-----|----|------|-------|-----------|--------|-----------|-------|-----------|-------|
|                     | Tol. 6G:<br>threads with large clearance |      |     |    |      |       |           |        |           |       |           |       |
| <b>MF 6 x 0,75</b>  | 6,0                                      | 4,5  | 80  | 14 | 3,4  | 5,20  |           |        | 120425001 | 32,50 | 120417001 | 41,75 |
| <b>MF 8 x 1,0</b>   | 8,0                                      | 6,0  | 90  | 22 | 4,9  | 7,00  | 120412001 | 69,10  | 120425002 | 34,22 | 120417002 | 42,11 |
| <b>MF 10 x 1,0</b>  | 10,0                                     | 7,0  | 90  | 20 | 5,5  | 9,00  | 120412002 | 73,61  | 120425003 | 35,81 | 120417003 | 43,73 |
| <b>MF 10 x 1,25</b> | 10,0                                     | 7,0  | 100 | 24 | 5,5  | 8,80  | 120412003 | 73,61  | 120425004 | 44,03 | 120417004 | 52,91 |
| <b>MF 12 x 1,0</b>  | 12,0                                     | 9,0  | 100 | 22 | 7,0  | 11,00 | 120412004 | 116,43 | 120425005 | 48,80 |           |       |
| <b>MF 12 x 1,25</b> | 12,0                                     | 9,0  | 100 | 22 | 7,0  | 10,80 | 120412005 | 106,89 | 120425006 | 49,92 |           |       |
| <b>MF 12 x 1,5</b>  | 12,0                                     | 9,0  | 100 | 22 | 7,0  | 10,50 | 120412006 | 106,89 | 120425007 | 50,66 | 120417005 | 47,15 |
| <b>MF 14 x 1,25</b> | 14,0                                     | 11,0 | 100 | 22 | 9,0  | 12,80 |           |        | 120425008 | 54,12 |           |       |
| <b>MF 14 x 1,5</b>  | 14,0                                     | 11,0 | 100 | 22 | 9,0  | 12,50 | 120412007 | 144,87 | 120425009 | 66,93 | 120417006 | 65,87 |
| <b>MF 16 x 1,5</b>  | 16,0                                     | 12,0 | 100 | 22 | 9,0  | 14,50 | 120412008 | 158,90 | 120425010 | 81,75 |           |       |
| <b>MF 18 x 1,5</b>  | 18,0                                     | 14,0 | 110 | 25 | 11,0 | 16,50 | 120412009 | 211,81 | 120425011 | 85,99 |           |       |
| <b>MF 20 x 1,5</b>  | 20,0                                     | 16,0 | 125 | 25 | 12,0 | 18,50 | 120412010 | 278,58 | 120425012 | 95,36 |           |       |

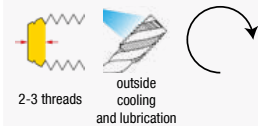
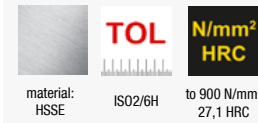
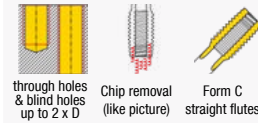
# Machine Taps - Form C (straight flutes) for through holes and blind holes

**MF** Metric fine thread / ISO DIN 13

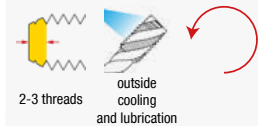
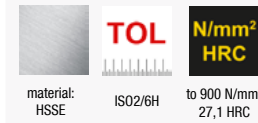
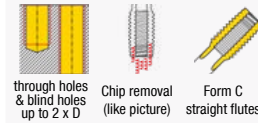
- ✓ Tap for machine use in through hole and blind hole.
- ✓ The short lead-in chamfer makes that tap universal in application. The flutes can hold the most part of the chips.



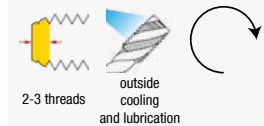
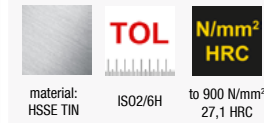
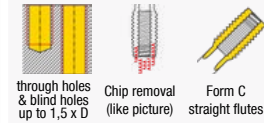
## Machine Tap for general use



## Machine Tap for general use Left-hand thread



## Machine Tap with longer tool life time

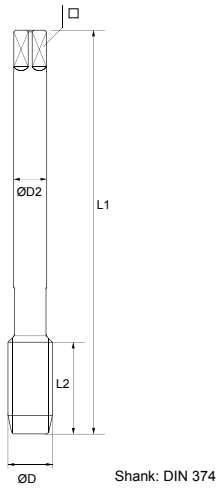


| MF           | D1   | D2   | L1  | L2 | □    | □     | No.       | €     | No.       | €         | No.       | €      |
|--------------|------|------|-----|----|------|-------|-----------|-------|-----------|-----------|-----------|--------|
| MF 4 x 0,35  | 4,0  | 2,8  | 63  | 10 | 2,1  | 3,65  | 120501001 | 13,72 |           |           |           |        |
| MF 5 x 0,5   | 5,0  | 3,5  | 70  | 12 | 2,7  | 4,50  | 120501002 | 12,75 |           |           |           |        |
| MF 6 x 0,5   | 6,0  | 4,5  | 80  | 14 | 3,4  | 5,50  |           |       |           | 120504001 | 47,23     |        |
| MF 6 x 0,75  | 6,0  | 4,5  | 80  | 14 | 3,4  | 5,20  | 120501003 | 12,75 | 120502001 | 30,00     | 120504002 | 28,40  |
| MF 7 x 0,75  | 7,0  | 5,5  | 80  | 14 | 4,3  | 6,20  |           |       |           |           | 120504003 | 53,38  |
| MF 8 x 0,75  | 8,0  | 6,0  | 80  | 19 | 4,9  | 7,20  | 120501004 | 12,75 |           |           |           |        |
| MF 8 x 1,0   | 8,0  | 6,0  | 90  | 22 | 4,9  | 7,00  | 120501005 | 12,75 | 120502002 | 30,00     | 120504004 | 49,61  |
| MF 10 x 0,5  | 10,0 | 7,0  | 90  | 20 | 5,5  | 9,50  |           |       |           |           | 120504005 | 81,56  |
| MF 10 x 1,0  | 10,0 | 7,0  | 90  | 20 | 5,5  | 9,00  | 120501006 | 15,32 | 120502003 | 32,85     | 120504006 | 41,20  |
| MF 10 x 1,25 | 10,0 | 7,0  | 100 | 24 | 5,5  | 8,80  | 120501007 | 15,32 | 120502004 | 48,20     | 120504007 | 42,71  |
| MF 12 x 0,75 | 12,0 | 9,0  | 100 | 22 | 7,0  | 10,20 |           |       |           |           | 120504008 | 85,33  |
| MF 12 x 1,0  | 12,0 | 9,0  | 100 | 22 | 7,0  | 11,00 | 120501008 | 19,88 |           |           | 120504009 | 46,98  |
| MF 12 x 1,25 | 12,0 | 9,0  | 100 | 22 | 7,0  | 10,80 | 120501009 | 20,46 | 120502005 | 49,70     | 120504010 | 53,19  |
| MF 12 x 1,5  | 12,0 | 9,0  | 100 | 22 | 7,0  | 10,50 | 120501010 | 19,88 | 120502006 | 53,10     | 120504011 | 49,98  |
| MF 14 x 1,0  | 14,0 | 11,0 | 100 | 22 | 9,0  | 13,00 | 120501011 | 24,68 |           |           | 120504012 | 82,95  |
| MF 14 x 1,25 | 14,0 | 11,0 | 100 | 22 | 9,0  | 12,80 | 120501012 | 24,68 |           |           | 120504013 | 78,78  |
| MF 14 x 1,5  | 14,0 | 11,0 | 100 | 22 | 9,0  | 12,50 | 120501013 | 24,68 | 120502007 | 56,30     | 120504014 | 62,02  |
| MF 16 x 1,0  | 16,0 | 12,0 | 100 | 22 | 9,0  | 15,00 | 120501014 | 29,23 |           |           | 120504015 | 71,67  |
| MF 16 x 1,25 | 16,0 | 12,0 | 100 | 22 | 9,0  | 14,80 |           |       |           |           | 120504016 | 120,66 |
| MF 16 x 1,5  | 16,0 | 12,0 | 100 | 22 | 9,0  | 14,50 | 120501015 | 29,23 | 120502008 | 72,15     | 120504017 | 75,43  |
| MF 18 x 1,0  | 18,0 | 14,0 | 110 | 25 | 11,0 | 17,00 | 120501016 | 37,36 |           |           |           |        |
| MF 18 x 1,5  | 18,0 | 14,0 | 110 | 25 | 11,0 | 16,50 | 120501017 | 37,36 | 120502009 | 125,00    | 120504018 | 79,35  |
| MF 18 x 2,0  | 18,0 | 14,0 | 125 | 34 | 11,0 | 16,00 | 120501018 | 37,36 |           |           |           |        |
| MF 20 x 1,0  | 20,0 | 16,0 | 125 | 25 | 12,0 | 19,00 | 120501019 | 40,72 |           |           |           |        |
| MF 20 x 1,25 | 20,0 | 16,0 | 125 | 25 | 12,0 | 18,80 | 120501020 | 40,72 |           |           |           |        |
| MF 20 x 1,5  | 20,0 | 16,0 | 125 | 25 | 12,0 | 18,50 | 120501021 | 40,72 | 120502010 | 138,95    | 120504019 | 95,83  |
| MF 20 x 2,0  | 20,0 | 16,0 | 140 | 34 | 12,0 | 18,00 | 120501022 | 40,72 |           |           |           |        |
| MF 22 x 1,0  | 22,0 | 18,0 | 125 | 25 | 14,5 | 21,00 | 120501023 | 51,63 |           |           |           |        |
| MF 22 x 1,5  | 22,0 | 18,0 | 125 | 25 | 14,5 | 20,50 | 120501024 | 51,63 |           |           | 120504020 | 116,54 |
| MF 22 x 2,0  | 22,0 | 18,0 | 140 | 34 | 14,5 | 20,00 | 120501025 | 51,63 |           |           |           |        |

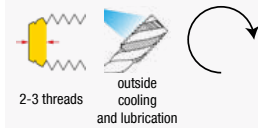
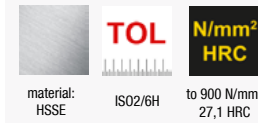
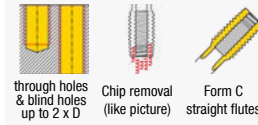
# Machine Taps - Form C (straight flutes) for through holes and blind holes

**MF** Metric fine thread / ISO DIN 13

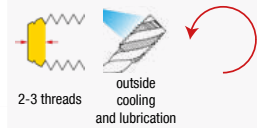
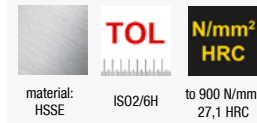
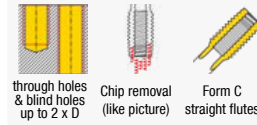
- ✓ Tap for machine use in through hole and blind hole.
- ✓ The short lead-in chamfer makes that tap universal in application. The flutes can hold the most part of the chips.



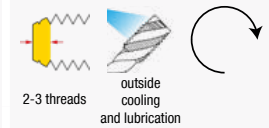
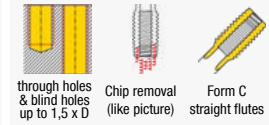
## Machine Tap for general use



## Machine Tap for general use Left-hand thread



## Machine Tap with longer tool life time

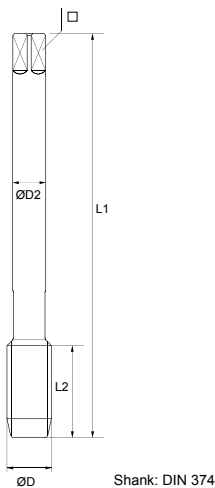


| MF          | D1   | D2   | L1  | L2 | □    |       | No.       | €      | No. | € | No. | € |
|-------------|------|------|-----|----|------|-------|-----------|--------|-----|---|-----|---|
| MF 24 x 1,0 | 24,0 | 18,0 | 140 | 28 | 14,5 | 23,00 | 120501026 | 60,45  |     |   |     |   |
| MF 24 x 1,5 | 24,0 | 18,0 | 140 | 28 | 14,5 | 22,50 | 120501027 | 60,45  |     |   |     |   |
| MF 24 x 2,0 | 24,0 | 18,0 | 140 | 28 | 14,5 | 22,00 | 120501028 | 60,45  |     |   |     |   |
| MF 25 x 1,0 | 25,0 | 18,0 | 140 | 28 | 14,5 | 24,00 | 120501029 | 60,45  |     |   |     |   |
| MF 26 x 1,5 | 26,0 | 18,0 | 140 | 28 | 14,5 | 24,50 | 120501030 | 60,45  |     |   |     |   |
| MF 27 x 1,5 | 27,0 | 20,0 | 140 | 28 | 16,0 | 25,50 | 120501031 | 75,56  |     |   |     |   |
| MF 27 x 2,0 | 27,0 | 20,0 | 140 | 28 | 16,0 | 25,00 | 120501032 | 75,56  |     |   |     |   |
| MF 28 x 1,5 | 28,0 | 20,0 | 140 | 28 | 16,0 | 26,50 | 120501033 | 75,56  |     |   |     |   |
| MF 30 x 1,5 | 30,0 | 22,0 | 150 | 28 | 18,0 | 28,50 | 120501034 | 87,11  |     |   |     |   |
| MF 30 x 2,0 | 30,0 | 22,0 | 150 | 28 | 18,0 | 28,00 | 120501035 | 87,11  |     |   |     |   |
| MF 32 x 1,5 | 32,0 | 22,0 | 150 | 28 | 18,0 | 30,50 | 120501036 | 111,24 |     |   |     |   |
| MF 32 x 2,0 | 32,0 | 22,0 | 150 | 28 | 18,0 | 30,00 | 120501037 | 111,24 |     |   |     |   |
| MF 33 x 2,0 | 33,0 | 25,0 | 160 | 30 | 20,0 | 31,00 | 120501038 | 111,24 |     |   |     |   |
| MF 35 x 1,5 | 35,0 | 28,0 | 170 | 30 | 22,0 | 33,50 | 120501039 | 111,24 |     |   |     |   |
| MF 36 x 1,5 | 36,0 | 28,0 | 170 | 30 | 22,0 | 34,50 | 120501040 | 138,53 |     |   |     |   |
| MF 36 x 2,0 | 36,0 | 28,0 | 170 | 30 | 22,0 | 34,00 | 120501041 | 138,53 |     |   |     |   |
| MF 38 x 1,5 | 38,0 | 28,0 | 170 | 30 | 22,0 | 36,50 | 120501042 | 149,03 |     |   |     |   |
| MF 40 x 1,5 | 40,0 | 32,0 | 170 | 30 | 24,0 | 38,50 | 120501043 | 161,62 |     |   |     |   |
| MF 42 x 1,5 | 42,0 | 32,0 | 170 | 30 | 24,0 | 40,50 | 120501044 | 179,46 |     |   |     |   |
| MF 45 x 1,5 | 45,0 | 36,0 | 180 | 32 | 29,0 | 43,50 | 120501045 | 209,89 |     |   |     |   |
| MF 48 x 1,5 | 48,0 | 36,0 | 190 | 32 | 29,0 | 46,50 | 120501046 | 255,02 |     |   |     |   |
| MF 50 x 1,5 | 50,0 | 36,0 | 190 | 32 | 29,0 | 48,50 | 120501047 | 293,85 |     |   |     |   |
| MF 52 x 1,5 | 52,0 | 40,0 | 190 | 32 | 32,0 | 50,50 | 120501048 | 323,24 |     |   |     |   |

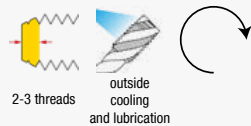
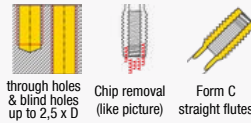
# Machine Taps - Form C (straight flutes) for through holes and blind holes

**MF** Metric fine thread / ISO DIN 13

- ✓ Tap for machine use in through hole and blind hole.
- ✓ The short lead-in chamfer makes that tap universal in application. The flutes can hold the most part of the chips.



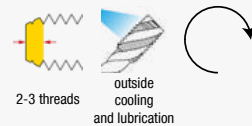
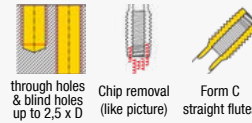
## Machine Tap for cast materials



DIN 374



## Machine Tap for brass (short-chipping)



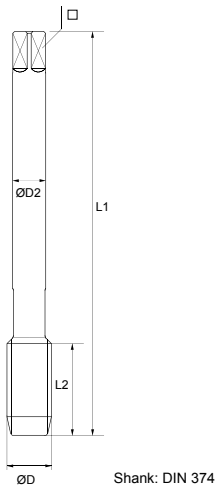
DIN 374



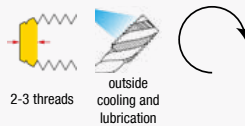
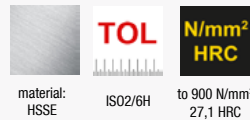
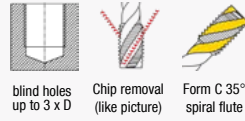
| MF           | D1   | D2   | L1  | L2 | □    | ✂     | No.       | €     | No.       | €      |
|--------------|------|------|-----|----|------|-------|-----------|-------|-----------|--------|
| MF 4 x 0,5   | 4,0  | 2,8  | 63  | 10 | 2,1  | 3,50  | 120510001 | 49,61 | 120509001 | 46,52  |
| MF 5 x 0,5   | 5,0  | 3,5  | 70  | 12 | 2,7  | 4,50  | 120510002 | 49,61 | 120509002 | 46,52  |
| MF 6 x 0,75  | 6,0  | 4,5  | 80  | 14 | 3,4  | 5,20  | 120510003 | 50,21 | 120509003 | 47,06  |
| MF 8 x 1,0   | 8,0  | 6,0  | 90  | 22 | 4,9  | 7,00  | 120510004 | 53,38 | 120509004 | 50,04  |
| MF 10 x 1,0  | 10,0 | 7,0  | 90  | 20 | 5,5  | 9,00  | 120510005 | 43,14 | 120509005 | 52,85  |
| MF 10 x 1,25 | 10,0 | 7,0  | 100 | 24 | 5,5  | 8,80  | 120510006 | 56,36 | 120509006 | 52,85  |
| MF 12 x 1,25 | 12,0 | 9,0  | 100 | 22 | 7,0  | 10,80 | 120510007 | 58,14 | 120509007 | 64,00  |
| MF 12 x 1,5  | 12,0 | 9,0  | 100 | 22 | 7,0  | 10,50 | 120510008 | 54,87 | 120509008 | 64,00  |
| MF 14 x 1,25 | 14,0 | 11,0 | 100 | 22 | 9,0  | 12,80 | 120510009 | 95,26 | 120509009 | 89,30  |
| MF 14 x 1,5  | 14,0 | 11,0 | 100 | 22 | 9,0  | 12,50 | 120510010 | 65,03 | 120509010 | 82,24  |
| MF 16 x 1,5  | 16,0 | 12,0 | 100 | 22 | 9,0  | 14,50 | 120510011 | 68,26 | 120509011 | 90,79  |
| MF 18 x 1,5  | 18,0 | 14,0 | 110 | 25 | 11,0 | 16,50 | 120510012 | 83,11 | 120509012 | 108,47 |
| MF 20 x 1,5  | 20,0 | 16,0 | 125 | 25 | 12,0 | 18,50 | 120510013 | 98,11 | 120509013 | 120,75 |

**MF** Metric fine thread / ISO DIN 13

- ✓ Tap for machine use in blind holes.
- ✓ The fast spiral flutes provide good chip removal from the blind hole.

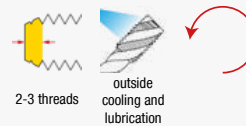
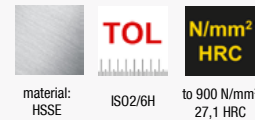
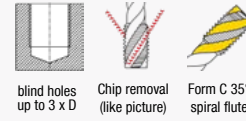


### Machine Tap for general use



### Machine Tap for general use

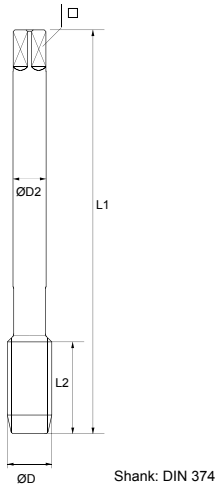
#### Left-hand thread



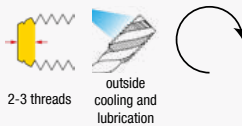
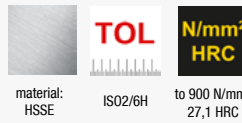
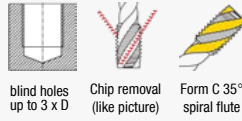
| MF           | D1   | D2   | L1  | L2 | □    | 🔩     | No.       | €     | No.       | €     |
|--------------|------|------|-----|----|------|-------|-----------|-------|-----------|-------|
| MF 3 x 0,35  | 3,0  | 2,2  | 56  | 5  | -    | 2,65  | 120601001 | 16,14 | 120602001 | 36,73 |
| MF 4 x 0,35  | 4,0  | 2,8  | 63  | 5  | 2,1  | 3,65  | 120601002 | 16,14 | 120602002 | 36,73 |
| MF 4 x 0,5   | 4,0  | 2,8  | 63  | 5  | 2,1  | 3,50  | 120601003 | 16,14 | 120602003 | 36,73 |
| MF 5 x 0,5   | 5,0  | 3,5  | 70  | 5  | 2,7  | 4,50  | 120601004 | 16,14 | 120602004 | 36,73 |
| MF 5 x 0,75  | 5,0  | 3,5  | 70  | 8  | 2,7  | 4,25  | 120601005 | 16,14 | 120602005 | 36,73 |
| MF 6 x 0,5   | 6,0  | 4,5  | 80  | 5  | 3,4  | 5,50  | 120601006 | 16,14 | 120602006 | 36,73 |
| MF 6 x 0,75  | 6,0  | 4,5  | 80  | 8  | 3,4  | 5,20  | 120601007 | 16,14 | 120602007 | 36,73 |
| MF 7 x 0,75  | 7,0  | 5,5  | 80  | 8  | 4,3  | 6,20  | 120601008 | 16,14 | 120602008 | 36,73 |
| MF 8 x 0,5   | 8,0  | 6,0  | 80  | 8  | 4,9  | 7,50  | 120601009 | 16,14 | 120602009 | 36,73 |
| MF 8 x 0,75  | 8,0  | 6,0  | 80  | 8  | 4,9  | 7,20  | 120601010 | 16,14 | 120602010 | 36,73 |
| MF 8 x 1,0   | 8,0  | 6,0  | 90  | 10 | 4,9  | 7,00  | 120601011 | 16,14 | 120602011 | 36,73 |
| MF 9 x 0,75  | 9,0  | 7,0  | 80  | 10 | 5,5  | 8,25  | 120601012 | 16,14 | 120602012 | 36,73 |
| MF 9 x 1,0   | 9,0  | 7,0  | 90  | 10 | 5,5  | 8,00  | 120601013 | 16,14 | 120602013 | 36,73 |
| MF 10 x 0,75 | 10,0 | 7,0  | 90  | 10 | 5,5  | 9,20  | 120601014 | 19,06 | 120602014 | 44,50 |
| MF 10 x 1,0  | 10,0 | 7,0  | 90  | 10 | 5,5  | 9,00  | 120601015 | 19,06 | 120602015 | 44,50 |
| MF 10 x 1,25 | 10,0 | 7,0  | 100 | 16 | 5,5  | 8,80  | 120601016 | 19,06 | 120602016 | 44,50 |
| MF 11 x 1,0  | 11,0 | 8,0  | 90  | 11 | 6,2  | 10,00 | 120601017 | 24,56 | 120602017 | 56,88 |
| MF 11 x 1,25 | 11,0 | 8,0  | 90  | 14 | 6,2  | 10,80 | 120601018 | 24,56 | 120602018 | 56,88 |
| MF 12 x 0,75 | 12,0 | 9,0  | 100 | 10 | 7,0  | 10,20 | 120601019 | 24,56 | 120602019 | 56,88 |
| MF 12 x 1,0  | 12,0 | 9,0  | 100 | 11 | 7,0  | 11,00 | 120601020 | 24,56 | 120602020 | 56,88 |
| MF 12 x 1,25 | 12,0 | 9,0  | 100 | 15 | 7,0  | 10,80 | 120601021 | 24,56 | 120602021 | 56,88 |
| MF 12 x 1,5  | 12,0 | 9,0  | 100 | 15 | 7,0  | 10,50 | 120601022 | 24,56 | 120602022 | 56,88 |
| MF 13 x 1,0  | 13,0 | 11,0 | 100 | 11 | 9,0  | 12,00 | 120601023 | 30,05 | 120602023 | 69,48 |
| MF 13 x 1,5  | 13,0 | 11,0 | 100 | 15 | 9,0  | 11,50 | 120601024 | 30,05 | 120602024 | 69,48 |
| MF 14 x 0,75 | 14,0 | 11,0 | 100 | 10 | 9,0  | 13,20 | 120601025 | 30,05 | 120602025 | 69,48 |
| MF 14 x 1,0  | 14,0 | 11,0 | 100 | 11 | 9,0  | 13,00 | 120601026 | 30,05 | 120602026 | 69,48 |
| MF 14 x 1,25 | 14,0 | 11,0 | 100 | 15 | 9,0  | 12,80 | 120601027 | 30,05 | 120602027 | 69,48 |
| MF 14 x 1,5  | 14,0 | 11,0 | 100 | 15 | 9,0  | 12,50 | 120601028 | 30,05 | 120602028 | 69,48 |
| MF 15 x 1,0  | 15,0 | 12,0 | 100 | 12 | 9,0  | 14,00 | 120601029 | 34,85 | 120602029 | 79,76 |
| MF 15 x 1,5  | 15,0 | 12,0 | 100 | 15 | 9,0  | 13,50 | 120601030 | 34,85 | 120602030 | 79,76 |
| MF 16 x 1,0  | 16,0 | 12,0 | 100 | 12 | 9,0  | 15,00 | 120601031 | 34,85 | 120602031 | 79,76 |
| MF 16 x 1,25 | 16,0 | 12,0 | 100 | 15 | 9,0  | 14,80 | 120601032 | 34,85 | 120602032 | 79,76 |
| MF 16 x 1,5  | 16,0 | 12,0 | 100 | 15 | 9,0  | 14,50 | 120601033 | 34,85 | 120602033 | 79,76 |
| MF 18 x 1,0  | 18,0 | 14,0 | 110 | 13 | 11,0 | 17,00 | 120601034 | 47,75 | 120602034 | 98,86 |
| MF 18 x 1,25 | 18,0 | 14,0 | 110 | 15 | 11,0 | 16,80 | 120601035 | 47,75 | 120602035 | 98,86 |

**MF** Metric fine thread / ISO DIN 13

- ✓ Tap for machine use in blind holes.
- ✓ The fast spiral flutes provide good chip removal from the blind hole.

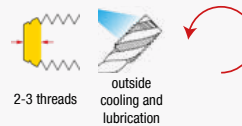
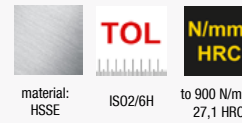
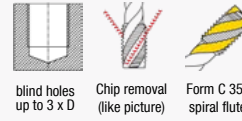


## Machine Tap for general use



## Machine Tap for general use

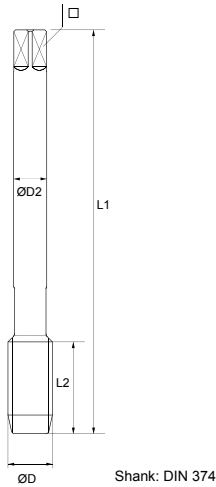
### Left-hand thread



| MF           | D1   | D2   | L1  | L2 | □    | 🔩     | No.       | €      | No.       | €      |
|--------------|------|------|-----|----|------|-------|-----------|--------|-----------|--------|
| MF 18 x 1,5  | 18,0 | 14,0 | 110 | 17 | 11,0 | 16,50 | 120601036 | 47,75  | 120602036 | 98,86  |
| MF 18 x 2,0  | 18,0 | 14,0 | 125 | 20 | 11,0 | 16,00 | 120601037 | 47,75  | 120602037 | 98,86  |
| MF 20 x 1,0  | 20,0 | 16,0 | 125 | 14 | 12,0 | 19,00 | 120601038 | 52,89  | 120602038 | 110,72 |
| MF 20 x 1,25 | 20,0 | 16,0 | 125 | 17 | 12,0 | 18,80 | 120601039 | 52,89  | 120602039 | 110,72 |
| MF 20 x 1,5  | 20,0 | 16,0 | 125 | 17 | 12,0 | 18,50 | 120601040 | 52,89  | 120602040 | 110,72 |
| MF 20 x 2,0  | 20,0 | 16,0 | 140 | 20 | 12,0 | 18,00 | 120601041 | 52,89  | 120602041 | 110,72 |
| MF 21 x 1,5  | 21,0 | 16,0 | 125 | 17 | 12,0 | 19,50 | 120601042 | 52,89  | 120602042 | 110,72 |
| MF 22 x 1,0  | 22,0 | 18,0 | 125 | 14 | 14,5 | 21,00 | 120601043 | 64,23  | 120602043 | 132,23 |
| MF 22 x 1,25 | 22,0 | 18,0 | 125 | 17 | 14,5 | 20,80 | 120601044 | 64,23  | 120602044 | 132,23 |
| MF 22 x 1,5  | 22,0 | 18,0 | 125 | 17 | 14,5 | 20,50 | 120601045 | 64,23  | 120602045 | 132,23 |
| MF 22 x 2,0  | 22,0 | 18,0 | 140 | 20 | 14,5 | 20,00 | 120601046 | 64,23  | 120602046 | 132,23 |
| MF 23 x 1,5  | 23,0 | 18,0 | 125 | 17 | 14,5 | 21,50 | 120601047 | 76,82  | 120602047 | 159,52 |
| MF 24 x 1,0  | 24,0 | 18,0 | 140 | 15 | 14,5 | 23,00 | 120601048 | 76,82  | 120602048 | 159,52 |
| MF 24 x 1,25 | 24,0 | 18,0 | 140 | 17 | 14,5 | 23,80 | 120601049 | 76,82  | 120602049 | 159,52 |
| MF 24 x 1,5  | 24,0 | 18,0 | 140 | 20 | 14,5 | 22,50 | 120601050 | 76,82  | 120602050 | 159,52 |
| MF 24 x 2,0  | 24,0 | 18,0 | 140 | 20 | 14,5 | 22,00 | 120601051 | 76,82  | 120602051 | 159,52 |
| MF 25 x 1,0  | 25,0 | 18,0 | 140 | 15 | 14,5 | 24,00 | 120601052 | 80,81  | 120602052 | 159,52 |
| MF 25 x 1,5  | 25,0 | 18,0 | 140 | 20 | 14,5 | 23,50 | 120601053 | 80,81  | 120602053 | 159,52 |
| MF 26 x 1,0  | 26,0 | 18,0 | 140 | 15 | 14,5 | 25,00 | 120601054 | 80,81  | 120602054 | 159,52 |
| MF 26 x 1,5  | 26,0 | 18,0 | 140 | 20 | 14,5 | 24,50 | 120601055 | 80,81  | 120602055 | 159,52 |
| MF 26 x 2,0  | 26,0 | 18,0 | 140 | 20 | 14,5 | 24,00 | 120601056 | 80,81  | 120602056 | 159,52 |
| MF 27 x 1,0  | 27,0 | 20,0 | 140 | 15 | 16,0 | 26,00 | 120601057 | 93,19  | 120602057 | 193,10 |
| MF 27 x 1,5  | 27,0 | 20,0 | 140 | 20 | 16,0 | 25,50 | 120601058 | 92,35  | 120602058 | 193,10 |
| MF 27 x 2,0  | 27,0 | 20,0 | 140 | 20 | 16,0 | 25,00 | 120601059 | 92,35  | 120602059 | 193,10 |
| MF 28 x 1,0  | 28,0 | 20,0 | 140 | 15 | 16,0 | 27,00 | 120601060 | 92,35  | 120602060 | 193,10 |
| MF 28 x 1,5  | 28,0 | 20,0 | 140 | 20 | 16,0 | 26,50 | 120601061 | 92,35  | 120602061 | 193,10 |
| MF 28 x 2,0  | 28,0 | 20,0 | 140 | 20 | 16,0 | 26,00 | 120601062 | 92,35  | 120602062 | 193,10 |
| MF 29 x 1,5  | 29,0 | 22,0 | 150 | 22 | 18,0 | 27,50 | 120601063 | 106,00 | 120602063 | 219,34 |
| MF 30 x 1,0  | 30,0 | 22,0 | 150 | 17 | 18,0 | 29,00 | 120601064 | 106,00 | 120602064 | 219,34 |
| MF 30 x 1,5  | 30,0 | 22,0 | 150 | 22 | 18,0 | 28,50 | 120601065 | 106,00 | 120602065 | 219,34 |
| MF 30 x 2,0  | 30,0 | 22,0 | 150 | 22 | 18,0 | 28,00 | 120601066 | 106,00 | 120602066 | 219,34 |
| MF 30 x 2,5  | 30,0 | 22,0 | 180 | 27 | 18,0 | 27,50 | 120601067 | 106,00 | 120602067 | 219,34 |
| MF 30 x 3,0  | 30,0 | 22,0 | 180 | 30 | 18,0 | 27,00 | 120601068 | 106,00 | 120602068 | 219,34 |
| MF 32 x 1,5  | 32,0 | 22,0 | 150 | 22 | 18,0 | 30,50 | 120601069 | 131,18 | 120602069 | 273,91 |
| MF 32 x 2,0  | 32,0 | 22,0 | 150 | 22 | 18,0 | 30,00 | 120601070 | 131,18 | 120602070 | 273,91 |

**MF** Metric fine thread / ISO DIN 13

- ✓ Tap for machine use in blind holes.
- ✓ The fast spiral flutes provide good chip removal from the blind hole.



### Machine Tap for general use

blind holes up to 3 x D  
Chip removal (like picture)  
Form C 35° spiral flute

material: HSSE  
ISO2/6H  
to 900 N/mm<sup>2</sup>  
27,1 HRC

2-3 threads  
outside cooling and lubrication

DIN 374

### Machine Tap for general use Left-hand thread

blind holes up to 3 x D  
Chip removal (like picture)  
Form C 35° spiral flute

material: HSSE  
ISO2/6H  
to 900 N/mm<sup>2</sup>  
27,1 HRC

2-3 threads  
outside cooling and lubrication

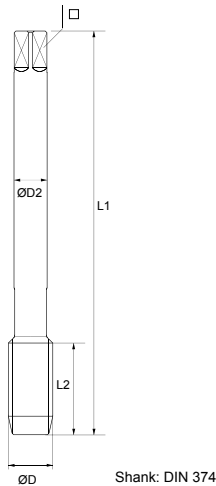
DIN 374

| MF          | D1   | D2   | L1  | L2 | □    | 🔩     | No.       | €      | No.       | €      |
|-------------|------|------|-----|----|------|-------|-----------|--------|-----------|--------|
| MF 32 x 3,0 | 32,0 | 22,0 | 180 | 30 | 18,0 | 29,00 | 120601071 | 131,18 | 120602071 | 273,91 |
| MF 33 x 1,5 | 33,0 | 25,0 | 160 | 24 | 20,0 | 31,50 | 120601072 | 131,18 | 120602072 | 273,91 |
| MF 33 x 2,0 | 33,0 | 25,0 | 160 | 24 | 20,0 | 31,00 | 120601073 | 131,18 | 120602073 | 273,91 |
| MF 33 x 3,0 | 33,0 | 25,0 | 180 | 30 | 20,0 | 30,00 | 120601074 | 131,18 | 120602074 | 273,91 |
| MF 34 x 1,5 | 34,0 | 28,0 | 170 | 24 | 22,0 | 32,50 | 120601075 | 131,18 | 120602075 | 273,91 |
| MF 34 x 2,0 | 34,0 | 28,0 | 170 | 24 | 22,0 | 32,00 | 120601076 | 131,18 | 120602076 | 273,91 |
| MF 35 x 1,5 | 35,0 | 28,0 | 170 | 24 | 22,0 | 33,50 | 120601077 | 131,18 | 120602077 | 273,91 |
| MF 36 x 1,5 | 36,0 | 28,0 | 170 | 24 | 22,0 | 34,50 | 120601078 | 166,87 | 120602078 | 346,33 |
| MF 36 x 2,0 | 36,0 | 28,0 | 170 | 24 | 22,0 | 34,00 | 120601079 | 166,87 | 120602079 | 346,33 |
| MF 36 x 3,0 | 36,0 | 28,0 | 200 | 30 | 22,0 | 33,00 | 120601080 | 166,87 | 120602080 | 346,33 |
| MF 38 x 1,5 | 38,0 | 28,0 | 170 | 24 | 22,0 | 36,50 | 120601081 | 175,26 | 120602081 | 362,07 |
| MF 39 x 1,5 | 39,0 | 32,0 | 170 | 25 | 24,0 | 37,50 | 120601082 | 175,26 | 120602082 | 362,07 |
| MF 39 x 2,0 | 39,0 | 32,0 | 170 | 25 | 24,0 | 37,00 | 120601083 | 175,26 | 120602083 | 362,07 |
| MF 39 x 3,0 | 39,0 | 32,0 | 200 | 30 | 24,0 | 36,00 | 120601084 | 175,26 | 120602084 | 362,07 |
| MF 40 x 1,5 | 40,0 | 32,0 | 170 | 25 | 24,0 | 38,50 | 120601085 | 194,15 | 120602085 | 393,55 |
| MF 40 x 2,0 | 40,0 | 32,0 | 170 | 25 | 24,0 | 38,00 | 120601086 | 194,15 | 120602086 | 393,55 |
| MF 40 x 3,0 | 40,0 | 32,0 | 200 | 30 | 24,0 | 37,00 | 120601087 | 194,15 | 120602087 | 393,55 |
| MF 42 x 1,5 | 42,0 | 32,0 | 170 | 25 | 24,0 | 40,50 | 120601088 | 217,24 | 120602088 | 444,98 |
| MF 42 x 2,0 | 42,0 | 32,0 | 170 | 25 | 24,0 | 40,00 | 120601089 | 217,24 | 120602089 | 444,98 |
| MF 42 x 3,0 | 42,0 | 32,0 | 200 | 30 | 24,0 | 39,00 | 120601090 | 217,24 | 120602090 | 444,98 |
| MF 45 x 1,5 | 45,0 | 36,0 | 180 | 27 | 29,0 | 43,50 | 120601091 | 253,97 | 120602091 | 522,64 |
| MF 45 x 2,0 | 45,0 | 36,0 | 180 | 27 | 29,0 | 43,00 | 120601092 | 253,97 | 120602092 | 522,64 |
| MF 45 x 3,0 | 45,0 | 36,0 | 200 | 30 | 29,0 | 42,00 | 120601093 | 253,97 | 120602093 | 522,64 |
| MF 48 x 1,5 | 48,0 | 36,0 | 190 | 27 | 29,0 | 46,50 | 120601094 | 302,25 | 120602094 | 623,39 |
| MF 48 x 2,0 | 48,0 | 36,0 | 190 | 27 | 29,0 | 46,00 | 120601095 | 302,25 | 120602095 | 623,39 |
| MF 48 x 3,0 | 48,0 | 36,0 | 225 | 33 | 29,0 | 45,00 | 120601096 | 302,25 | 120602096 | 623,39 |
| MF 50 x 1,5 | 50,0 | 36,0 | 190 | 27 | 29,0 | 48,50 | 120601097 | 352,62 | 120602097 | 726,24 |
| MF 50 x 2,0 | 50,0 | 36,0 | 190 | 27 | 29,0 | 48,00 | 120601098 | 352,62 | 120602098 | 726,24 |
| MF 50 x 3,0 | 50,0 | 36,0 | 225 | 33 | 29,0 | 47,00 | 120601099 | 352,62 | 120602099 | 726,24 |
| MF 52 x 1,5 | 52,0 | 40,0 | 190 | 27 | 32,0 | 50,50 | 120601100 | 390,40 | 120602100 | 795,50 |
| MF 52 x 2,0 | 52,0 | 40,0 | 190 | 27 | 32,0 | 50,00 | 120601101 | 390,40 | 120602101 | 795,50 |
| MF 52 x 3,0 | 52,0 | 40,0 | 225 | 33 | 32,0 | 49,00 | 120601102 | 390,40 | 120602102 | 795,50 |
| MF 63 x 1,5 | 63,0 | 50,0 | 275 | 40 | 39,0 | 61,50 | 120601103 | 667,47 |           |        |

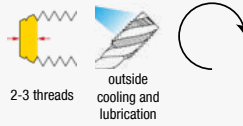
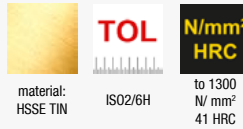
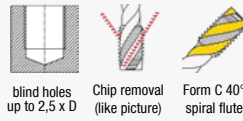
# Machine Taps - Form C (with spiral flutes) for blind holes

**MF** Metric fine thread / ISO DIN 13

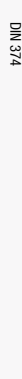
- ✓ Tap for machine use in blind holes.
- ✓ The fast spiral flutes provide good chip removal from the blind hole.



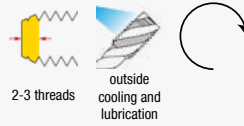
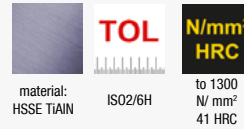
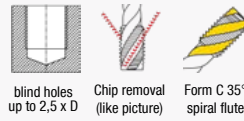
## Machine Tap und for high-alloyed steels



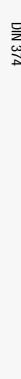
DIN 374



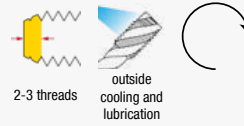
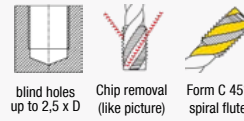
## Machine Tap PRO for stainless steels with high tool life time



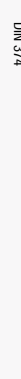
DIN 374



## Machine Tap for special alloys (Inconel, Hastelloy etc.)



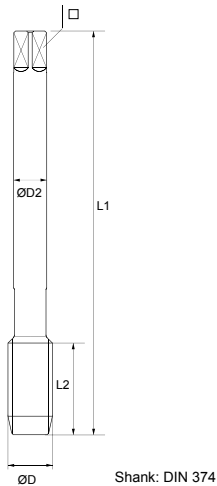
DIN 374



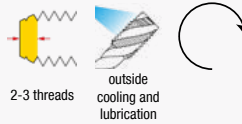
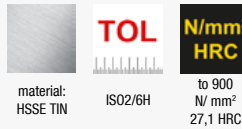
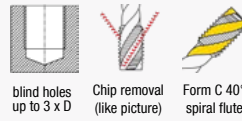
| MF           | D1   | D2   | L1  | L2 | □    | □     | No.       | €      | No.       | €      | No.       | €      |
|--------------|------|------|-----|----|------|-------|-----------|--------|-----------|--------|-----------|--------|
| MF 6 x 0,75  | 6,0  | 4,5  | 80  | 8  | 3,4  | 5,20  | 120604001 | 30,13  | 120605001 | 48,92  |           |        |
| MF 8 x 1,0   | 8,0  | 6,0  | 90  | 10 | 4,9  | 7,00  | 120604002 | 34,11  | 120605002 | 52,51  | 120612001 | 85,66  |
| MF 10 x 1,0  | 10,0 | 7,0  | 90  | 10 | 5,5  | 9,00  | 120604003 | 45,66  | 120605003 | 55,04  | 120612002 | 94,12  |
| MF 10 x 1,25 | 10,0 | 7,0  | 100 | 16 | 5,5  | 8,80  | 120604004 | 52,58  | 120605004 | 61,51  | 120612003 | 98,97  |
| MF 12 x 1,0  | 12,0 | 9,0  | 100 | 11 | 7,0  | 11,00 | 120604005 | 57,93  | 120605005 | 68,70  | 120612004 | 132,80 |
| MF 12 x 1,25 | 12,0 | 9,0  | 100 | 15 | 7,0  | 10,80 | 120604006 | 63,47  | 120605006 | 74,46  | 120612005 | 115,00 |
| MF 12 x 1,5  | 12,0 | 9,0  | 100 | 15 | 7,0  | 10,50 | 120604007 | 65,65  | 120605007 | 65,65  | 120612006 | 112,30 |
| MF 14 x 1,5  | 14,0 | 11,0 | 100 | 15 | 9,0  | 12,50 | 120604008 | 85,42  | 120605008 | 85,42  | 120612007 | 142,35 |
| MF 16 x 1,5  | 16,0 | 12,0 | 100 | 15 | 9,0  | 14,50 | 120604009 | 85,42  | 120605009 | 85,42  | 120612008 | 170,24 |
| MF 18 x 1,5  | 18,0 | 14,0 | 110 | 17 | 11,0 | 16,50 | 120604010 | 94,96  | 120605010 | 94,96  | 120612009 | 189,32 |
| MF 20 x 1,5  | 20,0 | 16,0 | 125 | 17 | 12,0 | 18,50 | 120604011 | 117,80 | 120605011 | 117,80 | 120612010 | 218,46 |
| MF 22 x 1,5  | 22,0 | 18,0 | 125 | 17 | 14,5 | 20,50 | 120604012 | 128,77 | 120605012 | 128,77 |           |        |

**MF** Metric fine thread / ISO DIN 13

- ✓ Tap for machine use in blind holes.
- ✓ The fast spiral flutes provide good chip removal from the blind hole.



### Machine Tap for general use oversized (diameter)

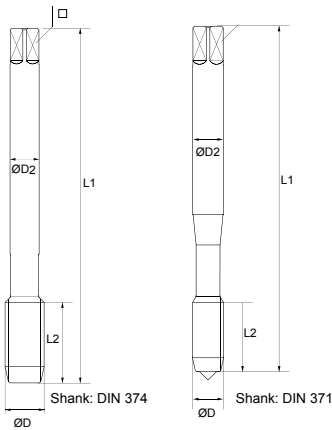


| MF                                       | D1   | D2   | L1  | L2 |     |       | No.       | €     |
|--|------|------|-----|----|-----|-------|-----------|-------|
| Tol. 6G:<br>threads with large clearance |      |      |     |    |     |       |           |       |
| MF 6 x 0,75                              | 6,0  | 4,5  | 80  | 8  | 3,4 | 5,20  | 120617001 | 44,63 |
| MF 8 x 1,0                               | 8,0  | 6,0  | 90  | 10 | 4,9 | 7,00  | 120617002 | 44,63 |
| MF 10 x 1,0                              | 10,0 | 7,0  | 90  | 10 | 5,5 | 9,00  | 120617003 | 46,61 |
| MF 10 x 1,25                             | 10,0 | 7,0  | 100 | 16 | 5,5 | 8,80  | 120617004 | 65,14 |
| MF 12 x 1,5                              | 12,0 | 9,0  | 100 | 15 | 7,0 | 10,50 | 120617005 | 52,91 |
| MF 14 x 1,5                              | 14,0 | 11,0 | 100 | 15 | 9,0 | 12,50 | 120617006 | 72,52 |

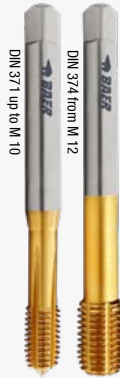
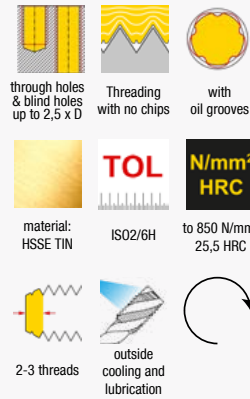
**MF** Metric fine thread / ISO DIN 13

**Machine Forming Taps have following advantages:**

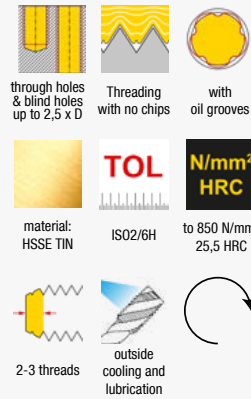
- No chips
- Up to 20 times longer lifetime (compared to taps)
- Same forming tap for through and blind hole
- Wide range of materials can be processed
- Intersection of the thread is impossible
- Very high trueness
- Increased strength of the thread
- Higher surface quality
- Much higher cutting speed



**Machine Forming Taps for general use**



**Machine Forming Taps for general use oversized (diameter)**



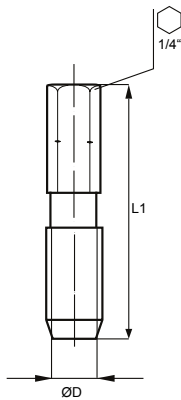
| MF           | D1   | D2   | L1  | L2 | □    | ✂     | Tol. 6HX: standard tolerance |        | Tol. 6GX: threads with large clearance |        |
|--------------|------|------|-----|----|------|-------|------------------------------|--------|--|--------|
|              |      |      |     |    |      |       | No.                          | €      | No.                                    | €      |
| MF 3 x 0,35  | 3,0  | 3,5  | 56  | 10 | 2,7  | 2,85  | 121101001                    | 89,80  | 121117001                              | 109,67 |
| MF 4 x 0,5   | 4,0  | 4,5  | 63  | 12 | 3,4  | 3,80  | 121101002                    | 56,63  | 121117002                              | 100,86 |
| MF 5 x 0,5   | 5,0  | 6,0  | 70  | 14 | 4,9  | 4,80  | 121101003                    | 57,35  | 121117003                              | 100,86 |
| MF 6 x 0,75  | 6,0  | 6,0  | 80  | 16 | 4,9  | 5,65  | 121101004                    | 56,63  | 121117004                              | 99,37  |
| MF 8 x 1,0   | 8,0  | 8,0  | 90  | 18 | 6,2  | 7,55  | 121101005                    | 65,27  | 121117005                              | 107,74 |
| MF 10 x 1,0  | 10,0 | 10,0 | 90  | 18 | 8,0  | 9,55  | 121101006                    | 75,58  | 121117006                              | 114,40 |
| MF 10 x 1,25 | 10,0 | 10,0 | 100 | 20 | 8,0  | 9,45  | 121101007                    | 79,42  | 121117007                              | 114,40 |
| MF 12 x 1,0  | 12,0 | 9,0  | 100 | 22 | 7,0  | 11,55 | 121101008                    | 89,26  | 121117008                              | 141,65 |
| MF 12 x 1,25 | 12,0 | 9,0  | 100 | 22 | 7,0  | 11,45 | 121101009                    | 93,09  | 121117009                              | 141,65 |
| MF 12 x 1,5  | 12,0 | 9,0  | 100 | 22 | 7,0  | 11,30 | 121101010                    | 86,61  | 121117010                              | 141,65 |
| MF 14 x 1,25 | 14,0 | 11,0 | 100 | 22 | 9,0  | 13,45 | 121101011                    | 110,62 | 121117011                              | 185,65 |
| MF 14 x 1,5  | 14,0 | 11,0 | 100 | 22 | 9,0  | 13,30 | 121101012                    | 103,68 | 121117012                              | 185,65 |
| MF 16 x 1,5  | 16,0 | 12,0 | 100 | 22 | 9,0  | 15,30 | 121101013                    | 131,25 | 121117013                              | 226,21 |
| MF 18 x 1,5  | 18,0 | 14,0 | 110 | 22 | 11,0 | 17,30 | 121101014                    | 168,44 | 121117014                              | 268,29 |
| MF 20 x 1,5  | 20,0 | 16,0 | 125 | 25 | 12,0 | 19,30 | 121101015                    | 189,56 | 121117015                              | 366,16 |

**MF** Metric fine thread / ISO DIN 13

Efficient internal thread cutting with batterypowered screwdriver (min. 7,5 Volt).

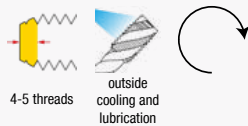
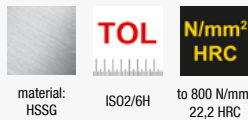
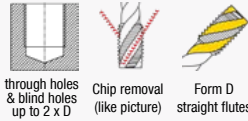
### Application:

non abrasive material up to 900 N/mm<sup>2</sup> unalloyed and low alloyed steel



### Bit-Taps

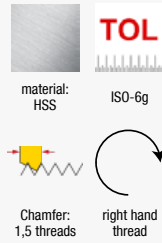
Form D for through holes and blind holes



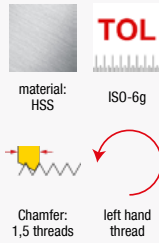
| MF            | D1   | L1   | L2 | Hex  | Length | No.       | € |
|---------------|------|------|----|------|--------|-----------|---|
| MF 3 x 0,35   | 3,0  | 33,0 | 11 | 1/4" | 2,65   | 121201001 | * |
| MF 3,5 x 0,35 | 3,5  | 33,5 | 10 | 1/4" | 3,15   | 121201002 | * |
| MF 4 x 0,35   | 4,0  | 35,0 | 12 | 1/4" | 3,65   | 121201003 | * |
| MF 4 x 0,5    | 4,0  | 35,0 | 12 | 1/4" | 3,50   | 121201004 | * |
| MF 4,5 x 0,5  | 4,5  | 35,0 | 12 | 1/4" | 4,00   | 121201005 | * |
| MF 5 x 0,5    | 5,0  | 36,0 | 15 | 1/4" | 4,50   | 121201006 | * |
| MF 5 x 0,75   | 5,0  | 36,0 | 15 | 1/4" | 4,25   | 121201007 | * |
| MF 5,5 x 0,5  | 5,5  | 35,0 | 15 | 1/4" | 5,00   | 121201008 | * |
| MF 6 x 0,5    | 6,0  | 39,0 | 18 | 1/4" | 5,50   | 121201009 | * |
| MF 6 x 0,75   | 6,0  | 39,0 | 18 | 1/4" | 5,20   | 121201010 | * |
| MF 7 x 0,5    | 7,0  | 37,5 | 16 | 1/4" | 6,50   | 121201011 | * |
| MF 7 x 0,75   | 7,0  | 37,5 | 16 | 1/4" | 6,20   | 121201012 | * |
| MF 8 x 0,5    | 8,0  | 40,0 | 19 | 1/4" | 7,50   | 121201013 | * |
| MF 8 x 0,75   | 8,0  | 40,0 | 19 | 1/4" | 7,20   | 121201014 | * |
| MF 8 x 1      | 8,0  | 40,0 | 19 | 1/4" | 7,00   | 121201015 | * |
| MF 9 x 0,5    | 9,0  | 40,5 | 18 | 1/4" | 8,50   | 121201016 | * |
| MF 9 x 0,75   | 9,0  | 40,5 | 18 | 1/4" | 8,25   | 121201017 | * |
| MF 9 x 1      | 9,0  | 40,5 | 18 | 1/4" | 8,00   | 121201018 | * |
| MF 10 x 0,5   | 10,0 | 41,0 | 21 | 1/4" | 9,50   | 121201019 | * |
| MF 10 x 0,75  | 10,0 | 41,0 | 21 | 1/4" | 9,20   | 121201020 | * |
| MF 10 x 1,0   | 10,0 | 41,0 | 21 | 1/4" | 9,00   | 121201021 | * |
| MF 10 x 1,25  | 10,0 | 41,0 | 21 | 1/4" | 8,80   | 121201022 | * |

\* on request

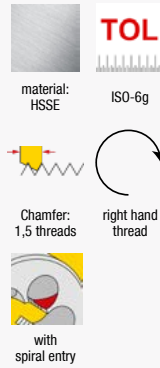
### Round Dies for general use



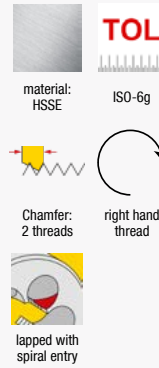
### Round Dies for general use Left Hand



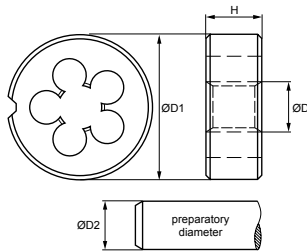
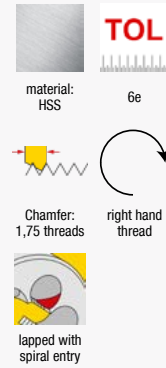
### Round Dies for higher demands



### Round Dies for stainless steels



### Round Dies undersized



**MF**

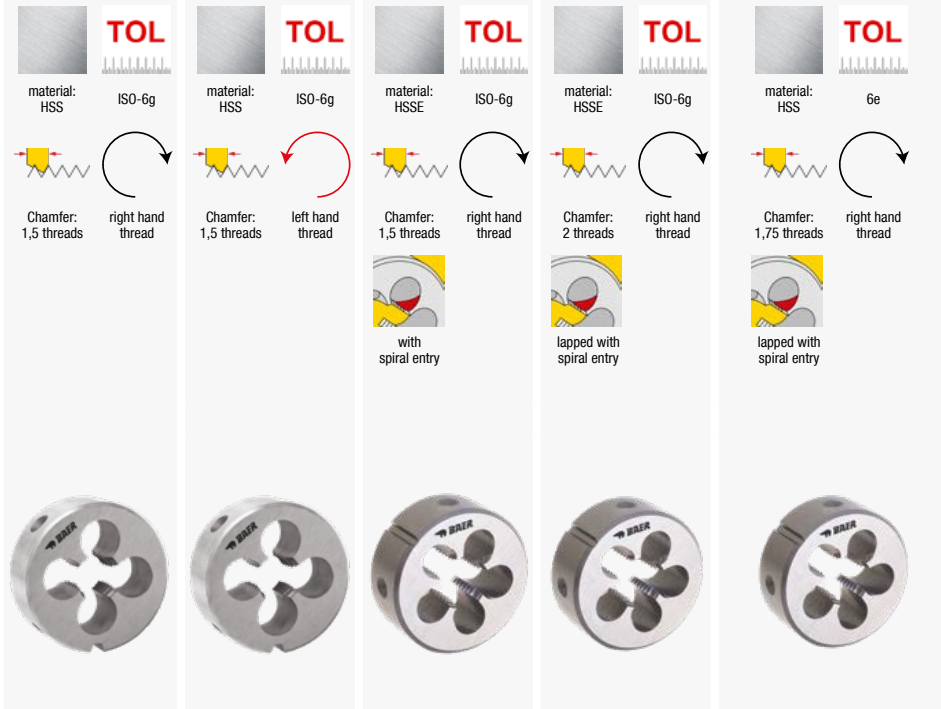
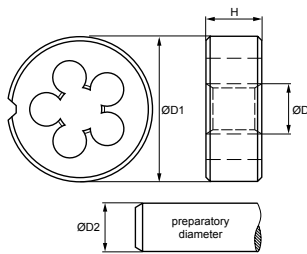
|               | D    | D1 | H  | D2    | No.       | €     | No.       | €     | No.       | €     | No.       | €     | No.       | €      | D2 Tol. 6e |
|---------------|------|----|----|-------|-----------|-------|-----------|-------|-----------|-------|-----------|-------|-----------|--------|------------|
| MF 2,5 x 0,35 | 2,5  | 16 | 5  | 2,44  | 121401001 | 15,22 |           |       |           |       |           |       |           |        |            |
| MF 2,6 x 0,35 | 2,6  | 16 | 5  | 2,54  | 121401002 | 15,22 |           |       |           |       |           |       |           |        |            |
| MF 3 x 0,35   | 3,0  | 20 | 5  | 2,94  | 121401003 | 12,42 |           |       |           |       | 121405001 | 35,42 |           |        |            |
| MF 3,5 x 0,35 | 3,5  | 20 | 5  | 3,44  | 121401004 | 12,42 |           |       |           |       | 121405002 | 43,86 |           |        |            |
| MF 4 x 0,35   | 4,0  | 20 | 5  | 3,94  | 121401005 | 12,42 |           |       |           |       |           |       |           |        |            |
| MF 4 x 0,5    | 4,0  | 20 | 5  | 3,93  | 121401006 | 12,42 |           |       |           |       | 121405003 | 24,98 | 121421001 | 86,85  | 3,84 mm    |
| MF 4,5 x 0,5  | 4,5  | 20 | 5  | 4,43  | 121401007 | 12,42 |           |       |           |       |           |       |           |        |            |
| MF 5 x 0,5    | 5,0  | 20 | 5  | 4,93  | 121401008 | 12,42 |           |       |           |       | 121405004 | 24,98 | 121421002 | 86,85  | 4,83 mm    |
| MF 5 x 0,75   | 5,0  | 20 | 7  | 4,91  | 121401010 | 12,42 |           |       |           |       |           |       |           |        |            |
| MF 5,5 x 0,5  | 5,5  | 20 | 5  | 5,43  | 121401009 | 12,42 |           |       |           |       |           |       |           |        |            |
| MF 6 x 0,5    | 6,0  | 20 | 5  | 5,93  | 121401011 | 12,42 |           |       |           |       | 121405005 | 24,98 | 121421003 | 71,81  | 5,83 mm    |
| MF 6 x 0,75   | 6,0  | 20 | 7  | 5,90  | 121401012 | 10,74 | 121402001 | 16,37 | 121404001 | 15,11 | 121405006 | 24,98 | 121421004 | 66,80  | 5,81 mm    |
| MF 7 x 0,5    | 7,0  | 25 | 9  | 6,93  | 121401013 | 13,47 |           |       |           |       |           |       | 121421005 | 88,50  | 6,83 mm    |
| MF 7 x 0,75   | 7,0  | 25 | 9  | 6,90  | 121401014 | 13,47 |           |       |           |       | 121405007 | 30,85 |           |        |            |
| MF 8 x 0,5    | 8,0  | 25 | 9  | 7,93  | 121401015 | 13,47 |           |       |           |       | 121405008 | 30,85 | 121421006 | 116,24 | 7,82 mm    |
| MF 8 x 0,75   | 8,0  | 25 | 9  | 7,90  | 121401016 | 11,26 | 121402002 | 19,65 | 121404002 | 19,94 | 121405009 | 30,85 | 121421007 | 83,51  | 7,80 mm    |
| MF 8 x 1,0    | 8,0  | 25 | 9  | 7,83  | 121401017 | 11,26 | 121402003 | 19,65 | 121404003 | 19,94 | 121405010 | 30,85 | 121421008 | 63,46  | 7,78 mm    |
| MF 9 x 0,5    | 9,0  | 25 | 9  | 8,93  | 121401018 | 16,95 |           |       |           |       |           |       |           |        |            |
| MF 9 x 0,75   | 9,0  | 25 | 9  | 8,90  | 121401019 | 16,95 |           |       |           |       |           |       |           |        |            |
| MF 9 x 1,0    | 9,0  | 25 | 9  | 8,88  | 121401020 | 16,95 |           |       |           |       |           |       |           |        |            |
| MF 10 x 0,5   | 10,0 | 30 | 11 | 9,93  | 121401021 | 16,95 |           |       |           |       |           |       |           |        |            |
| MF 10 x 0,75  | 10,0 | 30 | 11 | 9,90  | 121401022 | 16,95 |           |       |           |       | 121405011 | 37,99 | 121421009 | 115,24 | 9,79 mm    |
| MF 10 x 1,0   | 10,0 | 30 | 11 | 9,88  | 121401023 | 12,95 | 121402004 | 24,56 | 121404004 | 22,56 | 121405012 | 37,99 | 121421010 | 71,15  | 9,77 mm    |
| MF 10 x 1,25  | 10,0 | 30 | 11 | 9,86  | 121401024 | 12,95 | 121402005 | 24,56 | 121404005 | 22,56 | 121405013 | 37,99 |           |        |            |
| MF 11 x 1,0   | 11,0 | 30 | 11 | 10,88 | 121401025 | 19,47 |           |       |           |       |           |       |           |        |            |
| MF 11 x 1,25  | 11,0 | 30 | 11 | 10,86 | 121401026 | 19,47 |           |       |           |       |           |       |           |        |            |
| MF 12 x 0,5   | 12,0 | 38 | 10 | 11,93 | 121401027 | 19,47 |           |       |           |       |           |       |           |        |            |
| MF 12 x 0,75  | 12,0 | 38 | 10 | 11,90 | 121401028 | 19,47 |           |       |           |       |           |       | 121421011 | 119,57 | 11,78 mm   |
| MF 12 x 1,0   | 12,0 | 38 | 10 | 11,88 | 121401029 | 16,53 | 121402006 | 31,93 | 121404006 | 39,04 | 121405014 | 46,28 | 121421012 | 93,52  | 11,76 mm   |
| MF 12 x 1,25  | 12,0 | 38 | 10 | 11,86 | 121401030 | 16,53 | 121402007 | 31,93 | 121404007 | 39,04 | 121405015 | 46,28 |           |        |            |
| MF 12 x 1,5   | 12,0 | 38 | 10 | 11,85 | 121401031 | 16,00 | 121402008 | 31,93 | 121404008 | 39,04 | 121405016 | 46,28 | 121421013 | 87,84  | 11,73 mm   |
| MF 13 x 0,5   | 13,0 | 38 | 10 | 12,93 | 121401032 | 27,16 |           |       |           |       |           |       |           |        |            |
| MF 13 x 1,0   | 13,0 | 38 | 10 | 12,88 | 121401033 | 21,79 |           |       |           |       |           |       |           |        |            |

**Round Dies for general use**
**Round Dies for general use Left Hand**
**Round Dies for higher demands**
**Round Dies for stainless steels**
**Round Dies undersized**

| Material | TOL    | Chamfer      | Thread            | Special Features         |
|----------|--------|--------------|-------------------|--------------------------|
| HSS      | ISO-6g | 1,5 threads  | right hand thread |                          |
| HSS      | ISO-6g | 1,5 threads  | left hand thread  |                          |
| HSSE     | ISO-6g | 1,5 threads  | right hand thread | with spiral entry        |
| HSSE     | ISO-6g | 2 threads    | right hand thread | lapped with spiral entry |
| HSS      | 6e     | 1,75 threads | right hand thread | lapped with spiral entry |

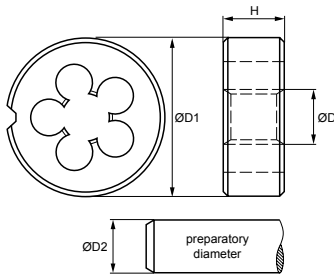
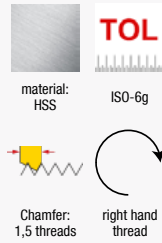
**MF**

| MF           | D    | D1 | H  | D2    | No.       | €     | No.       | €     | No.       | €     | No.       | €     | No.       | €      | D2 Tol. 6e |
|--------------|------|----|----|-------|-----------|-------|-----------|-------|-----------|-------|-----------|-------|-----------|--------|------------|
| MF 13 x 1,5  | 13,0 | 38 | 10 | 12,85 | 121401034 | 21,79 |           |       |           |       |           |       |           |        |            |
| MF 14 x 0,5  | 14,0 | 38 | 10 | 13,93 | 121401035 | 27,16 |           |       |           |       |           |       |           |        |            |
| MF 14 x 0,75 | 14,0 | 38 | 10 | 13,90 | 121401036 | 21,79 |           |       |           |       |           |       |           |        |            |
| MF 14 x 1,0  | 14,0 | 38 | 10 | 13,88 | 121401037 | 21,79 |           |       |           |       | 121405017 | 46,81 | 121421014 | 101,87 | 13,76 mm   |
| MF 14 x 1,25 | 14,0 | 38 | 10 | 13,86 | 121401038 | 18,21 | 121402009 | 31,93 | 121404009 | 39,04 | 121405018 | 46,81 |           |        |            |
| MF 14 x 1,5  | 14,0 | 38 | 10 | 13,85 | 121401039 | 18,21 | 121402010 | 31,93 | 121404010 | 39,04 | 121405019 | 46,81 | 121421015 | 87,84  | 13,73 mm   |
| MF 15 x 0,75 | 15,0 | 38 | 10 | 14,90 | 121401040 | 34,32 |           |       |           |       |           |       |           |        |            |
| MF 15 x 1,0  | 15,0 | 38 | 10 | 14,88 | 121401041 | 29,58 |           |       |           |       |           |       |           |        |            |
| MF 15 x 1,5  | 15,0 | 38 | 10 | 14,85 | 121401042 | 29,58 |           |       |           |       |           |       |           |        |            |
| MF 16 x 0,5  | 16,0 | 45 | 14 | 15,93 | 121401043 | 37,89 |           |       |           |       |           |       |           |        |            |
| MF 16 x 0,75 | 16,0 | 45 | 14 | 15,90 | 121401044 | 37,89 |           |       |           |       |           |       |           |        |            |
| MF 16 x 1,0  | 16,0 | 45 | 14 | 15,88 | 121401045 | 29,58 | 121402011 | 47,94 |           |       | 121405020 | 68,32 | 121421016 | 136,94 | 15,76 mm   |
| MF 16 x 1,25 | 16,0 | 45 | 14 | 15,86 | 121401046 | 29,58 |           |       |           |       |           |       |           |        |            |
| MF 16 x 1,5  | 16,0 | 45 | 14 | 15,85 | 121401047 | 23,26 | 121402012 | 47,94 | 121404011 | 61,71 | 121405021 | 68,32 | 121421017 | 118,90 | 15,73 mm   |
| MF 17 x 1,0  | 17,0 | 45 | 14 | 16,88 | 121401048 | 40,21 |           |       |           |       |           |       |           |        |            |
| MF 17 x 1,5  | 17,0 | 45 | 14 | 16,85 | 121401049 | 40,21 |           |       |           |       |           |       |           |        |            |
| MF 18 x 0,5  | 18,0 | 45 | 14 | 17,93 | 121401050 | 40,21 |           |       |           |       |           |       |           |        |            |
| MF 18 x 0,75 | 18,0 | 45 | 14 | 17,90 | 121401051 | 40,21 |           |       |           |       |           |       |           |        |            |
| MF 18 x 1,0  | 18,0 | 45 | 14 | 17,88 | 121401052 | 27,16 |           |       |           |       | 121405022 | 68,85 | 121421018 | 203,74 | 17,74 mm   |
| MF 18 x 1,25 | 18,0 | 45 | 14 | 17,86 | 121401053 | 27,16 |           |       |           |       |           |       |           |        |            |
| MF 18 x 1,5  | 18,0 | 45 | 14 | 17,85 | 121401054 | 23,26 | 121402013 | 47,94 | 121404012 | 61,71 | 121405023 | 68,85 | 121421019 | 118,90 | 17,71 mm   |
| MF 18 x 2,0  | 18,0 | 45 | 14 | 17,82 | 121401055 | 27,79 |           |       | 121404013 | 61,71 |           |       |           |        |            |
| MF 19 x 1,0  | 19,0 | 45 | 14 | 18,88 | 121401056 | 40,21 |           |       |           |       |           |       |           |        |            |
| MF 19 x 1,5  | 19,0 | 45 | 14 | 18,85 | 121401057 | 27,16 |           |       |           |       |           |       |           |        |            |
| MF 20 x 0,5  | 20,0 | 45 | 14 | 19,93 | 121401058 | 40,21 |           |       |           |       |           |       |           |        |            |
| MF 20 x 0,75 | 20,0 | 45 | 14 | 19,90 | 121401059 | 40,21 |           |       |           |       |           |       |           |        |            |
| MF 20 x 1,0  | 20,0 | 45 | 14 | 19,88 | 121401060 | 27,79 |           |       |           |       | 121405024 | 70,52 | 121421020 | 203,74 | 19,66 mm   |
| MF 20 x 1,25 | 20,0 | 45 | 14 | 19,86 | 121401061 | 27,79 |           |       |           |       |           |       |           |        |            |
| MF 20 x 1,5  | 20,0 | 45 | 14 | 19,85 | 121401062 | 23,26 | 121402014 | 47,94 | 121404014 | 61,71 | 121405025 | 70,52 | 121421021 | 136,94 | 19,71 mm   |
| MF 20 x 2,0  | 20,0 | 45 | 14 | 19,82 | 121401063 | 27,79 |           |       | 121404015 | 61,71 |           |       |           |        |            |
| MF 21 x 1,0  | 21,0 | 45 | 14 | 20,88 | 121401064 | 42,00 |           |       |           |       |           |       |           |        |            |
| MF 21 x 1,5  | 21,0 | 45 | 14 | 20,85 | 121401065 | 42,00 |           |       |           |       |           |       |           |        |            |
| MF 22 x 0,5  | 22,0 | 55 | 16 | 21,93 | 121401066 | 58,00 |           |       |           |       |           |       |           |        |            |

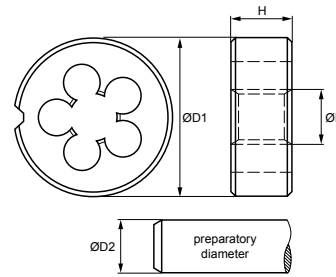
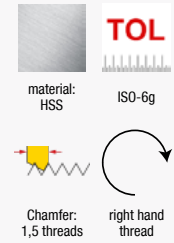
**Round Dies for general use**
**Round Dies for general use Left Hand**
**Round Dies for higher demands**
**Round Dies for stainless steels**
**Round Dies undersized**

**MF**

|              | D    | D1 | H  | D2    | No.       | €     | No.       | €      | No.       | €      | No.       | €      | No.       | €      | D2<br>Tol. 6e |
|--------------|------|----|----|-------|-----------|-------|-----------|--------|-----------|--------|-----------|--------|-----------|--------|---------------|
| MF 22 x 0,75 | 22,0 | 55 | 16 | 21,90 | 121401067 | 58,00 |           |        |           |        |           |        |           |        |               |
| MF 22 x 1,0  | 22,0 | 55 | 16 | 21,88 | 121401068 | 44,95 |           |        |           |        |           |        |           |        |               |
| MF 22 x 1,25 | 22,0 | 55 | 16 | 21,86 | 121401069 | 44,95 |           |        |           |        |           |        |           |        |               |
| MF 22 x 1,5  | 22,0 | 55 | 16 | 21,85 | 121401070 | 40,53 | 121402015 | 76,02  | 121404016 | 108,31 | 121405026 | 104,74 | 121421022 | 170,34 | 21,71 mm      |
| MF 22 x 2,0  | 22,0 | 55 | 16 | 21,82 | 121401071 | 44,95 |           |        |           |        |           |        |           |        |               |
| MF 23 x 1,0  | 23,0 | 55 | 16 | 22,88 | 121401072 | 58,95 |           |        |           |        |           |        |           |        |               |
| MF 23 x 1,5  | 23,0 | 55 | 16 | 22,85 | 121401073 | 44,95 |           |        |           |        |           |        |           |        |               |
| MF 24 x 0,5  | 24,0 | 55 | 16 | 23,93 | 121401074 | 58,00 |           |        |           |        |           |        |           |        |               |
| MF 24 x 0,75 | 24,0 | 55 | 16 | 23,90 | 121401075 | 58,00 |           |        |           |        |           |        |           |        |               |
| MF 24 x 1,0  | 24,0 | 55 | 16 | 23,88 | 121401076 | 44,95 |           |        |           |        |           |        | 121421023 | 283,91 | 21,74 mm      |
| MF 24 x 1,25 | 24,0 | 55 | 16 | 23,86 | 121401077 | 44,95 |           |        |           |        |           |        |           |        |               |
| MF 24 x 1,5  | 24,0 | 55 | 16 | 23,85 | 121401078 | 40,53 | 121402016 | 76,02  | 121404017 | 108,31 | 121405027 | 115,76 | 121421024 | 220,45 | 23,70 mm      |
| MF 24 x 2,0  | 24,0 | 55 | 16 | 22,82 | 121401079 | 44,95 | 121402017 | 76,02  |           |        | 121405028 | 115,76 |           |        |               |
| MF 25 x 1,0  | 25,0 | 55 | 16 | 24,88 | 121401080 | 58,00 |           |        |           |        |           |        |           |        |               |
| MF 25 x 1,5  | 25,0 | 55 | 16 | 24,85 | 121401081 | 58,00 |           |        |           |        |           |        |           |        |               |
| MF 26 x 1,0  | 26,0 | 55 | 16 | 25,88 | 121401082 | 58,00 |           |        |           |        |           |        |           |        |               |
| MF 26 x 1,5  | 26,0 | 55 | 16 | 25,85 | 121401083 | 58,00 |           |        |           |        | 121405029 | 195,30 | 121421025 | 250,50 | 25,69 mm      |
| MF 26 x 2,0  | 26,0 | 55 | 16 | 25,82 | 121401084 | 58,00 |           |        |           |        |           |        |           |        |               |
| MF 27 x 1,0  | 27,0 | 65 | 18 | 26,88 | 121401085 | 66,32 |           |        |           |        |           |        |           |        |               |
| MF 27 x 1,5  | 27,0 | 65 | 18 | 26,85 | 121401086 | 66,32 |           |        |           |        |           |        |           |        |               |
| MF 27 x 2,0  | 27,0 | 65 | 18 | 26,82 | 121401087 | 66,32 |           |        |           |        |           |        |           |        |               |
| MF 28 x 1,0  | 28,0 | 65 | 18 | 27,88 | 121401088 | 66,32 |           |        |           |        |           |        |           |        |               |
| MF 28 x 1,5  | 28,0 | 65 | 18 | 27,85 | 121401089 | 66,32 |           |        |           |        |           |        |           |        |               |
| MF 28 x 2,0  | 28,0 | 65 | 18 | 27,82 | 121401090 | 66,32 |           |        |           |        |           |        |           |        |               |
| MF 29 x 1,5  | 29,0 | 65 | 18 | 28,85 | 121401091 | 66,32 |           |        |           |        |           |        |           |        |               |
| MF 30 x 1,0  | 30,0 | 65 | 18 | 29,88 | 121401092 | 66,32 |           |        |           |        |           |        |           |        |               |
| MF 30 x 1,5  | 30,0 | 65 | 18 | 29,85 | 121401093 | 66,32 |           |        |           |        | 121405030 | 215,15 |           |        |               |
| MF 30 x 2,0  | 30,0 | 65 | 18 | 29,82 | 121401094 | 66,32 | 121402018 | 120,46 |           |        | 121405031 | 225,45 |           |        |               |
| MF 30 x 2,5  | 30,0 | 65 | 18 | 29,79 | 121401095 | 66,32 | 121402019 | 120,46 |           |        |           |        |           |        |               |
| MF 30 x 3,0  | 30,0 | 65 | 25 | 29,76 | 121401096 | 66,32 | 121402020 | 120,46 |           |        |           |        |           |        |               |
| MF 32 x 1,0  | 32,0 | 65 | 18 | 31,88 | 121401098 | 93,68 | 121402021 | 120,46 |           |        |           |        |           |        |               |
| MF 32 x 1,5  | 32,0 | 65 | 18 | 31,85 | 121401097 | 66,32 | 121402022 | 120,46 |           |        |           |        |           |        |               |
| MF 32 x 2,0  | 32,0 | 65 | 18 | 31,82 | 121401099 | 66,32 | 121402023 | 120,46 |           |        |           |        |           |        |               |

## Round Dies for general use



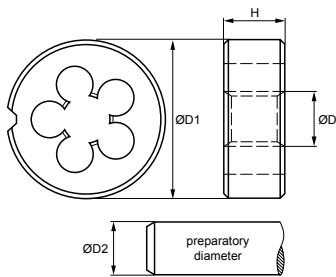
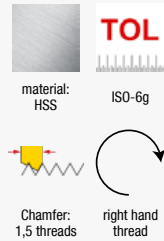
## Round Dies for general use



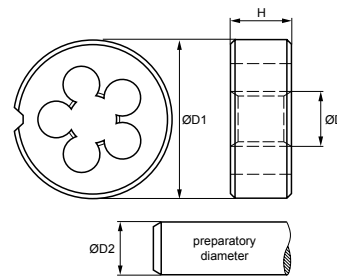
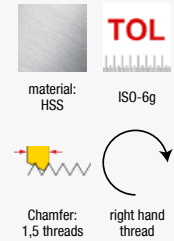
| MF          | D    | D1 | H  | D2    | No.       | €      |
|-------------|------|----|----|-------|-----------|--------|
| MF 32 x 3,0 | 32,0 | 65 | 25 | 31,77 | 121401100 | 66,32  |
| MF 33 x 1,5 | 33,0 | 65 | 18 | 32,85 | 121401101 | 66,32  |
| MF 33 x 2,0 | 33,0 | 65 | 18 | 32,82 | 121401102 | 66,32  |
| MF 33 x 3,0 | 33,0 | 65 | 25 | 32,76 | 121401103 | 66,32  |
| MF 34 x 1,0 | 34,0 | 65 | 18 | 33,88 | 121401104 | 93,68  |
| MF 34 x 1,5 | 34,0 | 65 | 18 | 33,85 | 121401105 | 66,32  |
| MF 34 x 2,0 | 34,0 | 65 | 18 | 33,82 | 121401106 | 66,32  |
| MF 35 x 1,0 | 35,0 | 65 | 18 | 34,88 | 121401107 | 93,68  |
| MF 35 x 1,5 | 35,0 | 65 | 18 | 34,85 | 121401108 | 66,32  |
| MF 35 x 2,0 | 35,0 | 65 | 18 | 34,82 | 121401109 | 93,68  |
| MF 36 x 1,0 | 36,0 | 65 | 18 | 35,88 | 121401110 | 93,68  |
| MF 36 x 1,5 | 36,0 | 65 | 18 | 35,85 | 121401111 | 66,32  |
| MF 36 x 2,0 | 36,0 | 65 | 18 | 35,82 | 121401112 | 66,32  |
| MF 36 x 3,0 | 36,0 | 65 | 25 | 35,76 | 121401113 | 66,32  |
| MF 37 x 1,5 | 37,0 | 65 | 18 | 36,85 | 121401114 | 141,05 |
| MF 38 x 1,0 | 38,0 | 75 | 20 | 37,88 | 121401115 | 141,05 |
| MF 38 x 1,5 | 38,0 | 75 | 20 | 37,85 | 121401116 | 107,37 |
| MF 38 x 2,0 | 38,0 | 75 | 20 | 37,82 | 121401117 | 107,37 |
| MF 38 x 3,0 | 38,0 | 75 | 30 | 37,77 | 121401118 | 141,05 |
| MF 39 x 1,5 | 39,0 | 75 | 20 | 38,85 | 121401119 | 107,37 |
| MF 39 x 2,0 | 39,0 | 75 | 20 | 38,82 | 121401120 | 107,37 |
| MF 39 x 3,0 | 39,0 | 75 | 30 | 38,76 | 121401121 | 107,37 |
| MF 40 x 1,0 | 40,0 | 75 | 20 | 39,88 | 121401122 | 141,05 |
| MF 40 x 1,5 | 40,0 | 75 | 20 | 39,85 | 121401123 | 107,37 |
| MF 40 x 2,0 | 40,0 | 75 | 20 | 39,82 | 121401124 | 107,37 |
| MF 40 x 3,0 | 40,0 | 75 | 30 | 39,76 | 121401125 | 107,37 |
| MF 42 x 1,0 | 42,0 | 75 | 20 | 41,88 | 121401126 | 141,05 |
| MF 42 x 1,5 | 42,0 | 75 | 20 | 41,85 | 121401127 | 107,37 |
| MF 42 x 2,0 | 42,0 | 75 | 20 | 41,82 | 121401128 | 107,37 |
| MF 42 x 3,0 | 42,0 | 75 | 30 | 41,76 | 121401129 | 107,37 |
| MF 44 x 1,5 | 44,0 | 90 | 22 | 43,85 | 121401130 | 231,58 |
| MF 44 x 2,0 | 44,0 | 90 | 22 | 43,82 | 121401131 | 231,58 |
| MF 45 x 1,0 | 45,0 | 90 | 22 | 44,88 | 121401132 | 231,58 |

| MF          | D    | D1  | H  | D2    | No.       | €      |
|-------------|------|-----|----|-------|-----------|--------|
| MF 45 x 1,5 | 45,0 | 90  | 22 | 44,85 | 121401133 | 178,95 |
| MF 45 x 2,0 | 45,0 | 90  | 22 | 44,82 | 121401134 | 178,95 |
| MF 45 x 3,0 | 45,0 | 90  | 36 | 44,76 | 121401135 | 178,95 |
| MF 46 x 1,5 | 46,0 | 90  | 22 | 45,85 | 121401136 | 231,58 |
| MF 48 x 1,0 | 48,0 | 90  | 22 | 47,88 | 121401137 | 231,58 |
| MF 48 x 1,5 | 48,0 | 90  | 22 | 47,85 | 121401138 | 178,95 |
| MF 48 x 2,0 | 48,0 | 90  | 22 | 47,82 | 121401139 | 178,95 |
| MF 48 x 3,0 | 48,0 | 90  | 36 | 47,46 | 121401140 | 178,95 |
| MF 50 x 1,5 | 50,0 | 90  | 22 | 49,85 | 121401141 | 178,95 |
| MF 50 x 2,0 | 50,0 | 90  | 22 | 49,82 | 121401142 | 178,95 |
| MF 50 x 3,0 | 50,0 | 90  | 36 | 49,76 | 121401143 | 178,95 |
| MF 52 x 1,5 | 52,0 | 90  | 22 | 51,85 | 121401144 | 178,95 |
| MF 52 x 2,0 | 52,0 | 90  | 22 | 51,82 | 121401145 | 178,95 |
| MF 52 x 3,0 | 52,0 | 90  | 36 | 51,76 | 121401146 | 178,95 |
| MF 54 x 1,5 | 54,0 | 105 | 22 | 53,92 | 121401147 | 353,68 |
| MF 54 x 2,0 | 54,0 | 105 | 22 | 53,91 | 121401148 | 353,68 |
| MF 54 x 3,0 | 54,0 | 105 | 36 | 53,88 | 121401149 | 353,68 |
| MF 54 x 4,0 | 54,0 | 105 | 36 | 53,85 | 121401150 | 353,68 |
| MF 55 x 1,5 | 55,0 | 105 | 22 | 54,85 | 121401151 | 353,68 |
| MF 55 x 2,0 | 55,0 | 105 | 22 | 54,82 | 121401152 | 353,68 |
| MF 55 x 3,0 | 55,0 | 105 | 36 | 54,76 | 121401153 | 353,68 |
| MF 55 x 4,0 | 55,0 | 105 | 36 | 54,73 | 121401154 | 353,68 |
| MF 56 x 1,5 | 56,0 | 105 | 22 | 55,85 | 121401155 | 353,68 |
| MF 56 x 2,0 | 56,0 | 105 | 22 | 55,82 | 121401156 | 353,68 |
| MF 56 x 3,0 | 56,0 | 105 | 36 | 55,76 | 121401157 | 353,68 |
| MF 56 x 4,0 | 56,0 | 105 | 36 | 55,73 | 121401158 | 353,68 |
| MF 58 x 1,5 | 58,0 | 105 | 22 | 57,92 | 121401159 | 353,68 |
| MF 58 x 2,0 | 58,0 | 105 | 22 | 57,91 | 121401160 | 353,68 |
| MF 58 x 3,0 | 58,0 | 105 | 36 | 57,88 | 121401161 | 353,68 |
| MF 58 x 4,0 | 58,0 | 105 | 36 | 57,85 | 121401162 | 353,68 |
| MF 60 x 1,5 | 60,0 | 105 | 22 | 59,92 | 121401163 | 353,68 |
| MF 60 x 2,0 | 60,0 | 105 | 22 | 59,91 | 121401164 | 353,68 |
| MF 60 x 3,0 | 60,0 | 105 | 36 | 59,88 | 121401165 | 353,68 |

## Round Dies for general use



## Round Dies for general use

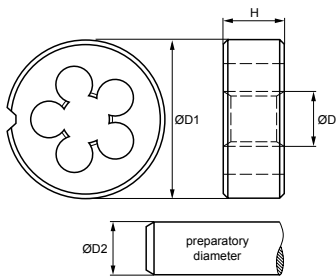
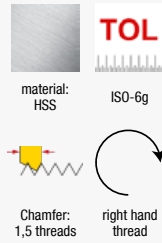

**MF**

|             | D    | D1  | H  | D2    | No.       | €      |
|-------------|------|-----|----|-------|-----------|--------|
| MF 60 x 4,0 | 60,0 | 105 | 36 | 59,85 | 121401166 | 353,68 |
| MF 62 x 1,5 | 62,0 | 105 | 22 | 61,92 | 121401167 | 353,68 |
| MF 62 x 2,0 | 62,0 | 105 | 22 | 61,91 | 121401168 | 353,68 |
| MF 62 x 3,0 | 62,0 | 105 | 36 | 61,88 | 121401169 | 353,68 |
| MF 62 x 4,0 | 62,0 | 105 | 36 | 61,85 | 121401170 | 353,68 |
| MF 63 x 1,5 | 63,0 | 105 | 22 | 62,92 | 121401171 | 353,68 |
| MF 64 x 1,5 | 64,0 | 120 | 22 | 63,92 | 121401172 | 402,11 |
| MF 64 x 2,0 | 64,0 | 120 | 22 | 63,91 | 121401173 | 402,11 |
| MF 64 x 3,0 | 64,0 | 120 | 36 | 63,88 | 121401174 | 402,11 |
| MF 64 x 4,0 | 64,0 | 120 | 36 | 63,85 | 121401175 | 402,11 |
| MF 65 x 1,5 | 65,0 | 120 | 22 | 64,92 | 121401176 | 402,11 |
| MF 65 x 2,0 | 65,0 | 120 | 22 | 64,91 | 121401177 | 402,11 |
| MF 65 x 3,0 | 65,0 | 120 | 36 | 64,88 | 121401178 | 402,11 |
| MF 65 x 4,0 | 65,0 | 120 | 36 | 64,85 | 121401179 | 402,11 |
| MF 68 x 1,5 | 68,0 | 120 | 22 | 67,92 | 121401180 | 402,11 |
| MF 68 x 2,0 | 68,0 | 120 | 22 | 67,91 | 121401181 | 402,11 |
| MF 68 x 3,0 | 68,0 | 120 | 36 | 67,88 | 121401182 | 402,11 |
| MF 68 x 4,0 | 68,0 | 120 | 36 | 67,85 | 121401183 | 402,11 |
| MF 70 x 1,5 | 70,0 | 120 | 22 | 69,92 | 121401184 | 402,11 |
| MF 70 x 2,0 | 70,0 | 120 | 22 | 69,91 | 121401185 | 402,11 |
| MF 70 x 3,0 | 70,0 | 120 | 36 | 69,88 | 121401186 | 402,11 |
| MF 70 x 4,0 | 70,0 | 120 | 36 | 69,85 | 121401187 | 402,11 |
| MF 72 x 1,5 | 72,0 | 120 | 22 | 71,92 | 121401188 | 402,11 |
| MF 72 x 2,0 | 72,0 | 120 | 22 | 71,91 | 121401189 | 402,11 |
| MF 72 x 3,0 | 72,0 | 120 | 36 | 71,88 | 121401190 | 402,11 |
| MF 72 x 4,0 | 72,0 | 120 | 36 | 71,85 | 121401191 | 402,11 |
| MF 74 x 1,5 | 74,0 | 120 | 22 | 73,92 | 121401192 | 402,11 |
| MF 74 x 2,0 | 74,0 | 120 | 22 | 73,91 | 121401193 | 402,11 |
| MF 74 x 3,0 | 74,0 | 120 | 36 | 73,88 | 121401194 | 402,11 |
| MF 74 x 4,0 | 74,0 | 120 | 36 | 73,85 | 121401195 | 402,11 |
| MF 75 x 1,5 | 75,0 | 120 | 22 | 74,92 | 121401196 | 402,11 |
| MF 75 x 2,0 | 75,0 | 120 | 22 | 74,91 | 121401197 | 402,11 |
| MF 75 x 3,0 | 75,0 | 120 | 36 | 74,88 | 121401198 | 402,11 |

**MF**

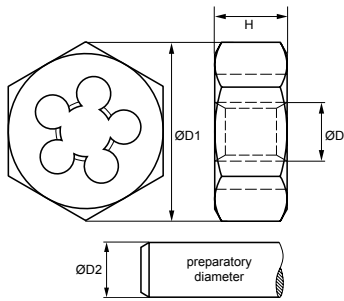
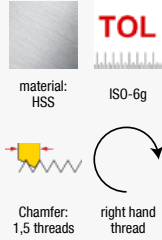
|             | D    | D1  | H  | D2    | No.       | €      |
|-------------|------|-----|----|-------|-----------|--------|
| MF 75 x 4,0 | 75,0 | 120 | 36 | 74,85 | 121401199 | 402,11 |
| MF 76 x 1,5 | 76,0 | 120 | 22 | 75,92 | 121401200 | 402,11 |
| MF 76 x 2,0 | 76,0 | 120 | 22 | 75,91 | 121401201 | 402,11 |
| MF 76 x 3,0 | 76,0 | 120 | 36 | 75,88 | 121401202 | 402,11 |
| MF 76 x 4,0 | 76,0 | 120 | 36 | 75,85 | 121401203 | 402,11 |
| MF 78 x 1,5 | 78,0 | 120 | 22 | 77,92 | 121401204 | 402,11 |
| MF 78 x 2,0 | 78,0 | 120 | 22 | 77,91 | 121401205 | 402,11 |
| MF 78 x 3,0 | 78,0 | 120 | 36 | 77,88 | 121401206 | 402,11 |
| MF 78 x 4,0 | 78,0 | 120 | 36 | 77,85 | 121401207 | 402,11 |
| MF 80 x 1,5 | 80,0 | 120 | 22 | 79,92 | 121401208 | 402,11 |
| MF 80 x 2,0 | 80,0 | 120 | 22 | 79,91 | 121401209 | 402,11 |
| MF 80 x 3,0 | 80,0 | 120 | 36 | 79,88 | 121401210 | 402,11 |
| MF 80 x 4,0 | 80,0 | 120 | 36 | 79,85 | 121401211 | 402,11 |
| MF 82 x 1,5 | 82,0 | 130 | 25 | 81,92 | 121401212 | 508,42 |
| MF 82 x 2,0 | 82,0 | 130 | 25 | 81,91 | 121401213 | 508,42 |
| MF 82 x 3,0 | 82,0 | 130 | 36 | 81,88 | 121401214 | 508,42 |
| MF 82 x 4,0 | 82,0 | 130 | 36 | 81,85 | 121401215 | 508,42 |
| MF 84 x 1,5 | 84,0 | 130 | 25 | 83,92 | 121401216 | 508,42 |
| MF 84 x 2,0 | 84,0 | 130 | 25 | 83,91 | 121401217 | 508,42 |
| MF 84 x 3,0 | 84,0 | 130 | 36 | 83,88 | 121401218 | 508,42 |
| MF 84 x 4,0 | 84,0 | 130 | 36 | 83,85 | 121401219 | 508,42 |
| MF 85 x 1,5 | 85,0 | 130 | 25 | 84,92 | 121401220 | 508,42 |
| MF 85 x 2,0 | 85,0 | 130 | 25 | 84,91 | 121401221 | 508,42 |
| MF 85 x 3,0 | 85,0 | 130 | 36 | 84,88 | 121401222 | 508,42 |
| MF 85 x 4,0 | 85,0 | 130 | 36 | 84,85 | 121401223 | 508,42 |
| MF 86 x 1,5 | 86,0 | 140 | 22 | 85,92 | 121401224 | 633,68 |
| MF 86 x 2,0 | 86,0 | 140 | 22 | 85,91 | 121401225 | 633,68 |
| MF 86 x 3,0 | 86,0 | 140 | 22 | 85,88 | 121401226 | 633,68 |
| MF 86 x 4,0 | 86,0 | 140 | 22 | 85,85 | 121401227 | 633,68 |
| MF 88 x 1,5 | 88,0 | 140 | 22 | 87,92 | 121401228 | 633,68 |
| MF 88 x 2,0 | 88,0 | 140 | 22 | 87,91 | 121401229 | 633,68 |
| MF 88 x 3,0 | 88,0 | 140 | 22 | 87,88 | 121401230 | 633,68 |
| MF 88 x 4,0 | 88,0 | 140 | 22 | 87,85 | 121401231 | 633,68 |

## Round Dies for general use

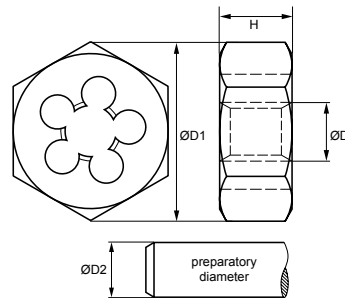
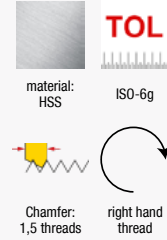

**MF**

|              | D     | D1  | H  | D2     | No.       | €      |
|--------------|-------|-----|----|--------|-----------|--------|
| MF 90 x 1,5  | 90,0  | 140 | 22 | 89,92  | 121401232 | 633,68 |
| MF 90 x 2,0  | 90,0  | 140 | 22 | 89,91  | 121401233 | 633,68 |
| MF 90 x 3,0  | 90,0  | 140 | 22 | 89,88  | 121401234 | 633,68 |
| MF 90 x 4,0  | 90,0  | 140 | 22 | 89,85  | 121401235 | 633,68 |
| MF 92 x 1,5  | 92,0  | 140 | 22 | 91,92  | 121401236 | 633,68 |
| MF 92 x 2,0  | 92,0  | 140 | 22 | 91,91  | 121401237 | 633,68 |
| MF 92 x 3,0  | 92,0  | 140 | 22 | 91,88  | 121401238 | 633,68 |
| MF 92 x 4,0  | 92,0  | 140 | 22 | 91,85  | 121401239 | 633,68 |
| MF 95 x 1,5  | 95,0  | 140 | 22 | 94,92  | 121401240 | 633,68 |
| MF 95 x 2,0  | 95,0  | 140 | 22 | 94,91  | 121401241 | 633,68 |
| MF 95 x 3,0  | 95,0  | 140 | 22 | 94,88  | 121401242 | 633,68 |
| MF 95 x 4,0  | 95,0  | 140 | 22 | 94,85  | 121401243 | 633,68 |
| MF 96 x 1,5  | 96,0  | 140 | 22 | 95,92  | 121401244 | 633,68 |
| MF 96 x 2,0  | 96,0  | 140 | 22 | 95,91  | 121401245 | 633,68 |
| MF 96 x 3,0  | 96,0  | 140 | 22 | 95,88  | 121401246 | 633,68 |
| MF 96 x 4,0  | 96,0  | 140 | 22 | 95,85  | 121401247 | 633,68 |
| MF 98 x 1,5  | 98,0  | 150 | 25 | 94,92  | 121401248 | 762,11 |
| MF 98 x 2,0  | 98,0  | 150 | 25 | 97,91  | 121401249 | 762,11 |
| MF 98 x 3,0  | 98,0  | 150 | 25 | 97,88  | 121401250 | 762,11 |
| MF 98 x 4,0  | 98,0  | 150 | 25 | 97,85  | 121401251 | 762,11 |
| MF 100 x 1,5 | 100,0 | 150 | 25 | 99,92  | 121401252 | 762,11 |
| MF 100 x 2,0 | 100,0 | 150 | 25 | 99,91  | 121401253 | 762,11 |
| MF 100 x 3,0 | 100,0 | 150 | 25 | 99,88  | 121401254 | 762,11 |
| MF 100 x 4,0 | 100,0 | 150 | 25 | 99,85  | 121401255 | 762,11 |
| MF 105 x 1,5 | 105,0 | 150 | 25 | 104,92 | 121401256 | 762,11 |
| MF 105 x 2,0 | 105,0 | 150 | 25 | 104,91 | 121401257 | 762,11 |
| MF 105 x 3,0 | 105,0 | 150 | 25 | 104,88 | 121401258 | 762,11 |
| MF 105 x 4,0 | 105,0 | 150 | 25 | 104,85 | 121401259 | 762,11 |
| MF 110 x 1,5 | 110,0 | 160 | 25 | 109,92 | 121401260 | 832,63 |
| MF 110 x 2,0 | 110,0 | 160 | 25 | 109,91 | 121401261 | 832,63 |
| MF 110 x 3,0 | 110,0 | 160 | 25 | 109,88 | 121401262 | 832,63 |
| MF 110 x 4,0 | 110,0 | 160 | 25 | 109,85 | 121401263 | 832,63 |

## Hexagon Di Nuts for general use



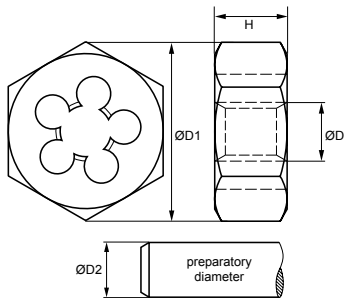
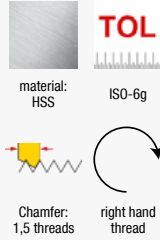
## Hexagon Di Nuts for general use



| MF           | D    | D1 | H  | D2    | No.       | €     |
|--------------|------|----|----|-------|-----------|-------|
| MF 3 x 0,35  | 3,0  | 19 | 5  | 2,94  | 121501001 | 22,00 |
| MF 4 x 0,35  | 3,5  | 19 | 5  | 3,44  | 121501002 | 22,00 |
| MF 4 x 0,5   | 4,0  | 19 | 5  | 3,93  | 121501003 | 22,00 |
| MF 5 x 0,5   | 5,0  | 19 | 5  | 4,93  | 121501004 | 22,00 |
| MF 5 x 0,75  | 5,0  | 19 | 7  | 4,91  | 121501005 | 22,00 |
| MF 6 x 0,5   | 6,0  | 19 | 5  | 5,93  | 121501006 | 22,00 |
| MF 6 x 0,75  | 6,0  | 19 | 7  | 5,90  | 121501007 | 22,00 |
| MF 7 x 0,75  | 7,0  | 22 | 9  | 6,90  | 121501008 | 23,68 |
| MF 8 x 0,5   | 8,0  | 22 | 9  | 7,93  | 121501009 | 23,68 |
| MF 8 x 0,75  | 8,0  | 22 | 9  | 7,90  | 121501010 | 23,68 |
| MF 8 x 1,0   | 8,0  | 22 | 9  | 7,83  | 121501011 | 23,68 |
| MF 9 x 0,75  | 9,0  | 22 | 9  | 8,90  | 121501012 | 23,68 |
| MF 9 x 1,0   | 9,0  | 22 | 9  | 8,88  | 121501013 | 23,68 |
| MF 10 x 0,75 | 10,0 | 27 | 11 | 9,90  | 121501014 | 23,68 |
| MF 10 x 1,0  | 10,0 | 27 | 11 | 9,88  | 121501015 | 23,68 |
| MF 10 x 1,25 | 10,0 | 27 | 11 | 9,86  | 121501016 | 23,68 |
| MF 11 x 1,0  | 11,0 | 27 | 11 | 10,88 | 121501017 | 33,16 |
| MF 11 x 1,25 | 11,0 | 27 | 11 | 10,86 | 121501018 | 33,16 |
| MF 12 x 0,75 | 12,0 | 36 | 10 | 11,90 | 121501019 | 33,16 |
| MF 12 x 1,0  | 12,0 | 36 | 10 | 11,88 | 121501020 | 33,16 |
| MF 12 x 1,25 | 12,0 | 36 | 10 | 11,86 | 121501021 | 33,16 |
| MF 12 x 1,5  | 12,0 | 36 | 10 | 11,85 | 121501022 | 33,16 |
| MF 13 x 1,0  | 13,0 | 36 | 10 | 12,88 | 121501023 | 37,68 |
| MF 13 x 1,5  | 13,0 | 36 | 10 | 12,85 | 121501024 | 37,68 |
| MF 14 x 0,75 | 14,0 | 36 | 10 | 13,90 | 121501025 | 37,68 |
| MF 14 x 1,0  | 14,0 | 36 | 10 | 13,88 | 121501026 | 37,68 |
| MF 14 x 1,25 | 14,0 | 36 | 10 | 13,86 | 121501027 | 37,68 |
| MF 14 x 1,5  | 14,0 | 36 | 10 | 13,85 | 121501028 | 37,68 |
| MF 15 x 1,0  | 15,0 | 36 | 10 | 14,88 | 121501029 | 43,89 |
| MF 15 x 1,5  | 15,0 | 36 | 10 | 14,85 | 121501030 | 43,89 |
| MF 16 x 1,0  | 16,0 | 41 | 14 | 15,88 | 121501031 | 46,21 |
| MF 16 x 1,25 | 16,0 | 41 | 14 | 15,86 | 121501032 | 46,21 |
| MF 16 x 1,5  | 16,0 | 41 | 14 | 15,85 | 121501033 | 46,21 |
| MF 18 x 1,0  | 18,0 | 41 | 14 | 17,88 | 121501034 | 48,42 |

| MF           | D    | D1 | H  | D2    | No.       | €      |
|--------------|------|----|----|-------|-----------|--------|
| MF 18 x 1,25 | 18,0 | 41 | 14 | 17,86 | 121501035 | 48,42  |
| MF 18 x 1,5  | 18,0 | 41 | 14 | 17,85 | 121501036 | 48,42  |
| MF 18 x 2,0  | 18,0 | 41 | 14 | 17,82 | 121501037 | 48,42  |
| MF 20 x 1,0  | 20,0 | 41 | 14 | 19,88 | 121501038 | 48,42  |
| MF 20 x 1,25 | 20,0 | 41 | 14 | 19,86 | 121501039 | 48,42  |
| MF 20 x 1,5  | 20,0 | 41 | 14 | 19,85 | 121501040 | 48,42  |
| MF 20 x 2,0  | 20,0 | 41 | 14 | 19,82 | 121501041 | 48,42  |
| MF 21 x 1,5  | 21,0 | 41 | 14 | 20,85 | 121501042 | 70,95  |
| MF 22 x 1,0  | 22,0 | 50 | 16 | 21,88 | 121501043 | 70,95  |
| MF 22 x 1,25 | 22,0 | 50 | 16 | 21,86 | 121501044 | 70,95  |
| MF 22 x 1,5  | 22,0 | 50 | 16 | 21,85 | 121501045 | 70,95  |
| MF 22 x 2,0  | 22,0 | 50 | 16 | 21,82 | 121501046 | 70,95  |
| MF 23 x 1,5  | 23,0 | 50 | 16 | 22,85 | 121501047 | 70,95  |
| MF 24 x 1,0  | 24,0 | 50 | 16 | 23,88 | 121501048 | 70,95  |
| MF 24 x 1,25 | 24,0 | 50 | 16 | 23,86 | 121501049 | 70,95  |
| MF 24 x 1,5  | 24,0 | 50 | 16 | 23,85 | 121501050 | 70,95  |
| MF 24 x 2,0  | 24,0 | 50 | 16 | 22,82 | 121501051 | 70,95  |
| MF 25 x 1,0  | 25,0 | 50 | 16 | 24,88 | 121501052 | 102,53 |
| MF 25 x 1,5  | 25,0 | 50 | 16 | 24,85 | 121501053 | 102,53 |
| MF 26 x 1,0  | 26,0 | 50 | 16 | 25,88 | 121501054 | 102,53 |
| MF 26 x 1,5  | 26,0 | 50 | 16 | 25,85 | 121501055 | 102,53 |
| MF 26 x 2,0  | 26,0 | 50 | 16 | 25,82 | 121501056 | 102,53 |
| MF 27 x 1,0  | 27,0 | 60 | 18 | 26,88 | 121501057 | 107,37 |
| MF 27 x 1,5  | 27,0 | 60 | 18 | 26,85 | 121501058 | 107,37 |
| MF 27 x 2,0  | 27,0 | 60 | 18 | 26,82 | 121501059 | 107,37 |
| MF 28 x 1,0  | 28,0 | 60 | 18 | 27,88 | 121501060 | 107,37 |
| MF 28 x 1,5  | 28,0 | 60 | 18 | 27,85 | 121501061 | 107,37 |
| MF 28 x 2,0  | 28,0 | 60 | 18 | 27,82 | 121501062 | 107,37 |
| MF 29 x 1,5  | 29,0 | 60 | 18 | 28,85 | 121501063 | 107,37 |
| MF 30 x 1,0  | 30,0 | 60 | 18 | 29,88 | 121501064 | 107,37 |
| MF 30 x 1,5  | 30,0 | 60 | 18 | 29,85 | 121501065 | 107,37 |
| MF 30 x 2,0  | 30,0 | 60 | 18 | 29,82 | 121501066 | 107,37 |
| MF 30 x 3,0  | 30,0 | 60 | 25 | 29,76 | 121501067 | 107,37 |
| MF 32 x 1,5  | 32,0 | 60 | 18 | 31,85 | 121501068 | 107,37 |

## Hexagon Di Nuts for general use


**MF**

|             | D    | D1 | H  | D2    | No.       | €      |
|-------------|------|----|----|-------|-----------|--------|
| MF 32 x 2,0 | 32,0 | 60 | 18 | 31,82 | 121501069 | 107,37 |
| MF 32 x 3,0 | 32,0 | 60 | 25 | 31,77 | 121501070 | 107,37 |
| MF 33 x 1,5 | 33,0 | 60 | 18 | 32,85 | 121501071 | 107,37 |
| MF 33 x 2,0 | 33,0 | 60 | 18 | 32,82 | 121501072 | 107,37 |
| MF 33 x 3,0 | 33,0 | 60 | 25 | 32,76 | 121501073 | 107,37 |
| MF 34 x 1,5 | 34,0 | 60 | 18 | 33,85 | 121501074 | 107,37 |
| MF 34 x 2,0 | 34,0 | 60 | 18 | 33,82 | 121501075 | 107,37 |
| MF 35 x 1,5 | 35,0 | 60 | 18 | 34,85 | 121501076 | 107,37 |
| MF 36 x 1,5 | 36,0 | 60 | 18 | 35,85 | 121501077 | 107,37 |
| MF 36 x 2,0 | 36,0 | 60 | 18 | 35,82 | 121501078 | 107,37 |
| MF 36 x 3,0 | 36,0 | 60 | 25 | 35,76 | 121501079 | 107,37 |
| MF 38 x 1,5 | 38,0 | 70 | 20 | 37,85 | 121501080 | 178,95 |
| MF 39 x 1,5 | 39,0 | 70 | 20 | 38,85 | 121501081 | 178,95 |
| MF 39 x 2,0 | 39,0 | 70 | 20 | 38,82 | 121501082 | 178,95 |
| MF 39 x 3,0 | 39,0 | 70 | 30 | 38,76 | 121501083 | 178,95 |
| MF 40 x 1,5 | 40,0 | 70 | 20 | 39,85 | 121501084 | 178,95 |
| MF 40 x 2,0 | 40,0 | 70 | 20 | 39,82 | 121501085 | 178,95 |
| MF 40 x 3,0 | 40,0 | 70 | 30 | 39,76 | 121501086 | 178,95 |
| MF 42 x 1,5 | 42,0 | 70 | 20 | 41,85 | 121501087 | 178,95 |
| MF 42 x 2,0 | 42,0 | 70 | 20 | 41,82 | 121501088 | 178,95 |
| MF 42 x 3,0 | 42,0 | 70 | 30 | 41,76 | 121501089 | 178,95 |
| MF 45 x 1,5 | 45,0 | 85 | 22 | 44,85 | 121501090 | 263,16 |
| MF 45 x 2,0 | 45,0 | 85 | 22 | 44,82 | 121501091 | 263,16 |
| MF 45 x 3,0 | 45,0 | 85 | 36 | 44,76 | 121501092 | 263,16 |
| MF 48 x 1,5 | 48,0 | 85 | 22 | 47,85 | 121501093 | 263,16 |
| MF 48 x 2,0 | 48,0 | 85 | 22 | 47,82 | 121501094 | 263,16 |
| MF 48 x 3,0 | 48,0 | 85 | 36 | 47,46 | 121501095 | 263,16 |
| MF 50 x 1,5 | 50,0 | 85 | 22 | 49,85 | 121501096 | 263,16 |
| MF 50 x 2,0 | 50,0 | 85 | 22 | 49,82 | 121501097 | 263,16 |
| MF 50 x 3,0 | 50,0 | 85 | 36 | 49,76 | 121501098 | 263,16 |
| MF 52 x 1,5 | 52,0 | 85 | 22 | 51,85 | 121501099 | 263,16 |
| MF 52 x 2,0 | 52,0 | 85 | 22 | 51,82 | 121501100 | 263,16 |
| MF 52 x 3,0 | 52,0 | 85 | 36 | 51,76 | 121501101 | 263,16 |

## G-Rohr (BSP)

British standard whitworth pipe thread / DIN ISO 228

### BAER Hand-Tap Sets, Round Dies and Tools Sets (example picture)



#### BAER Set G(BSP) 1/8" - 1" HSSG Hand Tap Sets & HSS Round Dies & Tools

**656,70**  
€/Set

|  |  |
|--|--|
| BAER HSSG Hand Tap Sets (2 parts)            | G 1/8 x 28   G 1/4 x 19   G 3/8 x 19   G 1/2 x 14   G 3/4 x 14   G 1" x 11                   |
| BAER HSS Round Dies                          | G 1/8 x 28   G 1/4 x 19   G 3/8 x 19   G 1/2 x 14   G 3/4 x 14   G 1" x 11                   |
| BAER adjustable Tap Wrenches - zinc die cast | M 1-10   1/16-3/8   G 1/8 & M 5-20   7/32-3/4"   G 1/8-1/2 & M 13-32   1/2-1.1/4"   G 1/4-1" |
| BAER Die Stocks - zinc die cast              | 30 x 11   38 x 10   45 x 14   55 x 16   68 x 18  |
| Screw extractor                              |  |

Item No.:  
264802014

#### BAER Set G(BSP) 1/8" - 1" (incl. intermediate sizes) HSSG Hand Tap Sets & HSS Round Dies & Tools

**875,60**  
€/Set

|  |  |
|--|--|
| BAER HSSG Hand Tap Sets (2 parts)            | G 1/8 x 28   G 1/4 x 19   G 3/8 x 19   G 1/2 x 14   G 5/8 x 14   G 3/4 x 14   G 7/8 x 14   G 1" x 11 |
| BAER HSS Round Dies                          | G 1/8 x 28   G 1/4 x 19   G 3/8 x 19   G 1/2 x 14   G 5/8 x 14   G 3/4 x 14   G 7/8 x 14   G 1" x 11 |
| BAER adjustable Tap Wrenches - zinc die cast | M 1-10   1/16-3/8   G 1/8 & M 5-20   7/32-3/4"   G 1/8-1/2 & M 13-32   1/2-1.1/4"   G 1/4-1"         |
| BAER Die Stocks - zinc die cast              | 30 x 11   38 x 10   45 x 14   55 x 16   68 x 18  |
| Screw extractor                              |  |

Item No.:  
264802114

#### BAER Set G(BSP) 1/4" - 1.1/2" HSSG Hand Tap Sets & HSS Round Dies & Tools

**1.869,55**  
€/Set

|  |  |
|--|--|
| BAER HSSG Hand Tap Sets (2 parts)            | G 1/4 x 19   G 3/8 x 19   G 1/2 x 14   G 3/4 x 14   G 1" x 11   G 1.1/4" x 11   G 1.1/2" x 11  |
| BAER HSS Round Dies                          | G 1/4 x 19   G 3/8 x 19   G 1/2 x 14   G 3/4 x 14   G 1" x 11   G 1.1/4" x 11   G 1.1/2" x 11  |
| BAER adjustable Tap Wrenches - zinc die cast | M 4-12   5/32-1/2   G 1/8 & M 11-27   7/16-1"   G 1/4-3/4 & M 27-52   1.1/8"-2"   G 3/4-1.3/4" |
| BAER Die Stocks - zinc die cast              | 38 x 10   45 x 14   55 x 16   68 x 18   75 x 20   90 x 22                                      |
| Screw extractor                              |  |

Item No.:  
264802214

**G-Rohr (BSP)**

British standard whitworth pipe thread / DIN ISO 228

## BAER Hand-Tap Sets, Round Dies and Tools Sets (example picture)



### BAER Set G(BSP) 1/8" - 3/4" Short Machine Taps through hole & blind hole HSS Hexagonal-Die-Nuts



**203,07**  
€/Set

|   |  |
|---|--|
| BAER HSSG Short Machine TapsForm D<br>for through holes and blind holes (up to 4 x D) | G 1/8 x 28   G 1/4 x 19   G 3/8 x 19   G 1/2 x 14   G 3/4 x 14 |
| BAER HSS Hexagonal-Die-Nuts   | G 1/8 x 28   G 1/4 x 19   G 3/8 x 19   G 1/2 x 14   G 3/4 x 14 |

Item No.:  
BSR1

### BAER Set G(BSP) 1/8" - 1/2" Short Machine Taps through hole & blind hole HSS Hexagonal-Die-Nuts



**139,64**  
€/Set

|   |   |
|---|---|
| BAER HSSG Short Machine TapsForm D<br>for through holes and blind holes (up to 4 x D) | G 1/8 x 28   G 1/4 x 19   G 3/8 x 19   G 1/2 x 14 |
| BAER HSS Hexagonal-Die-Nuts   | G 1/8 x 28   G 1/4 x 19   G 3/8 x 19   G 1/2 x 14 |

Item No.:  
BSR2

### BAER Set G(BSP) 1/8" - 3/4" Short Machine Taps through hole & blind hole HSS Round Dies



**209,42**  
€/Set

|   |  |
|---|--|
| BAER HSSG Short Machine TapsForm D<br>for through holes and blind holes (up to 4 x D) | G 1/8 x 28   G 1/4 x 19   G 3/8 x 19   G 1/2 x 14   G 3/4 x 14 |
| BAER HSS Round Dies   | G 1/8 x 28   G 1/4 x 19   G 3/8 x 19   G 1/2 x 14   G 3/4 x 14 |

Item No.:  
BSR3

## G-Rohr (BSP)

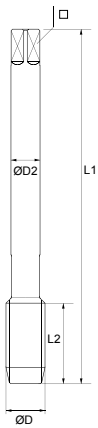
British standard whitworth pipe thread / DIN ISO 228

Efficient internal thread cutting.

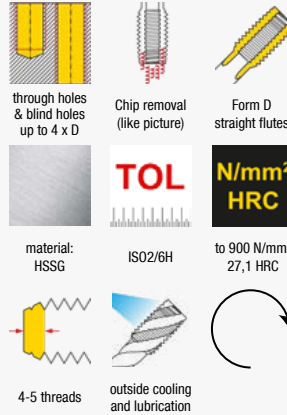
The short structural type makes that tap usable by machine and hand.

### Application:

- non abrasive material up to 900 N/mm<sup>2</sup>
- unalloyed and low alloyed steel



## Short Machine Taps Form D for through holes and blind holes



## G(BSP)

|                | D1    | D2   | L1  | L2 | □    |        | No.       | €        |
|----------------|-------|------|-----|----|------|--------|-----------|----------|
| BSP 1/8 x 28   | 9,73  | 7,0  | 63  | 20 | 5,5  | 8,80   | 130101001 | 6,39     |
| BSP 1/4 x 19   | 13,16 | 11,0 | 70  | 22 | 9,0  | 11,80  | 130101002 | 7,20     |
| BSP 3/8 x 19   | 16,66 | 12,0 | 70  | 22 | 9,0  | 15,25  | 130101003 | 10,48    |
| BSP 1/2 x 14   | 20,95 | 16,0 | 80  | 22 | 12,0 | 19,00  | 130101004 | 14,89    |
| BSP 3/4 x 14   | 26,44 | 20,0 | 90  | 22 | 16,0 | 24,50  | 130101005 | 21,05    |
| BSP 1" x 11    | 33,25 | 25,0 | 100 | 25 | 20,0 | 30,75  | 130101006 | 35,49    |
| BSP 1.1/4 x 11 | 41,91 | 32,0 | 125 | 40 | 24,0 | 39,50  | 130101007 | 61,67    |
| BSP 1.1/2 x 11 | 47,80 | 36,0 | 140 | 40 | 29,0 | 45,25  | 130101008 | 84,36    |
| BSP 1.3/4 x 11 | 53,74 | 40,0 | 140 | 40 | 32,0 | 51,20  | 130101009 | 168,70   |
| BSP 2" x 11    | 59,61 | 45,0 | 160 | 40 | 35,0 | 57,00  | 130101010 | 174,53   |
| BSP 2.1/4 x 11 | 65,71 | 50,0 | 160 | 40 | 39,0 | 63,10  | 130101011 | 381,64   |
| BSP 2.1/2 x 11 | 75,18 | 50,0 | 160 | 40 | 39,0 | 72,60  | 130101012 | 579,31   |
| BSP 2.3/4 x 11 | 81,53 | 50,0 | 160 | 40 | 39,0 | 79,00  | 130101013 | 967,19   |
| BSP 3" x 11    | 87,88 | 50,0 | 160 | 40 | 39,0 | 85,50  | 130101014 | 1.127,13 |
| BSP 3.1/2 x 11 | 100,3 | 56,0 | 180 | 45 | 44,0 | 98,00  | 130101015 | 1.775,71 |
| BSP 4" x 11    | 113,0 | 56,0 | 180 | 45 | 44,0 | 110,50 | 130101016 | 2.216,49 |

## G-Rohr (BSP)

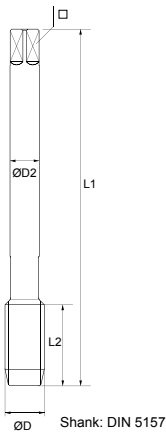
British standard whitworth pipe thread / DIN ISO 228

Efficient internal thread cutting.

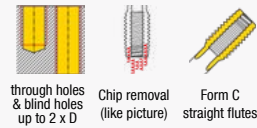
The short structural type makes that tap usable by machine and hand.

**A Hand-Tap-Set includes 2 taps:**

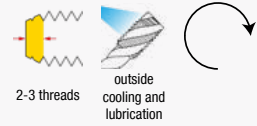
- Taper Tap
- Finish Tap



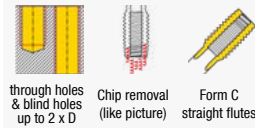
### Hand Tap Sets for general use



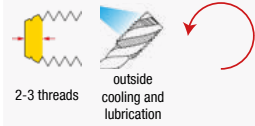
through holes & blind holes up to 2 x D  
Chip removal (like picture)  
Form C straight flutes



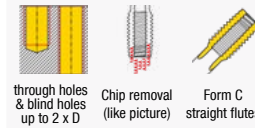
### Hand Tap Sets for general use Left Hand



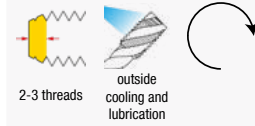
through holes & blind holes up to 2 x D  
Chip removal (like picture)  
Form C straight flutes



### Hand Tap Sets for high tensile materials



through holes & blind holes up to 2 x D  
Chip removal (like picture)  
Form C straight flutes



## G(BSP)

|                | D1    | D2   | L1  | L2 | □    |        | No.       | €        | No.       | €      | No.       | €      |
|----------------|-------|------|-----|----|------|--------|-----------|----------|-----------|--------|-----------|--------|
| BSP 1/8 x 28   | 9,73  | 7,0  | 63  | 20 | 5,5  | 8,80   | 130301001 | 12,80    | 130302001 | 19,55  | 130304001 | 18,62  |
| BSP 1/4 x 19   | 13,16 | 11,0 | 70  | 22 | 9,0  | 11,80  | 130301002 | 14,43    | 130302002 | 22,10  | 130304002 | 23,27  |
| BSP 3/8 x 19   | 16,66 | 12,0 | 70  | 22 | 9,0  | 15,25  | 130301003 | 20,94    | 130302003 | 31,89  | 130304003 | 33,04  |
| BSP 1/2 x 14   | 20,95 | 16,0 | 80  | 22 | 12,0 | 19,00  | 130301004 | 29,78    | 130302004 | 41,42  | 130304004 | 51,20  |
| BSP 5/8 x 14   | 22,91 | 18,0 | 80  | 22 | 14,5 | 21,00  | 130301005 | 42,13    | 130302005 | 63,54  |           |        |
| BSP 3/4 x 14   | 26,44 | 20,0 | 90  | 22 | 16,0 | 24,50  | 130301006 | 42,13    | 130302006 | 63,54  | 130304005 | 62,13  |
| BSP 7/8 x 14   | 30,20 | 22,0 | 90  | 22 | 18,0 | 28,25  | 130301007 | 70,98    |           |        |           |        |
| BSP 1" x 11    | 33,25 | 25,0 | 100 | 25 | 20,0 | 30,75  | 130301008 | 70,98    | 130302007 | 107,51 | 130304006 | 107,04 |
| BSP 1.1/8 x 11 | 37,90 | 28,0 | 125 | 40 | 22,0 | 35,30  | 130301009 | 123,33   | 130302008 | 186,17 |           |        |
| BSP 1.1/4 x 11 | 41,91 | 32,0 | 125 | 40 | 24,0 | 39,50  | 130301010 | 123,33   | 130302009 | 186,17 |           |        |
| BSP 1.3/8 x 11 | 44,32 | 36,0 | 140 | 40 | 29,0 | 41,70  | 130301011 | 168,70   | 130302010 | 246,67 |           |        |
| BSP 1.1/2 x 11 | 47,80 | 36,0 | 140 | 40 | 29,0 | 45,25  | 130301012 | 168,70   | 130302011 | 246,67 |           |        |
| BSP 1.5/8 x 11 | 52,00 | 40,0 | 140 | 40 | 32,0 | 49,60  | 130301013 | 337,43   |           |        |           |        |
| BSP 1.3/4 x 11 | 53,74 | 40,0 | 140 | 40 | 32,0 | 51,20  | 130301014 | 337,42   | 130302012 | 507,29 |           |        |
| BSP 2" x 11    | 59,61 | 45,0 | 160 | 40 | 35,0 | 57,00  | 130301015 | 349,08   | 130302013 | 507,29 |           |        |
| BSP 2.1/4 x 11 | 65,71 | 50,0 | 160 | 40 | 39,0 | 63,10  | 130301016 | 763,31   |           |        |           |        |
| BSP 2.1/2 x 11 | 75,18 | 50,0 | 160 | 40 | 39,0 | 72,60  | 130301017 | 1.158,62 |           |        |           |        |
| BSP 2.3/4 x 11 | 81,53 | 50,0 | 160 | 40 | 39,0 | 79,00  | 130301018 | 1.935,23 |           |        |           |        |
| BSP 3" x 11    | 87,88 | 50,0 | 160 | 40 | 39,0 | 85,50  | 130301019 | 2.254,27 |           |        |           |        |
| BSP 3.1/2 x 11 | 100,3 | 56,0 | 180 | 45 | 44,0 | 98,00  | 130301020 | 3.551,42 |           |        |           |        |
| BSP 4" x 11    | 113,0 | 56,0 | 180 | 45 | 44,0 | 110,50 | 130301021 | 4.432,98 |           |        |           |        |

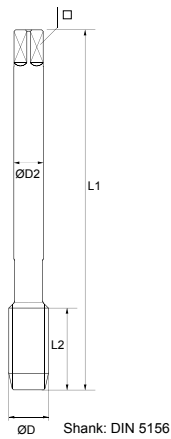
# Machine Taps - Form B for through holes and Form C Left-hand thread

## G-Rohr (BSP)

British standard whitworth pipe thread / DIN ISO 228

Tap for machine use in through hole and for left-hand thread in through and blind holes.

The spiral point pushes the chips ahead.



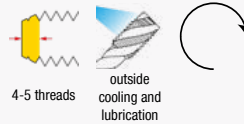
### Machine Tap for general use



through holes up to 4 x D  
Chip removal (like picture)  
Form B with spiral point



material: HSSE  
medium  
to 900 N/mm<sup>2</sup>  
27,1 HRC



4-5 threads  
outside cooling and lubrication



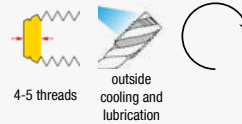
### Machine Tap for stainless steels



through holes up to 2,5 x D  
Chip removal (like picture)  
Form B with spiral point



material: HSSE TiAlN  
medium  
to 1300 N/mm<sup>2</sup>  
41 HRC



4-5 threads  
outside cooling and lubrication



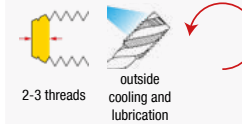
### Machine Tap for general use Left-hand thread



through holes & blind holes up to 2 x D  
Chip removal (like picture)  
Form C straight flutes



material: HSSE  
medium  
to 900 N/mm<sup>2</sup>  
27,1 HRC



2-3 threads  
outside cooling and lubrication



## G(BSP)

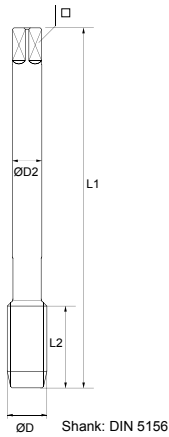
|                | D1    | D2   | L1  | L2 | □    |       | No.       | €      | No.       | €      | No.       | €     |
|----------------|-------|------|-----|----|------|-------|-----------|--------|-----------|--------|-----------|-------|
| BSP 1/8 x 28   | 9,73  | 7,0  | 90  | 20 | 5,5  | 8,80  | 130401001 | 17,63  | 130405001 | 38,58  | 130502001 | 25,19 |
| BSP 1/4 x 19   | 13,16 | 11,0 | 100 | 22 | 9,0  | 11,80 | 130401002 | 22,25  | 130405002 | 56,36  | 130502002 | 31,06 |
| BSP 3/8 x 19   | 16,66 | 12,0 | 100 | 22 | 9,0  | 15,25 | 130401003 | 26,45  | 130405003 | 64,83  | 130502003 | 39,04 |
| BSP 1/2 x 14   | 20,95 | 16,0 | 125 | 25 | 12,0 | 19,00 | 130401004 | 39,04  | 130405004 | 84,29  | 130502004 | 54,89 |
| BSP 5/8 x 14   | 22,91 | 18,0 | 125 | 25 | 14,5 | 21,00 | 130401005 | 45,34  | 130405005 | 95,99  | 130502005 | 63,49 |
| BSP 3/4 x 14   | 26,44 | 20,0 | 140 | 28 | 16,0 | 24,50 | 130401006 | 57,93  | 130405006 | 112,17 | 130502006 | 80,60 |
| BSP 7/8 x 14   | 30,20 | 22,0 | 150 | 28 | 18,0 | 28,25 | 130401007 | 73,04  | 130405007 | 194,64 |           |       |
| BSP 1" x 11    | 33,25 | 25,0 | 160 | 30 | 20,0 | 30,75 | 130401008 | 90,67  | 130405008 | 240,10 | 130502007 | 81,23 |
| BSP 1.1/8 x 11 | 37,90 | 28,0 | 170 | 30 | 22,0 | 35,30 | 130401009 | 133,49 | 130405009 | 299,71 |           |       |
| BSP 1.1/4 x 11 | 41,91 | 32,0 | 170 | 30 | 24,0 | 39,50 | 130401010 | 158,68 | 130405010 | 338,34 |           |       |
| BSP 1.3/8 x 11 | 44,32 | 36,0 | 180 | 32 | 29,0 | 41,70 | 130401011 | 210,31 | 130405011 | 412,16 |           |       |
| BSP 1.1/2 x 11 | 47,80 | 36,0 | 190 | 32 | 29,0 | 45,25 | 130401012 | 227,95 | 130405012 | 449,65 |           |       |
| BSP 1.3/4 x 11 | 53,74 | 40,0 | 190 | 32 | 32,0 | 51,20 | 130401013 | 329,95 | 130405013 | 578,52 |           |       |
| BSP 2" x 11    | 59,61 | 45,0 | 220 | 40 | 35,0 | 57,00 | 130401014 | 365,22 | 130405014 | 602,19 |           |       |

## G-Rohr (BSP)

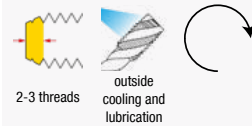
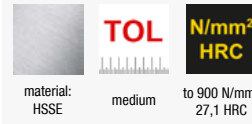
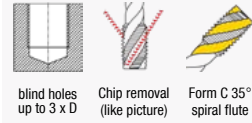
British standard whitworth pipe thread / DIN ISO 228

Tap for machine use in through hole and for left-hand thread in through and blind holes.

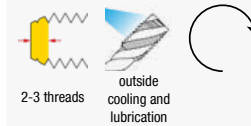
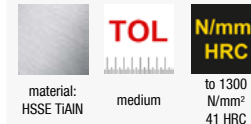
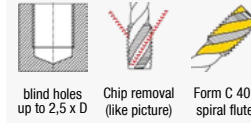
The spiral point pushes the chips ahead.



### Machine Tap for general use



### Machine Tap for stainless steels



## G(BSP)

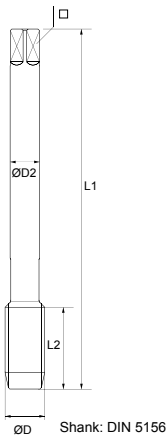
|                | D1    | D2   | L1  | L2 | □    |       | No.       | €      | No.       | €      |
|----------------|-------|------|-----|----|------|-------|-----------|--------|-----------|--------|
| BSP 1/8 x 28   | 9,73  | 7,0  | 90  | 20 | 5,5  | 8,80  | 130601001 | 19,42  | 130605001 | 39,10  |
| BSP 1/4 x 19   | 13,16 | 11,0 | 100 | 22 | 9,0  | 11,80 | 130601002 | 24,56  | 130605002 | 58,32  |
| BSP 3/8 x 19   | 16,66 | 12,0 | 100 | 22 | 9,0  | 15,25 | 130601003 | 31,48  | 130605003 | 68,53  |
| BSP 1/2 x 14   | 20,95 | 16,0 | 125 | 25 | 12,0 | 19,00 | 130601004 | 44,08  | 130605004 | 87,60  |
| BSP 5/8 x 14   | 22,91 | 18,0 | 125 | 25 | 14,5 | 21,00 | 130601005 | 51,63  | 130605005 | 100,33 |
| BSP 3/4 x 14   | 26,44 | 20,0 | 140 | 28 | 16,0 | 24,50 | 130601006 | 65,49  | 130605006 | 117,54 |
| BSP 7/8 x 14   | 30,20 | 22,0 | 150 | 28 | 18,0 | 28,25 | 130601007 | 80,60  | 130605007 | 184,41 |
| BSP 1" x 11    | 33,25 | 25,0 | 160 | 30 | 20,0 | 30,75 | 130601008 | 100,75 | 130605008 | 243,05 |
| BSP 1.1/8 x 11 | 37,90 | 28,0 | 170 | 30 | 22,0 | 35,30 | 130601009 | 147,35 | 130605009 | 302,89 |
| BSP 1.1/4 x 11 | 41,91 | 32,0 | 170 | 30 | 24,0 | 39,50 | 130601010 | 176,31 | 130605010 | 351,14 |
| BSP 1.3/8 x 11 | 44,32 | 36,0 | 180 | 32 | 29,0 | 41,70 | 130601011 | 231,72 | 130605011 | 413,45 |
| BSP 1.1/2 x 11 | 47,80 | 36,0 | 190 | 32 | 29,0 | 45,25 | 130601012 | 251,87 | 130605012 | 466,25 |
| BSP 1.3/4 x 11 | 53,74 | 40,0 | 190 | 32 | 32,0 | 51,20 | 130601013 | 362,70 | 130605013 | 569,58 |
| BSP 2" x 11    | 59,61 | 45,0 | 220 | 40 | 35,0 | 57,00 | 130601014 | 403,00 | 130605014 | 594,53 |

## G-Rohr (BSP)

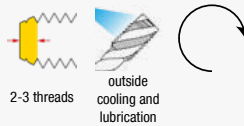
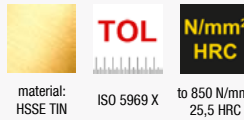
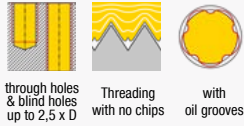
British standard whitworth pipe thread / DIN ISO 228

### Machine Forming Taps have following advantages:

- No chips
- Up to 20 times longer lifetime (compared to taps)
- Same forming tap for through and blind hole
- Wide range of materials can be processed
- Intersection of the thread is impossible
- Very high trueness
- Increased strength of the thread
- Higher surface quality
- Much higher cutting speed



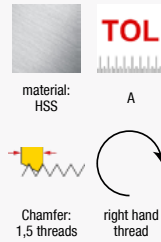
### Machine Forming Taps for universal use



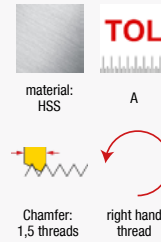
## G(BSP)

|                     | D1    | D2   | L1  | L2 | □    |       | No.       | €      |
|---------------------|-------|------|-----|----|------|-------|-----------|--------|
| <b>BSP 1/8 x 28</b> | 9,73  | 7,0  | 90  | 18 | 5,5  | 9,25  | 131101001 | 102,04 |
| <b>BSP 1/4 x 19</b> | 13,16 | 11,0 | 100 | 22 | 9,0  | 12,50 | 131101002 | 128,31 |
| <b>BSP 3/8 x 19</b> | 16,66 | 12,0 | 100 | 22 | 9,0  | 16,00 | 131101003 | 160,70 |
| <b>BSP 1/2 x 14</b> | 20,95 | 16,0 | 125 | 25 | 12,0 | 20,00 | 131101004 | 188,59 |
| <b>BSP 3/4 x 14</b> | 26,44 | 20,0 | 140 | 28 | 20,0 | 25,50 | 131101005 | 390,51 |

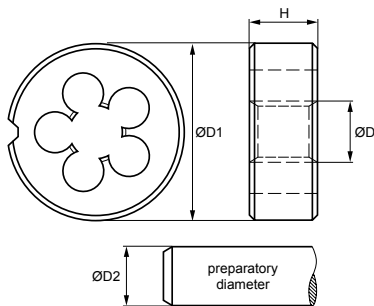
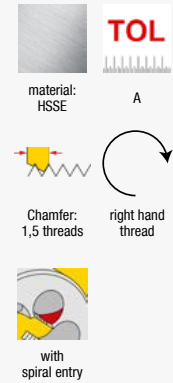
### Round Dies for general use



### Round Dies for general use Left Hand



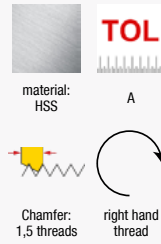
### Round Dies for stainless steels



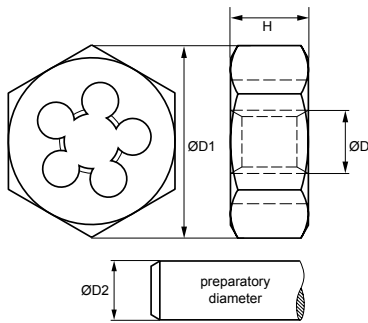
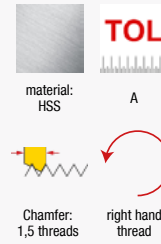
## G(BSP)

|                | D      | D1  | H  | D2     | No.       | €        | No.       | €      | No.       | €      |
|----------------|--------|-----|----|--------|-----------|----------|-----------|--------|-----------|--------|
| BSP 1/8 x 28   | 9,73   | 30  | 11 | 9,62   | 131401001 | 18,12    | 131402001 | 32,74  | 131405001 | 28,64  |
| BSP 1/4 x 19   | 13,16  | 38  | 10 | 13,03  | 131401002 | 18,48    | 131402002 | 37,42  | 131405002 | 28,64  |
| BSP 3/8 x 19   | 16,66  | 45  | 14 | 16,54  | 131401003 | 24,55    | 131402003 | 54,95  | 131405003 | 42,68  |
| BSP 1/2 x 14   | 20,95  | 45  | 14 | 20,81  | 131401004 | 24,55    | 131402004 | 54,95  | 131405004 | 42,68  |
| BSP 5/8 x 14   | 22,91  | 55  | 16 | 22,77  | 131401005 | 44,44    | 131402005 | 74,26  |           |        |
| BSP 3/4 x 14   | 26,44  | 55  | 16 | 26,30  | 131401006 | 44,44    | 131402006 | 92,37  | 131405005 | 78,36  |
| BSP 7/8 x 14   | 30,20  | 65  | 18 | 30,06  | 131401007 | 59,64    | 131402007 | 101,74 |           |        |
| BSP 1" x 11    | 33,25  | 65  | 18 | 33,07  | 131401008 | 59,64    | 131402008 | 101,74 | 131405006 | 112,27 |
| BSP 1.1/8 x 11 | 37,90  | 75  | 20 | 37,72  | 131401009 | 100,58   | 131402009 | 128,63 |           |        |
| BSP 1.1/4 x 11 | 41,91  | 75  | 20 | 41,73  | 131401010 | 100,58   | 131402010 | 128,63 |           |        |
| BSP 1.3/8 x 11 | 44,32  | 90  | 22 | 44,14  | 131401011 | 175,42   | 131402011 | 212,84 |           |        |
| BSP 1.1/2 x 11 | 47,80  | 90  | 22 | 47,62  | 131401012 | 175,42   | 131402012 | 212,84 |           |        |
| BSP 1.5/8 x 11 | 52,00  | 90  | 22 | 51,82  | 131401013 | 175,42   | 131402013 | 212,84 |           |        |
| BSP 1.3/4 x 11 | 53,74  | 105 | 22 | 53,57  | 131401014 | 300,55   | 131402014 | 364,87 |           |        |
| BSP 2" x 11    | 59,61  | 90  | 22 | 59,43  | 131401015 | 175,42   | 131402015 | 364,87 |           |        |
| BSP 2" x 11    | 59,61  | 105 | 22 | 59,43  | 131401016 | 300,55   |           |        |           |        |
| BSP 2.1/4 x 11 | 65,71  | 120 | 22 | 65,49  | 131401017 | 440,78   |           |        |           |        |
| BSP 2.1/2 x 11 | 75,18  | 120 | 22 | 74,97  | 131401018 | 589,38   |           |        |           |        |
| BSP 2.3/4 x 11 | 81,53  | 120 | 22 | 81,32  | 131401019 | 589,38   |           |        |           |        |
| BSP 3" x 11    | 87,88  | 130 | 25 | 87,67  | 131401020 | 652,35   |           |        |           |        |
| BSP 3.1/2 x 11 | 100,33 | 150 | 25 | 100,11 | 131401021 | 1.057,87 |           |        |           |        |
| BSP 4" x 11    | 113,03 | 160 | 25 | 112,81 | 131401022 | 1.309,74 |           |        |           |        |

### Hexagon Die Nuts for general use



### Hexagon Die Nuts for general use Left Hand



## G(BSP)

|                | D     | D1  | H  | D2    | No.       | €      | No.       | €      |
|----------------|-------|-----|----|-------|-----------|--------|-----------|--------|
| BSP 1/8 x 28   | 9,73  | 27  | 11 | 9,62  | 131501001 | 20,95  | 131502001 | 36,25  |
| BSP 1/4 x 19   | 13,16 | 36  | 10 | 13,03 | 131501002 | 25,01  | 131502002 | 40,93  |
| BSP 3/8 x 19   | 16,66 | 41  | 14 | 16,54 | 131501003 | 37,23  | 131502003 | 61,40  |
| BSP 1/2 x 14   | 20,95 | 41  | 14 | 20,81 | 131501004 | 37,23  | 131502004 | 61,40  |
| BSP 5/8 x 14   | 22,91 | 50  | 16 | 22,77 | 131501005 | 62,24  | 131502005 | 81,86  |
| BSP 3/4 x 14   | 26,44 | 50  | 16 | 26,30 | 131501006 | 62,24  | 131502006 | 81,86  |
| BSP 7/8 x 14   | 30,20 | 60  | 18 | 30,06 | 131501007 | 84,36  |           |        |
| BSP 1" x 11    | 33,25 | 60  | 18 | 33,07 | 131501008 | 84,36  | 131502007 | 105,25 |
| BSP 1.1/8 x 11 | 37,90 | 70  | 20 | 37,72 | 131501009 | 124,50 | 131502008 | 163,72 |
| BSP 1.1/4 x 11 | 41,91 | 70  | 20 | 41,73 | 131501010 | 124,50 | 131502009 | 163,72 |
| BSP 1.3/8 x 11 | 44,32 | 85  | 22 | 44,14 | 131501011 | 207,12 | 131502010 | 270,14 |
| BSP 1.1/2 x 11 | 47,80 | 85  | 22 | 47,62 | 131501012 | 207,12 | 131502011 | 270,14 |
| BSP 1.5/8 x 11 | 52,00 | 85  | 22 | 51,82 | 131501013 | 207,12 |           |        |
| BSP 1.3/4 x 11 | 53,74 | 100 | 22 | 53,57 | 131501014 | 310,67 | 131502012 | 405,78 |
| BSP 2" x 11    | 59,61 | 100 | 22 | 59,43 | 131501015 | 310,67 | 131502013 | 405,78 |



**UNC**

Unified coarse thread / ANSI B1.1

**BAER Hand-Tap Sets, Round Dies and Tools Sets**  
(example picture)



**BAER Set UNC 1/4" - 1/2"**

**HSSG Hand Tap Sets & HSS Round Dies & Tools**

BAER HSSG Hand Tap Sets (3 parts) UNC 1/4 x 20 | UNC 5/16 x 18 | UNC 3/8 x 16 | UNC 7/16 x 14 | UNC 1/2 x 13

BAER HSS Round Dies UNC 1/4 x 20 | UNC 5/16 x 18 | UNC 3/8 x 16 | UNC 7/16 x 14 | UNC 1/2 x 13

BAER adjustable Tap Wrenches - zinc die cast M 1-10 | 1/16-3/8 | G 1/8 & M 4-12 | 5/32-1/2 | G 1/8

BAER Die Stocks - zinc die cast 20 x 7 | 25 x 9 | 30 x 11 | 38 x 14

Screw extractor

**288,03**  
€/Set

Item No.:  
264805003

**BAER Set UNC 1/4" - 3/4"**

**HSSG Hand Tap Sets & HSS Round Dies & Tools**

BAER HSSG Hand Tap Sets (3 parts) UNC 1/4 x 20 | UNC 5/16 x 18 | UNC 3/8 x 16 | UNC 7/16 x 14 | UNC 1/2 x 13 | UNC 5/8 x 11 | UNC 3/4 x 10

BAER HSS Round Dies UNC 1/4 x 20 | UNC 5/16 x 18 | UNC 3/8 x 16 | UNC 7/16 x 14 | UNC 1/2 x 13 | UNC 5/8 x 11 | UNC 3/4 x 10

BAER adjustable Tap Wrenches - zinc die cast M 1-10 | 1/16-3/8 | G 1/8 & M 5-20 | 7/32-3/4" | G 1/8-1/2

BAER Die Stocks - zinc die cast 20 x 7 | 25 x 9 | 30 x 11 | 38 x 14 | 45 x 18

Screw extractor

**502,74**  
€/Set

Item No.:  
264805103

**BAER Set UNC 1/4" - 1"**

**HSSG Hand Tap Sets & HSS Round Dies & Tools**

BAER HSSG Hand Tap Sets (3 parts) UNC 1/4 x 20 | UNC 5/16 x 18 | UNC 3/8 x 16 | UNC 7/16 x 14 | UNC 1/2 x 13 | UNC 5/8 x 11 | UNC 3/4 x 10 | UNC 7/8 x 9 | UNC 1" x 8

BAER HSS Round Dies UNC 1/4 x 20 | UNC 5/16 x 18 | UNC 3/8 x 16 | UNC 7/16 x 14 | UNC 1/2 x 13 | UNC 5/8 x 11 | UNC 3/4 x 10 | UNC 7/8 x 9 | UNC 1" x 8

BAER adjustable Tap Wrenches - zinc die cast M 1-10 | 1/16-3/8 | G 1/8 & M 11-27 | 7/16-1" | G 1/4-3/4

BAER Die Stocks - zinc die cast 20 x 7 | 25 x 9 | 30 x 11 | 38 x 14 | 45 x 18 | 55 x 22

Screw extractor

**764,58**  
€/Set

Item No.:  
264805303

**BAER Set UNC 1/4" - 1.1/2"**

**HSSG Hand Tap Sets & HSS Round Dies & Tools**

BAER HSSG Hand Tap Sets (3 parts) UNC 1/4 x 20 | UNC 5/16 x 18 | UNC 3/8 x 16 | UNC 7/16 x 14 | UNC 1/2 x 13 | UNC 5/8 x 11 | UNC 3/4 x 10 | UNC 7/8 x 9 | UNC 1" x 8 | UNC 1.1/8" x 7 | UNC 1.1/4" x 7 | UNC 1.1/2" x 6

BAER HSS Round Dies UNC 1/4 x 20 | UNC 5/16 x 18 | UNC 3/8 x 16 | UNC 7/16 x 14 | UNC 1/2 x 13 | UNC 5/8 x 11 | UNC 3/4 x 10 | UNC 7/8 x 9 | UNC 1" x 8 | UNC 1.1/8" x 7 | UNC 1.1/4" x 7 | UNC 1.1/2" x 6

BAER adjustable Tap Wrenches - zinc die cast M 1-10 | 1/16-3/8 | G 1/8 & M 5-20 | 7/32-3/4" | G 1/8-1/2 & M 13-32 | 1/2 - 1.1/4" | G 1/4-1"

BAER Die Stocks - zinc die cast 20 x 7 | 25 x 9 | 30 x 11 | 38 x 14 | 45 x 18 | 55 x 22 | 65 x 25

Screw extractor

**1.916,68**  
€/Set

Item No.:  
264805303

**BAER Set UNC & UNF 1/4" - 3/4"**

**HSSG Hand Tap Sets & HSS Round Dies & Tools**

BAER HSSG Hand Tap Sets (3 parts) UNC 1/4 | UNC 5/16 | UNC 3/8 | UNC 7/16 | UNC 1/2 | UNC 5/8 | UNC 3/4  
BAER HSSG Hand Tap Sets (2 parts) UNF 1/4 | UNF 5/16 | UNF 3/8 | UNF 7/16 | UNF 1/2 | UNF 5/8 | UNF 3/4

BAER HSS Round Dies UNC 1/4 | UNC 5/16 | UNC 3/8 | UNC 7/16 | UNC 1/2 | UNC 5/8 | UNC 3/4  
BAER HSS Round Dies UNF 1/4 | UNF 5/16 | UNF 3/8 | UNF 7/16 | UNF 1/2 | UNF 5/8 | UNF 3/4

BAER adjustable Tap Wrenches - zinc die cast M 1-10 | 1/16-3/8 | G 1/8 & M 5-20 | 7/32-3/4" | G 1/8-1/2

BAER Die Stocks - zinc die cast 20 x 7 | 25 x 9 | 30 x 11 | 38 x 14 | 45 x 18

Screw extractor

**806,47**  
€/Set

Item No.:  
2648066203

**UNC**

Unified coarse thread / ANSI B1.1

## BAER Short Machine Taps und Round Dies Sets UNC 1/4" - 1/2" (example picture)



### BAER Set UNC 1/4" - 1/2" HSSG Short Machine Taps & Drill bits for core holes HSS Round Dies



**162,37**  
€/Set

|  |  |
|--|--|
| BAER HSSG Short Machine Tap Form D for through hole & blind hole (up to 4 x D) | UNC 1/4 x 20   UNC 5/16 x 18   UNC 3/8 x 16   UNC 7/16 x 14   UNC 1/2 x 13 |
| BAER HSSG Drill bits for core holes  | 5,2 mm   6,6 mm   8,0 mm   9,4 mm   10,8 mm                                |
| BAER HSS Round Dies  | UNC 1/4 x 20   UNC 5/16 x 18   UNC 3/8 x 16   UNC 7/16 x 14   UNC 1/2 x 13 |

Item No.:  
BES2

**UNC**

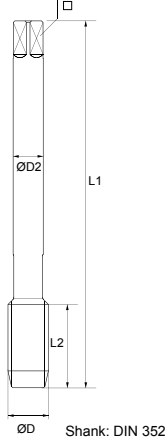
Unified coarse thread / ANSI B1.1

Efficient internal thread cutting.

The short structural type makes that tap usable by hand. The Short-Machine-Tap is also usable by machine.

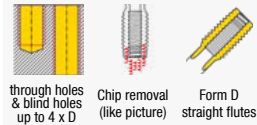
**A Hand-Tap-Set includes 3 taps:**

- Taper Tap
- Intermediate Tap
- Finish Tap

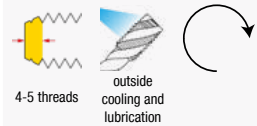


## Short Machine Taps

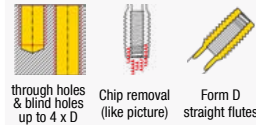
Form D for through holes and blind holes



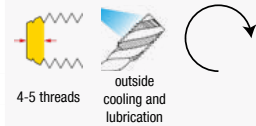
through holes & blind holes up to 4 x D  
Chip removal (like picture)  
Form D straight flutes  
material: HSSG 2B to 900 N/mm<sup>2</sup> 27,1 HRC



## Hand Tap Sets for general use

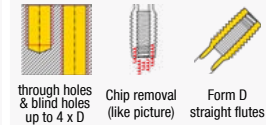


through holes & blind holes up to 4 x D  
Chip removal (like picture)  
Form D straight flutes  
material: HSSG 2B to 900 N/mm<sup>2</sup> 27,1 HRC

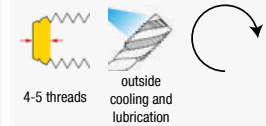


## Hand Tap Sets for general use

**Left Hand**



through holes & blind holes up to 4 x D  
Chip removal (like picture)  
Form D straight flutes  
material: HSSG 2B to 900 N/mm<sup>2</sup> 27,1 HRC



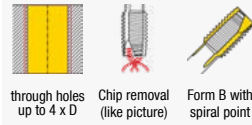
| UNC             | D1    | D2   | L1  | L2 | □    |       | No.       | €     | No.       | €        | No.       | €      |
|-----------------|-------|------|-----|----|------|-------|-----------|-------|-----------|----------|-----------|--------|
| UNC No 1 x 64   | 1,85  | 2,5  | 32  | 10 | 2,1  | 1,50  |           |       | 140301001 | 20,95    |           |        |
| UNC No 2 x 56   | 2,18  | 2,8  | 36  | 11 | 2,1  | 1,80  |           |       | 140301002 | 20,95    |           |        |
| UNC No 3 x 48   | 2,52  | 2,8  | 36  | 11 | 2,1  | 2,10  |           |       | 140301003 | 20,95    |           |        |
| UNC No 4 x 40   | 2,85  | 3,5  | 40  | 12 | 2,7  | 2,30  |           |       | 140301004 | 17,48    |           |        |
| UNC No 5 x 40   | 3,18  | 3,5  | 40  | 12 | 2,7  | 2,60  |           |       | 140301005 | 14,70    |           |        |
| UNC No 6 x 32   | 3,51  | 4,0  | 45  | 14 | 3,0  | 2,85  |           |       | 140301006 | 14,70    | 140302001 | 38,24  |
| UNC No 8 x 32   | 4,17  | 4,5  | 45  | 14 | 3,4  | 3,50  |           |       | 140301007 | 14,70    | 140302002 | 38,24  |
| UNC No 10 x 24  | 4,83  | 6,0  | 50  | 16 | 4,9  | 3,90  |           |       | 140301008 | 14,70    | 140302003 | 38,24  |
| UNC No 12 x 24  | 5,49  | 6,0  | 50  | 18 | 4,9  | 4,50  |           |       | 140301009 | 14,70    | 140302004 | 38,24  |
| UNC 1/4 x 20    | 6,35  | 6,0  | 50  | 19 | 4,9  | 5,20  | 140101001 | 4,90  | 140301010 | 14,70    | 140302005 | 24,21  |
| UNC 5/16 x 18   | 7,94  | 6,0  | 56  | 22 | 4,9  | 6,60  | 140101002 | 5,50  | 140301011 | 16,38    | 140302006 | 25,26  |
| UNC 3/8 x 16    | 9,53  | 7,0  | 70  | 24 | 5,5  | 8,00  | 140101003 | 6,08  | 140301012 | 18,17    | 140302007 | 29,47  |
| UNC 7/16 x 14   | 11,11 | 8,0  | 70  | 24 | 6,2  | 9,40  | 140101004 | 7,72  | 140301013 | 23,05    | 140302008 | 36,14  |
| UNC 1/2 x 13    | 12,70 | 9,0  | 75  | 29 | 7,0  | 10,80 | 140101005 | 9,36  | 140301014 | 27,93    | 140302009 | 43,16  |
| UNC 9/16 x 12   | 14,29 | 11,0 | 80  | 30 | 9,0  | 12,20 | 140101006 | 12,27 | 140301015 | 36,65    | 140302010 | 56,13  |
| UNC 5/8 x 11    | 15,88 | 12,0 | 80  | 32 | 9,0  | 13,50 | 140101007 | 13,80 | 140301016 | 41,19    | 140302011 | 63,85  |
| UNC 3/4 x 10    | 19,05 | 14,0 | 95  | 40 | 11,0 | 16,50 | 140101008 | 18,48 | 140301017 | 55,16    | 140302012 | 85,25  |
| UNC 7/8 x 9     | 22,23 | 18,0 | 100 | 40 | 14,5 | 19,50 | 140101009 | 24,56 | 140301018 | 73,30    | 140302013 | 106,30 |
| UNC 1" x 8      | 25,40 | 18,0 | 110 | 50 | 14,5 | 22,25 | 140101010 | 28,30 | 140301019 | 84,48    | 140302014 | 127,70 |
| UNC 1.1/8 x 7   | 28,58 | 22,0 | 132 | 56 | 18,0 | 25,00 |           |       | 140301020 | 130,20   |           |        |
| UNC 1.1/4 x 7   | 31,75 | 22,0 | 132 | 56 | 18,0 | 28,25 |           |       | 140301021 | 146,61   |           |        |
| UNC 1.3/8 x 6   | 34,93 | 28,0 | 150 | 63 | 22,0 | 30,75 |           |       | 140301022 | 190,59   |           |        |
| UNC 1.1/2 x 6   | 38,10 | 32,0 | 150 | 63 | 24,0 | 34,00 |           |       | 140301023 | 219,90   |           |        |
| UNC 1.5/8 x 5   | 41,28 | 32,0 | 160 | 70 | 24,0 | 37,10 |           |       | 140301024 | 439,82   |           |        |
| UNC 1.3/4 x 5   | 44,45 | 36,0 | 160 | 70 | 29,0 | 39,50 |           |       | 140301025 | 439,82   |           |        |
| UNC 1.7/8 x 4,5 | 47,63 | 36,0 | 190 | 80 | 29,0 | 42,00 |           |       | 140301026 | 572,47   |           |        |
| UNC 2" x 4,5    | 50,80 | 40,0 | 190 | 80 | 32,0 | 45,00 |           |       | 140301027 | 572,47   |           |        |
| UNC 2.1/4 x 4,5 | 57,15 | 45,0 | 220 | 80 | 35,0 | 51,50 |           |       | 140301028 | 1.473,46 |           |        |
| UNC 2.1/2 x 4   | 63,50 | 50,0 | 220 | 80 | 39,0 | 57,25 |           |       | 140301029 | 1.964,61 |           |        |
| UNC 2.3/4 x 4   | 69,85 | 50,0 | 240 | 80 | 39,0 | 63,50 |           |       | 140301030 | 4.911,54 |           |        |
| UNC 3" x 4      | 73,20 | 50,0 | 260 | 80 | 39,0 | 70,00 |           |       | 140301031 | 6.044,97 |           |        |

**UNC**

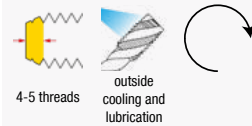
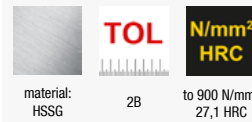
Unified coarse thread / ANSI B1.1

- ✓ Tap for machine use in through hole.
- ✓ The spiral point pushes the chips ahead.

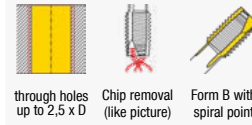
## Machine Tap for general use



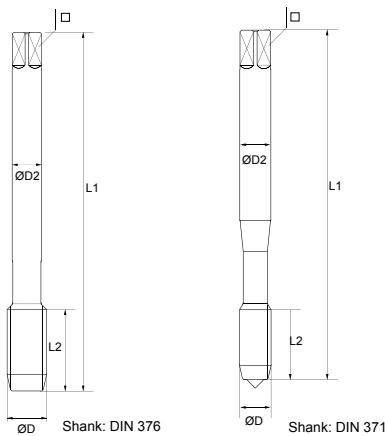
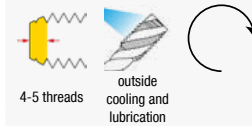
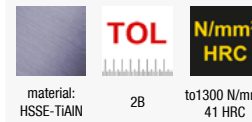
through holes up to 4 x D  
Chip removal (like picture)  
Form B with spiral point



## Machine Tap for stainless steels



through holes up to 2.5 x D  
Chip removal (like picture)  
Form B with spiral point



**UNC**

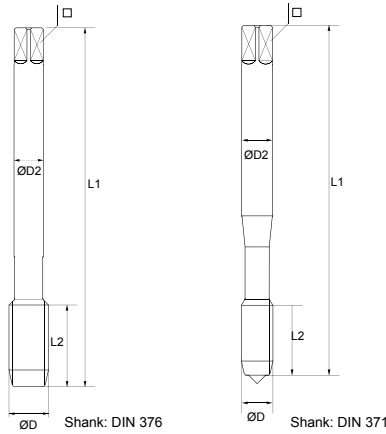
|                | D1    | D2   | L1  | L2 | □    | 🔩     | No.       | €      | No.       | €      |
|----------------|-------|------|-----|----|------|-------|-----------|--------|-----------|--------|
| <b>DIN 371</b> |       |      |     |    |      |       |           |        |           |        |
| UNC No 2 x 56  | 2,18  | 2,8  | 45  | 8  | 2,1  | 1,85  |           |        | 140405001 | 46,26  |
| UNC No 3 x 48  | 2,52  | 2,8  | 50  | 9  | 2,1  | 2,10  |           |        | 140405002 | 54,14  |
| UNC No 4 x 40  | 2,85  | 3,5  | 50  | 10 | 2,7  | 2,30  | 140401001 | 10,81  | 140405003 | 37,30  |
| UNC No 5 x 40  | 3,18  | 3,5  | 56  | 11 | 2,7  | 2,60  | 140401002 | 10,81  | 140405004 | 34,13  |
| UNC No 6 x 32  | 3,51  | 4,0  | 56  | 12 | 3,0  | 2,85  | 140401003 | 10,81  | 140405005 | 35,84  |
| UNC No 8 x 32  | 4,17  | 4,5  | 63  | 13 | 3,4  | 3,50  | 140401004 | 10,81  | 140405006 | 30,93  |
| UNC No 10 x 24 | 4,83  | 6,0  | 70  | 15 | 4,9  | 3,90  | 140401005 | 10,81  | 140405007 | 34,09  |
| UNC No 12 x 24 | 5,49  | 6,0  | 70  | 16 | 4,9  | 4,50  | 140401006 | 10,81  | 140405008 | 35,70  |
| UNC 1/4 x 20   | 6,35  | 7,0  | 80  | 17 | 5,5  | 5,20  | 140401007 | 10,81  | 140405009 | 37,22  |
| UNC 5/16 x 18  | 7,94  | 8,0  | 90  | 20 | 6,2  | 6,60  | 140401008 | 13,75  |           |        |
| UNC 3/8 x 16   | 9,53  | 9,0  | 100 | 22 | 7,0  | 8,00  | 140401009 | 15,32  |           |        |
| <b>DIN 376</b> |       |      |     |    |      |       |           |        |           |        |
| UNC No 4 x 40  | 2,85  | 1,8  | 50  | 10 | -    | 2,30  | 140401010 | 10,81  |           |        |
| UNC No 5 x 40  | 3,18  | 2,2  | 56  | 11 | 1,8  | 2,60  | 140401011 | 10,81  |           |        |
| UNC No 6 x 32  | 3,51  | 2,5  | 56  | 12 | 2,1  | 2,85  | 140401012 | 10,81  |           |        |
| UNC No 8 x 32  | 4,17  | 2,8  | 63  | 13 | 2,1  | 3,50  | 140401013 | 10,81  |           |        |
| UNC No 10 x 24 | 4,83  | 3,5  | 70  | 15 | 2,7  | 3,90  | 140401014 | 10,81  |           |        |
| UNC No 12 x 24 | 5,49  | 3,5  | 70  | 16 | 2,7  | 4,50  | 140401015 | 10,81  |           |        |
| UNC 1/4 x 20   | 6,35  | 4,5  | 80  | 17 | 3,4  | 5,20  | 140401016 | 10,81  |           |        |
| UNC 5/16 x 18  | 7,94  | 6,0  | 90  | 20 | 4,9  | 6,60  | 140401017 | 13,75  | 140405010 | 39,54  |
| UNC 3/8 x 16   | 9,53  | 7,0  | 100 | 22 | 5,5  | 8,00  | 140401018 | 15,32  | 140405011 | 46,44  |
| UNC 7/16 x 14  | 11,11 | 8,0  | 100 | 22 | 6,2  | 9,40  | 140401019 | 18,26  | 140405012 | 60,64  |
| UNC 1/2 x 13   | 12,70 | 9,0  | 110 | 25 | 7,0  | 10,80 | 140401020 | 18,26  | 140405013 | 60,64  |
| UNC 9/16 x 12  | 14,29 | 11,0 | 110 | 26 | 9,0  | 12,20 | 140401021 | 27,81  | 140405014 | 79,40  |
| UNC 5/8 x 11   | 15,88 | 12,0 | 110 | 27 | 9,0  | 13,50 | 140401022 | 27,81  | 140405015 | 89,20  |
| UNC 3/4 x 10   | 19,05 | 14,0 | 125 | 30 | 11,0 | 16,50 | 140401023 | 54,15  | 140405016 | 152,73 |
| UNC 7/8 x 9    | 22,23 | 18,0 | 140 | 32 | 14,5 | 19,50 | 140401024 | 65,49  | 140405017 | 188,08 |
| UNC 1" x 8     | 25,40 | 20,0 | 160 | 36 | 16,0 | 22,25 | 140401025 | 74,30  | 140405018 | 247,63 |
| UNC 1.1/4 x 7  | 31,75 | 22,0 | 180 | 40 | 18,0 | 28,25 | 140401026 | 103,90 |           |        |
| UNC 1.1/2 x 6  | 38,10 | 32,0 | 200 | 50 | 24,0 | 34,00 | 140401027 | 216,61 |           |        |
| UNC 1.3/4 x 5  | 44,45 | 36,0 | 220 | 65 | 29,0 | 39,50 | 140401028 | 371,51 |           |        |
| UNC 2" x 4,5   | 50,80 | 40,0 | 250 | 70 | 32,0 | 45,00 | 140401029 | 536,49 |           |        |

# Machine Taps - Form C (with spiral flutes) for blind holes

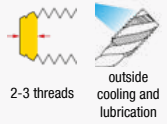
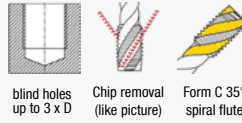
**UNC**

Unified coarse thread / ANSI B1.1

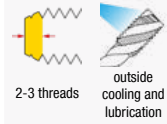
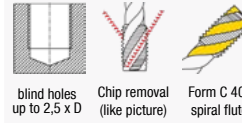
- ✓ Tap for machine use in blind holes.
- ✓ The fast spiral flutes provide good chip removal from the blind hole.



## Machine Tap for general use



## Machine Tap for stainless steels



**UNC**

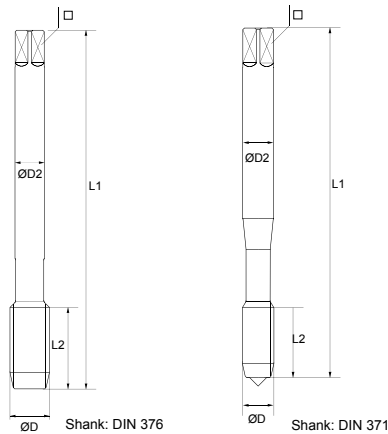
|                | D1    | D2   | L1  | L2 | □    |       | No.       | €      | No.       | €      |
|----------------|-------|------|-----|----|------|-------|-----------|--------|-----------|--------|
| <b>DIN 371</b> |       |      |     |    |      |       |           |        |           |        |
| UNC No 2 x 56  | 2,18  | 2,8  | 45  | 6  | 2,1  | 1,85  |           |        | 140605001 | 65,82  |
| UNC No 3 x 48  | 2,52  | 2,8  | 50  | 7  | 2,1  | 2,10  |           |        | 140605002 | 59,31  |
| UNC No 4 x 40  | 2,85  | 3,5  | 50  | 6  | 2,7  | 2,30  | 140601001 | 13,43  | 140605003 | 39,77  |
| UNC No 5 x 40  | 3,18  | 3,5  | 56  | 7  | 2,7  | 2,60  | 140601002 | 13,43  | 140605004 | 33,42  |
| UNC No 6 x 32  | 3,51  | 4,0  | 56  | 7  | 3,0  | 2,85  | 140601003 | 13,43  | 140605005 | 33,42  |
| UNC No 8 x 32  | 4,17  | 4,5  | 63  | 8  | 3,4  | 3,50  | 140601004 | 13,43  | 140605006 | 33,42  |
| UNC No 10 x 24 | 4,83  | 6,0  | 70  | 10 | 4,9  | 3,90  | 140601005 | 13,43  | 140605007 | 34,23  |
| UNC No 12 x 24 | 5,49  | 6,0  | 70  | 10 | 4,9  | 4,50  | 140601006 | 13,43  | 140605008 | 34,23  |
| UNC 1/4 x 20   | 6,35  | 7,0  | 80  | 13 | 5,5  | 5,20  | 140601007 | 13,43  | 140605009 | 34,23  |
| UNC 5/16 x 18  | 7,94  | 8,0  | 90  | 14 | 6,2  | 6,60  | 140601008 | 16,90  |           |        |
| UNC 3/8 x 16   | 9,53  | 9,0  | 100 | 16 | 7,0  | 8,00  | 140601009 | 18,47  |           |        |
| <b>DIN 376</b> |       |      |     |    |      |       |           |        |           |        |
| UNC No 4 x 40  | 2,85  | 1,8  | 50  | 10 | -    | 2,30  | 140601010 | 13,43  |           |        |
| UNC No 5 x 40  | 3,18  | 2,2  | 56  | 11 | 1,8  | 2,60  | 140601011 | 13,43  |           |        |
| UNC No 6 x 32  | 3,51  | 2,5  | 56  | 12 | 2,1  | 2,85  | 140601012 | 13,43  |           |        |
| UNC No 8 x 32  | 4,17  | 2,8  | 63  | 13 | 2,1  | 3,50  | 140601013 | 13,43  |           |        |
| UNC No 10 x 24 | 4,83  | 3,5  | 70  | 15 | 2,7  | 3,90  | 140601014 | 13,43  |           |        |
| UNC No 12 x 24 | 5,49  | 3,5  | 70  | 16 | 2,7  | 4,50  | 140601015 | 13,43  |           |        |
| UNC 1/4 x 20   | 6,35  | 4,5  | 80  | 17 | 3,4  | 5,20  | 140601016 | 13,43  |           |        |
| UNC 5/16 x 18  | 7,94  | 6,0  | 90  | 20 | 4,9  | 6,60  | 140601017 | 16,90  | 140605010 | 42,03  |
| UNC 3/8 x 16   | 9,53  | 7,0  | 100 | 22 | 5,5  | 8,00  | 140601018 | 18,47  | 140605011 | 48,92  |
| UNC 7/16 x 14  | 11,11 | 8,0  | 100 | 22 | 6,2  | 9,40  | 140601019 | 22,77  | 140605012 | 63,12  |
| UNC 1/2 x 13   | 12,70 | 9,0  | 110 | 25 | 7,0  | 10,80 | 140601020 | 22,77  | 140605013 | 63,12  |
| UNC 9/16 x 12  | 14,29 | 11,0 | 110 | 26 | 9,0  | 12,20 | 140601021 | 33,58  | 140605014 | 81,88  |
| UNC 5/8 x 11   | 15,88 | 12,0 | 110 | 27 | 9,0  | 13,50 | 140601022 | 33,58  | 140605015 | 91,68  |
| UNC 3/4 x 10   | 19,05 | 14,0 | 125 | 30 | 11,0 | 16,50 | 140601023 | 66,96  | 140605016 | 155,21 |
| UNC 7/8 x 9    | 22,23 | 18,0 | 140 | 32 | 14,5 | 19,50 | 140601024 | 81,86  | 140605017 | 190,55 |
| UNC 1" x 8     | 25,40 | 20,0 | 160 | 36 | 16,0 | 22,25 | 140601025 | 91,93  | 140605018 | 250,11 |
| UNC 1.1/4 x 7  | 31,75 | 22,0 | 180 | 40 | 18,0 | 28,25 | 140601026 | 117,12 |           |        |
| UNC 1.1/2 x 6  | 38,10 | 32,0 | 200 | 50 | 24,0 | 34,00 | 140601027 | 255,65 |           |        |
| UNC 1.3/4 x 5  | 44,45 | 36,0 | 220 | 65 | 29,0 | 39,50 | 140601028 | 403,00 |           |        |
| UNC 2" x 4,5   | 50,80 | 40,0 | 250 | 70 | 32,0 | 45,00 | 140601029 | 571,75 |           |        |

**UNC**

Unified coarse thread / ANSI B1.1

**Machine Forming Taps have following advantages:**

- No chips
- Up to 20 times longer lifetime (compared to taps)
- Same forming tap for through and blind hole
- Wide range of materials can be processed
- Intersection of the thread is impossible
- Very high trueness
- Increased strength of the thread
- Higher surface quality
- Much higher cutting speed



**Machine Forming Taps for universal use**



| UNC            | D1    | D2   | L1  | L2 | □    | ✂     | No.       | € |
|----------------|-------|------|-----|----|------|-------|-----------|---|
| UNC No 4 x 40  | 2,85  | 3,5  | 56  | 11 | 2,7  | 2,55  | 141101001 | * |
| UNC No 5 x 40  | 3,18  | 3,5  | 56  | 10 | 2,7  | 2,65  | 141101002 | * |
| UNC No 6 x 32  | 3,51  | 4,0  | 56  | 12 | 3,0  | 3,15  | 141101003 | * |
| UNC No 8 x 32  | 4,17  | 4,5  | 63  | 13 | 3,4  | 3,80  | 141101004 | * |
| UNC No 10 x 24 | 4,83  | 6,0  | 70  | 15 | 4,9  | 4,35  | 141101005 | * |
| UNC No 12 x 24 | 5,49  | 6,0  | 80  | 16 | 4,9  | 5,00  | 141101006 | * |
| UNC 1/4 x 20   | 6,35  | 7,0  | 80  | 17 | 5,5  | 5,75  | 141101007 | * |
| UNC 5/16 x 18  | 7,94  | 8,0  | 90  | 20 | 6,2  | 7,30  | 141101008 | * |
| UNC 3/8 x 16   | 9,53  | 10,0 | 100 | 22 | 8,0  | 8,80  | 141101009 | * |
| UNC 7/16 x 14  | 11,11 | 8,0  | 100 | 22 | 6,2  | 10,25 | 141101010 | * |
| UNC 1/2 x 13   | 12,70 | 9,0  | 110 | 25 | 7,0  | 11,80 | 141101011 | * |
| UNC 9/16 x 12  | 14,29 | 11,0 | 110 | 26 | 9,0  | 13,30 | 141101012 | * |
| UNC 5/8 x 11   | 15,88 | 12,0 | 110 | 27 | 9,0  | 14,80 | 141101013 | * |
| UNC 3/4 x 10   | 19,05 | 14,0 | 125 | 30 | 11,0 | 17,85 | 141101014 | * |

\* on request

## UNC

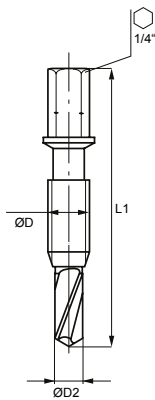
Unified coarse thread / ANSI B1.1

Efficient internal thread cutting with battery powered screwdriver (min. 7,5 Volt).

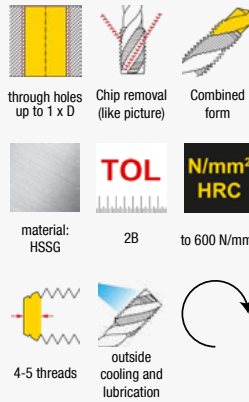
Core hole drilling and thread tapping in one fluent process.

### Application:

- non abrasive material up to 600 N/mm<sup>2</sup>
- unalloyed and low alloyed steel



### Kombi-Bit-Taps for through holes



## UNC

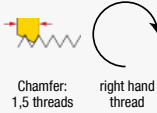
|                       | D1   | D2  | L1 |      | No.       | € |
|-----------------------|------|-----|----|------|-----------|---|
| <b>UNC No 4 x 40</b>  | 2,85 | 2,3 | 36 | 1/4" | 141301001 | * |
| <b>UNC No 5 x 40</b>  | 3,18 | 2,6 | 36 | 1/4" | 141301002 | * |
| <b>UNC No 6 x 32</b>  | 3,51 | 2,9 | 39 | 1/4" | 141301003 | * |
| <b>UNC No 8 x 32</b>  | 4,17 | 3,5 | 39 | 1/4" | 141301004 | * |
| <b>UNC No 10 x 24</b> | 4,83 | 3,9 | 41 | 1/4" | 141301005 | * |
| <b>UNC No 12 x 24</b> | 5,49 | 4,5 | 41 | 1/4" | 141301006 | * |
| <b>UNC 1/4 x 20</b>   | 6,35 | 5,2 | 44 | 1/4" | 141301007 | * |
| <b>UNC 5/16 x 18</b>  | 7,94 | 6,6 | 50 | 1/4" | 141301008 | * |
| <b>UNC 3/8 x 16</b>   | 9,53 | 8,0 | 59 | 1/4" | 141301009 | * |

\* on request

### Round Dies for general use



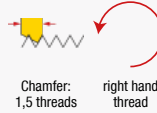
material: HSS 2A


 Chamfer: 1,5 threads  
right hand thread

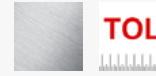
### Round Dies for general use Left Hand



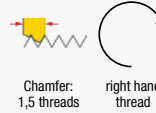
material: HSS 2A


 Chamfer: 1,5 threads  
right hand thread

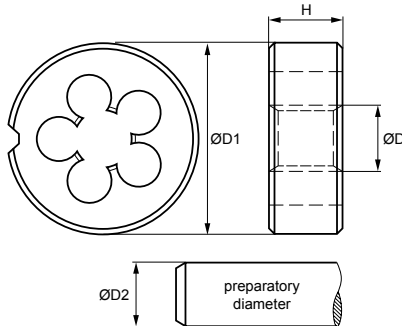
### Round Dies for stainless steels



material: HSSE 2A


 Chamfer: 1,5 threads  
right hand thread


with spiral entry


**UNC**

|                 | D     | D1 | H  | D2    | No.       | €      | No.       | €     | No.       | €      |
|-----------------|-------|----|----|-------|-----------|--------|-----------|-------|-----------|--------|
| UNC No 1 x 64   | 1,85  | 16 | 5  | 1,79  | 141401001 | 16,75  |           |       |           |        |
| UNC No 2 x 56   | 2,18  | 16 | 5  | 2,12  | 141401002 | 16,75  |           |       |           |        |
| UNC No 3 x 48   | 2,52  | 16 | 5  | 2,44  | 141401003 | 16,75  |           |       |           |        |
| UNC No 4 x 40   | 2,85  | 20 | 5  | 2,76  | 141401004 | 13,76  |           |       | 141405001 | 111,53 |
| UNC No 5 x 40   | 3,18  | 20 | 5  | 3,09  | 141401005 | 12,92  |           |       |           |        |
| UNC No 6 x 32   | 3,51  | 20 | 7  | 3,41  | 141401006 | 12,92  | 141402001 | 23,38 | 141405002 | 94,97  |
| UNC No 8 x 32   | 4,17  | 20 | 7  | 4,07  | 141401007 | 12,92  | 141402002 | 23,38 | 141405003 | 85,84  |
| UNC No 10 x 24  | 4,83  | 20 | 7  | 4,71  | 141401008 | 12,92  | 141402003 | 23,38 |           |        |
| UNC No 12 x 24  | 5,49  | 20 | 7  | 5,37  | 141401009 | 12,92  |           |       |           |        |
| UNC 1/4 x 20    | 6,35  | 20 | 7  | 6,22  | 141401010 | 12,29  | 141402004 | 18,94 | 141405004 | 79,09  |
| UNC 5/16 x 18   | 7,94  | 25 | 9  | 7,80  | 141401011 | 14,03  | 141402005 | 22,10 | 141405005 | 112,54 |
| UNC 3/8 x 16    | 9,53  | 30 | 11 | 9,37  | 141401012 | 15,56  | 141402006 | 26,90 | 141405006 | 118,63 |
| UNC 7/16 x 14   | 11,11 | 30 | 11 | 10,95 | 141401013 | 18,01  | 141402007 | 26,90 |           |        |
| UNC 1/2 x 13    | 12,70 | 38 | 14 | 12,52 | 141401014 | 20,23  | 141402008 | 42,09 |           |        |
| UNC 9/16 x 12   | 14,29 | 38 | 14 | 14,10 | 141401015 | 25,03  | 141402009 | 42,09 |           |        |
| UNC 5/8 x 11    | 15,88 | 45 | 18 | 15,68 | 141401016 | 27,36  | 141402010 | 53,80 |           |        |
| UNC 3/4 x 10    | 19,05 | 45 | 18 | 18,84 | 141401017 | 27,36  | 141402011 | 53,80 |           |        |
| UNC 7/8 x 9     | 22,23 | 55 | 22 | 22,00 | 141401018 | 46,77  | 141402012 | 78,35 |           |        |
| UNC 1" x 8      | 25,40 | 55 | 22 | 25,16 | 141401019 | 46,77  | 141402013 | 78,35 |           |        |
| UNC 1.1/8 x 7   | 28,58 | 65 | 25 | 28,31 | 141401020 | 70,76  |           |       |           |        |
| UNC 1.1/4 x 7   | 31,75 | 65 | 25 | 31,49 | 141401021 | 70,76  |           |       |           |        |
| UNC 1.3/8 x 6   | 34,93 | 65 | 25 | 34,63 | 141401022 | 70,76  |           |       |           |        |
| UNC 1.1/2 x 6   | 38,10 | 65 | 25 | 37,80 | 141401023 | 70,76  |           |       |           |        |
| UNC 1.1/2 x 6   | 38,10 | 75 | 30 | 37,80 | 141401024 | 126,30 |           |       |           |        |
| UNC 1.5/8 x 5   | 41,28 | 75 | 30 | 40,95 | 141401025 | 126,30 |           |       |           |        |
| UNC 1.3/4 x 5   | 44,45 | 90 | 36 | 44,12 | 141401026 | 192,96 |           |       |           |        |
| UNC 1.7/8 x 4,5 | 47,63 | 90 | 36 | 47,30 | 141401027 | 192,96 |           |       |           |        |
| UNC 2" x 4,5    | 50,80 | 90 | 36 | 50,45 | 141401028 | 192,96 |           |       |           |        |

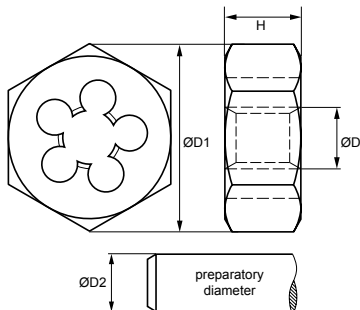
## Hexagon Die Nuts for general use



material: HSS 2A



Chamfer: 1,5 threads right hand thread


**UNC**

|               | D     | D1 | H  | D2    | No.       | €      |
|---------------|-------|----|----|-------|-----------|--------|
| UNC 1/4 x 20  | 6,35  | 19 | 7  | 6,22  | 141501001 | 15,20  |
| UNC 5/16 x 18 | 7,94  | 22 | 9  | 7,80  | 141501002 | 15,78  |
| UNC 3/8 x 16  | 9,53  | 27 | 11 | 9,37  | 141501003 | 19,07  |
| UNC 7/16 x 14 | 11,11 | 27 | 11 | 10,95 | 141501004 | 19,07  |
| UNC 1/2 x 13  | 12,70 | 36 | 14 | 12,52 | 141501005 | 23,38  |
| UNC 9/16 x 12 | 14,29 | 36 | 14 | 14,10 | 141501006 | 23,38  |
| UNC 5/8 x 11  | 15,88 | 41 | 18 | 15,68 | 141501007 | 31,93  |
| UNC 3/4 x 10  | 19,05 | 41 | 18 | 18,84 | 141501008 | 31,93  |
| UNC 7/8 x 9   | 22,23 | 50 | 22 | 22,00 | 141501009 | 66,32  |
| UNC 1" x 8    | 25,40 | 50 | 22 | 25,16 | 141501010 | 66,32  |
| UNC 1.1/8 x 7 | 28,58 | 60 | 25 | 28,31 | 141501011 | 100,58 |
| UNC 1.1/4 x 7 | 31,75 | 60 | 25 | 31,49 | 141501012 | 100,58 |
| UNC 1.3/8 x 6 | 34,93 | 60 | 25 | 34,63 | 141501013 | 100,58 |
| UNC 1.1/2 x 6 | 38,10 | 70 | 30 | 37,80 | 141501014 | 115,65 |



## BAER Hand-Tap Sets, Round Dies and Tools Sets (example picture)



### BAER Set UNF 1/4" - 1/2" HSSG Hand Tap Sets & HSS Round Dies & Tools

**267,62**  
€/Set

|  |  |
|--|--|
| BAER HSSG Hand Tap Sets (2 parts)            | UNF 1/4 x 28   UNF 5/16 x 24   UNF 3/8 x 24   UNF 7/16 x 20   UNF 1/2 x 20 |
| BAER HSS Round Dies                          | UNF 1/4 x 28   UNF 5/16 x 24   UNF 3/8 x 24   UNF 7/16 x 20   UNF 1/2 x 20 |
| BAER adjustable Tap Wrenches - zinc die cast | M 1-10   1/16-3/8   G 1/8 & M 4-12   5/32-1/2   G 1/8                      |
| BAER Die Stocks - zinc die cast              | 20 x 7   25 x 9   30 x 11   38 x 10  |
| Screw extractor                              |  |

 Item No.:  
264806004

### BAER Set UNF 1/4" - 3/4" HSSG Hand Tap Sets & HSS Round Dies & Tools

**446,03**  
€/Set

|  |  |
|--|--|
| BAER HSSG Hand Tap Sets (2 parts)            | UNF 1/4 x 28   UNF 5/16 x 24   UNF 3/8 x 24   UNF 7/16 x 20   UNF 1/2 x 20   UNF 5/8 x 18   UNF 3/4 x 16 |
| BAER HSS Round Dies                          | UNF 1/4 x 28   UNF 5/16 x 24   UNF 3/8 x 24   UNF 7/16 x 20   UNF 1/2 x 20   UNF 5/8 x 18   UNF 3/4 x 16 |
| BAER adjustable Tap Wrenches - zinc die cast | M 1-10   1/16-3/8   G 1/8 & M 5-20   7/32-3/4"   G 1/8-1/2   |
| BAER Die Stocks - zinc die cast              | 20 x 7   25 x 9   30 x 11   38 x 10   45 x 14  |
| Screw extractor                              |  |

 Item No.:  
264806104

### BAER Set UNF 1/4" - 1" HSSG Hand Tap Sets & HSS Round Dies & Tools

**671,66**  
€/Set

|  |   |
|--|---|
| BAER HSSG Hand Tap Sets (2 parts)            | UNF 1/4 x 28   UNF 5/16 x 24   UNF 3/8 x 24   UNF 7/16 x 20   UNF 1/2 x 20   UNF 5/8 x 18   UNF 3/4 x 16   UNF 7/8 x 14   UNF 1" x 12 |
| BAER HSS Round Dies                          | UNF 1/4 x 28   UNF 5/16 x 24   UNF 3/8 x 24   UNF 7/16 x 20   UNF 1/2 x 20   UNF 5/8 x 18   UNF 3/4 x 16   UNF 7/8 x 14   UNF 1" x 12 |
| BAER adjustable Tap Wrenches - zinc die cast | M 1-10   1/16-3/8   G 1/8 & M 11-27   7/16-1"   G 1/4-3/4   |
| BAER Die Stocks - zinc die cast              | 20 x 7   25 x 9   30 x 11   38 x 10   45 x 14   55 x 16   |
| Screw extractor                              |   |

 Item No.:  
264806304

### BAER Set UNC & UNF 1/4" - 3/4" HSSG Hand Tap Sets & HSS Round Dies & Tools

**806,47**  
€/Set

|  |   |
|--|---|
| BAER HSSG Hand Tap Sets (3 parts) UNC        | UNC 1/4   UNC 5/16   UNC 3/8   UNC 7/16   UNC 1/2   UNC 5/8   UNC 3/4 |
| BAER HSSG Hand Tap Sets (2 parts) UNF        | UNF 1/4   UNF 5/16   UNF 3/8   UNF 7/16   UNF 1/2   UNF 5/8   UNF 3/4 |
| BAER HSS Round Dies UNC                      | UNC 1/4   UNC 5/16   UNC 3/8   UNC 7/16   UNC 1/2   UNC 5/8   UNC 3/4 |
| BAER HSS Round Dies UNF                      | UNF 1/4   UNF 5/16   UNF 3/8   UNF 7/16   UNF 1/2   UNF 5/8   UNF 3/4 |
| BAER adjustable Tap Wrenches - zinc die cast | M 1-10   1/16-3/8   G 1/8 & M 5-20   7/32-3/4"   G 1/8-1/2            |
| BAER Die Stocks - zinc die cast              | 20 x 7   25 x 9   30 x 11   38 x 14   45 x 18                         |
| Screw extractor                              |   |

 Item No.:  
264806203

**UNF**

Unified fine thread / ANSI B1.1

## BAER Short Machine Taps und Round Dies Sets UNF 1/4" - 1/2" (example picture)



### BAER Set UNF 1/4" - 1/2" HSSG Short Machine Taps & Drill bits for core holes HSS Round Dies

**181,37**  
€/Set

Item No.:  
BES3

|  |  |
|--|--|
| BAER HSSG Short Machine Tap Form D for through hole & blind hole (up to 4 x D) | UNF 1/4 x 28   UNF 5/16 x 24   UNF 3/8 x 24   UNF 7/16 x 20   UNF 1/2 x 20 |
| BAER HSSG Drill bits for core holes  | 5,5 mm   6,9 mm   8,5 mm   9,9 mm   11,5 mm                                |
| BAER HSS Round Dies  | UNF 1/4 x 28   UNF 5/16 x 24   UNF 3/8 x 24   UNF 7/16 x 20   UNF 1/2 x 20 |

**UNF**

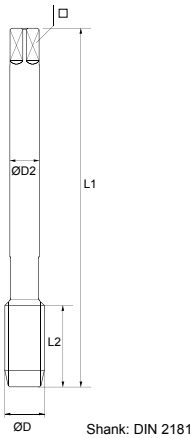
Unified fine thread / ANSI B1.1

Efficient internal thread cutting.

The short structural type makes that tap usable by hand. The Short-Machine-Tap is also usable by machine.

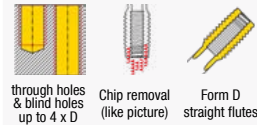
**A Hand-Tap-Set includes 2 taps:**

- Taper Tap
- Finish Tap

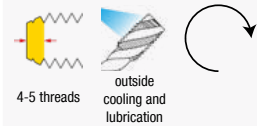


## Short Machine Taps

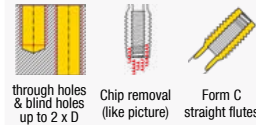
Form D for through holes and blind holes



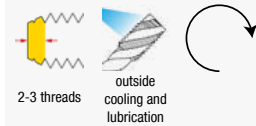
through holes & blind holes up to 4 x D  
Chip removal (like picture)  
Form D straight flutes  
material: HSSG 2B to 900 N/mm<sup>2</sup> 27,1 HRC



## Hand Tap Sets for general use

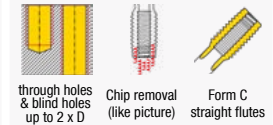


through holes & blind holes up to 2 x D  
Chip removal (like picture)  
Form C straight flutes  
material: HSSG 2B to 900 N/mm<sup>2</sup> 27,1 HRC

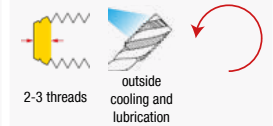


## Hand Tap Sets for general use

**Left Hand**



through holes & blind holes up to 2 x D  
Chip removal (like picture)  
Form C straight flutes  
material: HSSG 2B to 900 N/mm<sup>2</sup> 27,1 HRC



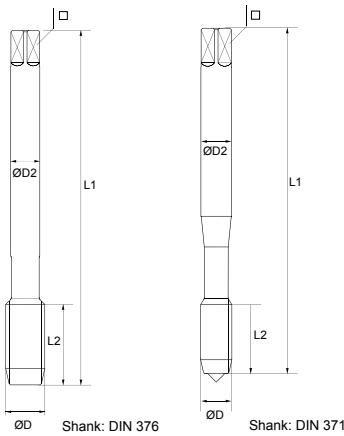
**UNF**

|                | D1    | D2   | L1  | L2 | □    |       | No.       | €     | No.       | €      | No.       | €     |
|----------------|-------|------|-----|----|------|-------|-----------|-------|-----------|--------|-----------|-------|
| UNF No 0 x 80  | 1,52  | 2,5  | 28  | 8  | 2,1  | 1,30  |           |       | 150301001 | 14,03  |           |       |
| UNF No 1 x 72  | 1,85  | 2,8  | 32  | 9  | 2,1  | 1,60  |           |       | 150301002 | 14,03  |           |       |
| UNF No 2 x 64  | 2,18  | 2,8  | 32  | 10 | 2,1  | 1,90  |           |       | 150301003 | 14,03  |           |       |
| UNF No 3 x 56  | 2,52  | 2,8  | 32  | 10 | 2,1  | 2,10  |           |       | 150301004 | 14,03  |           |       |
| UNF No 4 x 48  | 2,85  | 3,5  | 36  | 11 | 2,7  | 2,40  |           |       | 150301005 | 11,70  |           |       |
| UNF No 5 x 44  | 3,18  | 3,5  | 36  | 11 | 2,7  | 2,70  |           |       | 150301006 | 9,82   |           |       |
| UNF No 6 x 40  | 3,51  | 4,5  | 40  | 12 | 3,4  | 3,00  |           |       | 150301007 | 9,82   |           |       |
| UNF No 8 x 36  | 4,17  | 4,5  | 40  | 12 | 3,4  | 3,50  |           |       | 150301008 | 9,82   |           |       |
| UNF No 10 x 32 | 4,83  | 6,0  | 45  | 14 | 4,9  | 4,10  |           |       | 150301009 | 9,82   | 150302001 | 25,49 |
| UNF No 12 x 28 | 5,49  | 6,0  | 50  | 14 | 4,9  | 4,70  |           |       | 150301010 | 9,82   |           |       |
| UNF 1/4 x 28   | 6,35  | 6,0  | 50  | 18 | 4,9  | 5,50  | 150101001 | 4,90  | 150301011 | 9,83   | 150302002 | 16,14 |
| UNF 5/16 x 24  | 7,94  | 6,0  | 56  | 22 | 4,9  | 6,90  | 150101002 | 5,50  | 150301012 | 10,99  | 150302003 | 16,84 |
| UNF 3/8 x 24   | 9,53  | 7,0  | 63  | 22 | 5,5  | 8,50  | 150101003 | 6,08  | 150301013 | 12,16  | 150302004 | 19,65 |
| UNF 7/16 x 20  | 11,11 | 8,0  | 63  | 22 | 6,2  | 9,90  | 150101004 | 7,72  | 150301014 | 15,44  | 150302005 | 24,09 |
| UNF 1/2 x 20   | 12,70 | 9,0  | 75  | 24 | 7,0  | 11,50 | 150101005 | 9,36  | 150301015 | 18,71  | 150302006 | 28,77 |
| UNF 9/16 x 18  | 14,29 | 11,0 | 80  | 28 | 9,0  | 12,90 | 150101006 | 12,27 | 150301016 | 24,56  | 150302007 | 37,42 |
| UNF 5/8 x 18   | 15,88 | 12,0 | 80  | 28 | 9,0  | 14,50 | 150101007 | 13,80 | 150301017 | 27,60  | 150302008 | 42,57 |
| UNF 3/4 x 16   | 19,05 | 14,0 | 95  | 32 | 11,0 | 17,50 | 150101008 | 18,48 | 150301018 | 36,95  | 150302009 | 56,84 |
| UNF 7/8 x 14   | 22,23 | 18,0 | 100 | 36 | 14,5 | 20,25 | 150101009 | 24,56 | 150301019 | 49,12  | 150302010 | 70,88 |
| UNF 1" x 12    | 25,40 | 18,0 | 110 | 40 | 14,5 | 23,25 | 150101010 | 28,30 | 150301020 | 56,61  | 150302011 | 85,13 |
| UNF 1" x 14    | 25,40 | 18,0 | 110 | 40 | 14,5 | 23,30 |           |       | 150301021 | 61,29  |           |       |
| UNF 1.1/8 x 12 | 28,58 | 22,0 | 110 | 50 | 18,0 | 26,50 |           |       | 150301022 | 87,24  |           |       |
| UNF 1.1/4 x 12 | 31,75 | 22,0 | 132 | 56 | 18,0 | 29,50 |           |       | 150301023 | 98,24  |           |       |
| UNF 1.3/8 x 12 | 34,93 | 28,0 | 132 | 56 | 22,0 | 32,50 |           |       | 150301024 | 127,70 |           |       |
| UNF 1.1/2 x 12 | 38,10 | 32,0 | 150 | 63 | 24,0 | 36,00 |           |       | 150301025 | 147,35 |           |       |

**UNF**

Unified fine thread / ANSI B1.1

- ✓ Tap for machine use in through hole.
- ✓ The spiral point pushes the chips ahead.



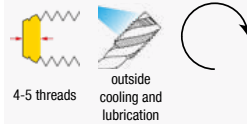
## Machine Tap for general use



through holes up to 4 x D  
Chip removal (like picture)  
Form B with spiral point



material: HSSG 2B to 900 N/mm<sup>2</sup> 27,1 HRC



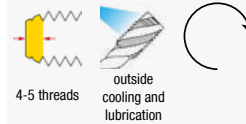
## Machine Tap for stainless steels



through holes up to 2,5 x D  
Chip removal (like picture)  
Form B with spiral point



material: HSSE-TiAlN 2B to 1300 N/mm<sup>2</sup> 41 HRC



**UNF**

|                | D1    | D2   | L1  | L2 | □    | ⊕     | No.       | €      | No.       | €      |
|----------------|-------|------|-----|----|------|-------|-----------|--------|-----------|--------|
| UNF No 3 x 56  | 2,52  | 2,8  | 50  | 9  | 2,1  | 2,10  |           |        | 150405001 | 50,17  |
| UNF No 4 x 48  | 2,85  | 3,5  | 50  | 10 | 2,7  | 2,40  | 150401001 | 10,81  | 150405002 | 42,44  |
| UNF No 5 x 44  | 3,18  | 3,5  | 56  | 11 | 2,7  | 2,70  | 150401002 | 10,81  | 150405003 | 40,88  |
| UNF No 6 x 40  | 3,51  | 4,0  | 56  | 12 | 3,0  | 3,00  | 150401003 | 10,81  | 150405004 | 40,88  |
| UNF No 8 x 36  | 4,17  | 4,5  | 63  | 13 | 3,4  | 3,50  | 150401004 | 10,81  | 150405005 | 41,80  |
| UNF No 10 x 32 | 4,83  | 6,0  | 70  | 15 | 4,9  | 4,10  | 150401005 | 10,81  | 150405006 | 48,46  |
| UNF No 12 x 28 | 5,49  | 6,0  | 70  | 16 | 4,9  | 4,70  | 150401006 | 10,81  | 150405007 | 52,57  |
| UNF 1/4 x 28   | 6,35  | 7,0  | 80  | 17 | 5,5  | 5,50  | 150401007 | 10,81  | 150405008 | 52,57  |
| UNF 5/16 x 24  | 7,94  | 8,0  | 90  | 17 | 6,2  | 6,90  | 150401008 | 13,75  | 150405009 | 57,02  |
| UNF 3/8 x 24   | 9,53  | 9,0  | 100 | 18 | 7,0  | 8,50  | 150401009 | 15,32  | 150405010 | 65,05  |
| UNF 7/16 x 20  | 11,11 | 8,0  | 100 | 22 | 6,2  | 9,90  | 150401010 | 18,26  | 150405011 | 78,75  |
| UNF 1/2 x 20   | 12,70 | 9,0  | 100 | 22 | 7,0  | 11,50 | 150401011 | 18,26  | 150405012 | 78,75  |
| UNF 9/16 x 18  | 14,29 | 11,0 | 100 | 22 | 9,0  | 12,90 | 150401012 | 27,81  | 150405013 | 87,80  |
| UNF 5/8 x 18   | 15,88 | 12,0 | 100 | 22 | 9,0  | 14,50 | 150401013 | 27,81  | 150405014 | 110,20 |
| UNF 3/4 x 16   | 19,05 | 14,0 | 110 | 25 | 11,0 | 17,50 | 150401014 | 54,15  | 150405015 | 156,07 |
| UNF 7/8 x 14   | 22,23 | 18,0 | 140 | 26 | 14,5 | 20,25 | 150401015 | 65,49  | 150405016 | 179,35 |
| UNF 1" x 12    | 25,40 | 20,0 | 150 | 28 | 16,0 | 23,25 | 150401016 | 74,30  | 150405017 | 228,68 |
| UNF 1" x 14    | 25,40 | 20,0 | 150 | 28 | 16,0 | 23,30 | 150401017 | 74,30  |           |        |
| UNF 1.1/4 x 12 | 31,75 | 22,0 | 150 | 30 | 18,0 | 29,50 | 150401018 | 103,90 |           |        |
| UNF 1.1/2 x 12 | 38,10 | 32,0 | 170 | 33 | 24,0 | 36,00 | 150401019 | 216,61 |           |        |

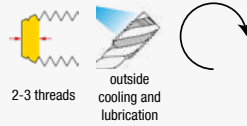
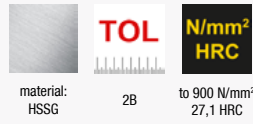
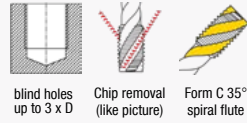
# Machine Taps - Form C (with spiral flutes) for blind holes

**UNF**

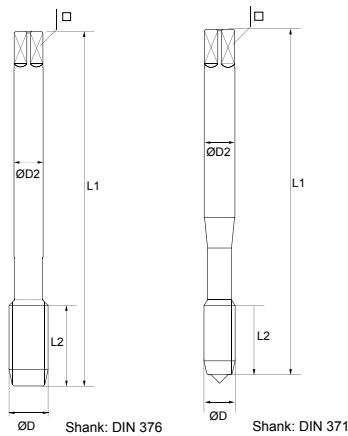
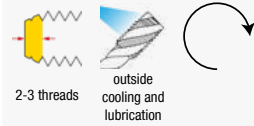
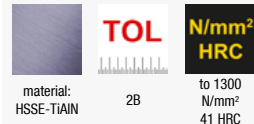
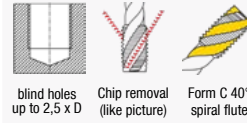
Unified fine thread / ANSI B1.1

- ✓ Tap for machine use in blind holes.
- ✓ The fast spiral flutes provide good chip removal from the blind hole.

## Machine Tap for general use



## Machine Tap for stainless steels



**UNF**

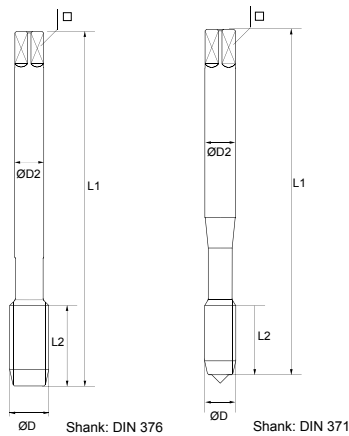
|                | D1    | D2   | L1  | L2 | □    |       | No.       | €      | No.       | €      |
|----------------|-------|------|-----|----|------|-------|-----------|--------|-----------|--------|
| UNF No 3 x 56  | 2,52  | 2,8  | 50  | 6  | 2,1  | 2,10  |           |        | 150605001 | 52,55  |
| UNF No 4 x 48  | 2,85  | 3,5  | 50  | 6  | 2,7  | 2,40  | 150601001 | 13,43  | 150605002 | 50,17  |
| UNF No 5 x 44  | 3,18  | 3,5  | 56  | 7  | 2,7  | 2,70  | 150601002 | 13,43  | 150605003 | 49,09  |
| UNF No 6 x 40  | 3,51  | 4,0  | 56  | 7  | 3,0  | 3,00  | 150601003 | 13,43  | 150605004 | 51,33  |
| UNF No 8 x 36  | 4,17  | 4,5  | 63  | 8  | 3,4  | 3,50  | 150601004 | 13,43  | 150605005 | 51,33  |
| UNF No 10 x 32 | 4,83  | 6,0  | 70  | 10 | 4,9  | 4,10  | 150601005 | 13,43  | 150605006 | 48,24  |
| UNF No 12 x 28 | 5,49  | 6,0  | 70  | 10 | 4,9  | 4,70  | 150601006 | 13,43  | 150605007 | 57,24  |
| UNF 1/4 x 28   | 6,35  | 7,0  | 80  | 10 | 5,5  | 5,50  | 150601007 | 13,43  | 150605008 | 50,35  |
| UNF 5/16 x 24  | 7,94  | 8,0  | 90  | 10 | 6,2  | 6,90  | 150601008 | 16,90  | 150605009 | 56,32  |
| UNF 3/8 x 24   | 9,53  | 9,0  | 100 | 10 | 7,0  | 8,50  | 150601009 | 18,47  | 150605010 | 63,93  |
| UNF 7/16 x 20  | 11,11 | 8,0  | 100 | 13 | 6,2  | 9,90  | 150601010 | 22,77  | 150605011 | 80,18  |
| UNF 1/2 x 20   | 12,70 | 9,0  | 100 | 13 | 7,0  | 11,50 | 150601011 | 22,77  | 150605012 | 95,14  |
| UNF 9/16 x 18  | 14,29 | 11,0 | 100 | 15 | 9,0  | 12,90 | 150601012 | 33,58  | 150605013 | 93,30  |
| UNF 5/8 x 18   | 15,88 | 12,0 | 100 | 15 | 9,0  | 14,50 | 150601013 | 33,58  | 150605014 | 116,80 |
| UNF 3/4 x 16   | 19,05 | 14,0 | 110 | 17 | 11,0 | 17,50 | 150601014 | 66,96  | 150605015 | 164,99 |
| UNF 7/8 x 14   | 22,23 | 18,0 | 140 | 17 | 14,5 | 20,25 | 150601015 | 81,86  | 150605016 | 189,47 |
| UNF 1" x 12    | 25,40 | 20,0 | 150 | 20 | 16,0 | 23,25 | 150601016 | 91,93  | 150605017 | 241,25 |
| UNF 1" x 14    | 25,40 | 20,0 | 150 | 20 | 16,0 | 23,30 | 150601017 | 91,93  |           |        |
| UNF 1.1/4 x 12 | 31,75 | 22,0 | 150 | 22 | 18,0 | 29,50 | 150601018 | 117,12 |           |        |
| UNF 1.1/2 x 12 | 38,10 | 32,0 | 170 | 25 | 24,0 | 36,00 | 150601019 | 255,65 |           |        |

**UNF**

Unified fine thread / ANSI B1.1

**Machine Forming Taps have following advantages:**

- No chips
- Up to 20 times longer lifetime (compared to taps)
- Same forming tap for through and blind hole
- Wide range of materials can be processed
- Intersection of the thread is impossible
- Very high trueness
- Increased strength of the thread
- Higher surface quality
- Much higher cutting speed



**Machine Forming Taps for universal use**



| UNF            | D1    | D2   | L1  | L2 | □    |       | No.       | € |
|----------------|-------|------|-----|----|------|-------|-----------|---|
| UNF No 2 x 64  | 2,18  | 2,8  | 45  | 7  | 2,1  | 2,02  | 151101001 | * |
| UNF No 4 x 48  | 2,85  | 3,5  | 56  | 11 | 2,7  | 2,62  | 151101002 | * |
| UNF No 6 x 40  | 3,51  | 4,0  | 56  | 12 | 3,0  | 3,22  | 151101003 | * |
| UNF No 8 x 36  | 4,17  | 4,5  | 63  | 13 | 3,4  | 3,85  | 151101004 | * |
| UNF No 10 x 32 | 4,83  | 6,0  | 70  | 15 | 4,9  | 4,45  | 151101005 | * |
| UNF 1/4 x 28   | 6,35  | 7,0  | 80  | 17 | 5,5  | 5,95  | 151101006 | * |
| UNF 5/16 x 24  | 7,94  | 8,0  | 90  | 17 | 6,2  | 7,45  | 151101007 | * |
| UNF 3/8 x 24   | 9,53  | 10,0 | 90  | 18 | 8,0  | 9,05  | 151101008 | * |
| UNF 7/16 x 20  | 11,11 | 8,0  | 100 | 22 | 6,2  | 10,55 | 151101009 | * |
| UNF 1/2 x 20   | 12,70 | 9,0  | 100 | 22 | 7,0  | 12,15 | 151101010 | * |
| UNF 5/8 x 18   | 15,88 | 12,0 | 100 | 22 | 9,0  | 15,25 | 151101011 | * |
| UNF 3/4 x 16   | 19,05 | 14,0 | 110 | 25 | 11,0 | 18,35 | 151101012 | * |

\* on request

## UNF

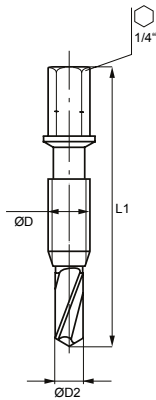
Unified fine thread / ANSI B1.1

Efficient internal thread cutting with battery powered screwdriver (min. 7,5 Volt).

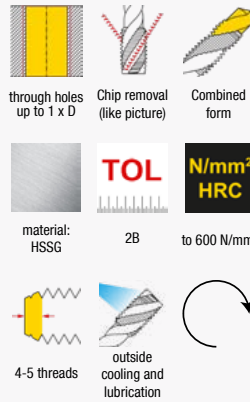
Core hole drilling and thread tapping in one fluent process.

### Application:

- non abrasive material up to 600 N/mm<sup>2</sup>
- unalloyed and low alloyed steel



### Kombi-Bit-Taps for through holes



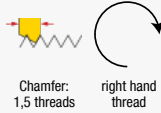
| UNF            | D1   | D2  | L1 | Hexagon | No.       | € |
|----------------|------|-----|----|---------|-----------|---|
| UNF No 4 x 48  | 2,85 | 2,4 | 36 | 1/4"    | 151301001 | * |
| UNF No 5 x 44  | 3,18 | 2,7 | 36 | 1/4"    | 151301002 | * |
| UNF No 6 x 40  | 3,51 | 3,0 | 39 | 1/4"    | 151301003 | * |
| UNF No 8 x 36  | 4,17 | 3,5 | 39 | 1/4"    | 151301004 | * |
| UNF No 10 x 32 | 4,83 | 4,1 | 41 | 1/4"    | 151301005 | * |
| UNF No 12 x 28 | 5,49 | 4,7 | 41 | 1/4"    | 151301006 | * |
| UNF 1/4 x 28   | 6,35 | 5,5 | 44 | 1/4"    | 151301007 | * |
| UNF 5/16 x 24  | 7,94 | 6,9 | 50 | 1/4"    | 151301008 | * |
| UNF 3/8 x 24   | 9,53 | 8,5 | 59 | 1/4"    | 151301009 | * |

\* on request

### Round Dies for general use



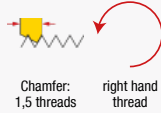
material: HSS 2A


 Chamfer: 1,5 threads  
right hand thread

### Round Dies for general use Left Hand



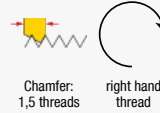
material: HSS 2A


 Chamfer: 1,5 threads  
right hand thread

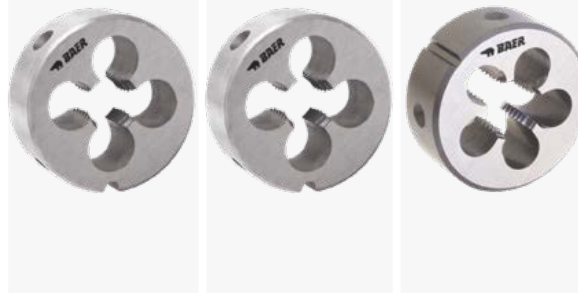
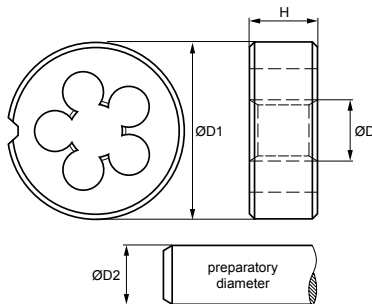
### Round Dies for stainless steels



material: HSSE 2A


 Chamfer: 1,5 threads  
right hand thread


with spiral entry

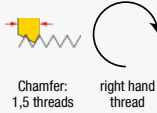

**UNF**

|                 | D     | D1 | H  | D2    | No.       | €      | No.       | €     | No.       | €      |
|-----------------|-------|----|----|-------|-----------|--------|-----------|-------|-----------|--------|
| UNF NR. 0 x 80  | 1,52  | 16 | 5  | 1,47  | 151401001 | 21,00  |           |       |           |        |
| UNF NR. 1 x 72  | 1,85  | 16 | 5  | 1,79  | 151401002 | 21,00  |           |       |           |        |
| UNF NR. 2 x 64  | 2,18  | 16 | 5  | 2,12  | 151401003 | 16,75  |           |       |           |        |
| UNF NR. 3 x 56  | 2,52  | 16 | 5  | 2,44  | 151401004 | 16,75  |           |       |           |        |
| UNF NR. 4 x 48  | 2,85  | 20 | 5  | 2,77  | 151401005 | 13,86  |           |       |           |        |
| UNF NR. 5 x 44  | 3,18  | 20 | 5  | 3,10  | 151401006 | 13,86  |           |       |           |        |
| UNF NR. 6 x 40  | 3,51  | 20 | 5  | 3,42  | 151401007 | 12,92  |           |       |           |        |
| UNF NR. 8 x 36  | 4,17  | 20 | 7  | 4,08  | 151401008 | 12,92  |           |       |           |        |
| UNF NR. 10 x 32 | 4,83  | 20 | 7  | 4,73  | 151401009 | 12,92  | 151402001 | 23,38 | 151405001 | 79,16  |
| UNF NR. 12 x 28 | 5,49  | 20 | 7  | 5,38  | 151401010 | 12,92  |           |       |           |        |
| UNF 1/4 x 28    | 6,35  | 20 | 7  | 6,24  | 151401011 | 12,27  | 151402002 | 18,94 | 151405002 | 95,35  |
| UNF 5/16 x 24   | 7,94  | 25 | 9  | 7,82  | 151401012 | 14,03  | 151402003 | 22,10 | 151405003 | 98,86  |
| UNF 3/8 x 24    | 9,53  | 30 | 11 | 9,41  | 151401013 | 15,56  | 151402004 | 26,90 | 151405004 | 121,92 |
| UNF 7/16 x 20   | 11,11 | 30 | 11 | 10,98 | 151401014 | 18,01  | 151402005 | 26,90 | 151405005 | 117,57 |
| UNF 1/2 x 20    | 12,70 | 38 | 10 | 12,56 | 151401015 | 20,23  | 151402006 | 42,09 |           |        |
| UNF 9/16 x 18   | 14,29 | 38 | 10 | 14,14 | 151401016 | 25,03  | 151402007 | 42,09 |           |        |
| UNF 5/8 x 18    | 15,88 | 45 | 14 | 15,73 | 151401017 | 27,36  | 151402008 | 53,80 |           |        |
| UNF 3/4 x 16    | 19,05 | 45 | 14 | 18,89 | 151401018 | 27,36  | 151402009 | 53,80 |           |        |
| UNF 7/8 x 14    | 22,23 | 55 | 16 | 22,05 | 151401019 | 46,77  | 151402010 | 78,35 |           |        |
| UNF 1" x 12     | 25,40 | 55 | 16 | 25,21 | 151401020 | 46,77  | 151402011 | 78,35 |           |        |
| UNF 1" x 14     | 25,40 | 55 | 16 | 25,23 | 151401021 | 46,77  |           |       |           |        |
| UNF 1.1/8 x 12  | 28,58 | 65 | 18 | 28,38 | 151401022 | 70,76  |           |       |           |        |
| UNF 1.1/4 x 12  | 31,75 | 65 | 18 | 31,55 | 151401023 | 70,76  |           |       |           |        |
| UNF 1.3/8 x 12  | 34,93 | 65 | 18 | 34,73 | 151401024 | 70,76  |           |       |           |        |
| UNF 1.1/2 x 12  | 38,10 | 65 | 18 | 37,90 | 151401025 | 70,76  |           |       |           |        |
| UNF 1.1/2 x 12  | 38,10 | 75 | 20 | 37,90 | 151401026 | 126,30 |           |       |           |        |

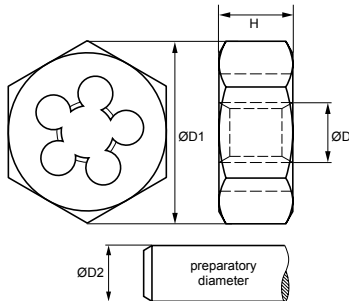
## Hexagon Die Nuts for general use



material: HSS TOL 2A



Chamfer: 1,5 threads right hand thread


**UNF**

|                | D     | D1 | H  | D2    | No.       | €      |
|----------------|-------|----|----|-------|-----------|--------|
| UNF 1/4 x 28   | 6,35  | 19 | 7  | 6,24  | 151501001 | 15,20  |
| UNF 5/16 x 24  | 7,94  | 22 | 9  | 7,82  | 151501002 | 15,78  |
| UNF 3/8 x 24   | 9,53  | 27 | 11 | 9,41  | 151501003 | 19,07  |
| UNF 7/16 x 20  | 11,11 | 27 | 11 | 10,98 | 151501004 | 19,07  |
| UNF 1/2 x 20   | 12,70 | 36 | 10 | 12,56 | 151501005 | 23,38  |
| UNF 9/16 x 18  | 14,29 | 36 | 10 | 14,14 | 151501006 | 23,38  |
| UNF 5/8 x 18   | 15,88 | 41 | 14 | 15,73 | 151501007 | 31,93  |
| UNF 3/4 x 16   | 19,05 | 41 | 14 | 18,89 | 151501008 | 31,93  |
| UNF 7/8 x 14   | 22,23 | 50 | 16 | 22,05 | 151501009 | 66,32  |
| UNF 1" x 12    | 25,40 | 50 | 16 | 25,21 | 151501010 | 66,32  |
| UNF 1.1/8 x 12 | 28,58 | 60 | 18 | 28,38 | 151501011 | 100,58 |
| UNF 1.1/4 x 12 | 31,75 | 60 | 18 | 31,55 | 151501012 | 100,58 |
| UNF 1.3/8 x 12 | 34,93 | 60 | 18 | 34,73 | 151501013 | 100,58 |
| UNF 1.1/2 x 12 | 38,10 | 70 | 20 | 37,90 | 151501014 | 120,46 |

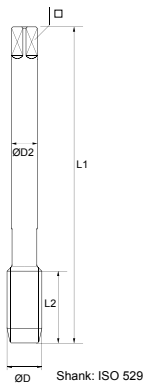
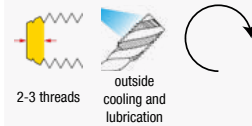
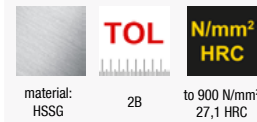
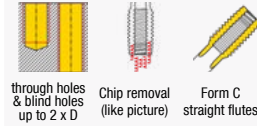
## UNS

Unified thread with special / threads per inch (TPI)

- ✓ Tap for machine use in through hole and blind hole.
- ✓ The short lead-in chamfer makes that tap universal in application. The flutes can hold the most part of the chips.

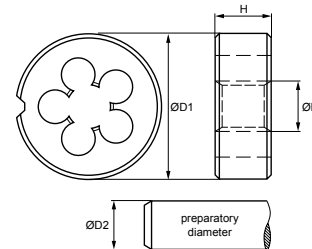
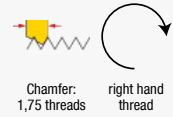
### Machine Taps

Form C for through holes and blind holes



### Round Dies

for general use



## UNS

|               | D1    | D2   | L1  | L2 | □    | 🔩     | No.       | €     |
|---------------|-------|------|-----|----|------|-------|-----------|-------|
| UNS 1/4 x 24  | 6,35  | 6,3  | 66  | 19 | 5,0  | 5,40  | 160501001 | 9,97  |
| UNS 1/4 x 36  | 6,35  | 6,3  | 66  | 19 | 5,0  | 5,70  | 160501002 | 9,97  |
| UNS 1/4 x 40  | 6,35  | 6,3  | 66  | 19 | 5,0  | 5,75  | 160501003 | 9,97  |
| UNS 3/8 x 27  | 9,53  | 10,0 | 80  | 24 | 8,0  | 8,35  | 160501004 | 14,27 |
| UNS 7/16 x 24 | 11,11 | 8,0  | 85  | 25 | 6,3  | 10,10 | 160501005 | 16,79 |
| UNS 1/2 x 24  | 12,70 | 9,0  | 89  | 29 | 7,1  | 11,75 | 160501006 | 16,79 |
| UNS 5/8 x 27  | 15,88 | 12,5 | 102 | 32 | 10,0 | 14,70 | 160501007 | 25,71 |
| UNS 3/4 x 24  | 19,05 | 14,0 | 112 | 37 | 11,2 | 18,00 | 160501008 | 47,65 |
| UNS 7/8 x 18  | 22,23 | 16,0 | 118 | 38 | 12,5 | 21,00 | 160501009 | 58,14 |
| UNS 1" x 14   | 25,40 | 18,0 | 130 | 45 | 14,0 | 23,75 | 160501010 | 66,75 |

## UNS

|               | D     | D1 | H  | D2    | No.       | €      |
|---------------|-------|----|----|-------|-----------|--------|
| UNS 1/4 x 24  | 6,35  | 20 | 7  | 6,24  | 161401001 | 39,69  |
| UNS 1/4 x 36  | 6,35  | 20 | 5  | 6,26  | 161401002 | 39,69  |
| UNS 1/4 x 40  | 6,35  | 20 | 5  | 6,27  | 161401003 | 39,69  |
| UNS 3/8 x 27  | 9,53  | 30 | 11 | 9,41  | 161401004 | *      |
| UNS 7/16 x 24 | 11,11 | 30 | 11 | 11,00 | 161401005 | 65,60  |
| UNS 1/2 x 24  | 12,70 | 38 | 10 | 12,59 | 161401006 | 66,71  |
| UNS 5/8 x 27  | 15,88 | 45 | 14 | 15,76 | 161401007 | 110,03 |
| UNS 7/8 x 18  | 22,23 | 55 | 16 | 22,08 | 161401008 | 203,96 |
| UNS 1" x 14   | 25,40 | 55 | 16 | 25,23 | 161401009 | 203,96 |

\* on request

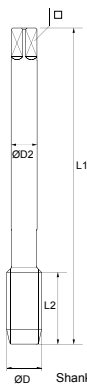
**UNEF** Unified extra fine thread / ANSI B1.1

Efficient internal thread cutting.

The short structural type of the Hand Tap Sets makes that tap usable by hand. The Short-Machine-Tap is also usable by machine.

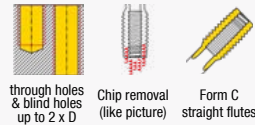
**A Hand-Tap-Set includes 2 taps:**

- Taper Tap
- Finish Tap

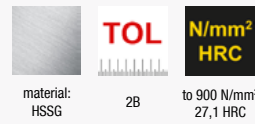


Shank: ISO 529

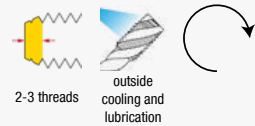
## Hand Tap Sets for general use



through holes & blind holes up to 2 x D  
Chip removal (like picture)  
Form C straight flutes



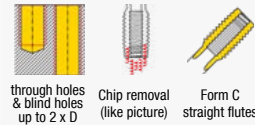
material: HSSG 2B to 900 N/mm<sup>2</sup> 27,1 HRC



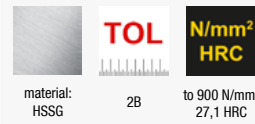
2-3 threads outside cooling and lubrication



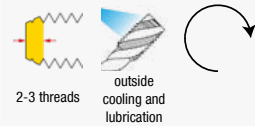
## Machine Taps Form C for through holes and blind holes



through holes & blind holes up to 2 x D  
Chip removal (like picture)  
Form C straight flutes



material: HSSG 2B to 900 N/mm<sup>2</sup> 27,1 HRC



2-3 threads outside cooling and lubrication



## UNEF

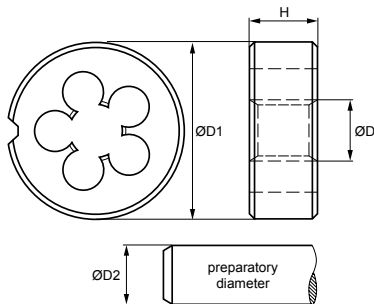
|                   | D1    | D2   | L1  | L2 | □    |       | No.       | €      | No.       | €      |
|-------------------|-------|------|-----|----|------|-------|-----------|--------|-----------|--------|
| UNEF No 12 x 32   | 5,49  | 5,6  | 62  | 17 | 4,5  | 4,75  |           |        | 170501001 | 11,12  |
| UNEF 1/4 x 32     | 6,35  | 6,3  | 66  | 19 | 5,0  | 5,60  | 170313001 | 16,84  | 170501002 | 9,97   |
| UNEF 5/16 x 32    | 7,94  | 8,0  | 72  | 22 | 6,3  | 7,20  | 170313002 | 18,94  | 170501003 | 12,49  |
| UNEF 3/8 x 32     | 9,53  | 10,0 | 80  | 24 | 8,0  | 8,80  | 170313003 | 18,96  | 170501004 | 14,27  |
| UNEF 7/16 x 28    | 11,11 | 8,0  | 85  | 25 | 6,3  | 10,25 | 170313004 | 26,66  | 170501005 | 16,79  |
| UNEF 1/2 x 28     | 12,70 | 9,0  | 89  | 29 | 7,1  | 11,80 | 170313005 | 31,57  | 170501006 | 16,79  |
| UNEF 9/16 x 24    | 14,29 | 11,2 | 95  | 30 | 9,0  | 13,30 | 170313006 | 44,21  | 170501007 | 25,19  |
| UNEF 5/8 x 24     | 15,88 | 12,5 | 102 | 32 | 10,0 | 14,90 | 170313007 | 49,82  | 170501008 | 25,71  |
| UNEF 11/16 x 24   | 17,46 | 14,0 | 112 | 37 | 11,2 | 16,50 |           |        | 170501009 | 47,65  |
| UNEF 3/4 x 20     | 19,05 | 14,0 | 112 | 37 | 11,2 | 17,75 | 170313008 | 66,66  | 170501010 | 47,65  |
| UNEF 13/16 x 20   | 20,64 | 16,0 | 118 | 38 | 12,5 | 19,50 |           |        | 170501011 | 58,14  |
| UNEF 7/8 x 20     | 22,23 | 16,0 | 118 | 38 | 12,5 | 21,00 | 170313009 | 89,47  | 170501012 | 58,14  |
| UNEF 15/16 x 20   | 23,81 | 18,0 | 130 | 45 | 14,0 | 22,50 |           |        | 170501013 | 66,75  |
| UNEF 1" x 20      | 25,40 | 16,0 | 130 | 45 | 14,0 | 24,25 | 170313010 | 102,44 | 170501014 | 66,75  |
| UNEF 1.1/16 x 18  | 26,99 | 20,0 | 138 | 48 | 16,0 | 25,70 |           |        | 170501015 | 76,82  |
| UNEF 1.1/8 x 18   | 28,58 | 20,0 | 138 | 48 | 16,0 | 27,25 |           |        | 170501016 | 76,82  |
| UNEF 1.3/16 x 18  | 30,16 | 22,4 | 151 | 51 | 18,0 | 28,75 |           |        | 170501017 | 90,04  |
| UNEF 1.1/4 x 18   | 31,75 | 22,4 | 151 | 51 | 18,0 | 30,50 |           |        | 170501018 | 90,04  |
| UNEF 1.5/16 x 18  | 33,34 | 25,0 | 162 | 57 | 20,0 | 32,00 |           |        | 170501019 | 113,34 |
| UNEF 1.3/8 x 18   | 34,93 | 25,0 | 162 | 57 | 20,0 | 33,50 |           |        | 170501020 | 113,34 |
| UNEF 1.7/16 x 18  | 36,51 | 28,0 | 170 | 60 | 22,4 | 35,20 |           |        | 170501021 | 146,09 |
| UNEF 1.1/2 x 18   | 38,10 | 28,0 | 170 | 60 | 22,4 | 36,80 |           |        | 170501022 | 146,09 |
| UNEF 1.9/16 x 18  | 39,69 | 28,0 | 170 | 60 | 22,4 | 38,40 |           |        | 170501023 | 172,53 |
| UNEF 1.5/8 x 18   | 41,28 | 28,0 | 170 | 60 | 22,4 | 40,00 |           |        | 170501024 | 172,53 |
| UNEF 1.11/16 x 18 | 42,86 | 31,5 | 187 | 67 | 25,0 | 41,50 |           |        | 170501025 | 199,40 |
| UNEF 1.3/4 x 18   | 44,45 | 31,5 | 187 | 67 | 25,0 | 43,00 |           |        | 170501026 | 199,40 |
| UNEF 2" x 18      | 50,80 | 35,5 | 200 | 70 | 28,0 | 49,50 |           |        | 170501027 | 304,77 |

## Round Dies for general use


 material:  
HSS

2A


 Chamfer:  
1,5 threads

 right hand  
thread

**UNEF**

|                  | D     | D1 | H  | D2    | No.       | €      |
|------------------|-------|----|----|-------|-----------|--------|
| UNEF No 12 x 32  | 5,49  | 20 | 7  | 5,39  | 171401001 | 14,59  |
| UNEF 1/4 x 32    | 6,35  | 20 | 7  | 6,25  | 171401002 | 14,59  |
| UNEF 5/16 x 32   | 7,94  | 25 | 9  | 7,84  | 171401003 | 18,58  |
| UNEF 3/8 x 32    | 9,53  | 30 | 11 | 9,42  | 171401004 | 21,20  |
| UNEF 7/16 x 28   | 11,11 | 30 | 11 | 11,00 | 171401005 | 21,20  |
| UNEF 1/2 x 28    | 12,70 | 38 | 10 | 12,59 | 171401006 | 32,43  |
| UNEF 9/16 x 24   | 14,29 | 38 | 10 | 14,17 | 171401007 | 32,43  |
| UNEF 5/8 x 24    | 15,88 | 45 | 14 | 15,75 | 171401008 | 51,84  |
| UNEF 11/16 x 24  | 17,46 | 45 | 14 | 17,33 | 171401009 | 51,84  |
| UNEF 3/4 x 20    | 19,05 | 45 | 14 | 18,91 | 171401010 | 51,84  |
| UNEF 13/16 x 20  | 20,64 | 55 | 16 | 20,50 | 171401011 | 61,18  |
| UNEF 7/8 x 20    | 22,23 | 55 | 16 | 22,09 | 171401012 | 61,18  |
| UNEF 15/16 x 20  | 23,81 | 55 | 16 | 23,67 | 171401013 | 61,18  |
| UNEF 1" x 20     | 25,40 | 55 | 16 | 25,26 | 171401014 | 61,18  |
| UNEF 1.1/16 x 18 | 26,99 | 65 | 18 | 26,84 | 171401015 | 97,71  |
| UNEF 1.1/8 x 18  | 28,58 | 65 | 18 | 28,58 | 171401016 | 97,71  |
| UNEF 1.3/16 x 18 | 30,23 | 65 | 18 | 30,16 | 171401017 | 97,71  |
| UNEF 1.1/4 x 18  | 31,75 | 65 | 18 | 31,75 | 171401018 | 97,71  |
| UNEF 1.5/16 x 18 | 33,34 | 65 | 18 | 33,34 | 171401019 | 97,71  |
| UNEF 1.3/8 x 18  | 34,93 | 65 | 18 | 34,93 | 171401020 | 97,71  |
| UNEF 1.7/16 x 18 | 36,51 | 75 | 20 | 36,51 | 171401021 | 123,52 |
| UNEF 1.1/2 x 18  | 38,10 | 75 | 20 | 38,10 | 171401022 | 123,52 |

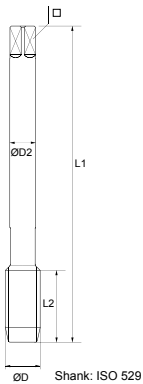
## 8-UN Unified thread series with 8-threads per inch (TPI)

Efficient internal thread cutting.

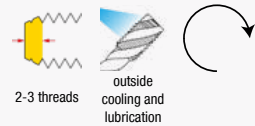
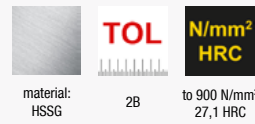
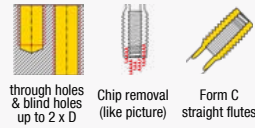
The short structural type of the Hand Tap Sets makes that tap usable by hand. The Short-Machine-Tap is also usable by machine.

**A Hand-Tap-Set includes 2 taps:**

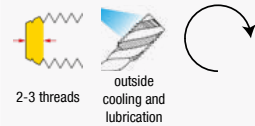
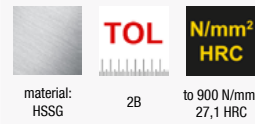
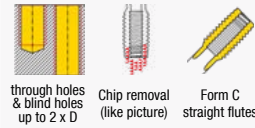
- Taper Tap
- Finish Tap



### Hand Tap Sets for general use



### Machine Taps Form C for through holes and blind holes



## 8-UN

|               | D1     | D2   | L1  | L2 | □    |       | No.       | €        | No.       | €        |
|---------------|--------|------|-----|----|------|-------|-----------|----------|-----------|----------|
| UN 1.1/16 x 8 | 26,99  | 20,0 | 138 | 48 | 16,0 | 23,90 | 180301001 | 352,80   | 180501001 | 76,82    |
| UN 1.1/8 x 8  | 28,58  | 20,0 | 138 | 48 | 16,0 | 25,50 | 180301002 | 135,79   | 180501002 | 76,82    |
| UN 1.3/16 x 8 | 30,16  | 22,4 | 151 | 51 | 18,0 | 27,10 | 180301003 | 389,84   | 180501003 | 89,94    |
| UN 1.1/4 x 8  | 31,75  | 22,4 | 151 | 51 | 18,0 | 28,75 | 180301004 | 159,47   | 180501004 | 89,94    |
| UN 1.5/16 x 8 | 33,34  | 25,0 | 162 | 57 | 20,0 | 30,30 | 180301005 | 413,44   | 180501005 | 113,34   |
| UN 1.3/8 x 8  | 34,93  | 25,0 | 162 | 57 | 20,0 | 31,75 | 180301006 | 192,63   | 180501006 | 113,34   |
| UN 1.1/2 x 8  | 38,10  | 28,0 | 170 | 60 | 22,4 | 35,00 | 180301007 | 243,16   | 180501007 | 146,09   |
| UN 1.5/8 x 8  | 41,28  | 28,0 | 170 | 60 | 22,4 | 38,00 | 180301008 | 445,26   | 180501008 | 172,53   |
| UN 1.3/4 x 8  | 44,45  | 31,5 | 187 | 67 | 25,0 | 41,50 | 180301009 | 445,26   | 180501009 | 201,50   |
| UN 1.7/8 x 8  | 47,63  | 31,5 | 187 | 67 | 25,0 | 44,50 | 180301010 | 587,37   | 180501010 | 304,77   |
| UN 2" x 8     | 50,80  | 35,5 | 200 | 70 | 28,0 | 47,75 | 180301011 | 587,37   | 180501011 | 304,77   |
| UN 2.1/8 x 8  | 53,98  | 35,5 | 200 | 70 | 28,0 | 50,90 | 180301012 | 1.174,74 | 180501012 | 604,50   |
| UN 2.1/4 x 8  | 57,15  | 40,0 | 221 | 76 | 31,5 | 54,00 | 180301013 | 461,05   | 180501013 | 604,50   |
| UN 2.1/2 x 8  | 63,50  | 40,0 | 224 | 79 | 31,5 | 60,40 | 180301014 | 1.402,11 | 180501014 | 881,56   |
| UN 2.3/4 x 8  | 69,85  | 45,0 | 234 | 79 | 35,5 | 66,70 | 180301015 | 1.724,21 | 180501015 | 969,71   |
| UN 3" x 8     | 76,20  | 50,0 | 258 | 83 | 40,0 | 73,10 | 180301016 | 3.221,05 | 180501016 | 1.089,35 |
| UN 3.1/4 x 8  | 82,55  | 50,0 | 261 | 86 | 40,0 | 79,40 | 180301017 | 4.583,09 | 180501017 | 1.089,35 |
| UN 3.1/2 x 8  | 88,90  | 50,0 | 261 | 86 | 40,0 | 85,80 | 180301018 | 3.746,62 | 180501018 | 1.284,56 |
| UN 3.3/4 x 8  | 95,25  | 56,0 | 279 | 89 | 45,0 | 92,10 | 180301019 | 7.891,70 | 180501019 | 1.574,21 |
| UN 4" x 8     | 101,60 | 56,0 | 279 | 89 | 45,0 | 98,50 | 180301020 | 4.722,63 | 180501020 | 1.574,21 |

\* on request

**8-UN**

Unified thread series with 8-threads per inch (TPI)

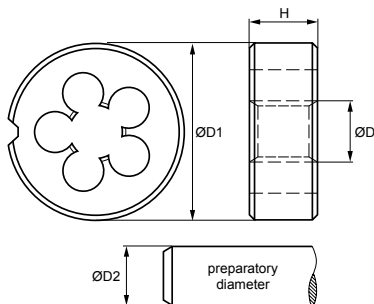
## Round Dies for general use



material: HSS 2A



Chamfer: 1,75 threads  
right hand thread



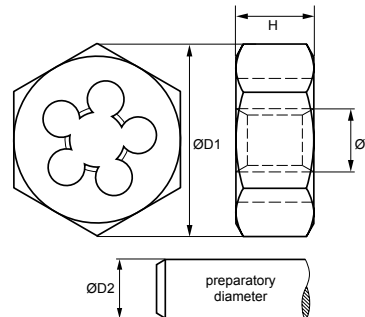
## Hexagon Die Nuts for general use



material: HSS medium



Chamfer: 1,5 threads  
right hand thread



**8-UN**

|              | D     | D1 | H  | D2    | No.       | €      |
|--------------|-------|----|----|-------|-----------|--------|
| UN 1.1/8 x 8 | 28,58 | 65 | 25 | 28,33 | 181401001 | 254,13 |
| UN 1.1/4 x 8 | 31,75 | 65 | 25 | 31,51 | 181401002 | 310,91 |
| UN 1.3/8 x 8 | 34,93 | 65 | 25 | 34,68 | 181401003 | 286,65 |
| UN 1.1/2 x 8 | 38,10 | 75 | 20 | 37,85 | 181401004 | 400,21 |
| UN 1.3/4 x 8 | 44,45 | 90 | 22 | 44,20 | 181401005 | 595,35 |
| UN 2" x 8    | 50,80 | 90 | 22 | 50,55 | 181401006 | 622,91 |

**8-UN**

|              | D     | D1  | H  | D2    | No.       | €      |
|--------------|-------|-----|----|-------|-----------|--------|
| UN 1.1/8 x 8 | 28,58 | 60  | 25 | 28,33 | 181501001 | 100,70 |
| UN 1.1/4 x 8 | 31,75 | 60  | 25 | 31,51 | 181501002 | 100,70 |
| UN 1.3/8 x 8 | 34,93 | 60  | 25 | 34,68 | 181501003 | 100,70 |
| UN 1.1/2 x 8 | 38,10 | 60  | 25 | 37,85 | 181501004 | 182,96 |
| UN 1.5/8 x 8 | 41,28 | 70  | 30 | 41,03 | 181501005 | 182,96 |
| UN 1.3/4 x 8 | 44,45 | 85  | 36 | 44,20 | 181501006 | 182,96 |
| UN 1.7/8 x 8 | 47,63 | 85  | 22 | 47,38 | 181501007 | 182,96 |
| UN 2" x 8    | 50,80 | 85  | 22 | 50,55 | 181501008 | 182,96 |
| UN 2.1/8 x 8 | 53,98 | 85  | 22 |       | 181501009 | 311,89 |
| UN 2.1/4 x 8 | 57,15 | 100 | 22 |       | 181501010 | 311,89 |
| UN 2.1/2 x 8 | 63,50 | 115 | 22 |       | 181501011 | 466,60 |

## 12-UN

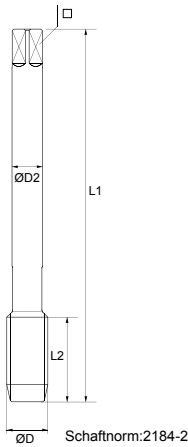
Unified thread series with 12-threads per inch (TPI)

Efficient internal thread cutting.

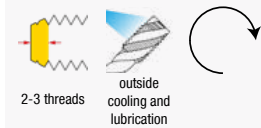
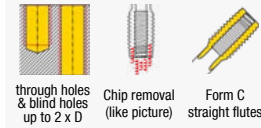
The short structural type makes that tap usable by hand. The Short-Machine-Tap is also usable by machine.

**A Hand-Tap-Set includes 2-3 taps:**

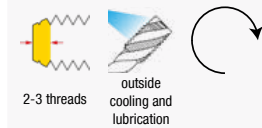
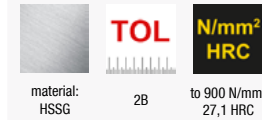
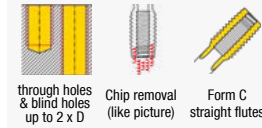
- Taper Tap (Intermediate Tap)
- Finish Tap



### Hand Tap Sets for general use



### Machine Taps Form C for through holes and blind holes



## 12-UN

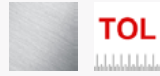
|                | D1     | D2   | L1  | L2 | □    |       | No.       | €        | No.       | €        |
|----------------|--------|------|-----|----|------|-------|-----------|----------|-----------|----------|
| UN 1/2 x 12    | 12,70  | 9,0  | 75  | 25 | 7,0  | 10,65 | 190301001 | 314,21   |           |          |
| UN 5/8 x 12    | 15,88  | 12,0 | 80  | 25 | 9,0  | 13,80 | 190301002 | 374,85   |           |          |
| UN 11/16 x 12  | 17,46  | 14,0 | 80  | 25 | 11,0 | 15,40 | 190301003 | 418,95   |           |          |
| UN 3/4 x 12    | 19,05  | 14,0 | 80  | 25 | 11,0 | 17,00 | 190301004 | 463,05   |           |          |
| UN 13/16 x 12  | 20,64  | 16,0 | 80  | 25 | 12,0 | 18,60 | 190301005 | 474,08   |           |          |
| UN 7/8 x 12    | 22,23  | 18,0 | 80  | 25 | 14,5 | 20,20 | 190301006 | 475,18   |           |          |
| UN 15/16 x 12  | 23,81  | 18,0 | 90  | 25 | 14,5 | 21,80 | 190301007 | 475,18   |           |          |
| UN 1.1/16 x 12 | 26,99  | 20,0 | 90  | 28 | 16,0 | 24,90 | 190301008 | 497,23   |           |          |
| UN 1.3/16 x 12 | 30,16  | 22,0 | 90  | 28 | 18,0 | 28,10 | 190301009 | 577,71   |           |          |
| UN 1.5/16 x 12 | 33,34  | 28,0 | 125 | 32 | 22,0 | 31,30 | 190301010 | 614,09   |           |          |
| UN 1.7/16 x 12 | 36,51  | 28,0 | 125 | 32 | 22,0 | 34,50 | 190301011 | 800,42   |           |          |
| UN 1.5/8 x 12  | 41,28  | 32,0 | 125 | 32 | 24,0 | 39,20 | 190301012 | 1.025,33 | 190501001 | 214,09   |
| UN 1.3/4 x 12  | 44,45  | 36,0 | 125 | 32 | 29,0 | 42,40 | 190301013 | 1.025,33 | 190501002 | 249,77   |
| UN 1.7/8 x 12  | 47,63  | 36,0 | 140 | 32 | 29,0 | 45,60 | 190301014 | 1.168,65 | 190501003 | 384,11   |
| UN 2 x 12      | 50,80  | 40,0 | 140 | 32 | 32,0 | 48,75 | 190301015 | 1.422,23 | 190501004 | 384,11   |
| UN 2.1/8 x 12  | 53,98  | 35,5 | 200 | 70 | 28,0 | 51,90 |           |          | 190501005 | 758,77   |
| UN 2.1/4 x 12  | 57,15  | 40,0 | 221 | 76 | 31,5 | 55,10 |           |          | 190501006 | 758,77   |
| UN 2.1/2 x 12  | 63,50  | 40,0 | 224 | 79 | 31,5 | 61,50 |           |          | 190501007 | 1.101,95 |
| UN 2.3/4 x 12  | 69,85  | 45,0 | 234 | 79 | 35,5 | 67,80 |           |          | 190501008 | 1.221,59 |
| UN 3" x 12     | 76,20  | 50,0 | 258 | 83 | 40,0 | 74,20 |           |          | 190501009 | 1.360,12 |
| UN 3.1/4 x 12  | 82,55  | 50,0 | 261 | 86 | 40,0 | 80,50 |           |          | 190501010 | 1.360,12 |
| UN 3.1/2 x 12  | 88,90  | 50,0 | 261 | 86 | 40,0 | 86,90 |           |          | 190501011 | 1.586,80 |
| UN 3.3/4 x 12  | 95,25  | 56,0 | 279 | 89 | 45,0 | 93,20 |           |          | 190501012 | 1.989,80 |
| UN 4" x 12     | 101,60 | 56,0 | 279 | 89 | 45,0 | 99,60 |           |          | 190501013 | 1.989,80 |

\* on request

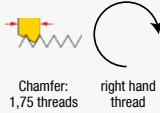
## 12-UN

Unified thread series with 12-threads per inch (TPI)

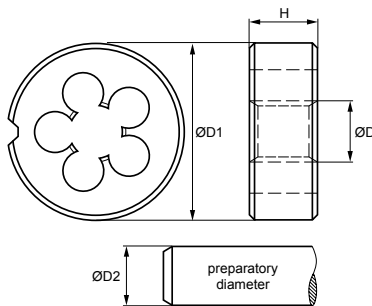
### Round Dies for general use



material: HSS medium



Chamfer: 1,75 threads right hand thread



## 12-UN

|                | D     | D1 | H  | D2    | No.       | €        |
|----------------|-------|----|----|-------|-----------|----------|
| UN 1.1/16 x 12 | 26,99 | 65 | 18 | 26,80 | 191401001 | 334,78   |
| UN 1.5/16 x 12 | 33,34 | 65 | 18 | 33,15 | 191401002 | 288,61   |
| UN 1.5/8 x 12  | 41,28 | 75 | 20 | 41,09 | 191401003 | 503,75   |
| UN 1.3/4 x 12  | 44,45 | 90 | 22 | 44,26 | 191401004 | 766,12   |
| UN 2" x 12     | 50,80 | 90 | 22 | 50,61 | 191401005 | 1.920,54 |

**BSW**

British standard BS 84 whitworth coarse thread

## BAER Hand-Tap Sets, Round Dies and Tools Sets (example picture)



### BAER Set BSW 1/8" - 1/2"

#### HSSG Hand Tap Sets & HSS Round Dies & Tools

|  |   |
|--|---|
| BAER HSSG Hand Tap Sets (3 parts)            | BSW 1/8 x 40   BSW 3/16 x 24   BSW 1/4 x 20   BSW 5/16 x 18   BSW 3/8 x 16   BSW 7/16 x 14   BSW 1/2 x 12 |
| BAER HSS Round Dies                          | BSW 1/8 x 40   BSW 3/16 x 24   BSW 1/4 x 20   BSW 5/16 x 18   BSW 3/8 x 16   BSW 7/16 x 14   BSW 1/2 x 12 |
| BAER adjustable Tap Wrenches - zinc die cast | M 1-10   1/16-3/8   G 1/8 & M 4-12   5/32-1/2   G 1/8   |
| BAER Die Stocks - zinc die cast              | 20 x 5   20 x 7   25 x 9   30 x 11   38 x 14  |

Screw extractor

**334,11**  
€/Set

Item No.:  
264803010

### BAER Set BSW 1/4" - 1/2"

#### HSSG Hand Tap Sets & HSS Round Dies & Tools

|  |  |
|--|--|
| BAER HSSG Hand Tap Sets (3 parts)            | BSW 1/4 x 20   BSW 5/16 x 18   BSW 3/8 x 16   BSW 7/16 x 14   BSW 1/2 x 12 |
| BAER HSS Round Dies                          | BSW 1/4 x 20   BSW 5/16 x 18   BSW 3/8 x 16   BSW 7/16 x 14   BSW 1/2 x 12 |
| BAER adjustable Tap Wrenches - zinc die cast | M 1-10   1/16-3/8   G 1/8 & M 4-12   5/32-1/2   G 1/8                      |
| BAER Die Stocks - zinc die cast              | 20 x 7   25 x 9   30 x 11   38 x 14  |

Screw extractor

**288,03**  
€/Set

Item No.:  
264803110

### BAER Set BSW 1/4" - 3/4"

#### HSSG Hand Tap Sets & HSS Round Dies & Tools

|  |  |
|--|--|
| BAER HSSG Hand Tap Sets (3 parts)            | BSW 1/4 x 20   BSW 5/16 x 18   BSW 3/8 x 16   BSW 7/16 x 14   BSW 1/2 x 12   BSW 5/8 x 11   BSW 3/4 x 10 |
| BAER HSS Round Dies                          | BSW 1/4 x 20   BSW 5/16 x 18   BSW 3/8 x 16   BSW 7/16 x 14   BSW 1/2 x 12   BSW 5/8 x 11   BSW 3/4 x 10 |
| BAER adjustable Tap Wrenches - zinc die cast | M 1-10   1/16-3/8   G 1/8 & M 5-20   7/32-3/4"   G 1/8-1/2   |
| BAER Die Stocks - zinc die cast              | 20 x 7   25 x 9   30 x 11   38 x 14   45 x 18  |

Screw extractor

**502,74**  
€/Set

Item No.:  
264803210

### BAER Set BSW 1/4" - 1"

#### HSSG Hand Tap Sets & HSS Round Dies & Tools

|  |   |
|--|---|
| BAER HSSG Hand Tap Sets (3 parts)            | BSW 1/4 x 20   BSW 5/16 x 18   BSW 3/8 x 16   BSW 7/16 x 14   BSW 1/2 x 12   BSW 5/8 x 11   BSW 3/4 x 10   BSW 7/8 x 9   BSW 1" x 8 |
| BAER HSS Round Dies                          | BSW 1/4 x 20   BSW 5/16 x 18   BSW 3/8 x 16   BSW 7/16 x 14   BSW 1/2 x 12   BSW 5/8 x 11   BSW 3/4 x 10   BSW 7/8 x 9   BSW 1" x 8 |
| BAER adjustable Tap Wrenches - zinc die cast | M 1-10   1/16-3/8   G 1/8 & M 11-27   7/16-1"   G 1/4-3/4   |
| BAER Die Stocks - zinc die cast              | 20 x 7   25 x 9   30 x 11   38 x 14   45 x 18   55 x 22   |

Screw extractor

**764,58**  
€/Set

Item No.:  
264803410

### BAER Set BSW 1/4" - 1.1/2"

#### HSSG Hand Tap Sets & HSS Round Dies & Tools

|  |   |
|--|---|
| BAER HSSG Hand Tap Sets (3 parts)            | BSW 1/4 x 20   BSW 5/16 x 18   BSW 3/8 x 16   BSW 7/16 x 14   BSW 1/2 x 12   BSW 5/8 x 11   BSW 3/4 x 10   BSW 7/8 x 9   BSW 1" x 8   BSW 1.1/8" x 7   BSW 1.1/4" x 7   BSW 1.3/8" x 6   BSW 1.1/2" x 6 |
| BAER HSS Round Dies                          | BSW 1/4 x 20   BSW 5/16 x 18   BSW 3/8 x 16   BSW 7/16 x 14   BSW 1/2 x 12   BSW 5/8 x 11   BSW 3/4 x 10   BSW 7/8 x 9   BSW 1" x 8   BSW 1.1/8" x 7   BSW 1.1/4" x 7   BSW 1.3/8" x 6   BSW 1.1/2" x 6 |
| BAER adjustable Tap Wrenches - zinc die cast | M 1-10   1/16-3/8   G 1/8 & M 5-20   7/32-3/4   G 1/8-1/2 & M 13-32   1/2-1.1/4"   G 1/4-1"   |
| BAER Die Stocks - zinc die cast              | 20 x 7   25 x 9   30 x 11   38 x 14   45 x 18   55 x 22   65 x 25   |

Screw extractor

**1.916,68**  
€/Set

Item No.:  
264803510

**BSW**

British standard BS 84 whitworth coarse thread

## BAER Short Machine Taps und Round Dies Sets BSW 1/4" - 1/2" (example picture)



### BAER Set BSW 1/4" - 1/2" HSSG Short Machine Taps & Drill bits for core holes HSS Round Dies

**175,24**  
€/Set

Item No.:  
BES4

|  |  |
|--|--|
| BAER HSSG Short Machine Tap Form D for through hole & blind hole (up to 4 x D) | BSW 1/4 x 20   BSW 5/16 x 18   BSW 3/8 x 16   BSW 7/16 x 14   BSW 1/2 x 12 |
| BAER HSSG Drill bits for core holes  | 5,1 mm   6,5 mm   7,9 mm   9,3 mm   10,5 mm                                |
| BAER HSS Round Dies  | BSW 1/4 x 20   BSW 5/16 x 18   BSW 3/8 x 16   BSW 7/16 x 14   BSW 1/2 x 12 |

**BSW**

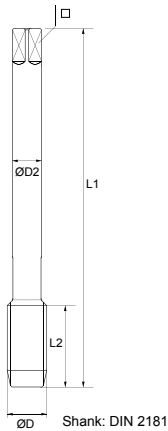
British standard BS 84 whitworth coarse thread

Efficient internal thread cutting.

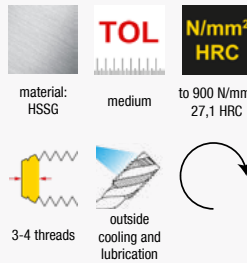
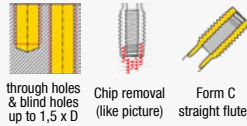
The short structural type makes that tap usable by hand. The Short-Machine-Tap is also usable by machine.

**A Hand-Tap-Set includes 3 taps:**

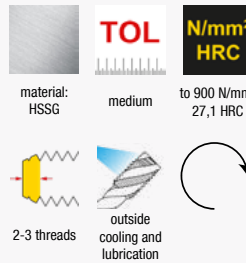
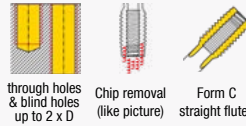
- Taper Tap
- Intermediate Tap
- Finish Tap



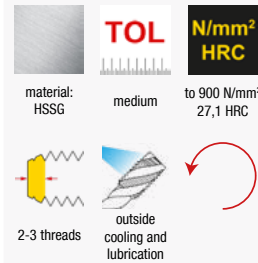
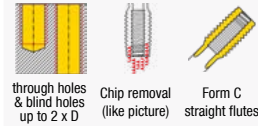
### Short Machine Taps Form D for through holes and blind holes



### Hand Tap Sets for general use



### Hand Tap Sets for general use Left Hand



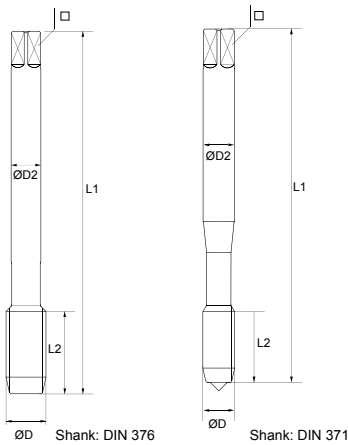
**BSW**

|                 | D1    | D2   | L1  | L2 |      |       | No.       | €        | No.       | €        | No.       | €      |
|-----------------|-------|------|-----|----|------|-------|-----------|----------|-----------|----------|-----------|--------|
| BSW 1/16 x 60   | 1,59  | 2,5  | 36  | 10 | 2,1  | 1,20  | 210101001 | 10,77    | 210301001 | 20,78    |           |        |
| BSW 3/32 x 48   | 2,38  | 2,8  | 36  | 10 | 2,1  | 1,90  | 210101002 | 8,69     | 210301002 | 16,06    |           |        |
| BSW 1/8 x 40    | 3,18  | 3,5  | 40  | 12 | 2,7  | 2,60  | 210101003 | 7,75     | 210301003 | 14,48    | 210302001 | 24,21  |
| BSW 5/32 x 32   | 3,97  | 4,5  | 45  | 14 | 3,4  | 3,20  | 210101004 | 7,75     | 210301004 | 14,48    | 210302002 | 24,21  |
| BSW 3/16 x 24   | 4,76  | 6,0  | 50  | 18 | 4,9  | 3,80  | 210101005 | 7,56     | 210301005 | 14,17    | 210302003 | 24,21  |
| BSW 7/32 x 24   | 5,56  | 6,0  | 50  | 18 | 4,9  | 4,60  | 210101006 | 7,56     | 210301006 | 14,17    |           |        |
| BSW 1/4 x 20    | 6,35  | 6,0  | 50  | 19 | 4,9  | 5,10  | 210101007 | 7,56     | 210301007 | 14,17    | 210302004 | 24,21  |
| BSW 5/16 x 18   | 7,94  | 6,0  | 56  | 22 | 4,9  | 6,50  | 210101008 | 8,51     | 210301008 | 15,74    | 210302005 | 25,26  |
| BSW 3/8 x 16    | 9,53  | 7,0  | 70  | 24 | 5,5  | 7,90  | 210101009 | 9,44     | 210301009 | 17,63    | 210302006 | 29,47  |
| BSW 7/16 x 14   | 11,11 | 8,0  | 70  | 24 | 6,2  | 9,30  | 210101010 | 11,90    | 210301010 | 22,35    | 210302007 | 36,14  |
| BSW 1/2 x 12    | 12,70 | 9,0  | 75  | 29 | 7,0  | 10,50 | 210101011 | 14,35    | 210301011 | 27,08    | 210302008 | 43,16  |
| BSW 9/16 x 12   | 14,29 | 11,0 | 80  | 30 | 9,0  | 12,00 | 210101012 | 18,89    | 210301012 | 35,26    | 210302009 | 56,13  |
| BSW 5/8 x 11    | 15,88 | 12,0 | 80  | 32 | 9,0  | 13,50 | 210101013 | 21,16    | 210301013 | 39,67    | 210302010 | 63,85  |
| BSW 3/4 x 10    | 19,05 | 14,0 | 95  | 40 | 11,0 | 16,50 | 210101014 | 28,34    | 210301014 | 53,21    | 210302011 | 85,25  |
| BSW 7/8 x 9     | 22,23 | 18,0 | 100 | 40 | 14,5 | 19,50 | 210101015 | 37,78    | 210301015 | 70,84    | 210302012 | 106,30 |
| BSW 1" x 8      | 25,40 | 18,0 | 110 | 50 | 14,5 | 22,00 | 210101016 | 43,45    | 210301016 | 81,54    | 210302013 | 127,70 |
| BSW 1.1/8 x 7   | 28,58 | 22,0 | 132 | 56 | 18,0 | 25,00 | 210101017 | 67,06    | 210301017 | 125,62   |           |        |
| BSW 1.1/4 x 7   | 31,75 | 22,0 | 132 | 56 | 18,0 | 28,00 | 210101018 | 75,57    | 210301018 | 141,36   |           |        |
| BSW 1.3/8 x 6   | 34,93 | 28,0 | 150 | 63 | 22,0 | 30,50 | 210101019 | 98,23    | 210301019 | 183,87   |           |        |
| BSW 1.1/2 x 6   | 38,10 | 32,0 | 150 | 63 | 24,0 | 33,50 | 210101020 | 113,35   | 210301020 | 212,20   |           |        |
| BSW 1.5/8 x 5   | 41,28 | 32,0 | 160 | 70 | 24,0 | 35,50 | 210101021 | 226,70   | 210301021 | 424,41   |           |        |
| BSW 1.3/4 x 5   | 44,45 | 36,0 | 160 | 70 | 29,0 | 39,00 | 210101022 | 226,70   | 210301022 | 424,41   |           |        |
| BSW 1.7/8 x 4,5 | 47,63 | 36,0 | 190 | 80 | 29,0 | 41,50 | 210101023 | 294,70   | 210301023 | 552,55   |           |        |
| BSW 2" x 4,5    | 50,80 | 40,0 | 190 | 80 | 32,0 | 44,50 | 210101024 | 294,70   | 210301024 | 552,55   |           |        |
| BSW 2.1/4 x 4   | 57,15 | 45,0 | 220 | 80 | 35,0 | 50,00 | 210101025 | 642,30   | 210301025 | 1.313,84 |           |        |
| BSW 2.1/2 x 4   | 63,50 | 50,0 | 220 | 80 | 39,0 | 56,50 | 210101026 | 821,75   | 210301026 | 1.751,78 |           |        |
| BSW 2.3/4 x 3,5 | 69,85 | 50,0 | 240 | 80 | 39,0 | 62,00 | 210101027 | 2.115,78 | 210301027 | 4.379,45 |           |        |
| BSW 3" x 3,5    | 76,20 | 50,0 | 260 | 80 | 39,0 | 68,00 | 210101028 | 2.720,29 | 210301028 | 5.390,10 |           |        |

**BSW**

British standard BS 84 whitworth coarse thread

Tap for machine use in through hole and blind hole.



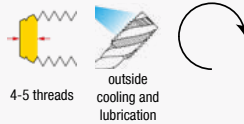
### Machine Tap for general use in through hole



through holes up to 4 x D  
Chip removal (like picture)  
Form B with spiral point



material: HSSG medium to 900 N/mm<sup>2</sup> 27,1 HRC



4-5 threads  
outside cooling and lubrication



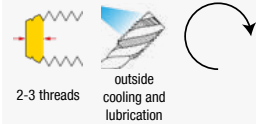
### Machine Tap for general use in blind hole



blind holes up to 3 x D  
Chip removal (like picture)  
Form C 35° spiral flute



material: HSSE medium to 900 N/mm<sup>2</sup> 27,1 HRC



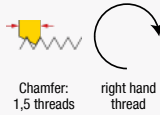
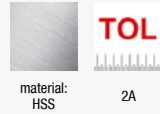
2-3 threads  
outside cooling and lubrication



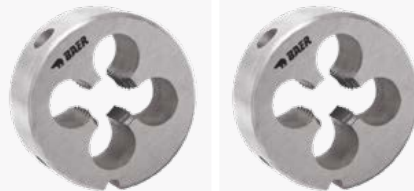
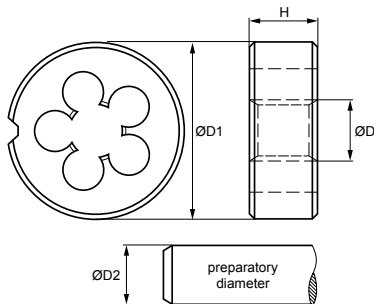
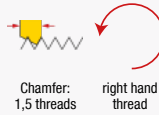
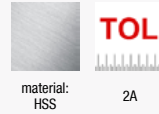
**BSW**

|                | D1    | D2   | L1  | L2 | <input type="checkbox"/> |       | No.       | €      |  | D1             | D2   | L1  | L2 | <input type="checkbox"/> | No.       | €      |  |
|----------------|-------|------|-----|----|--------------------------|-------|-----------|--------|--|----------------|------|-----|----|--------------------------|-----------|--------|--|
| <b>DIN 371</b> |       |      |     |    |                          |       |           |        |  | <b>DIN 371</b> |      |     |    |                          |           |        |  |
| BSW 1/8 x 40   | 3,18  | 3,5  | 56  | 11 | 2,7                      | 2,60  | 210401001 | 10,81  |  | 3,18           | 3,5  | 56  | 7  | 2,7                      | 210601001 | 13,43  |  |
| BSW 5/32 x 32  | 3,97  | 4,5  | 63  | 13 | 3,4                      | 3,20  | 210401002 | 10,81  |  | 3,97           | 4,5  | 63  | 7  | 3,4                      | 210601002 | 13,43  |  |
| BSW 3/16 x 24  | 4,76  | 6,0  | 70  | 15 | 4,9                      | 3,80  | 210401003 | 10,81  |  | 4,76           | 6,0  | 70  | 10 | 4,9                      | 210601003 | 13,43  |  |
| BSW 1/4 x 20   | 6,35  | 7,0  | 80  | 17 | 5,5                      | 5,10  | 210401004 | 10,81  |  | 6,35           | 7,0  | 80  | 13 | 5,5                      | 210601004 | 13,43  |  |
| BSW 5/16 x 18  | 7,94  | 8,0  | 90  | 20 | 6,2                      | 6,50  | 210401005 | 13,75  |  | 7,94           | 8,0  | 90  | 14 | 6,2                      | 210601005 | 16,90  |  |
| BSW 3/8 x 16   | 9,53  | 9,0  | 100 | 22 | 7,0                      | 7,90  | 210401006 | 15,32  |  | 9,53           | 9,0  | 100 | 16 | 7,0                      | 210601006 | 18,47  |  |
| BSW 7/16 x 14  | 11,11 | 11,0 | 100 | 22 | 9,0                      | 9,30  | 210401007 | 18,26  |  | 11,11          | 11,0 | 100 | 17 | 9,0                      | 210601007 | 22,77  |  |
| BSW 1/2 x 12   | 12,70 | 12,0 | 110 | 25 | 9,0                      | 10,50 | 210401008 | 18,26  |  | 12,70          | 12,0 | 110 | 20 | 9,0                      | 210601008 | 22,77  |  |
| <b>DIN 376</b> |       |      |     |    |                          |       |           |        |  | <b>DIN 376</b> |      |     |    |                          |           |        |  |
| BSW 1/4 x 20   | 6,35  | 4,5  | 80  | 17 | 3,4                      | 5,10  | 210401009 | 10,81  |  | 6,35           | 4,5  | 80  | 13 | 3,4                      | 210601009 | 13,43  |  |
| BSW 5/16 x 18  | 7,94  | 6,0  | 90  | 20 | 4,9                      | 6,50  | 210401010 | 13,75  |  | 7,94           | 6,0  | 90  | 14 | 4,9                      | 210601010 | 16,90  |  |
| BSW 3/8 x 16   | 9,53  | 7,0  | 100 | 22 | 5,5                      | 7,90  | 210401011 | 15,32  |  | 9,53           | 7,0  | 100 | 16 | 5,5                      | 210601011 | 18,47  |  |
| BSW 7/16 x 14  | 11,11 | 8,0  | 100 | 22 | 6,2                      | 9,30  | 210401012 | 18,26  |  | 11,11          | 8,0  | 100 | 17 | 6,2                      | 210601012 | 22,77  |  |
| BSW 1/2 x 12   | 12,70 | 9,0  | 110 | 25 | 7,0                      | 10,50 | 210401013 | 18,26  |  | 12,70          | 9,0  | 110 | 20 | 7,0                      | 210601013 | 22,77  |  |
| BSW 9/16 x 12  | 14,29 | 11,0 | 110 | 26 | 9,0                      | 12,00 | 210401014 | 27,81  |  | 14,29          | 11,0 | 110 | 20 | 9,0                      | 210601014 | 33,58  |  |
| BSW 5/8 x 11   | 15,88 | 12,0 | 110 | 27 | 9,0                      | 13,50 | 210401015 | 27,81  |  | 15,88          | 12,0 | 110 | 22 | 9,0                      | 210601015 | 33,58  |  |
| BSW 3/4 x 10   | 19,05 | 14,0 | 125 | 30 | 11,0                     | 16,50 | 210401016 | 54,15  |  | 19,05          | 14,0 | 125 | 25 | 11,0                     | 210601016 | 66,96  |  |
| BSW 7/8 x 9    | 22,23 | 18,0 | 140 | 32 | 14,5                     | 19,50 | 210401017 | 65,49  |  | 22,23          | 18,0 | 140 | 27 | 14,5                     | 210601017 | 81,86  |  |
| BSW 1" x 8     | 25,40 | 20,0 | 160 | 36 | 16,0                     | 22,00 | 210401018 | 74,30  |  | 25,40          | 20,0 | 160 | 30 | 16,0                     | 210601018 | 91,93  |  |
| BSW 1.1/4 x 7  | 31,75 | 22,0 | 180 | 40 | 18,0                     | 28,00 | 210401019 | 103,90 |  | 31,75          | 22,0 | 180 | 35 | 18,0                     | 210601019 | 117,12 |  |
| BSW 1.3/8 x 6  | 34,93 | 28,0 | 200 | 50 | 22,0                     | 30,50 | 210401020 | 216,61 |  | 34,93          | 28,0 | 200 | 40 | 22,0                     | 210601020 | 255,65 |  |
| BSW 1.1/2 x 6  | 38,10 | 32,0 | 200 | 50 | 24,0                     | 33,50 | 210401021 | 216,61 |  | 38,10          | 32,0 | 200 | 40 | 24,0                     | 210601021 | 255,65 |  |

## Round Dies for general use



## Round Dies for general use Left Hand


**BSW**

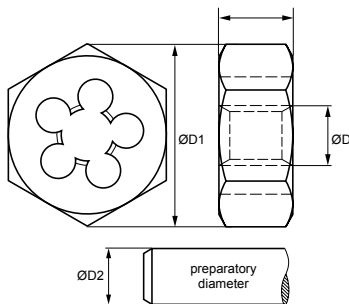
|                 | D     | D1  | H  | D2    | No.       | €      | No.       | €     |
|-----------------|-------|-----|----|-------|-----------|--------|-----------|-------|
| BSW 1/16 x 60   | 1,59  | 16  | 5  | 1,51  | 211401001 | 12,27  |           |       |
| BSW 3/32 x 48   | 2,38  | 16  | 5  | 2,3   | 211401002 | 12,27  |           |       |
| BSW 1/8 x 40    | 3,18  | 20  | 5  | 3,09  | 211401003 | 12,27  | 211402001 | 18,94 |
| BSW 5/32 x 32   | 3,97  | 20  | 5  | 3,88  | 211401004 | 12,27  | 211402002 | 18,94 |
| BSW 3/16 x 24   | 4,76  | 20  | 7  | 4,66  | 211401005 | 12,27  | 211402003 | 18,94 |
| BSW 7/32 x 24   | 5,56  | 20  | 7  | 5,46  | 211401006 | 12,27  |           |       |
| BSW 1/4 x 20    | 6,35  | 20  | 7  | 6,24  | 211401007 | 12,27  | 211402004 | 18,94 |
| BSW 5/16 x 18   | 7,94  | 25  | 9  | 7,82  | 211401008 | 14,03  | 211402005 | 22,1  |
| BSW 3/8 x 16    | 9,53  | 30  | 11 | 9,4   | 211401009 | 15,56  | 211402006 | 26,9  |
| BSW 7/16 x 14   | 11,11 | 30  | 11 | 10,98 | 211401010 | 18,01  | 211402007 | 26,9  |
| BSW 1/2 x 12    | 12,7  | 38  | 14 | 12,56 | 211401011 | 20,23  | 211402008 | 42,09 |
| BSW 9/16 x 12   | 14,29 | 38  | 14 | 14,14 | 211401012 | 25,03  | 211402009 | 42,09 |
| BSW 5/8 x 11    | 15,88 | 45  | 18 | 15,72 | 211401013 | 27,36  | 211402010 | 53,8  |
| BSW 3/4 x 10    | 19,05 | 45  | 18 | 18,89 | 211401014 | 27,36  | 211402011 | 53,8  |
| BSW 7/8 x 9     | 22,23 | 55  | 22 | 22,1  | 211401015 | 46,77  | 211402012 | 78,35 |
| BSW 1" x 8      | 25,4  | 55  | 22 | 25,27 | 211401016 | 46,77  | 211402013 | 78,35 |
| BSW 1.1/8 x 7   | 28,58 | 65  | 25 | 28,44 | 211401017 | 70,76  |           |       |
| BSW 1.1/4 x 7   | 31,75 | 65  | 25 | 31,61 | 211401018 | 70,76  |           |       |
| BSW 1.3/8 x 6   | 34,93 | 65  | 25 | 34,77 | 211401019 | 70,76  |           |       |
| BSW 1.1/2 x 6   | 38,1  | 65  | 25 | 37,95 | 211401020 | 70,76  |           |       |
| BSW 1.1/2 x 6   | 38,1  | 75  | 30 | 37,95 | 211401021 | 126,3  |           |       |
| BSW 1.5/8 x 5   | 41,28 | 75  | 30 | 41,11 | 211401022 | 126,3  |           |       |
| BSW 1.3/4 x 5   | 44,45 | 90  | 36 | 44,28 | 211401023 | 192,96 |           |       |
| BSW 1.7/8 x 4,5 | 47,63 | 90  | 36 | 47,46 | 211401024 | 192,96 |           |       |
| BSW 2" x 4,5    | 50,8  | 90  | 36 | 50,63 | 211401025 | 192,96 |           |       |
| BSW 2.1/4 x 4   | 57,15 | 105 | 36 | 56,98 | 211401026 | 535,23 |           |       |
| BSW 2.1/2 x 4   | 63,5  | 105 | 36 | 63,34 | 211401027 | 535,23 |           |       |
| BSW 2.3/4 x 3,5 | 69,85 | 120 | 36 | 69,68 | 211401028 | 656,13 |           |       |
| BSW 3" x 3,5    | 76,2  | 120 | 36 | 76,03 | 211401029 | 656,13 |           |       |

## Hexagon Die Nuts for general use


 material:  
HSS

2A


 Chamfer:  
1,5 threads

 right hand  
thread


### BSW

|                 | D     | D1  | H  | D2    | No.       | €      |
|-----------------|-------|-----|----|-------|-----------|--------|
| BSW 1/8 x 40    | 3,18  | 20  | 5  | 3,09  | 211501001 | 15,20  |
| BSW 3/16 x 24   | 4,76  | 20  | 7  | 4,66  | 211501002 | 15,20  |
| BSW 1/4 x 20    | 6,35  | 20  | 7  | 6,24  | 211501003 | 15,20  |
| BSW 5/16 x 18   | 7,94  | 25  | 9  | 7,82  | 211501004 | 15,78  |
| BSW 3/8 x 16    | 9,53  | 30  | 11 | 9,40  | 211501005 | 19,07  |
| BSW 7/16 x 14   | 11,11 | 30  | 11 | 10,98 | 211501006 | 19,07  |
| BSW 1/2 x 12    | 12,70 | 38  | 14 | 12,56 | 211501007 | 23,38  |
| BSW 9/16 x 12   | 14,29 | 38  | 14 | 14,14 | 211501008 | 23,38  |
| BSW 5/8 x 11    | 15,88 | 45  | 18 | 15,72 | 211501009 | 31,93  |
| BSW 3/4 x 10    | 19,05 | 45  | 18 | 18,89 | 211501010 | 31,93  |
| BSW 7/8 x 9     | 22,23 | 55  | 22 | 22,10 | 211501011 | 66,32  |
| BSW 1" x 8      | 25,40 | 55  | 22 | 25,27 | 211501012 | 66,32  |
| BSW 1.1/8 x 7   | 28,58 | 65  | 25 | 28,44 | 211501013 | 100,58 |
| BSW 1.1/4 x 7   | 31,75 | 65  | 25 | 31,61 | 211501014 | 100,58 |
| BSW 1.3/8 x 6   | 34,93 | 65  | 25 | 34,77 | 211501015 | 100,58 |
| BSW 1.1/2 x 6   | 38,10 | 65  | 25 | 37,95 | 211501016 | 120,46 |
| BSW 2" x 4,5    | 50,80 | 90  | 36 | 50,63 | 211501017 | 157,87 |
| BSW 2.1/4 x 4   | 57,15 | 105 | 36 | 56,98 | 211501018 | 555,50 |
| BSW 2.1/2 x 4   | 63,50 | 105 | 36 | 63,34 | 211501019 | 555,50 |
| BSW 2.3/4 x 3,5 | 69,85 | 120 | 36 | 69,68 | 211501020 | 687,62 |
| BSW 3" x 3,5    | 76,20 | 120 | 36 | 76,03 | 211501021 | 687,62 |

**BSF**

British standard BS 84 whitworth coarse thread

## BAER Hand-Tap Sets, Round Dies and Tools Sets (example picture)



### BAER Set BSF 1/4" - 1/2" HSSG Hand Tap Sets & HSS Round Dies & Tools

**276,51**  
€/Set

|  |  |
|--|--|
| BAER HSSG Hand Tap Sets (2 parts)            | BSF 1/4 x 26   BSF 5/16 x 22   BSF 3/8 x 20   BSF 7/16 x 18   BSF 1/2 x 16 |
| BAER HSS Round Dies                          | BSF 1/4 x 26   BSF 5/16 x 22   BSF 3/8 x 20   BSF 7/16 x 18   BSF 1/2 x 16 |
| BAER adjustable Tap Wrenches - zinc die cast | M 1-10   1/16-3/8   G 1/8 & M 4-12   5/32-1/2   G 1/8                      |
| BAER Die Stocks - zinc die cast              | 20 x 7   25 x 9   30 x 11   38 x 10  |
| Screw extractor                              |  |

Item No.:  
264804111

### BAER Set BSF 1/4" - 3/4" HSSG Hand Tap Sets & HSS Round Dies & Tools

**472,36**  
€/Set

|  |  |
|--|--|
| BAER HSSG Hand Tap Sets (2 parts)            | BSF 1/4 x 26   BSF 5/16 x 22   BSF 3/8 x 20   BSF 7/16 x 18   BSF 1/2 x 16   BSF 5/8 x 14   BSF 3/4 x 12 |
| BAER HSS Round Dies                          | BSF 1/4 x 26   BSF 5/16 x 22   BSF 3/8 x 20   BSF 7/16 x 18   BSF 1/2 x 16   BSF 5/8 x 14   BSF 3/4 x 12 |
| BAER adjustable Tap Wrenches - zinc die cast | M 1-10   1/16-3/8   G 1/8 & M 5-20   7/32-3/4   G 1/8-1/2  |
| BAER Die Stocks - zinc die cast              | 20 x 7   25 x 9   30 x 11   38 x 10   45 x 14  |
| Screw extractor                              |  |

Item No.:  
264804211

### BAER Set BSF 1/4" - 1" HSSG Hand Tap Sets & HSS Round Dies & Tools

**725,83**  
€/Set

|  |   |
|--|---|
| BAER HSSG Hand Tap Sets (2 parts)            | BSF 1/4 x 26   BSF 5/16 x 22   BSF 3/8 x 20   BSF 7/16 x 18   BSF 1/2 x 16   BSF 5/8 x 14   BSF 3/4 x 12   BSF 7/8 x 11   BSF 1" x 10 |
| BAER HSS Round Dies                          | BSF 1/4 x 26   BSF 5/16 x 22   BSF 3/8 x 20   BSF 7/16 x 18   BSF 1/2 x 16   BSF 5/8 x 14   BSF 3/4 x 12   BSF 7/8 x 11   BSF 1" x 10 |
| BAER adjustable Tap Wrenches - zinc die cast | M 1-10   1/16-3/8   G 1/8 & M 11-27   7/16-1"   G 1/4-3/4   |
| BAER Die Stocks - zinc die cast              | 20 x 7   25 x 9   30 x 11   38 x 10   45 x 14   55 x 16   |
| Screw extractor                              |   |

Item No.:  
264804411

### BAER Set BSW & BSF 1/4" - 3/4" HSSG Hand Tap Sets & HSS Round Dies & Tools

**806,47**  
€/Set

|  |   |
|--|---|
| BAER HSSG Hand Tap Sets (3 parts) UNC        | BSW 1/4   BSW 5/16   BSW 3/8   BSW 7/16   BSW 1/2   BSW 5/8   BSW 3/4 |
| BAER HSSG Hand Tap Sets (2 parts) UNF        | BSF 1/4   BSF 5/16   BSF 3/8   BSF 7/16   BSF 1/2   BSF 5/8   BSF 3/4 |
| BAER HSS Round Dies UNC                      | BSW 1/4   BSW 5/16   BSW 3/8   BSW 7/16   BSW 1/2   BSW 5/8   BSW 3/4 |
| BAER HSS Round Dies UNF                      | BSF 1/4   BSF 5/16   BSF 3/8   BSF 7/16   BSF 1/2   BSF 5/8   BSF 3/4 |
| BAER adjustable Tap Wrenches - zinc die cast | M 1-10   1/16-3/8   G 1/8 & M 5-20   7/32-3/4"   G 1/8-1/2            |
| BAER Die Stocks - zinc die cast              | 20 x 7   25 x 9   30 x 11   38 x 14   45 x 18                         |
| Screw extractor                              |   |

Item No.:  
2648046210

**BSF**

British standard BS 84 whitworth coarse thread

## BAER Short Machine Taps und Round Dies Sets BSF 1/4" - 1/2" (example picture)



### BAER Set BSF 1/4" - 1/2" HSSG Short Machine Taps & Drill bits for core holes HSS Round Dies

|  |  |
|--|--|
| BAER HSSG Short Machine Tap Form D for through hole & blind hole (up to 4 x D) | BSF 1/4 x 26   BSF 5/16 x 22   BSF 3/8 x 20   BSF 7/16 x 18   BSF 1/2 x 16 |
| BAER HSSG Drill bits for core holes  | 5,2 mm   6,6 mm   8,1 mm   9,5 mm   11 mm                                  |
| BAER HSS Round Dies  | BSF 1/4 x 26   BSF 5/16 x 22   BSF 3/8 x 20   BSF 7/16 x 18   BSF 1/2 x 16 |

**176,62**  
€/Set

Item No.:  
BES5

**BSF**

British standard BS 84 whitworth coarse thread

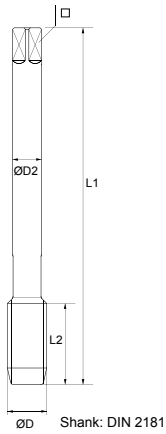
Efficient internal thread cutting.

The short structural type makes that tap usable by hand. The Short-Machine-Tap is also usable by machine.

**A Hand-Tap-Set includes 2 taps:**

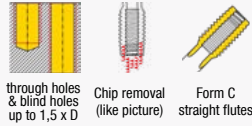
Taper Tap

Finish Tap

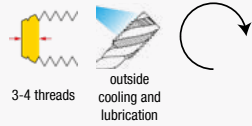
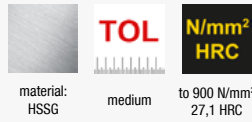


## Short Machine Taps

Form D for through holes and blind holes

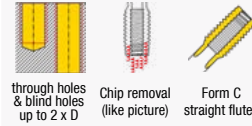


through holes & blind holes up to 1,5 x D  
Chip removal (like picture)  
Form C straight flutes

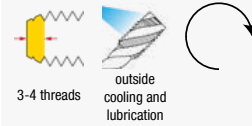
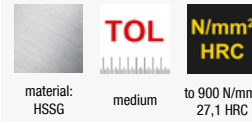


## Hand Tap Sets

for general use



through holes & blind holes up to 2 x D  
Chip removal (like picture)  
Form C straight flutes



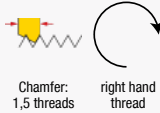
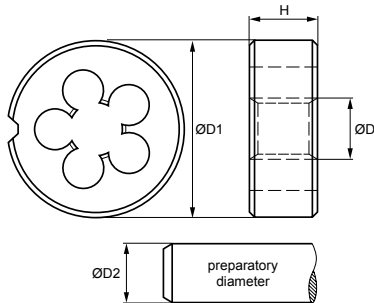
| BSF           | D1    | D2   | L1  | L2 | □    |       | No.       | €     | No.       | €     |
|---------------|-------|------|-----|----|------|-------|-----------|-------|-----------|-------|
| BSF 3/16 x 32 | 4,76  | 6,0  | 50  | 14 | 4,9  | 3,90  | 220101001 | 6,75  | 220301001 | 9,83  |
| BSF 1/4 x 26  | 6,35  | 6,0  | 50  | 18 | 4,9  | 5,30  | 220101002 | 6,75  | 220301002 | 9,83  |
| BSF 5/16 x 22 | 7,94  | 6,0  | 56  | 22 | 4,9  | 6,80  | 220101003 | 7,58  | 220301003 | 10,99 |
| BSF 3/8 x 20* | 9,53  | 7,0  | 63  | 22 | 5,5  | 8,30  | 220101004 | 8,43  | 220301004 | 12,16 |
| BSF 7/16 x 18 | 11,11 | 8,0  | 63  | 22 | 6,2  | 9,70  | 220101005 | 10,62 | 220301005 | 15,44 |
| BSF 1/2 x 16  | 12,70 | 9,0  | 75  | 24 | 7,0  | 11,10 | 220101006 | 12,81 | 220301006 | 18,71 |
| BSF 9/16 x 16 | 14,29 | 11,0 | 80  | 28 | 9,0  | 12,70 | 220101007 | 16,86 | 220301007 | 24,56 |
| BSF 5/8 x 14  | 15,88 | 12,0 | 80  | 28 | 9,0  | 14,00 | 220101008 | 18,87 | 220301008 | 27,60 |
| BSF 3/4 x 12  | 19,05 | 14,0 | 95  | 32 | 11,0 | 16,80 | 220101009 | 25,28 | 220301009 | 36,95 |
| BSF 7/8 x 11  | 22,23 | 18,0 | 100 | 36 | 14,5 | 19,70 | 220101010 | 33,71 | 220301010 | 49,12 |
| BSF 1" x 10   | 25,40 | 18,0 | 110 | 40 | 14,5 | 22,70 | 220101011 | 38,76 | 220301011 | 56,61 |

\* BSF 3/8 = Fisher thread

## Round Dies for general use



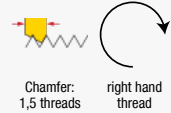
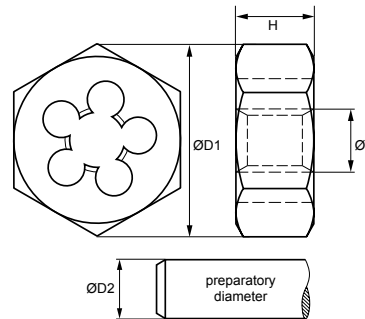
material: HSS 2A


 Chamfer: 1,5 threads  
right hand thread


## Hexagon Die Nuts for general use



material: HSS medium


 Chamfer: 1,5 threads  
right hand thread

**BSF**

|               | D     | D1 | H  | D2    | No.       | €     |
|---------------|-------|----|----|-------|-----------|-------|
| BSF 3/16 x 32 | 4,76  | 20 | 7  | 4,67  | 221401001 | 12,27 |
| BSF 1/4 x 26  | 6,35  | 20 | 7  | 6,25  | 221401002 | 12,27 |
| BSF 5/16 x 22 | 7,94  | 25 | 9  | 7,83  | 221401003 | 14,03 |
| BSF 3/8 x 20  | 9,53  | 30 | 11 | 9,41  | 221401004 | 15,55 |
| BSF 7/16 x 18 | 11,11 | 30 | 11 | 10,99 | 221401005 | 18,01 |
| BSF 1/2 x 16  | 12,70 | 38 | 10 | 12,57 | 221401006 | 23,15 |
| BSF 9/16 x 16 | 14,29 | 38 | 10 | 14,12 | 221401007 | 25,73 |
| BSF 5/8 x 14  | 15,88 | 45 | 14 | 15,73 | 221401008 | 35,08 |
| BSF 3/4 x 12  | 19,05 | 45 | 14 | 18,89 | 221401009 | 35,08 |
| BSF 7/8 x 11  | 22,23 | 55 | 22 | 22,11 | 221401010 | 47,95 |
| BSF 1" x 10   | 25,40 | 55 | 22 | 25,28 | 221401011 | 47,95 |

**BSF**

|               | D     | D1 | H  | D2    | No.       | €     |
|---------------|-------|----|----|-------|-----------|-------|
| BSF 3/16 x 32 | 4,76  | 19 | 7  | 4,67  | 221501001 | 17,20 |
| BSF 1/4 x 26  | 6,35  | 19 | 7  | 6,25  | 221501002 | 17,20 |
| BSF 5/16 x 22 | 7,94  | 22 | 9  | 7,83  | 221501003 | 19,07 |
| BSF 3/8 x 20  | 9,53  | 27 | 11 | 9,41  | 221501004 | 23,38 |
| BSF 7/16 x 18 | 11,11 | 27 | 11 | 10,99 | 221501005 | 23,38 |
| BSF 1/2 x 16  | 12,70 | 36 | 10 | 12,57 | 221501006 | 36,84 |
| BSF 9/16 x 16 | 14,29 | 36 | 10 | 14,12 | 221501007 | 36,84 |
| BSF 5/8 x 14  | 15,88 | 41 | 14 | 15,73 | 221501008 | 56,49 |
| BSF 3/4 x 12  | 19,05 | 41 | 14 | 18,89 | 221501009 | 56,49 |
| BSF 7/8 x 11  | 22,23 | 50 | 16 | 22,11 | 221501010 | 66,66 |
| BSF 1" x 10   | 25,40 | 50 | 16 | 25,28 | 221501011 | 66,66 |

**TR**

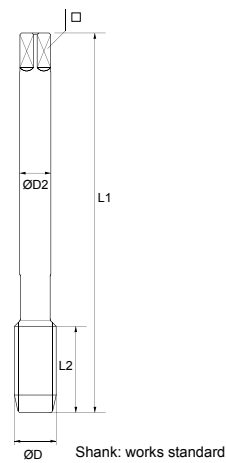
Trapezoidal thread / DIN 103

Efficient internal thread cutting.

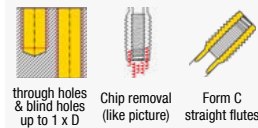
The short structural type makes that tap usable by hand. The Short-Machine-Tap is also usable by machine.

**A Hand-Tap-Set includes 3 taps:**

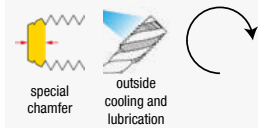
- Taper Tap
- Intermediate Tap
- Finish Tap



### Hand Tap Sets for general use

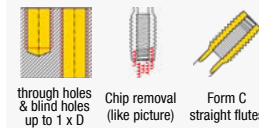


through holes & blind holes up to 1 x D  
Chip removal (like picture)  
Form C straight flutes

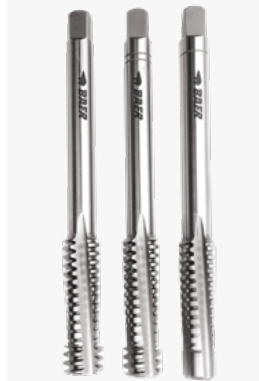
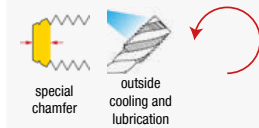


### Hand Tap Sets for general use

#### Left Hand



through holes & blind holes up to 1 x D  
Chip removal (like picture)  
Form C straight flutes



| TR          | D2   | L1    | L2 | □    |       | No.       | €        | No.       | €        |
|-------------|------|-------|----|------|-------|-----------|----------|-----------|----------|
| TR 9 x 1,5  | 7,0  | 100,0 | 22 | 5,5  | 7,60  | 230301001 | *        | 230302001 | *        |
| TR 10 x 1,5 | 7,0  | 100,0 | 22 | 5,5  | 8,60  | 230301002 | 458,55   | 230302002 | 715,46   |
| TR 10 x 2   | 7,0  | 90,0  | 34 | 5,5  | 8,20  | 230301003 | 371,51   | 230302003 | 786,89   |
| TR 10 x 3   | 7,0  | 100,0 | 40 | 5,5  | 7,60  | 230301004 | 371,51   | 230302004 | 786,89   |
| TR 11 x 2   | 8,0  | 100,0 | 22 | 6,2  | 9,20  | 230301005 | 580,66   | 230302005 | 905,56   |
| TR 12 x 2   | 9,0  | 110,0 | 25 | 7,0  | 10,20 | 230301006 | 504,28   | 230302006 | 786,89   |
| TR 12 x 3   | 8,0  | 110,0 | 40 | 6,2  | 9,25  | 230301007 | 387,26   | 230302007 | 786,89   |
| TR 14 x 2   | 11,0 | 110,0 | 26 | 9,0  | 12,20 | 230301008 | 685,50   | 230302008 | 1.039,21 |
| TR 14 x 3   | 10,0 | 130,0 | 45 | 8,0  | 11,25 | 230301009 | 491,15   | 230302009 | 944,74   |
| TR 14 x 4   | 10,0 | 130,0 | 55 | 8,0  | 10,70 | 230301010 | 503,75   | 230302010 | 944,74   |
| TR 16 x 2   | 12,0 | 110,0 | 27 | 9,0  | 14,20 | 230301011 | 685,50   | 230302011 | 1.039,21 |
| TR 16 x 4   | 11,0 | 140,0 | 55 | 9,0  | 12,25 | 230301012 | 503,75   | 230302012 | 944,74   |
| TR 18 x 2   | 14,0 | 125,0 | 27 | 11,0 | 16,20 | 230301013 | 967,77   | 230302013 | 1.509,27 |
| TR 18 x 4   | 12,0 | 150,0 | 55 | 9,0  | 14,25 | 230301014 | 702,10   | 230302014 | 1.397,51 |
| TR 20 x 2   | 16,0 | 140,0 | 27 | 12,0 | 18,20 | 230301015 | 1.036,91 | 230302015 | 1.615,26 |
| TR 20 x 4   | 14,0 | 160,0 | 55 | 11,0 | 16,25 | 230301016 | 739,88   | 230302016 | 1.495,44 |
| TR 22 x 3   | 18,0 | 160,0 | 34 | 14,5 | 19,25 | 230301017 | 1.307,65 | 230302017 | 2.040,39 |
| TR 22 x 5   | 16,0 | 175,0 | 65 | 12,0 | 17,30 | 230301018 | 938,23   | 230302018 | 1.889,46 |
| TR 24 x 3   | 18,0 | 160,0 | 36 | 14,5 | 21,25 | 230301019 | 1.451,67 | 230302019 | 2.252,38 |
| TR 24 x 5   | 18,0 | 190,0 | 65 | 14,5 | 19,30 | 230301020 | 1.026,39 | 230302020 | 2.085,32 |
| TR 26 x 3   | 20,0 | 160,0 | 36 | 16,0 | 23,25 | 230301021 | 1.601,44 | 230302021 | 2.487,41 |
| TR 26 x 5   | 20,0 | 210,0 | 70 | 16,0 | 21,30 | 230301022 | 1.139,73 | 230302022 | 2.273,11 |
| TR 28 x 3   | 22,0 | 180,0 | 40 | 18,0 | 25,25 | 230301023 | 1.745,45 | 230302023 | 2.717,83 |
| TR 28 x 5   | 22,0 | 220,0 | 70 | 18,0 | 23,30 | 230301024 | 1.240,48 | 230302024 | 2.518,52 |
| TR 30 x 3   | 22,0 | 180,0 | 40 | 18,0 | 27,25 | 230301025 | 1.902,02 | 230302025 | 2.968,99 |
| TR 30 x 6   | 22,0 | 240,0 | 80 | 18,0 | 24,30 | 230301026 | 1.322,34 | 230302026 | 2.675,20 |
| TR 32 x 6   | 25,0 | 255,0 | 80 | 20,0 | 26,30 | 230301027 | 1.611,99 | 230302027 | 3.093,43 |

\* on request

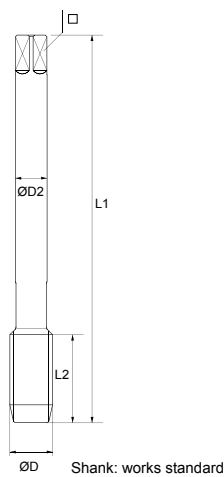
**TR**

Trapezoidal thread / DIN 103

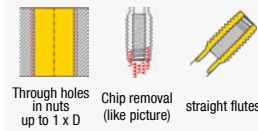
Machine Nut Tap with long shank for cutting Nuts.

For all through holes up to a max. thread depth of 1,0 x diameter.

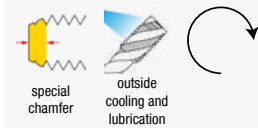
Please note that this tap can only take cutting forces up to 1,0 times diameter.



## Machine Nut Taps for general use

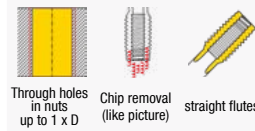


Through holes in nuts up to 1 x D  
Chip removal (like picture)  
straight flutes

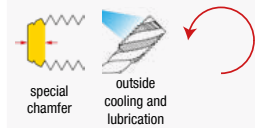


## Machine Nut Taps for general use

**Left Hand**



Through holes in nuts up to 1 x D  
Chip removal (like picture)  
straight flutes



| <b>TR</b>  | D2   | L1    | L2  | □    |       | No.       | €      | No.       | €      |
|------------|------|-------|-----|------|-------|-----------|--------|-----------|--------|
| TR 8 x 1,5 | 6,0  | 90,0  | 55  | 4,9  | 6,70  |           |        |           |        |
| TR 9 x 2   | 7,0  | 110,0 | 63  | 5,5  | 7,20  |           |        |           |        |
| TR 10 x 2  | 7,0  | 110,0 | 63  | 5,5  | 8,20  | 230901001 | 261,95 | 230902001 | 367,74 |
| TR 10 x 3  | 7,0  | 125,0 | 75  | 5,5  | 7,60  | 230901002 | 261,95 | 230902002 | 367,74 |
| TR 12 x 2  | 9,0  | 135,0 | 75  | 7,0  | 10,20 |           |        |           |        |
| TR 12 x 3  | 8,0  | 165,0 | 111 | 6,2  | 9,25  | 230901003 | 226,69 | 230902003 | 317,36 |
| TR 14 x 2  | 10,0 | 150   | 90  | 8,0  | 12,20 |           |        |           |        |
| TR 14 x 3  | 10,0 | 140   | 85  | 8,0  | 11,25 | 230901004 | 241,80 | 230902004 | 340,03 |
| TR 14 x 4  | 10,0 | 170   | 112 | 8,0  | 10,70 | 230901005 | 241,80 | 230902005 | 340,03 |
| TR 16 x 2  | 12,0 | 160   | 90  | 9,0  | 14,20 |           |        |           |        |
| TR 16 x 4  | 11,0 | 180   | 116 | 9,0  | 12,25 | 230901006 | 264,47 | 230902006 | 367,74 |
| TR 18 x 2  | 14,0 | 175   | 90  | 11,0 | 16,20 |           |        |           |        |
| TR 18 x 4  | 12,0 | 190   | 120 | 9,0  | 14,25 | 230901007 | 270,76 | 230902007 | 367,74 |
| TR 20 x 2  | 16,0 | 185   | 105 | 12,0 | 18,20 |           |        |           |        |
| TR 20 x 4  | 14,0 | 200   | 124 | 11,0 | 16,25 | 230901008 | 280,84 | 230902008 | 394,18 |
| TR 22 x 3  | 16,0 | 220   | 125 | 12,0 | 19,25 |           |        |           |        |
| TR 22 x 4  | 16,0 | 210   | 130 | 12,0 | 18,25 | 230901009 | 365,22 |           |        |
| TR 22 x 5  | 16,0 | 235   | 155 | 12,0 | 17,30 | 230901010 | 365,22 | 230902009 | 510,04 |
| TR 24 x 3  | 18,0 | 220   | 130 | 14,5 | 21,25 |           |        |           |        |
| TR 24 x 5  | 18,0 | 245   | 160 | 14,5 | 19,30 | 230901011 | 418,11 | 230902010 | 585,61 |
| TR 26 x 3  | 20,0 | 235   | 130 | 16,0 | 23,25 |           |        |           |        |
| TR 26 x 5  | 20,0 | 255   | 165 | 16,0 | 21,30 | 230901012 | 440,78 | 230902011 | 612,05 |
| TR 28 x 3  | 22,0 | 245   | 140 | 18,0 | 25,25 |           |        |           |        |
| TR 28 x 5  | 22,0 | 265   | 170 | 18,0 | 23,30 | 230901013 | 491,15 | 230902012 | 681,32 |
| TR 30 x 3  | 22,0 | 250   | 140 | 18,0 | 27,25 |           |        |           |        |
| TR 30 x 6  | 22,0 | 290   | 185 | 18,0 | 24,30 | 230901014 | 573,01 | 230902013 | 799,70 |
| TR 32 x 6  | 25,0 | 300   | 191 | 20,0 | 26,30 | 230901015 | 705,25 | 230902014 | 969,71 |
| TR 36 x 6  | 28,0 | 310   | 200 | 22,0 | 30,50 | 230901016 | 717,84 | 230902015 | 994,90 |

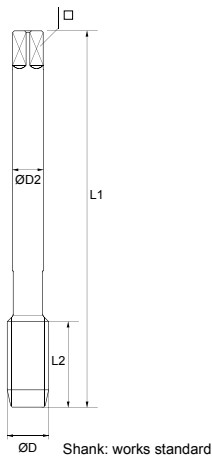
**TR**

Trapezoidal thread / DIN 103

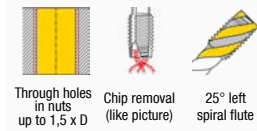
Machine Nut Tap with long shank for cutting Nuts.

For all through holes up to a max. thread depth of 1,5 x diameter.

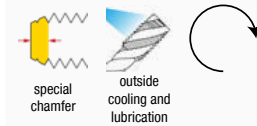
Please note that this tap can only take cutting forces up to 1,5 times diameter.



## Machine Nut Taps for stainless steels

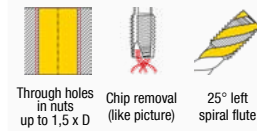


Through holes in nuts up to 1,5 x D  
 Chip removal (like picture)  
 25° left spiral flute  
**TOL**  
 material: HSSE-nitrated  
 7H to 900 N/mm<sup>2</sup> 27,1 HRC

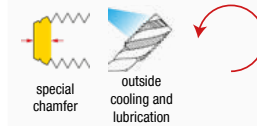


## Machine Nut Taps for stainless steels

### Left Hand



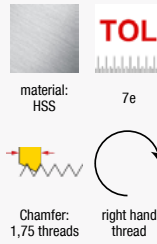
Through holes in nuts up to 1,5 x D  
 Chip removal (like picture)  
 25° left spiral flute  
**TOL**  
 material: HSSE-nitrated  
 7H to 900 N/mm<sup>2</sup> 27,1 HRC



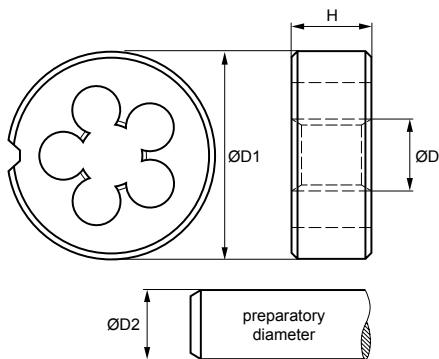
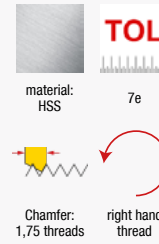
| TR         | D2   | L1    | L2  | □    | □     | No.       | € | No.        | € |
|------------|------|-------|-----|------|-------|-----------|---|------------|---|
| TR 8 x 1,5 | 6,0  | 90,0  | 55  | 4,9  | 6,70  | 230905001 | * | 230905001L | * |
| TR 9 x 2   | 7,0  | 110,0 | 63  | 5,5  | 7,20  | 230905002 | * | 230905002L | * |
| TR 10 x 2  | 7,0  | 110,0 | 63  | 5,5  | 8,20  | 230905003 | * | 230905003L | * |
| TR 10 x 3  | 7,0  | 125,0 | 75  | 5,5  | 7,60  | 230905004 | * | 230905004L | * |
| TR 12 x 2  | 9,0  | 135,0 | 75  | 7,0  | 10,20 | 230905005 | * | 230905005L | * |
| TR 12 x 3  | 8,0  | 165,0 | 111 | 6,2  | 9,25  | 230905006 | * | 230905006L | * |
| TR 14 x 2  | 10,0 | 150,0 | 90  | 8,0  | 12,20 | 230905007 | * | 230905007L | * |
| TR 14 x 3  | 10,0 | 140,0 | 85  | 8,0  | 11,25 | 230905008 | * | 230905008L | * |
| TR 14 x 4  | 10,0 | 170,0 | 112 | 8,0  | 10,70 | 230905009 | * | 230905009L | * |
| TR 16 x 2  | 12,0 | 160,0 | 90  | 9,0  | 14,20 | 230905010 | * | 230905010L | * |
| TR 16 x 4  | 11,0 | 180,0 | 116 | 9,0  | 12,25 | 230905011 | * | 230905011L | * |
| TR 18 x 2  | 14,0 | 175,0 | 90  | 11,0 | 16,20 | 230905012 | * | 230905012L | * |
| TR 18 x 4  | 12,0 | 190,0 | 120 | 9,0  | 14,25 | 230905013 | * | 230905013L | * |
| TR 20 x 2  | 16,0 | 185,0 | 105 | 12,0 | 18,20 | 230905014 | * | 230905014L | * |
| TR 20 x 4  | 14,0 | 200,0 | 124 | 11,0 | 16,25 | 230905015 | * | 230905015L | * |
| TR 22 x 3  | 16,0 | 220,0 | 125 | 12,0 | 19,25 | 230905016 | * | 230905016L | * |
| TR 22 x 4  | 16,0 | 210,0 | 130 | 12,0 | 18,25 | 230905017 | * | 230905017L | * |
| TR 22 x 5  | 16,0 | 235,0 | 155 | 12,0 | 17,30 | 230905018 | * | 230905018L | * |
| TR 24 x 3  | 18,0 | 220,0 | 130 | 14,5 | 21,25 | 230905019 | * | 230905019L | * |
| TR 24 x 5  | 18,0 | 245,0 | 160 | 14,5 | 19,30 | 230905020 | * | 230905020L | * |
| TR 26 x 3  | 20,0 | 235,0 | 130 | 16,0 | 23,25 | 230905021 | * | 230905021L | * |
| TR 26 x 5  | 20,0 | 255,0 | 165 | 16,0 | 21,30 | 230905022 | * | 230905022L | * |
| TR 28 x 3  | 22,0 | 245,0 | 140 | 18,0 | 25,25 | 230905023 | * | 230905023L | * |
| TR 28 x 5  | 22,0 | 265,0 | 170 | 18,0 | 23,30 | 230905024 | * | 230905024L | * |
| TR 30 x 3  | 22,0 | 250,0 | 140 | 18,0 | 27,25 | 230905025 | * | 230905025L | * |
| TR 30 x 6  | 22,0 | 290,0 | 185 | 18,0 | 24,30 | 230905026 | * | 230905026L | * |
| TR 32 x 6  | 25,0 | 300,0 | 191 | 20,0 | 26,30 | 230905027 | * | 230905027L | * |

\* on request

## Round Dies for general use



## Round Dies for general use Left Hand


**TR**

|           | D1   | H  | D2    | No.       | €      | No.       | €      |
|-----------|------|----|-------|-----------|--------|-----------|--------|
| TR 10 x 2 | 38,0 | 14 | 9,91  | 231401001 | 116,39 | 231402001 | 265,70 |
| TR 10 x 3 | 38,0 | 14 | 9,88  | 231401002 | 165,95 | 231402002 | *      |
| TR 12 x 2 | 38,0 | 14 | 11,91 | 231401003 | 165,95 | 231402003 | *      |
| TR 12 x 3 | 38,0 | 14 | 11,88 | 231401004 | 126,21 | 231402004 | 369,89 |
| TR 14 x 2 | 38,0 | 14 | 13,91 | 231401005 | 165,95 | 231402005 | *      |
| TR 14 x 3 | 45,0 | 18 | 13,88 | 231401006 | 177,64 | 231402006 | 418,95 |
| TR 14 x 4 | 45,0 | 18 | 13,85 | 231401007 | 196,63 | 231402007 | 335,16 |
| TR 16 x 2 | 45,0 | 18 | 15,91 | 231401008 | 231,39 | 231402008 | *      |
| TR 16 x 4 | 45,0 | 18 | 15,85 | 231401009 | 161,86 | 231402009 | 379,82 |
| TR 18 x 2 | 45,0 | 18 | 17,91 | 231401010 | 259,44 | 231402010 | *      |
| TR 18 x 4 | 45,0 | 18 | 17,85 | 231401011 | 163,61 | 231402011 | 379,82 |
| TR 20 x 2 | 45,0 | 18 | 19,91 | 231401012 | 264,12 | 231402012 | *      |
| TR 20 x 4 | 55,0 | 22 | 19,85 | 231401013 | 212,70 | 231402013 | 419,51 |
| TR 22 x 5 | 55,0 | 22 | 21,84 | 231401014 | 281,64 | 231402014 | 863,26 |
| TR 24 x 5 | 65,0 | 25 | 23,84 | 231401015 | 281,64 | 231402015 | 601,97 |
| TR 26 x 5 | 65,0 | 25 | 25,84 | 231401016 | 281,64 | 231402016 | 863,26 |
| TR 28 x 5 | 65,0 | 25 | 27,84 | 231401017 | 301,51 | 231402017 | 986,74 |
| TR 30 x 6 | 65,0 | 25 | 29,82 | 231401018 | 340,07 | 231402018 | 976,82 |

## NPT

National standard taper 1:16 pipe thread ANSI B 1.20.1

## NPTF

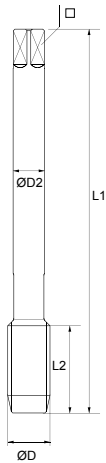
National standard taper 1:16 pipe thread ANSI B 1.20.3

Efficient internal thread cutting.

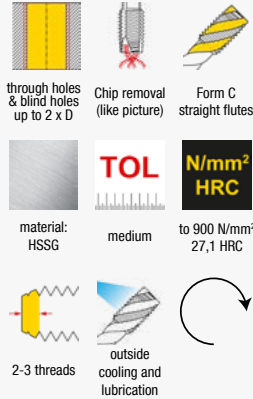
The short structural type makes that tap usable by machine and hand.

### Application:

- ⚙️ non abrasive material up to 900 N/mm<sup>2</sup>
- ⚙️ unalloyed and low alloyed steel



## Short Machine Taps Form D for through holes and blind holes



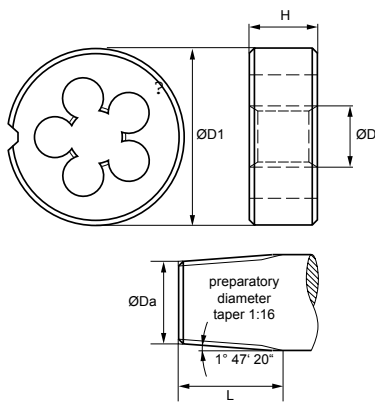
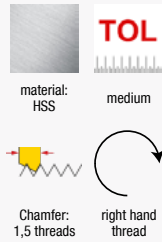
## NPT

|                  | D1    | D2   | L1  | L2 | □    |       | No.       | €      |
|------------------|-------|------|-----|----|------|-------|-----------|--------|
| NPT 1/16 x 27    | 7,90  | 19,0 | 65  | 19 | 5,5  | 6,00  | 240101001 | 18,04  |
| NPT 1/8 x 27     | 10,24 | 19,0 | 65  | 19 | 5,5  | 8,25  | 240101002 | 15,13  |
| NPT 1/4 x 18     | 13,62 | 25,0 | 70  | 25 | 9,0  | 10,70 | 240101003 | 16,87  |
| NPT 3/8 x 18     | 17,06 | 26,0 | 75  | 26 | 9,0  | 14,10 | 240101004 | 23,27  |
| NPT 1/2 x 14     | 21,22 | 31,0 | 80  | 31 | 12,0 | 17,40 | 240101005 | 29,10  |
| NPT 3/4 x 14     | 26,57 | 33,0 | 100 | 33 | 16,0 | 22,60 | 240101006 | 38,99  |
| NPT 1" x 11,5    | 33,23 | 38,0 | 110 | 38 | 20,0 | 28,50 | 240101007 | 61,08  |
| NPT 1.1/4 x 11,5 | 41,99 | 41,0 | 125 | 41 | 24,0 | 37,00 | 240101008 | 93,54  |
| NPT 1.1/2 x 11,5 | 48,05 | 42,0 | 140 | 42 | 29,0 | 43,50 | 240101009 | 175,42 |
| NPT 2" x 11,5    | 60,09 | 44,0 | 160 | 44 | 29,0 | 55,00 | 240101010 | 216,34 |

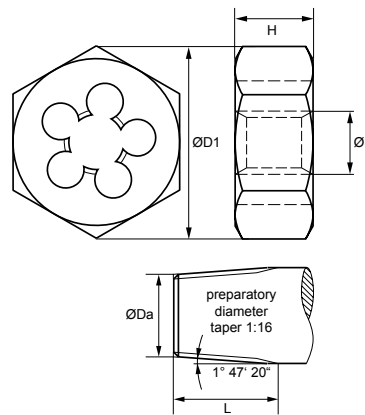
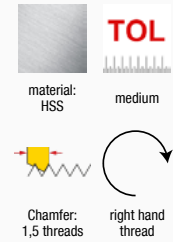
## NPTF

|                   | D1    | D2   | L1  | L2 | □    |       | No.       | €      |
|-------------------|-------|------|-----|----|------|-------|-----------|--------|
| NPTF 1/16 x 27    | 7,87  | 19,0 | 65  | 19 | 5,5  | 6,00  | 250101001 | 23,93  |
| NPTF 1/8 x 27     | 10,22 | 19,0 | 65  | 19 | 5,5  | 8,25  | 250101002 | 19,31  |
| NPTF 1/4 x 18     | 13,58 | 25,0 | 70  | 25 | 9,0  | 10,70 | 250101003 | 22,67  |
| NPTF 3/8 x 18     | 17,02 | 26,0 | 75  | 26 | 9,0  | 14,10 | 250101004 | 28,97  |
| NPTF 1/2 x 14     | 21,21 | 31,0 | 80  | 31 | 12,0 | 17,40 | 250101005 | 36,42  |
| NPTF 3/4 x 14     | 26,57 | 33,0 | 100 | 33 | 16,0 | 22,60 | 250101006 | 48,49  |
| NPTF 1" x 11,5    | 33,20 | 38,0 | 110 | 38 | 20,0 | 28,50 | 250101007 | 78,08  |
| NPTF 1.1/4 x 11,5 | 41,95 | 41,0 | 125 | 41 | 24,0 | 37,00 | 250101008 | 116,39 |
| NPTF 1.1/2 x 11,5 | 48,02 | 42,0 | 140 | 42 | 29,0 | 43,50 | 250101009 | 193,94 |
| NPTF 2" x 11,5    | 60,06 | 44,0 | 160 | 44 | 29,0 | 55,00 | 250101010 | 258,17 |

## Round Dies for general use



## Hexagon Die Nuts for general use



| NPT              | D     | D1  | H  | Da x L       | No.       | €      |
|------------------|-------|-----|----|--------------|-----------|--------|
| NPT 1/16 x 27    | 7,90  | 25  | 9  | 7,58 x 8,4   | 241401001 | 39,67  |
| NPT 1/8 x 27     | 10,24 | 30  | 11 | 9,93 x 8,5   | 241401002 | 42,19  |
| NPT 1/4 x 18     | 13,62 | 38  | 14 | 13,18 x 12,7 | 241401003 | 51,63  |
| NPT 3/8 x 18     | 17,06 | 45  | 14 | 16,60 x 12,9 | 241401004 | 65,49  |
| NPT 1/2 x 14     | 21,22 | 45  | 18 | 20,63 x 16,8 | 241401005 | 65,49  |
| NPT 5/8 x 14     | 23,90 | 55  | 22 |              | 241401006 | 104,53 |
| NPT 3/4 x 14     | 26,57 | 55  | 22 | 25,95 x 17,1 | 241401007 | 104,53 |
| NPT 7/8 x 14     | 29,90 | 65  | 25 |              | 241401008 | 154,90 |
| NPT 1" x 11,5    | 33,23 | 65  | 25 | 32,51 x 21,3 | 241401009 | 154,90 |
| NPT 1.1/4 x 11,5 | 41,99 | 75  | 26 | 41,23 x 21,9 | 241401010 | 182,61 |
| NPT 1.1/2 x 11,5 | 48,05 | 90  | 27 | 47,30 x 22,3 | 241401011 | 298,47 |
| NPT 2" x 11,5    | 60,09 | 105 | 28 | 59,31 x 23,1 | 241401012 | 394,18 |

| NPT              | D     | D1  | H  | Da x L       | No.       | €      |
|------------------|-------|-----|----|--------------|-----------|--------|
| NPT 1/16 x 27    | 7,90  | 22  | 9  | 7,58 x 8,4   | 241501001 | 49,25  |
| NPT 1/8 x 27     | 10,24 | 27  | 11 | 9,93 x 8,5   | 241501002 | 53,34  |
| NPT 1/4 x 18     | 13,62 | 36  | 14 | 13,18 x 12,7 | 241501003 | 65,65  |
| NPT 3/8 x 18     | 17,06 | 41  | 14 | 16,60 x 12,9 | 241501004 | 82,06  |
| NPT 1/2 x 14     | 21,22 | 41  | 14 | 20,63 x 16,8 | 241501005 | 82,06  |
| NPT 3/4 x 14     | 26,57 | 50  | 22 | 25,95 x 17,1 | 241501006 | 129,95 |
| NPT 1" x 11,5    | 33,23 | 60  | 25 | 32,51 x 21,3 | 241501007 | 191,49 |
| NPT 1.1/4 x 11,5 | 41,99 | 70  | 25 | 41,23 x 21,9 | 241501008 | 228,42 |
| NPT 1.1/2 x 11,5 | 48,05 | 85  | 28 | 47,30 x 22,3 | 241501009 | 369,29 |
| NPT 2" x 11,5    | 60,09 | 100 | 28 | 59,31 x 23,1 | 241501010 | 499,22 |

## NPS

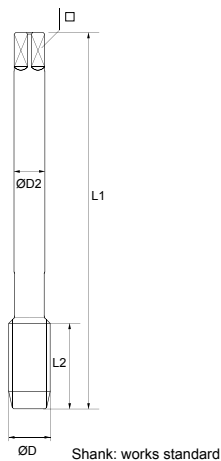
National standard straight pipe thread

Efficient internal thread cutting.

The short structural type makes that tap usable by machine and hand.

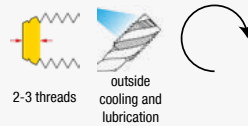
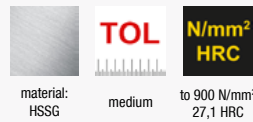
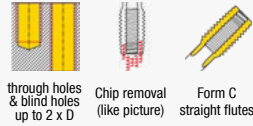
### Application:

- ⚙ non abrasive material up to 900 N/mm<sup>2</sup>
- ⚙ unalloyed and low alloyed steel



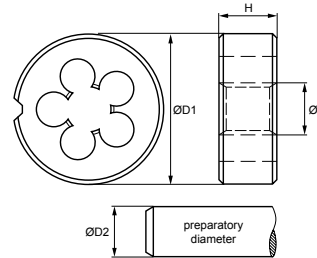
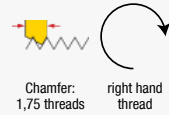
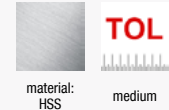
## Short Machine Taps

Form C for through holes and blind holes



## Round Dies

for general use



| NPS              | D1    | D2   | L1  | L2 | □    | ⚙     | No.       | €      |
|------------------|-------|------|-----|----|------|-------|-----------|--------|
| NPS 1/16 x 27    | 7,90  | 8,0  | 54  | 18 | 6,0  | 6,40  | 260101001 | 20,16  |
| NPS 1/8 x 27     | 10,24 | 8,0  | 55  | 19 | 6,0  | 8,90  | 260101002 | 17,39  |
| NPS 1/4 x 18     | 13,62 | 11,0 | 62  | 28 | 9,0  | 11,50 | 260101003 | 20,41  |
| NPS 3/8 x 18     | 17,06 | 14,0 | 65  | 28 | 11,0 | 15,00 | 260101004 | 24,70  |
| NPS 1/2 x 14     | 21,22 | 18,0 | 80  | 35 | 14,0 | 18,50 | 260101005 | 30,62  |
| NPS 3/4 x 14     | 26,57 | 23,0 | 85  | 35 | 17,0 | 23,80 | 260101006 | 40,32  |
| NPS 1" x 11,5    | 33,23 | 26,0 | 95  | 45 | 21,0 | 29,90 | 260101007 | 64,26  |
| NPS 1,1/4 x 11,5 | 41,99 | 32,0 | 105 | 45 | 26,0 | 38,60 | 260101008 | 97,02  |
| NPS 1,1/2 x 11,5 | 48,05 | 38,0 | 110 | 45 | 29,0 | 44,70 | 260101009 | 216,72 |
| NPS 2" x 11,5    | 60,09 | 46,0 | 120 | 50 | 35,0 | 56,70 | 260101010 | 347,76 |

| NPSM              | D     | D1 | H  | D2    | No.       | €        |
|-------------------|-------|----|----|-------|-----------|----------|
| NPSM 1/8 x 27     | 10,24 | 30 | 11 | 9,99  | 261401001 | 185,66   |
| NPSM 1/4 x 18     | 13,62 | 38 | 10 | 13,25 | 261401002 | 194,04   |
| NPSM 3/8 x 18     | 17,06 | 45 | 14 | 16,70 | 261401003 | 219,29   |
| NPSM 1/2 x 14     | 21,22 | 45 | 14 | 20,78 | 261401004 | 209,48   |
| NPSM 3/4 x 14     | 26,57 | 55 | 16 | 26,14 | 261401005 | 316,42   |
| NPSM 1" x 11,5    | 33,23 | 65 | 18 | 32,69 | 261401006 | 1.035,30 |
| NPSM 1.1/4 x 11,5 | 41,99 | 75 | 20 | 41,45 | 261401007 | 1.516,20 |

## RC (BSPT)

Whitworth tapered pipe thread / DIN 2999

## RP (BSPP)

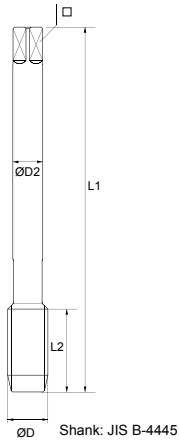
British standard whitworth pipe thread / ISO 7-1

Efficient internal thread cutting.

The short structural type makes that tap usable by machine and hand.

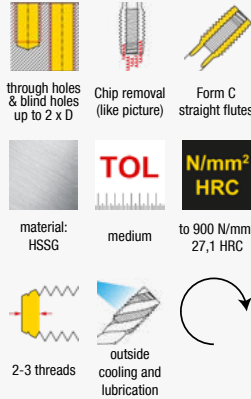
### Application:

- ⚙ non abrasive material up to 900 N/mm<sup>2</sup>
- ⚙ unalloyed and low alloyed steel



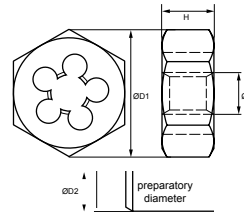
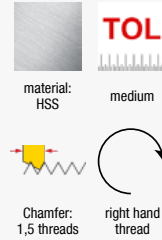
## Short Machine Taps

Form C for through holes and blind holes



## Hexagon Die Nuts

for general use



| RC (BSPT)     | D1    | D2   | L1  | L2   | □    | ⚙     | No.       | €     |
|---------------|-------|------|-----|------|------|-------|-----------|-------|
| RC 1/16 x 28  | 7,72  | 8,0  | 55  | 17,5 | 6,0  | 6,30  |           | *     |
| RC 1/8 x 28   | 9,73  | 8,0  | 55  | 19   | 6,0  | 8,30  | 270101001 | 9,24  |
| RC 1/4 x 19   | 13,16 | 11,0 | 62  | 28   | 9,0  | 11,10 | 270101002 | 10,75 |
| RC 3/8 x 19   | 16,66 | 14,0 | 65  | 28   | 11,0 | 14,50 | 270101003 | 16,96 |
| RC 1/2 x 14   | 20,95 | 18,0 | 80  | 35   | 14,0 | 18,10 | 270101004 | 21,28 |
| RC 3/4 x 14   | 26,44 | 23,0 | 85  | 35   | 17,0 | 23,50 | 270101005 | 31,22 |
| RC 1" x 11    | 33,25 | 26,0 | 95  | 45   | 21,0 | 29,50 | 270101006 | 47,12 |
| RC 1.1/4 x 11 | 41,91 | 32,0 | 105 | 45   | 26,0 | 38,25 |           | *     |
| RC 1.1/2 x 11 | 47,80 | 38,0 | 110 | 45   | 29,0 | 44,25 |           | *     |
| RC 2" x 11    | 59,61 | 46,0 | 120 | 50   | 35,0 | 56,00 |           | *     |

| R (BSPT)     | D     | D1  | H  | No.       | €      |
|--------------|-------|-----|----|-----------|--------|
| R 1/8 x 28   | 9,73  | 27  | 11 | 271501001 | 49,12  |
| R 1/4 x 19   | 13,16 | 36  | 14 | 271501002 | 60,45  |
| R 3/8 x 19   | 16,66 | 41  | 15 | 271501003 | 75,56  |
| R 1/2 x 14   | 20,95 | 50  | 19 | 271501004 | 75,56  |
| R 3/4 x 14   | 26,44 | 60  | 20 | 271501005 | 119,64 |
| R 1" x 11    | 33,25 | 60  | 25 | 271501006 | 176,31 |
| R 1.1/4 x 11 | 41,91 | 85  | 26 | 271501007 | 210,31 |
| R 1.1/2 x 11 | 47,80 | 85  | 26 | 271501008 | 340,03 |
| R 2" x 11    | 59,61 | 100 | 31 | 271501009 | 459,67 |

| RP (BSPP)     | D1    | D2   | L1  | L2 | □    | ⚙     | No.       | €      |
|---------------|-------|------|-----|----|------|-------|-----------|--------|
| RP 1/16 x 28  | 7,72  | 8,0  | 55  | 18 | 6,0  | 6,55  | 280101001 | 8,66   |
| RP 1/8 x 28   | 9,73  | 8,0  | 55  | 19 | 6,0  | 8,60  | 280101002 | 8,66   |
| RP 1/4 x 19   | 13,16 | 11,0 | 62  | 28 | 9,0  | 11,50 | 280101003 | 10,64  |
| RP 3/8 x 19   | 16,66 | 14,0 | 65  | 28 | 11,0 | 15,00 | 280101004 | 17,07  |
| RP 1/2 x 14   | 20,95 | 18,0 | 80  | 35 | 14,0 | 18,50 | 280101005 | 26,25  |
| RP 3/4 x 14   | 26,44 | 23,0 | 85  | 35 | 17,0 | 24,00 | 280101006 | 45,29  |
| RP 1" x 11    | 33,25 | 26,0 | 95  | 45 | 21,0 | 30,25 | 280101007 | 59,06  |
| RP 1.1/4 x 11 | 41,91 | 32,0 | 105 | 45 | 26,0 | 38,75 | 280101008 | 89,26  |
| RP 1.1/2 x 11 | 47,80 | 38,0 | 110 | 45 | 29,0 | 44,75 | 280101009 | 123,36 |
| RP 2" x 11    | 59,61 | 46,0 | 120 | 50 | 35,0 | 56,50 | 280101010 | 187,70 |

\* on request

**BA**

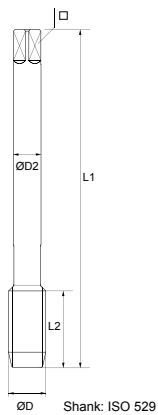
British Association thread / BS 93

Efficient internal thread cutting.

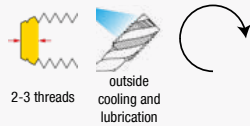
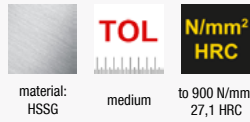
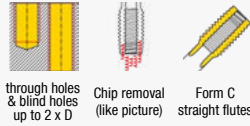
The short structural type makes that tap usable by hand. The Short-Machine-Tap is also usable by machine.

**A Hand-Tap-Set includes 3 taps:**

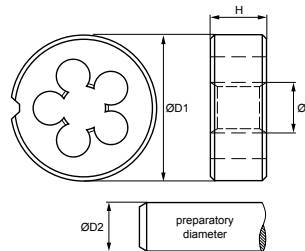
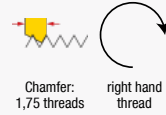
- Taper Tap
- Intermediate Tap
- Finish Tap



## Hand Tap Sets for general use



## Round Dies for general use



| BA   | D1   | D2  | L1 | L2   |     |      | No.       | €     |
|------|------|-----|----|------|-----|------|-----------|-------|
| BA 0 | 6,00 | 6,3 | 66 | 19,0 | 5,0 | 5,10 | 290313001 | 20,35 |
| BA 1 | 5,30 | 5,6 | 62 | 17,0 | 4,5 | 4,50 | 290313002 | 20,35 |
| BA 2 | 4,70 | 5,0 | 58 | 16,0 | 4,0 | 4,00 | 290313003 | 20,35 |
| BA 3 | 4,10 | 4,5 | 53 | 13,0 | 3,6 | 3,40 | 290313004 | 20,35 |
| BA 4 | 3,60 | 3,6 | 50 | 13,0 | 2,8 | 3,00 | 290313005 | 20,35 |
| BA 5 | 3,20 | 3,2 | 48 | 11,0 | 2,5 | 2,65 | 290313006 | 20,35 |
| BA 6 | 2,80 | 2,8 | 45 | 9,5  | 2,2 | 2,30 | 290313007 | 20,35 |

| BA    | D    | D1   | H    | D2   | No.       | €     |
|-------|------|------|------|------|-----------|-------|
| BA 0  | 6,00 | 20,6 | 6,35 | 5,90 | 291401001 | 13,97 |
| BA 1  | 5,30 | 20,6 | 6,35 | 5,21 | 291401002 | 13,97 |
| BA 2  | 4,70 | 20,6 | 6,35 | 4,61 | 291401003 | 13,97 |
| BA 3  | 4,10 | 20,6 | 6,35 | 4,02 | 291401004 | 13,97 |
| BA 4  | 3,60 | 20,6 | 6,35 | 3,52 | 291401005 | 13,97 |
| BA 5  | 3,20 | 20,6 | 6,35 | 3,14 | 291401006 | 13,97 |
| BA 6  | 2,80 | 20,6 | 6,35 | 2,74 | 291401007 | 13,97 |
| BA 7  | 2,50 | 20,6 | 6,35 | 2,44 | 291401008 | *     |
| BA 8  | 2,20 | 20,6 | 6,35 | 2,15 | 291401009 | *     |
| BA 10 | 1,70 | 20,6 | 6,35 | 1,66 | 291401010 | *     |

\* on request

**W**

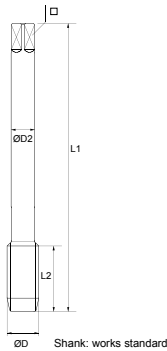
Tapered whitworth DIN 477 for screw sockets taper 3:25

Efficient internal thread cutting.

The short structural type makes that tap usable by hand. The Short-Machine-Tap is also usable by machine.

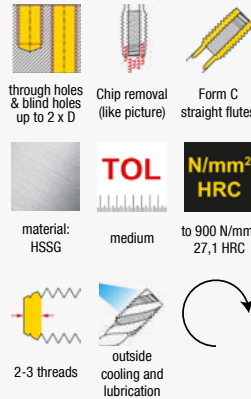
**A Hand-Tap-Set includes 3 taps:**

- Taper Tap
- Intermediate Tap
- Finish Tap



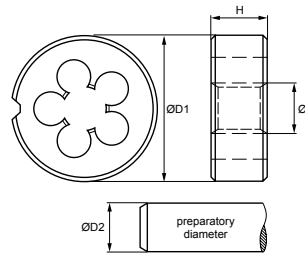
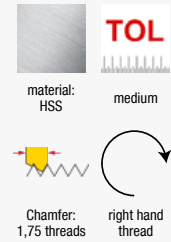
## Short Machine Taps

Form C for through holes and blind holes



## Round Dies

for general use



| W                        | D1    | D2   | L1  | L2 |      |       | No.       | €      |
|--------------------------|-------|------|-----|----|------|-------|-----------|--------|
| W 19,8 x 14 conical      | 19,80 | 16,0 | 90  | 32 | 12,0 | 14,70 | 300101001 | 178,83 |
| W 28,8 x 14 conical      | 28,80 | 22,0 | 100 | 40 | 18,0 | 22,70 | 300101002 | 201,50 |
| W 31,3 x 14 conical      | 31,30 | 22,0 | 110 | 40 | 18,0 | 25,20 | 300101003 | 231,72 |
| W 21,8 x 14 cyl. - right | 21,80 | 18,0 | 80  | 22 | 14,5 | 19,75 | 310101004 | *      |
| W 21,8 x 14 cyl. - left  | 21,80 | 18,0 | 80  | 22 | 14,5 | 19,75 | 310101005 | *      |
| W 24,32 x 14 cylindrical | 24,32 | 18,0 | 90  | 22 | 14,5 | 22,25 | 310101006 | *      |

| W                        | D     | D1 | H  | D2    | No.       | €      |
|--------------------------|-------|----|----|-------|-----------|--------|
| W 19,8 x 14 conical      | 19,80 | 45 | 25 | 17,34 | 301401001 | 426,12 |
| W 28,8 x 14 conical      | 28,80 | 65 | 30 | 25,74 | 301401002 | 609,68 |
| W 21,8 x 14 cyl. - right | 21,80 | 55 | 16 | 21,58 | 311401003 | 288,31 |
| W 21,8 x 14 cyl. - left  | 21,80 | 55 | 16 | 21,58 | 311401004 | 317,52 |
| W 24,32 x 14 cylindrical | 24,32 | 55 | 16 | 24,10 | 311401005 | 388,08 |

**PG**

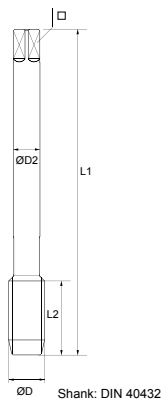
Steel Conduit Thread / DIN 40430

Efficient internal thread cutting.

The short structural type makes that tap usable by hand. The Short-Machine-Tap is also usable by machine.

**Application:**

- non abrasive material up to 900 N/mm<sup>2</sup>
- unalloyed and low alloyed steel

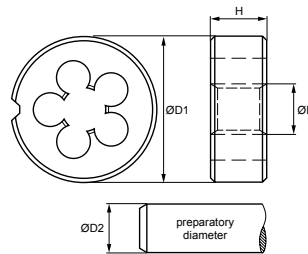


**Short Machine Taps**

Form D for through holes and blind holes



**Round Dies**  
for general use



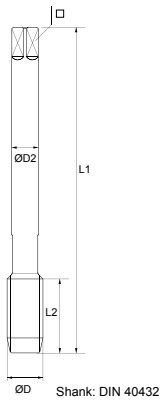
| PG           | D1    | D2   | L1  | L2 | □    |       | No.       | €      |
|--------------|-------|------|-----|----|------|-------|-----------|--------|
| PG 7 x 20    | 12,50 | 9,0  | 70  | 22 | 7,0  | 11,35 | 320101001 | 12,27  |
| PG 9 x 18    | 15,20 | 12,0 | 70  | 22 | 9,0  | 13,95 | 320101002 | 16,38  |
| PG 11 x 18   | 18,60 | 14,0 | 80  | 22 | 11,0 | 17,35 | 320101003 | 27,02  |
| PG 13,5 x 18 | 20,40 | 16,0 | 80  | 22 | 12,0 | 19,15 | 320101004 | 31,92  |
| PG 16 x 18   | 22,50 | 18,0 | 80  | 22 | 14,5 | 21,25 | 320101005 | 38,70  |
| PG 21 x 16   | 28,30 | 22,0 | 90  | 22 | 18,0 | 26,90 | 320101006 | 56,88  |
| PG 29 x 16   | 37,00 | 28,0 | 100 | 25 | 22,0 | 35,60 | 320101007 | 94,45  |
| PG 36 x 16   | 47,00 | 36,0 | 140 | 40 | 29,0 | 45,60 | 320101008 | 151,12 |
| PG 42 x 16   | 54,00 | 40,0 | 140 | 40 | 32,0 | 52,60 | 320101009 | 239,28 |
| PG 48 x 16   | 59,30 | 45,0 | 160 | 40 | 35,0 | 57,90 | 320101010 | 283,36 |

| PG           | D     | D1  | H  | D2    | No.       | €      |
|--------------|-------|-----|----|-------|-----------|--------|
| PG 7 x 20    | 12,50 | 38  | 10 | 12,50 | 321401001 | 49,12  |
| PG 9 x 18    | 15,20 | 45  | 14 | 15,20 | 321401002 | 59,82  |
| PG 11 x 18   | 18,60 | 45  | 14 | 18,60 | 321401003 | 59,82  |
| PG 13,5 x 18 | 20,40 | 45  | 14 | 20,40 | 321401004 | 59,82  |
| PG 16 x 18   | 22,50 | 55  | 16 | 22,50 | 321401005 | 70,52  |
| PG 21 x 16   | 28,30 | 65  | 18 | 28,30 | 321401006 | 108,31 |
| PG 29 x 16   | 37,00 | 65  | 18 | 37,00 | 321401007 | 108,31 |
| PG 36 x 16   | 47,00 | 90  | 22 | 47,00 | 321401008 | 214,09 |
| PG 42 x 16   | 54,00 | 105 | 22 | 54,00 | 321401009 | 272,86 |
| PG 48 x 16   | 59,30 | 105 | 22 | 59,30 | 321401010 | 272,86 |

## FG Bicycle thread / DIN 79012

Tap for machine use in through hole and blind hole.

The short lead-in chamfer makes that tap universal in application. The flutes can hold the most part of the chips.

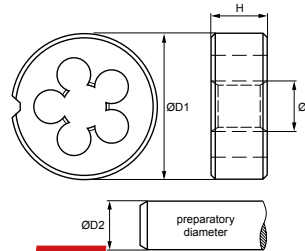
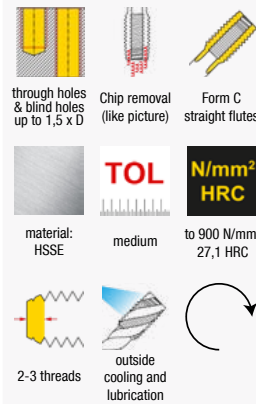


| FG                 | D1    | D2   | L1  | L2 | □    | □     | No.       | €      |
|--------------------|-------|------|-----|----|------|-------|-----------|--------|
| FG 6,35 x 26       | 6,35  | 7,0  | 80  | 14 | 5,5  | 5,50  | 330501001 | 88,16  |
| FG 7,9 x 26        | 7,90  | 8,0  | 90  | 16 | 6,2  | 7,00  | 330501002 | 94,45  |
| FG 9,5 x 26        | 9,50  | 7,0  | 90  | 16 | 5,5  | 8,60  | 330501003 | 94,45  |
| FG 14,3 x 20 right | 14,30 | 11,0 | 100 | 22 | 9,0  | 13,10 | 330501004 | 100,75 |
| FG 14,3 x 20 left  | 14,30 | 11,0 | 100 | 22 | 9,0  | 13,10 | 330501005 | 113,34 |
| FG 25,4 x 24       | 25,40 | 14,0 | 110 | 22 | 11,0 | 24,50 | 330501006 | 163,72 |

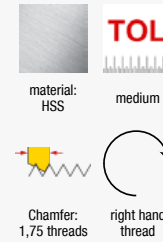
| BSC                 | D1    | D2   | L1 | L2 | □    | □     | No.       | €      |
|---------------------|-------|------|----|----|------|-------|-----------|--------|
| BSC 1/4 x 26        | 6,35  | 6,0  | 56 | 14 | 4,9  | 5,55  | 340101001 | 88,16  |
| BSC 5/16 x 26       | 7,94  | 6,0  | 63 | 16 | 4,9  | 7,10  | 340101002 | 94,45  |
| BSC 3/8 x 26        | 9,53  | 7,0  | 63 | 16 | 5,5  | 8,65  | 340101003 | 100,75 |
| BSC 9/16 x 20 right | 14,29 | 11,0 | 70 | 22 | 9,0  | 13,15 | 340101004 | 100,75 |
| BSC 9/16 x 20 left  | 14,29 | 11,0 | 70 | 22 | 9,0  | 13,15 | 340101005 | 113,34 |
| BSC 1" x 24         | 25,40 | 14,0 | 70 | 22 | 11,0 | 24,50 | 340101006 | 163,72 |

## BSC British bicycle thread / RS 811

### Short Machine Taps Form C for through holes and blind holes



### Round Dies for general use



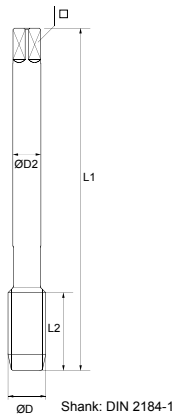
| FG                 | D     | D1 | H  | D2    | No.       | €      |
|--------------------|-------|----|----|-------|-----------|--------|
| FG 6,35 x 26       | 6,35  | 20 | 7  | 6,24  | 331401001 | 45,34  |
| FG 7,9 x 26        | 7,90  | 25 | 9  | 7,82  | 331401002 | 64,23  |
| FG 9,5 x 26        | 9,50  | 30 | 11 | 9,40  | 331401003 | 89,42  |
| FG 14,3 x 20 right | 14,30 | 38 | 10 | 14,40 | 331401004 | 137,27 |
| FG 14,3 x 20 left  | 14,30 | 38 | 10 | 14,40 | 331401005 | 164,98 |
| FG 25,4 x 24       | 25,40 | 55 | 16 | 25,25 | 331401006 | 374,03 |

| BSC                 | D     | D1   | H    | D2    | No.       | €      |
|---------------------|-------|------|------|-------|-----------|--------|
| BSC 1/4 x 26        | 6,35  | 20,6 | 6,35 | 6,24  | 341401001 | 45,34  |
| BSC 5/16 x 26       | 7,94  | 25,4 | 9,5  | 7,82  | 341401002 | 64,23  |
| BSC 3/8 x 26        | 9,53  | 25,4 | 9,5  | 9,40  | 341401003 | 89,42  |
| BSC 7/16 x 26       | 11,11 | 25,4 | 9,5  | 10,98 | 341401004 | *      |
| BSC 9/16 x 20 right | 14,29 | 38,1 | 12,7 | 14,14 | 341401005 | 137,27 |
| BSC 9/16 x 20 left  | 14,29 | 38,1 | 12,7 | 14,14 | 341401006 | 164,98 |
| BSC 1" x 24         | 25,40 | 55   | 16   | 25,25 | 341401007 | 374,03 |

## RD knuckle thread / DIN 405

Tap for machine use in through hole and blind hole.

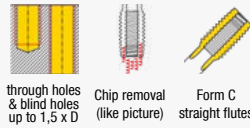
The short lead-in chamfer makes that tap universal in application. The flutes can hold the most part of the chips.



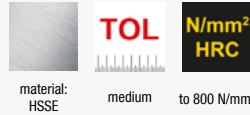
Shank: DIN 2184-1

## RMS Royal Microscopical Society / DIN 58888

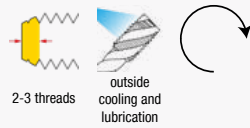
### Short Machine Taps Form C for through holes and blind holes



through holes & blind holes up to 1,5 x D  
Chip removal (like picture)  
Form C straight flutes



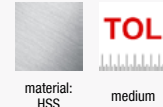
material: HSSE medium to 800 N/mm<sup>2</sup>



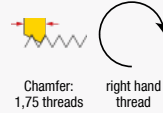
2-3 threads  
outside cooling and lubrication



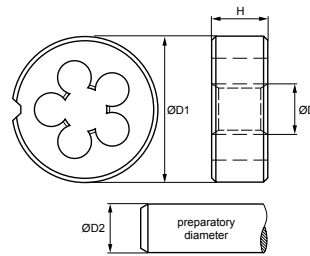
### Round Dies for general use



material: HSS medium



Chamfer: 1,75 threads  
right hand thread



| RD           | D1    | D2   | L1  | L2 | □    | ✎     | No.       | €      |
|--------------|-------|------|-----|----|------|-------|-----------|--------|
| Rd 8 x 1/10  | 8,25  | 6,0  | 90  | 26 | 4,9  | 5,71  | 350501001 | 92,56  |
| Rd 9 x 1/10  | 9,25  | 7,0  | 90  | 26 | 5,5  | 6,71  | 350501002 | 92,56  |
| Rd 10 x 1/10 | 10,25 | 7,0  | 100 | 28 | 5,5  | 7,71  | 350501003 | 92,56  |
| Rd 11 x 1/10 | 11,25 | 8,0  | 100 | 28 | 6,2  | 8,71  | 350501004 | 113,34 |
| Rd 12 x 1/10 | 12,25 | 9,0  | 110 | 28 | 7,0  | 9,71  | 350501005 | 125,94 |
| Rd 14 x 1/8  | 14,32 | 11,0 | 110 | 32 | 9,0  | 11,14 | 350501006 | 158,68 |
| Rd 16 x 1/8  | 16,32 | 12,0 | 110 | 32 | 9,0  | 13,14 | 350501007 | 166,24 |
| Rd 18 x 1/8  | 18,32 | 14,0 | 125 | 32 | 11,0 | 15,14 | 350501008 | 198,98 |
| Rd 20 x 1/8  | 20,32 | 16,0 | 140 | 32 | 12,0 | 17,14 | 350501009 | 198,98 |
| Rd 22 x 1/8  | 22,32 | 18,0 | 140 | 32 | 14,5 | 19,14 | 350501010 | 258,17 |
| Rd 24 x 1/8  | 24,32 | 18,0 | 160 | 34 | 14,5 | 21,14 | 350501011 | 311,06 |
| Rd 26 x 1/8  | 26,32 | 20,0 | 160 | 36 | 16,0 | 23,14 | 350501012 | 363,96 |
| Rd 28 x 1/8  | 28,32 | 20,0 | 160 | 36 | 16,0 | 25,14 | 350501013 | 390,40 |
| Rd 30 x 1/8  | 30,32 | 22,0 | 180 | 36 | 18,0 | 27,14 | 350501014 | 410,55 |
| Rd 32 x 1/8  | 32,82 | 25,0 | 180 | 36 | 20,0 | 29,14 | 350501015 | 549,08 |
| Rd 34 x 1/8  | 34,32 | 28,0 | 200 | 36 | 22,0 | 31,14 | 350501016 | 623,39 |
| Rd 36 x 1/8  | 36,32 | 28,0 | 200 | 36 | 22,0 | 33,14 | 350501017 | 628,42 |
| Rd 38 x 1/8  | 38,32 | 28,0 | 200 | 38 | 22,0 | 35,14 | 350501018 | 727,91 |
| Rd 40 x 1/6  | 40,42 | 32,0 | 200 | 50 | 24,0 | 36,19 | 350501019 | 860,15 |

| RD           | D     | D1 | H  | D2    | No.       | €      |
|--------------|-------|----|----|-------|-----------|--------|
| Rd 10 x 1/10 | 10,25 | 38 | 14 | 9,84  | 351401001 | 341,78 |
| Rd 11 x 1/10 | 11,25 | 38 | 14 | 10,84 | 351401002 | 341,78 |
| Rd 12 x 1/10 | 12,25 | 38 | 14 | 11,84 | 351401003 | 341,78 |
| Rd 14 x 1/8  | 14,32 | 45 | 18 | 13,82 | 351401004 | 385,88 |
| Rd 16 x 1/8  | 16,32 | 45 | 18 | 15,82 | 351401005 | 385,88 |
| Rd 18 x 1/8  | 18,32 | 45 | 18 | 17,82 | 351401006 | 385,88 |
| Rd 20 x 1/8  | 20,32 | 55 | 22 | 19,82 | 351401007 | 529,20 |
| Rd 22 x 1/8  | 22,32 | 55 | 22 | 21,82 | 351401008 | 529,20 |
| Rd 24 x 1/8  | 24,32 | 55 | 22 | 23,82 | 351401009 | 529,20 |
| Rd 26 x 1/8  | 26,32 | 65 | 25 | 25,82 | 351401010 | 663,71 |
| Rd 28 x 1/8  | 28,32 | 65 | 25 | 27,82 | 351401011 | 663,71 |
| Rd 30 x 1/8  | 30,32 | 65 | 25 | 29,82 | 351401012 | 663,71 |
| Rd 32 x 1/8  | 32,82 | 65 | 25 | 31,82 | 351401013 | 663,71 |

| RMS        | D1    | D2   | L1 | L2 | □    | ✎     | No.       | € |
|------------|-------|------|----|----|------|-------|-----------|---|
| W 0,8 x 36 | 20,35 | 16,0 | 80 | 18 | 12,0 | 19,45 | 360501001 | * |

\* on request

| RMS        | D     | D1 | H  | D2    | No.       | € |
|------------|-------|----|----|-------|-----------|---|
| W 0,8 x 36 | 20,35 | 45 | 14 | 20,00 | 361401002 | * |

\* on request

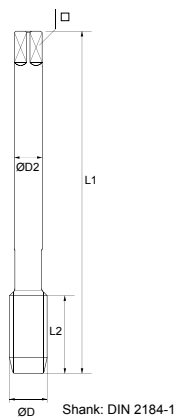
**MINI**

Metric Mini-thread and Nono-thread

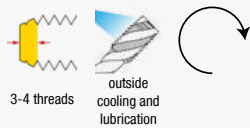
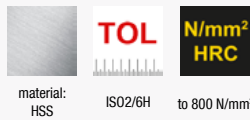
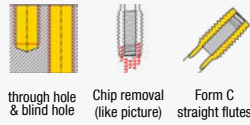
Efficient internal thread cutting in clock and watch industry as well as apparatus construction and fine mechanics.

For through and blind holes. Very break-proof.

Suitable for automatic lathe and tapping machine.



## Machine Tap for general use



| MINI          | D1  | D2  | L1 | L2  | Material |       | No.       | packing unit [PU] | € per PU |
|---------------|-----|-----|----|-----|----------|-------|-----------|-------------------|----------|
|               |     |     |    |     | steel    | brass |           |                   |          |
| M 0,3 x 0,08  | 0,3 | 1,0 | 22 | 2   | 0,2      | 0,24  | 370501001 | 10 pieces         | *        |
| M 0,35 x 0,09 | 0,4 | 1,0 | 22 | 2   | 0,3      | 0,28  | 370501002 | 10 pieces         | *        |
| M 0,4 x 0,1   | 0,4 | 1,0 | 22 | 2,5 | 0,3      | 0,32  | 370501003 | 10 pieces         | *        |
| M 0,5 x 0,125 | 0,5 | 1,0 | 22 | 3   | 0,4      | 0,40  | 370501004 | 10 pieces         | *        |
| M 0,6 x 0,15  | 0,6 | 1,0 | 22 | 3,5 | 0,5      | 0,49  | 370501005 | 10 pieces         | *        |
| M 0,7 x 0,175 | 0,7 | 1,5 | 25 | 4,5 | 0,6      | 0,57  | 370501006 | 10 pieces         | *        |
| M 0,8 x 0,2   | 0,8 | 1,5 | 25 | 5   | 0,7      | 0,65  | 370501007 | 10 pieces         | *        |
| M 0,9 x 0,225 | 0,9 | 1,5 | 25 | 5,5 | 0,8      | 0,73  | 370501008 | 10 pieces         | *        |
| M 1 x 0,15    | 1,0 | 1,5 | 25 | 6   | 0,9      | 0,89  | 370501009 | 10 pieces         | *        |
| M 1 x 0,2     | 1,0 | 1,5 | 25 | 6   | 0,9      | 0,85  | 370501010 | 10 pieces         | *        |
| M 1 x 0,25    | 1,0 | 1,5 | 25 | 6   | 0,8      | 0,81  | 370501011 | 10 pieces         | *        |
| M 1,1 x 0,25  | 1,1 | 1,5 | 25 | 7   | 0,9      | 0,91  | 370501012 | 10 pieces         | *        |
| M 1,2 x 0,15  | 1,2 | 1,5 | 25 | 7   | 1,1      | 1,09  | 370501013 | 10 pieces         | *        |
| M 1,2 x 0,2   | 1,2 | 1,5 | 25 | 7   | 1,1      | 1,05  | 370501014 | 10 pieces         | *        |
| M 1,2 x 0,25  | 1,2 | 1,5 | 25 | 7   | 1,0      | 1,01  | 370501015 | 10 pieces         | *        |
| M 1,3 x 0,3   | 1,3 | 1,5 | 25 | 8   | 1,1      | 1,07  | 370501016 | 10 pieces         | *        |
| M 1,4 x 0,2   | 1,4 | 2,0 | 30 | 9   | 1,3      | 1,25  | 370501017 | 10 pieces         | *        |
| M 1,4 x 0,25  | 1,4 | 2,0 | 30 | 9   | 1,2      | 1,21  | 370501018 | 10 pieces         | *        |
| M 1,4 x 0,3   | 1,4 | 2,0 | 30 | 8,5 | 1,2      | 1,17  | 370501019 | 10 pieces         | *        |
| M 1,5 x 0,3   | 1,5 | 2,0 | 30 | 10  | 1,3      | 1,27  | 370501020 | 10 pieces         | *        |
| M 1,6 x 0,2   | 1,6 | 2,0 | 30 | 10  | 1,5      | 1,45  | 370501021 | 10 pieces         | *        |
| M 1,6 x 0,25  | 1,6 | 2,0 | 30 | 10  | 1,4      | 1,41  | 370501022 | 10 pieces         | *        |
| M 1,6 x 0,35  | 1,6 | 2,0 | 30 | 10  | 1,3      | 1,30  | 370501023 | 10 pieces         | *        |
| M 1,7 x 0,35  | 1,7 | 2,0 | 30 | 10  | 1,4      | 1,40  | 370501024 | 10 pieces         | *        |
| M 1,8 x 0,2   | 1,8 | 2,0 | 30 | 10  | 1,7      | 1,65  | 370501025 | 10 pieces         | *        |
| M 1,8 x 0,25  | 1,8 | 2,0 | 30 | 10  | 1,6      | 1,61  | 370501026 | 10 pieces         | *        |
| M 1,8 x 0,35  | 1,8 | 2,0 | 30 | 10  | 1,5      | 1,50  | 370501027 | 10 pieces         | *        |
| M 2 x 0,2     | 2,0 | 3,0 | 35 | 13  | 1,9      | 1,85  | 370501028 | 10 pieces         | *        |
| M 2 x 0,25    | 2,0 | 3,0 | 35 | 13  | 1,8      | 1,81  | 370501029 | 10 pieces         | *        |
| M 2 x 0,4     | 2,0 | 3,0 | 35 | 13  | 1,7      | 1,65  | 370501030 | 10 pieces         | *        |
| M 2,2 x 0,45  | 2,2 | 3,0 | 35 | 13  | 1,8      | 1,80  | 370501031 | 10 pieces         | *        |
| M 2,3 x 0,4   | 2,3 | 3,0 | 35 | 13  | 2,0      | 1,95  | 370501032 | 10 pieces         | *        |
| M 2,4 x 0,45  | 2,4 | 3,0 | 40 | 15  | 2,0      | 2,00  | 370501033 | 10 pieces         | *        |
| M 2,5 x 0,45  | 2,5 | 3,0 | 40 | 15  | 2,1      | 2,10  | 370501034 | 10 pieces         | *        |
| M 2,6 x 0,45  | 2,6 | 3,0 | 40 | 15  | 2,2      | 2,20  | 370501035 | 10 pieces         | *        |

## Camera-Tripod

Camera tripod & C-Mount thread / DIN 4503

Efficient internal thread cutting.

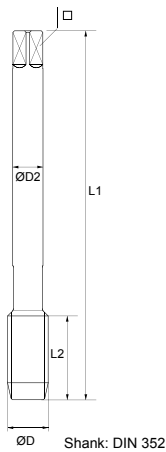
The short structural type makes that tap usable by hand.

The Short-Machine-Tap is also usable by machine.

**A Hand-Tap-Set includes 2 taps:**

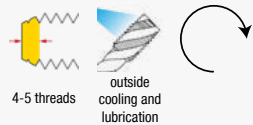
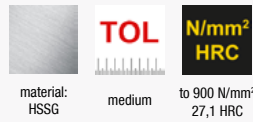
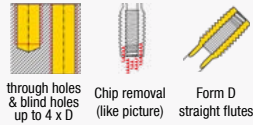
Taper Tap

Finish Tap



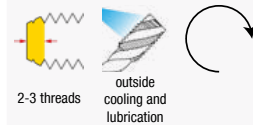
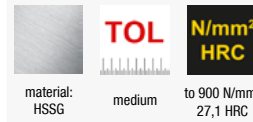
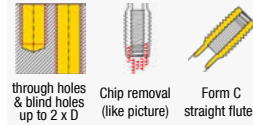
### Short Machine Taps

Form D for through holes and blind holes



### Hand Tap Sets

for general use



## Camera

|                  | D1    | D2   | L1  | L2 | □    |       | No.       | €      | No.       | €      |
|------------------|-------|------|-----|----|------|-------|-----------|--------|-----------|--------|
| Cam.-Tripod 1/4" | 6,35  | 6,0  | 50  | 19 | 4,9  | 5,20  | 380101001 | 30,54  |           |        |
| Cam.-Tripod 3/8" | 9,53  | 7,0  | 70  | 24 | 5,5  | 8,00  | 380101002 | 42,56  |           |        |
| C-Mount 1" x 32  | 25,40 | 18,0 | 130 | 45 | 14,0 | 23,75 | 380101003 | 406,82 |           |        |
| S-Mount 12 x 0,5 | 12,00 | 9,0  | 70  | 22 | 7,0  | 11,50 |           |        | 380301004 | 104,72 |

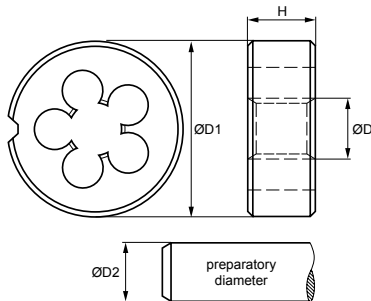
### Round Dies for general use



material: HSS medium



Chamfer: 1,75 threads right hand thread



### Camera

|                    | D     | D1 | H  | D2    | No.       | €      |
|--------------------|-------|----|----|-------|-----------|--------|
| Camera-Tripod 1/4" | 6,35  | 20 | 7  | 6,22  | 381401001 | 39,47  |
| Camera-Tripod 3/8" | 9,53  | 20 | 7  | 9,37  | 381401002 | 52,92  |
| C-Mount 1" x 32    | 25,40 | 55 | 16 | 25,25 | 381401003 | 285,00 |
| S-Mount 12 x 0,5   | 12,00 | 38 | 10 | 11,92 | 381401004 | 105,12 |

## VG Valve thread / DIN 7756

Efficient internal thread cutting.

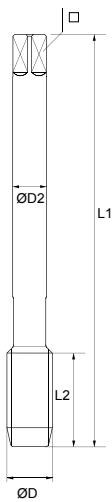
The short structural type makes that tap usable by hand.

The Short-Machine-Tap is also usable by machine.

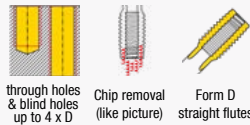
**A Hand-Tap-Set includes 2 taps:**

Taper Tap

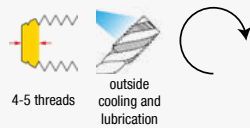
Finish Tap



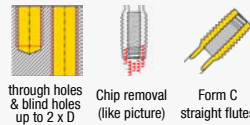
### Short Machine Taps Form D for through holes and blind holes



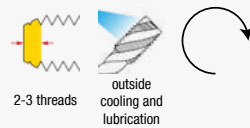
through holes & blind holes up to 4 x D  
Chip removal (like picture)  
Form D straight flutes  
material: HSSG  
TOL medium  
N/mm<sup>2</sup> to 900 N/mm<sup>2</sup> 27,1 HRC



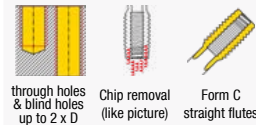
### Hand Tap Sets for general use



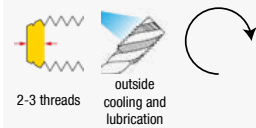
through holes & blind holes up to 2 x D  
Chip removal (like picture)  
Form C straight flutes  
material: HSSG  
TOL medium  
N/mm<sup>2</sup> to 900 N/mm<sup>2</sup> 27,1 HRC



### Short Machine Taps Form C for through holes and blind holes



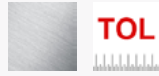
through holes & blind holes up to 2 x D  
Chip removal (like picture)  
Form C straight flutes  
material: HSSG  
TOL medium  
N/mm<sup>2</sup> to 900 N/mm<sup>2</sup> 27,1 HRC



## VG

|                 | D1    | D2  | L1  | L2 |     |       | No.       | €      | No.       | €      | No.       | €      |
|-----------------|-------|-----|-----|----|-----|-------|-----------|--------|-----------|--------|-----------|--------|
| <b>DIN 2181</b> |       |     |     |    |     |       |           |        |           |        |           |        |
| VG 5 x 36       | 5,15  | 6,0 | 50  | 12 | 4,9 | 4,65  | 390101001 | 81,86  | 390301001 | 278,52 |           |        |
| VG 5,2 x 24     | 5,23  | 6,0 | 56  | 17 | 4,9 | 4,25  | 390101002 | 81,86  | 390301002 | 255,32 |           |        |
| VG 6 x 32       | 5,98  | 6,0 | 56  | 14 | 4,9 | 5,35  | 390101003 | 91,30  | 390301003 | 290,14 |           |        |
| VG 8 x 32       | 7,68  | 7,0 | 56  | 16 | 5,5 | 6,90  | 390101004 | 93,19  | 390301004 | 324,95 |           |        |
| VG 10 x 28      | 10,27 | 8,0 | 63  | 18 | 6,2 | 9,35  | 390101005 | 100,75 | 390301005 | 348,16 |           |        |
| VG 12 x 26      | 12,17 | 9,0 | 70  | 22 | 7,0 | 11,15 | 390101006 | 113,34 | 390301006 | 235,17 |           |        |
| <b>DIN 374</b>  |       |     |     |    |     |       |           |        |           |        |           |        |
| VG 5 x 36       | 5,15  | 6,0 | 70  | 12 | 4,9 | 4,65  |           |        |           |        | 390501001 | 81,86  |
| VG 5,2 x 24     | 5,23  | 6,0 | 80  | 17 | 4,9 | 4,25  |           |        |           |        | 390501002 | 81,86  |
| VG 6 x 32       | 5,98  | 7,0 | 80  | 14 | 5,5 | 5,35  |           |        |           |        | 390501003 | 91,30  |
| VG 8 x 32       | 7,68  | 8,0 | 80  | 16 | 6,2 | 6,90  |           |        |           |        | 390501004 | 93,19  |
| VG 10 x 28      | 10,27 | 8,0 | 90  | 18 | 6,2 | 9,35  |           |        |           |        | 390501005 | 100,75 |
| VG 12 x 26      | 12,17 | 9,0 | 100 | 22 | 7,0 | 11,15 |           |        |           |        | 390501006 | 113,34 |

## Round Dies for general use

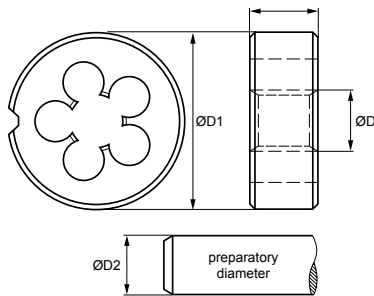


material:

HSS

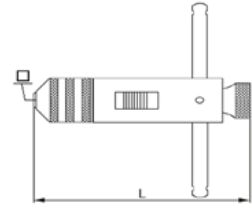
medium


 Chamfer:  
1,5 threads

 right hand  
thread

**VG**

|                    | D     | D1 | H  | D2    | No.       | €     |
|--------------------|-------|----|----|-------|-----------|-------|
| <b>VG 5 x 36</b>   | 5,15  | 20 | 7  | 5,15  | 391401001 | 45,34 |
| <b>VG 5,2 x 24</b> | 5,23  | 20 | 7  | 5,23  | 391401002 | 45,34 |
| <b>VG 6 x 32</b>   | 5,98  | 20 | 7  | 5,98  | 391401003 | 45,34 |
| <b>VG 8 x 32</b>   | 7,68  | 25 | 9  | 9,60  | 391401004 | 64,23 |
| <b>VG 10 x 28</b>  | 10,27 | 30 | 11 | 10,27 | 391401005 | 89,42 |
| <b>VG 12 x 26</b>  | 12,17 | 30 | 11 | 12,17 | 391401006 | 89,42 |

## BAER Tap holders with ratchet



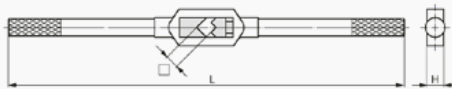
### for taps

| size | metric     | inch-sizes | □         | L1  | No.       | €     |
|------|------------|------------|-----------|-----|-----------|-------|
| 1    | M 3 - M 10 | 1/8 - 3/8  | 2,4 - 5,5 | 85  | 491625001 | 10,68 |
| 2    | M 5 - M 12 | 7/32 - 1/2 | 4,5 - 8,0 | 100 | 491625002 | 13,20 |
| 10   | M 3 - M 10 | 1/8 - 3/8  | 2,4 - 5,5 | 250 | 491625010 | 17,60 |
| 20   | M 5 - M 12 | 7/32 - 1/2 | 4,5 - 8,0 | 300 | 491625020 | 21,37 |



## Adjustable Pro Tap Wrenches - Premium zinc die cast

### for taps



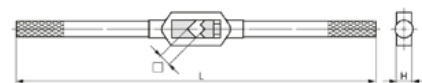
| size  | metric      | inch-sizes  | pipe-threads   | □         | L1   | No.       | €     |
|-------|-------------|-------------|----------------|-----------|------|-----------|-------|
| 0     | M 1 - M 8   | 1/16 - 1/4  |                | 2,0 - 5,0 | 130  | 491725000 | 5,40  |
| 1     | M 1 - M 10  | 1/16 - 3/8  | G 1/8          | 2,0 - 6,3 | 176  | 491725010 | 5,79  |
| 1.1/2 | M 1 - M 12  | 1/16 - 1/2  | G 1/8          | 2,1 - 8,0 | 176  | 491725015 | 5,79  |
| 2     | M 4 - M 12  | 5/32 - 1/2  | G 1/8          | 3,0 - 9,0 | 280  | 491725020 | 11,10 |
| 3     | M 5 - M 20  | 7/32 - 3/4  | G 1/8 - G 1/2  | 4,9 - 12  | 380  | 491725030 | 19,60 |
| 4     | M 11 - M 27 | 7/16 - 1"   | G 1/4 - G 3/4  | 5,5 - 16  | 505  | 491725040 | 31,50 |
| 5     | M 13 - M 32 | 1/2 - 1.1/4 | G 1/4 - G 1"   | 7,0 - 20  | 700  | 491725050 | 45,00 |
| 6     | M 18 - M 42 | 3/4 - 1.1/2 | G 1/2 - 1.1/4" | 11,0 - 24 | 1000 | 491725060 | 99,50 |

## Adjustable Tap Wrenches - steel



### for taps

|       | metric      | inch-sizes  | pipe-threads    | □         | L1   | No.       | €      |
|-------|-------------|-------------|-----------------|-----------|------|-----------|--------|
| 0     | M 1 - M 8   | 1/16 - 1/4  |                 | 2,0 - 5,0 | 130  | 491724000 | 7,87   |
| 1     | M 1 - M 10  | 1/16 - 3/8  |                 | 2,0 - 6,3 | 180  | 491724010 | 9,03   |
| 1.1/2 | M 1 - M 12  | 1/16 - 1/2  | G 1/8           | 2,1 - 8,0 | 205  | 491724015 | 9,03   |
| 2     | M 4 - M 12  | 5/32 - 1/2  | G 1/8           | 3,0 - 9,0 | 280  | 491724020 | 16,16  |
| 3     | M 5 - M 20  | 7/32 - 3/4  | G 1/8 - G 1/2   | 4,9 - 12  | 380  | 491724030 | 30,96  |
| 4     | M 11 - M 27 | 7/16 - 1"   | G 1/4 - G 3/4   | 5,5 - 16  | 500  | 491724040 | 54,57  |
| 5     | M 13 - M 32 | 1/2 - 1.1/4 | G 1/4 - G 1"    | 7,0 - 20  | 700  | 491724050 | 64,02  |
| 6     | M 18 - M 42 | 3/4 - 1.1/2 | G 1/2 - G 1.1/4 | 11 - 24   | 1000 | 491724060 | 107,05 |
| 7     | M 27 - M 52 | 1.1/8 - 2"  | G 3/4 - G 1.3/4 | 16 - 32   | 1250 | 491724070 | 119,64 |
| 8     | M 27 - M 64 | 1.1/8 - 3"  | G 3/4 - G 3"    | 16 - 40   | 1250 | 491724080 | 289,65 |

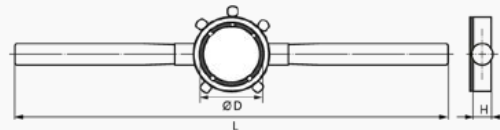


## Die Stocks Pro - Premium zinc die cast



### For Round Dies

| ∅ D x H | metric        | inch-sizes            | L1  | No.       | €     |
|---------|---------------|-----------------------|-----|-----------|-------|
| 16 x 5  | M 1 - M 2,6   | BSW 1/16 - BSW 3/32   | 160 | 491825001 | 4,21  |
| 20 x 5  | M 3 - M 4     | BSW 1/8 - BSW 5/32    | 200 | 491825002 | 4,74  |
| 20 x 7  | M 4.5 - M 6   | BSW 3/16 - BSW 1/4    | 200 | 491825003 | 4,74  |
| 25 x 9  | M 7 - M 9     | BSW 5/16              | 224 | 491825004 | 5,40  |
| 30 x 11 | M 10 - M 11   | BSW 3/8 - BSW 7/16    | 280 | 491825005 | 7,37  |
| 38 x 10 | MF 12 - MF 15 | G 1/4                 | 315 | 491825006 | 11,84 |
| 38 x 14 | M 12 - M 14   | BSW 1/2 - BSW 9/16    | 315 | 491825007 | 11,84 |
| 45 x 14 | MF 16 - MF 20 | G 3/8-1/2             | 450 | 491825008 | 16,18 |
| 45 x 18 | M 16 - M 20   | BSW 5/8 - BSW 13/16   | 450 | 491825009 | 16,18 |
| 55 x 16 | MF 22 - MF 26 | G 5/8 - G 3/4         | 560 | 491825010 | 21,70 |
| 55 x 22 | M 22 - M 24   | BSW 7/8 - BSW 1"      | 560 | 491825011 | 21,70 |
| 65 x 18 | MF 27 - MF 36 | G 7/8 - G 1"          | 630 | 491825012 | 31,05 |
| 65 x 25 | M 27 - M 36   | BSW 1.1/8 - BSW 1.3/8 | 630 | 491825013 | 31,05 |

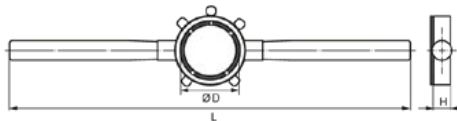


## Die Stocks - zinc die cast



### For Round Dies

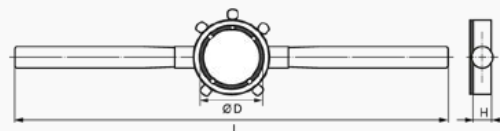
| ∅ D in inch | ∅ D (mm) x H (mm) | ∅ D (inch) x H (inch) | L1   | No.       | €      |
|-------------|-------------------|-----------------------|------|-----------|--------|
| 13/16"      | 20,6 x 6,35       | 13/16 x 1/4           | 200  | 491823014 | 3,78   |
| 1"          | 25,4 x 9,5        | 1" x 3/8              | 224  | 491823015 | 4,62   |
| 1.5/16"     | 33,4 x 11,1       | 1.5/16 x 7/16         | 270  | 491823016 | 7,98   |
| 1.1/2"      | 38,1 x 12,7       | 1.1/2 x 1/2           | 315  | 491823017 | 12,17  |
| 2"          | 50,8 x 15,9       | 2" x 5/8              | 560  | 491823018 | 19,73  |
| 2.1/4"      | 57,1 x 17,5       | 2.1/4 x 11/16         | 560  | 491823019 | 20,99  |
| 2.1/2"      | 63,5 x 19,0       | 2.1/2 x 3/4           | 630  | 491823020 | 27,71  |
| 3"          | 76,2 x 22,2       | 3" x 7/8              | 900  | 491823021 | 81,86  |
| 3.1/2"      | 88,9 x 25,4       | 3.1/2" x 1"           | 900  | 491823022 | 97,60  |
| 4"          | 101,6 x 25,4      | 4" x 1"               | 1000 | 491823023 | 240,54 |



## Die Stocks - steel

### For Round Dies

| ∅ D x H  | metric        | inch-sizes            | L1  | No.       | €      |
|----------|---------------|-----------------------|-----|-----------|--------|
| 45 x 18  | M 16 - M 20   | BSW 5/8 - BSW 13/16   | 450 | 491824001 | 27,71  |
| 55 x 22  | M 22 - M 24   | BSW 7/8 - BSW 1"      | 560 | 491824002 | 39,04  |
| 65 x 25  | M 27 - M 36   | BSW 1.1/8 - BSW 1.3/8 | 630 | 491824003 | 49,12  |
| 75 x 20  | MF 38 - MF 42 | G 1.1/8 - G 1.1/4     | 800 | 491824004 | 80,60  |
| 75 x 30  | M 38 - M 42   | BSW 1.1/2 - BSW 1.5/8 | 800 | 491824005 | 80,60  |
| 90 x 22  | MF 45 - MF 52 | G 1.3/8 - G 1.5/8     | 900 | 491824006 | 103,27 |
| 90 x 36  | M 45 - M 52   | BSW 1.3/4 - BSW 2"    | 900 | 491824007 | 103,27 |
| 105 x 22 | MF 54 - MF 63 | G 1.3/4 - G 2"        | 975 | 491824008 | 123,42 |
| 105 x 36 | M 54 - M 63   | BSW 2.1/4             | 975 | 491824009 | 123,42 |
| 120 x 22 | MF 64 - MF 71 | G 2.1/4 - G 2.3/4     | 956 | 491824010 | 352,62 |
| 120 x 36 | M 64 - M 71   | BSW 2.1/2 - BSW 2.3/4 | 956 | 491824011 | 352,62 |
| 130 x 25 |               | G 3"                  | 966 | 491824012 | 440,78 |
| 130 x 36 |               |                       | 966 | 491824013 | 440,78 |
| 140 x 22 |               |                       | 976 | 491824014 | 566,72 |
| 150 x 25 |               | G 3.1/2"              | 986 | 491824015 | 623,39 |
| 160 x 25 |               | G 4"                  | 996 | 491824016 | 856,37 |



## Extension sleeves for taps



|      | L1  | for taps<br>metric acc. to DIN 352 | No.       | €      |
|------|-----|------------------------------------|-----------|--------|
| 2,1  | 60  | M 1 - M 2,6                        | 491925021 | 3,15   |
| 2,4  | 70  |                                    | 491925024 | 3,15   |
| 2,7  | 80  | M 3                                | 491925027 | 3,57   |
| 3,0  | 90  | M 3,5                              | 491925030 | 3,57   |
| 3,4  | 95  | M 4                                | 491925034 | 4,09   |
| 3,8  | 100 |                                    | 491925038 | 4,62   |
| 4,3  | 105 |                                    | 491925043 | 4,83   |
| 4,9  | 110 | M 4,5 - M 8                        | 491925049 | 5,04   |
| 5,5  | 115 | M 9 - M 10                         | 491925055 | 5,04   |
| 6,2  | 120 | M 11                               | 491925062 | 5,67   |
| 7,0  | 125 | M 12                               | 491925070 | 6,40   |
| 8,0  | 125 |                                    | 491925080 | 8,71   |
| 9,0  | 130 | M 14 - M 16                        | 491925090 | 9,34   |
| 10,0 | 140 |                                    | 491925100 | 9,97   |
| 11,0 | 150 | M 18                               | 491925110 | 12,07  |
| 12,0 | 155 | M 20                               | 491925120 | 15,74  |
| 13,0 | 165 |                                    | 491925130 | 17,84  |
| 14,5 | 175 | M 22 - M 24                        | 491925145 | 22,04  |
| 16,0 | 180 | M 27                               | 491925160 | 23,09  |
| 18,0 | 200 | M 30                               | 491925180 | 27,29  |
| 20,0 | 220 | M 33                               | 491925200 | 35,16  |
| 22,0 | 220 | M 36                               | 491925220 | 48,28  |
| 24,0 | 235 | M 39 - M 42                        | 491925240 | 62,97  |
| 26,0 | 250 |                                    | 491925260 | 81,86  |
| 29,0 | 265 | M 45 - M 48                        | 491925290 | 96,55  |
| 32,0 | 285 | M 52                               | 491925320 | 136,43 |



## Pro Die Guides M 3 - M 12

for Round Dies DIN 223 = EN 22568 and  
Die Stocks DIN 225 = EN 22568

### Application:

- ⚙️ The guide helps cutting an external thread with cutting dies. The guides will be laid together with the cutting dies into the die holder.

### Advantages:

- ✔️ made of free-cutting steel with an oxidized surface
- ✔️ accurate aligned threads
- ✔️ clear thread flanks
- ✔️ less deficient products
- ✔️ better evacuation of the chip, because of the leading with clearance holes
- ✔️ able to cut right- or left-hand threads as well as all possible pitches



**19,43 €**

Item No.:  
492025312

Net prices without VAT or tax



**13,01 €** 100 ml  
Item No.: SP100

## BAER High Performance cutting paste

Cutting paste with high pressure additives achieves extremely high lubricity. The paste adhering to the cutting edges only gets liquid when used (use cutting paste undiluted).

Lubrication is important for chip removal processes.

### Advantages:

- ✓ Contains no petroleum, chlorine or sulfur
- ✓ Significantly improved tool life time
- ✓ Does not leave a greasy film of oil on the workpiece

### Application:

- ⚙ Drilling, tapping, thread milling, reaming, milling, core drilling, sawing, as well as for heavy chipping and for all machining operations.

**For all steels such as:** iron, steel, tool steel, high alloy steels, chromium-nickel alloys, Aluminum, titanium, manganese, cast steel, cast iron, brass, bronze and all stainless steels AISI 304, AISI 316, INOX etc.

## BAER Countersink

**HSSG 90°  
Countersink**  
for general use



**HSSE-VAP 90°  
Countersink**  
for stainless  
steels



**HSSG-Bit 90°  
Countersink**  
for electric screw  
drivers

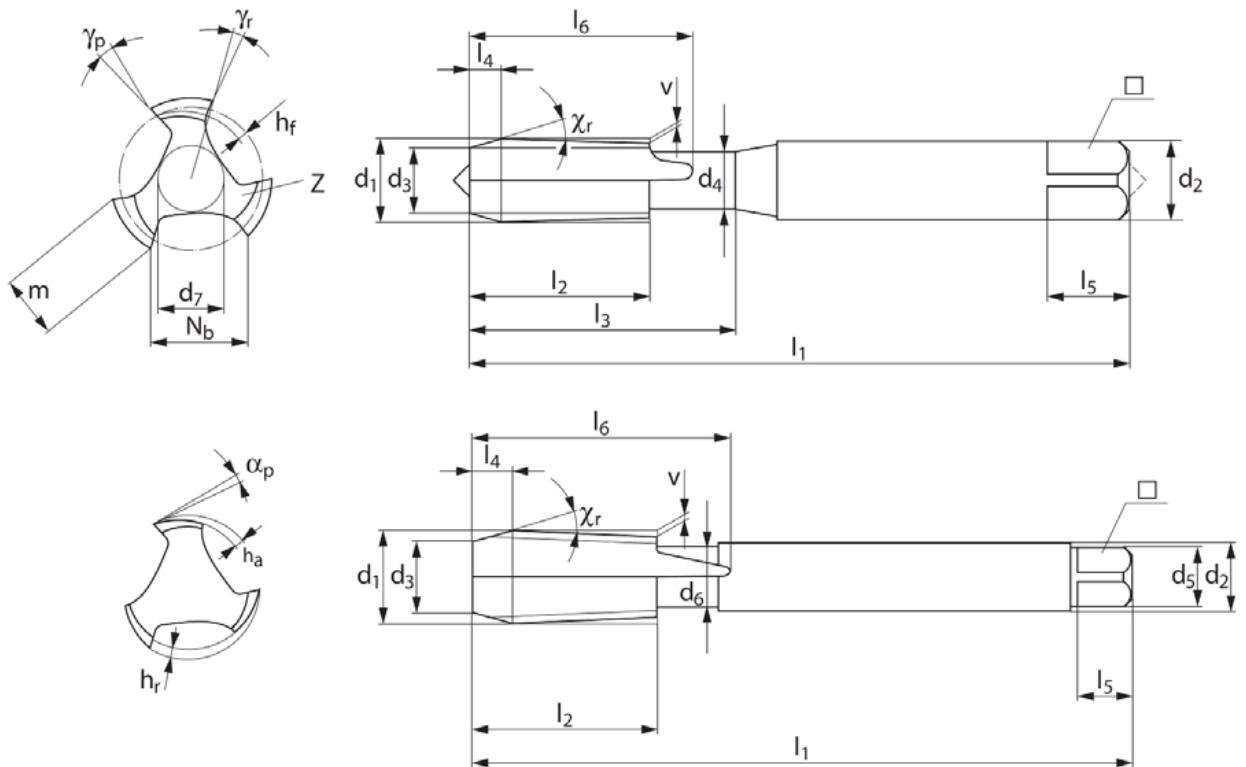


| dimension                                     | No.    | €      | No.    | €      | No.    | €     |
|---|--------|--------|--------|--------|--------|-------|
| 6,3 mm (M 3)                                  | 74563  | 6,81   | 74663  | 13,51  | 744063 | 6,16  |
| 8,3 mm (M 4)                                  | 74583  | 8,17   | 74683  | 15,77  | 744083 | 6,48  |
| 10,4 mm (M 5)                                 | 745104 | 9,07   | 746104 | 18,14  | 744104 | 8,26  |
| 12,4 mm (M 6)                                 | 745124 | 11,35  | 746124 | 21,55  | 744124 | 9,59  |
| 16,5 mm (M 8)                                 | 745165 | 15,82  | 746165 | 35,38  | 744165 | 13,18 |
| 20,5 mm (M 10)                                | 745205 | 22,00  | 746205 | 45,02  | 744205 | 16,96 |
| 25,0 mm (M 12)                                | 745250 | 30,39  | 746250 | 56,71  |        |       |
| 31,0 mm (M 16)                                | 745310 | 56,24  | 746310 | 105,46 |        |       |
| Set 6,3   8,3   10,4   12,4   16,5   20,5 mm* | 1571   | 92,43  | 1573   | 165,57 | 1576   | 68,04 |
| Set 6,3   10,4   16,5   20,5   25,0 mm*       | 1572   | 105,23 | 1574   | 187,11 |        |       |



\* picture of sets

## Tap Geometries


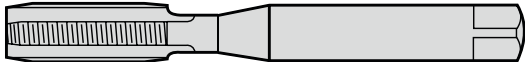
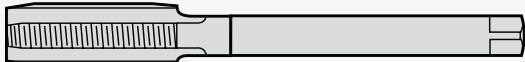




|                          |                          |           |                           |
|--------------------------|--------------------------|-----------|---------------------------|
| <b>d1</b>                | Thread diameter          | <b>Z</b>  | Number of flutes          |
| <b>d2</b>                | Shank diameter           | <b>v</b>  | Back taper (axial relief) |
| <b>d3</b>                | Chamfer diameter         | <b>xr</b> | Chamfer angle             |
| <b>d4</b>                | Neck diameter            | <b>Nb</b> | Width of flute            |
| <b>d5</b>                | Recessed square diameter | <b>m</b>  | Width of land             |
| <b>d6</b>                | Neck diameter            | <b>ha</b> | Chamfer relief            |
| <b>d7</b>                | Web diameter             | <b>hf</b> | Relief on flanks          |
| <b>l1</b>                | Total length             | <b>hr</b> | Chamfer relief            |
| <b>l2</b>                | Thread length            | <b>αp</b> | Relief angle              |
| <b>l3</b>                | Useful length            | <b>γp</b> | Rake angle                |
| <b>l4</b>                | Chamfer lead length      |           |                           |
| <b>l5</b>                | Square length            |           |                           |
| <b>l6</b>                | Flute length             |           |                           |
| <input type="checkbox"/> | Square dimension         |           |                           |

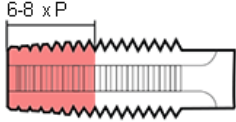
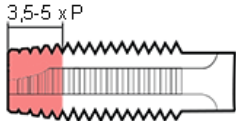
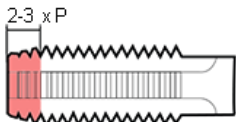
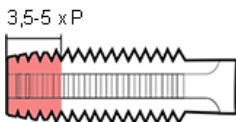
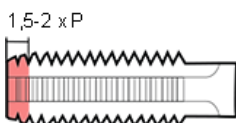
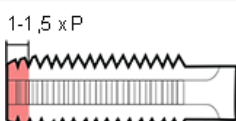
## Tap Centering



## Tap Construction dimensions

|   |          |           |          |                        |
|---|----------|-----------|----------|------------------------|
|  | DIN 352  | DIN 2181  | DIN 5157 | DIN 40432              |
| Gewindebohrer / Tap   |          |           |          |                        |
|  | DIN 371  | DIN 40435 |          |                        |
| Gewindebohrer / Tap   |          |           |          |                        |
|  | DIN 376  | DIN 374   | DIN 5156 | DIN 40433<br>DIN 40435 |
| Gewindebohrer / Tap   |          |           |          |                        |
|  | DIN 2174 | DIN 371   |          |                        |
| Gewindeformer / Forming Tap   |          |           |          |                        |
|  | DIN 2174 | DIN 376   | DIN 2189 |                        |
| Gewindeformer / Forming Tap   |          |           |          |                        |

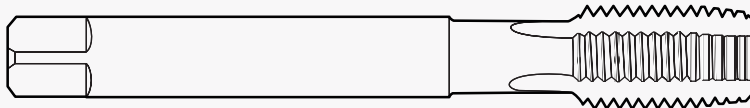
## Tap Chamfer Forms

|   |  |
|---|--|
|  | <b>Form A</b><br>long, 6 - 8 thread<br>straight flutes<br>for short through holes  |
|  | <b>Form B</b><br>medium, 3,5 - 5,5 threads<br>straight flutes with spiral point<br>for through holes in medium- and long chipping materials                                    |
|  | <b>Form C</b><br>short, 2 - 3 threads<br>straight and spiral flutes<br>for blind holes in medium- and long chipping materials<br>for through holes in short chipping materials |
|  | <b>Form D</b><br>medium, 3,5 - 5 threads<br>straight and spiral flutes 15°<br>for blind holes with long thread runout<br>for short through holes                               |
|  | <b>Form E</b><br>very short, 1,5 - 2 threads<br>straight and spiral flutes 15°<br>for blind holes with short thread runout   |
|  | <b>Form F</b><br>very short, 1 - 1,5 threads<br>straight and spiral flutes<br>for blind holes with short thread runout<br>Avoid if possible.                                   |

**Please note:**

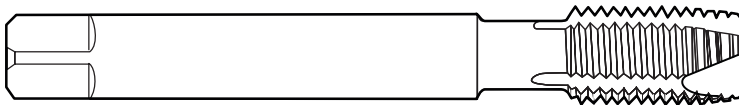
Short chamfers cut threads close to the bottom of the borehole.  
 Long chamfers reduce the forced on the cutting edges (recommended for materials with higher material strength)  
 Long chamfers increase the required torque.

## Tap flutes



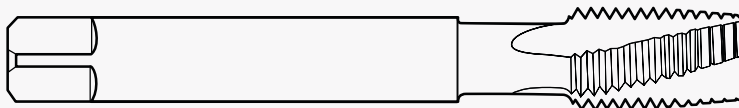
**Form A, C, E**  
straight-fluted  
for through and blind holes

The flutes can hold a part of the chips. Chips get only partially removed in cutting direction. For this reason it is not recommended to use the tap for deep holes.



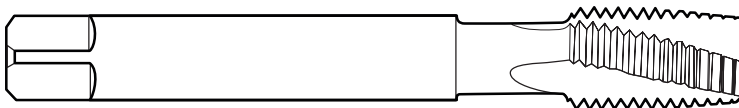
**Form B**  
straight-fluted with spiral point  
for through holes

Due to the spiral point the chips are getting removed tightly rolled in cutting direction and prevents chip-packing. Coolant-lubricant can flow freely.



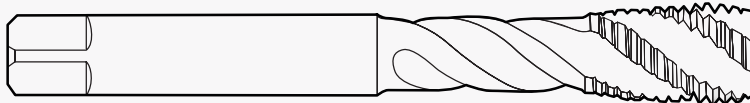
**Form C, D**  
8 - 15° left-hand spiral flutes  
for through holes

Due to the left-hand spiral flutes the rake angle remains constant and ensure stable chamfer teeth to produce threads in high-strength materials. The left-hand spiral flutes forces the chips to remove ahead of the tap.



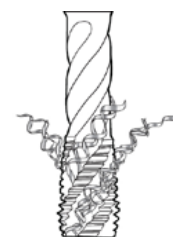
**Form C, E**  
10 - 15° right-hand spiral flutes  
for blind holes

Especially suitable for automatic lathes and multi-spindle machines. Due to the chip removal against the cutting direction a secured tapping process is assured in hard conditions, even for threads with cross holes.

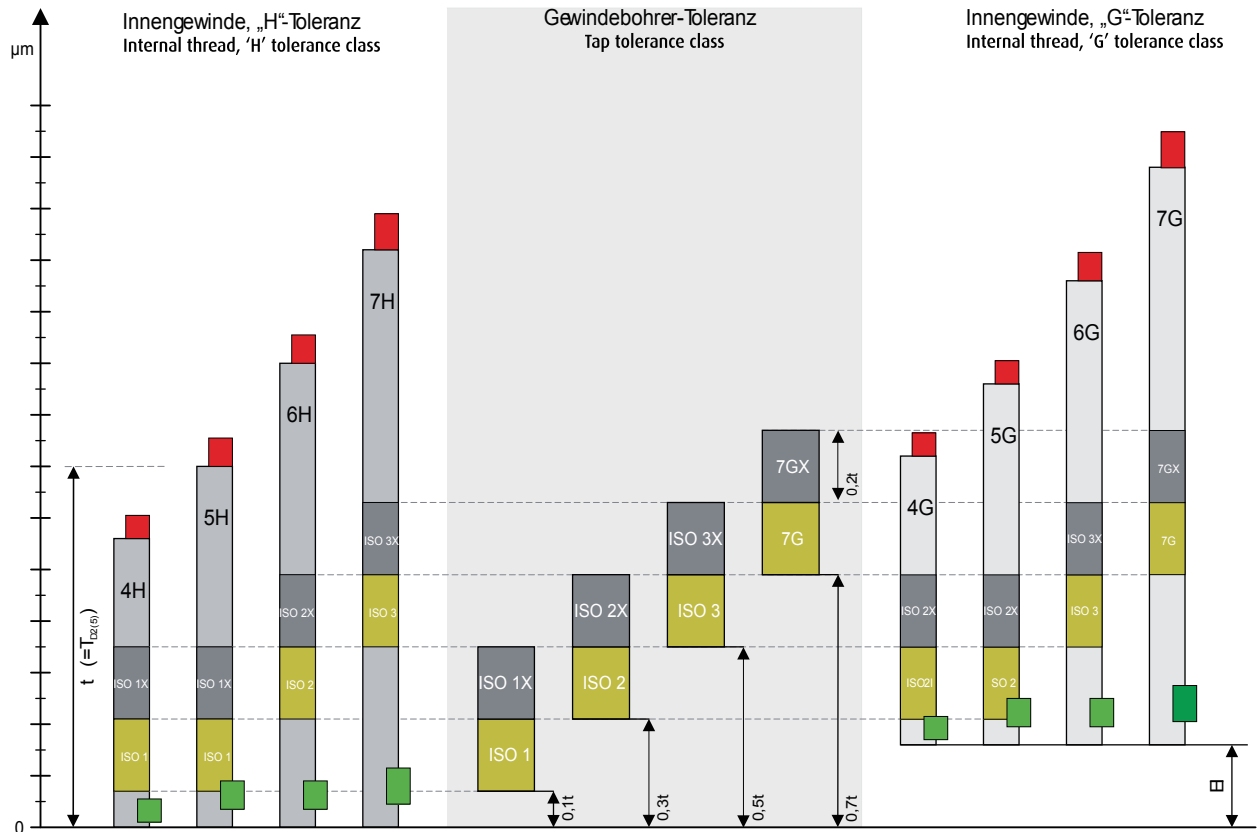


**Form C, E**  
35 - 50° right-hand spiral flutes  
for blind holes

Due to the high spiral flutes, the chips can be removed securely also in long-chipping and deep blind holes.



## Tolerances



- Flankendurchmesser-Toleranz des Innengewindes nach DIN ISO 965-1  
Pitch diameter tolerance of internal thread acc. DIN ISO 965-1
- Gewindebohrer mit spezieller Flankendurchmesser-Toleranz  
Taps with specific pitch diameter tolerance
- Flankendurchmesser-Toleranz des Gewindebohrers nach DIN EN 22857  
Pitch diameter tolerance of the tap acc. DIN EN 22857
- Flankendurchmesser-Toleranz des Ausschusslehrdorns nach DIN ISO 1502  
Pitch diameter tolerance of the no-go thread plug gauge acc. DIN ISO 1502
- Flankendurchmesser-Toleranz des Gutlehrdorns nach DIN ISO 1502  
Pitch diameter tolerance of the go thread plug gauge acc. DIN ISO 1502

- EI = Grundmaß  
Basis
- t = Toleranzklasse 5 des Innengewindes (Toleranzeinheit)  
Tolerance class of the internal thread (tolerance unit)
- TD2 = Toleranz des Flankendurchmessers  
Pitch diameter tolerance

| tolerance class of tap | tolerance field internal thread | remarks   | Applications                              |
|------------------------|---------------------------------|-----------|---|
| 4H (DIN 802/1)         | ISO 1 4H 5H                     | undersize | Threads with small clearance              |
| 6H (DIN 802/1)         | ISO 2 4G 5G 6H                  | normal    | Thread with normal clearance              |
| 6G (DIN 802/1)         | ISO 3 6G 7H 8H                  | oversize  | Threads with large clearance              |
| 7G (DIN 802/4)         | 7G 8G                           | oversize  | before heat treatment, causing distortion |
| 6H +0,1                |                                 | oversize  | Electroplating allowance ≈ 25µm thickness |
| 6H +0,2                |                                 | oversize  | Electroplating allowance ≈ 50µm thickness |

## Tap Surface Treatments



### TIN (titanium nitride) coating

The TIN surface treatment (titanium-nitride gold-yellow) increases the surface hardness (approx. 2300 HV) and the sliding properties. It provides a better cutting performance and increased tool life time.



### VAP (vaporized - steam tempered)

The oxide surface (vaporized) improves the adhesion of the cutting oil and provides a stabil lubricant film. Cold welding in the tap flanks is reduced.



### TiAlN (titanium aluminium nitride) coating

The TiAlN surface treatment increases the surface hardness (approx. 3300 HV), the sliding properties (friction coefficient: 0,25) and with high temperature resistance up to 800°C. It provides a better cutting performance and increased tool life time.



### TiCN (titanium carbonitride) coating

The TiCN surface treatment (titanium carbon nitride - grey violet) increases the surface hardness (approx. 3000 HV) and the sliding properties (coefficient of friction: 0,3). It provides a better cutting performance and increased tool life time.

## Coating services

Every threading tool of our product range - whether or not cataloged - can be delivered with any coating or surface treatment in short time.

|   |  |
|---|--|
| <b>Tapping undersized threads</b>           | <ul style="list-style-type: none"> <li>Pitch error</li> <li>Too small tolerance</li> <li>Geometry of the tap is not suitable for the material</li> </ul>   |
| <b>Tapping oversized threads</b>            | <ul style="list-style-type: none"> <li>Cutting speed is too high</li> <li>Bad running accuracy</li> <li>Chip jammings in flutes</li> <li>Incorrect positioning of workpiece or tap</li> <li>Inconsistent feed of tap</li> <li>Too high tolerance</li> </ul>  |
| <b>Poor thread surface</b>                  | <ul style="list-style-type: none"> <li>Cutting speed not suitable</li> <li>Cooling is not suitable or not existing</li> <li>Geometry of the tap is not suitable for the material</li> <li>Core hole too small</li> </ul>   |
| <b>Thread break of the thread to be cut</b> | <ul style="list-style-type: none"> <li>Geometry of the tap is not suitable for the material</li> <li>Core hole too small</li> <li>Core hole not deep enough</li> <li>Chip jammings in flutes</li> <li>Bad running accuracy</li> <li>Incorrect positioning of workpiece or tap</li> <li>Inconsistent feed of tap</li> </ul>   |
| <b>Low tap lifetime</b>                     | <ul style="list-style-type: none"> <li>Cutting speed not suitable</li> <li>Cooling is not suitable or not existing</li> <li>Geometry of the tap is not suitable for the material</li> <li>Surface treatment/ coating for tap needed</li> <li>Core hole too small</li> <li>Geometry of the tap is not suitable for the material</li> <li>Core hole too small</li> <li>Core hole not deep enough</li> <li>Chip jammings in flutes</li> </ul> |
| <b>Tool outbreaks</b>                       | <ul style="list-style-type: none"> <li>Bad running accuracy</li> <li>Incorrect positioning of workpiece or tap</li> <li>Inconsistent feed of tap</li> <li>Worn tap</li> </ul>  |
| <b>Cold welding on the tap</b>              | <ul style="list-style-type: none"> <li>Cutting speed not suitable</li> <li>Increase coolant supply</li> </ul>  |

## Tap Cutting speeds

### The cutting speeds for taps depend on following parameters:

- ✓ material of the workpiece
- ✓ tap geometries
- ✓ lubrication
- ✓ and more.

You can find the cutting speed in the product descriptions of the taps in our online-shop. Just enter the item number into the Search-field and find the cutting speeds in the bottom part of the product description.

## Lubrication and cooling

It is recommended to use one of the following coolings or lubrications to improve the thread results and tool life time.

### Dry machining and pressurized air

- ✓ cast iron
- ✓ (Cooled) pressurized air is used for chip removal

### Emulsion

- ✓ Most common coolant-lubricant for thread cutting

### Thread cutting oil

- ✓ Achieving excellent thread surfaces and tool life time

### Thread cutting paste

- ✓ suitable for forming taps
- ✓ good results with horizontal cutting direction
- ✓ for bigger diameters and through holes

### MQL - Minimum-quantity lubrication

- ✓ cooling by aerosol

## Formula

| Description         | Symbol         | Unit              | Formula   | Example   |
|---------------------|----------------|-------------------|---|---|
| Rotation speed      | n              | min <sup>-1</sup> |   |   |
| Angular speed       | $\omega$       | s <sup>-1</sup>   | $\omega = \frac{2 \cdot \pi \cdot n}{60}$                                       | n = 400 min <sup>-1</sup><br>$\omega = \frac{2 \cdot \pi \cdot 400}{60}$<br>$\omega = 41,89 \text{ s}^{-1}$           |
| Cutting speed       | v <sub>c</sub> | m/min             | $v_c = \frac{d \cdot \omega}{33,3}$<br>$v_c = \frac{d \cdot \pi \cdot n}{1000}$ | n = 400 min <sup>-1</sup> , d = 20 mm<br>$v_c = \frac{20 \cdot \pi \cdot 400}{1000}$<br>v <sub>c</sub> = 25,133 m/min |
| Feed per revolution | f              | mm                |   |   |
| Feed speed          | v <sub>f</sub> | mm/min            | v <sub>f</sub> = f · n  | n = 400 min <sup>-1</sup><br>f = 0,800 mm<br>v <sub>f</sub> = 0,800 · 400<br>v <sub>f</sub> = 320 mm/min              |
| Force               | F              | N                 | F = k <sub>c</sub> · A  |   |
| Torque              | M              | Nm                | $M = \frac{F \cdot d}{2000}$  | F = 200 N, d = 20 mm<br>$M = \frac{200 \cdot 20}{2000}$<br>M = 2 Nm   |
| Mechanical work     | W              | J                 | W = F · U   | F = 200 N, d = 20 mm<br>$U = \frac{d \cdot \pi}{1000} = 0,063 \text{ m}$<br>W = 200 · 0,063 = 12,6 J                  |
| Performance         | P              | W                 | $P = \frac{F \cdot v_c}{60}$<br>P = M · $\omega$                                | F = 200 N, v <sub>c</sub> = 25,133 m/min<br>P = 83,78 W<br>M = 2 Nm, $\omega = 41,89 \text{ s}^{-1}$<br>P = 83,78 W   |
| Efficiency          | $\eta$         | -                 | $\eta = \frac{P_{ab}}{P_{an}}$<br>$\eta < 1$                                    | P <sub>ab</sub> = 58,65, P <sub>an</sub> = 83,78 W<br>$\eta = \frac{58,65}{83,78} = 0,7$                              |

$\pi = 3,141592654$

d = Diameter in mm

U = circumference in m

1 kW = 1,36 PS

1 PS = 0,736 kW

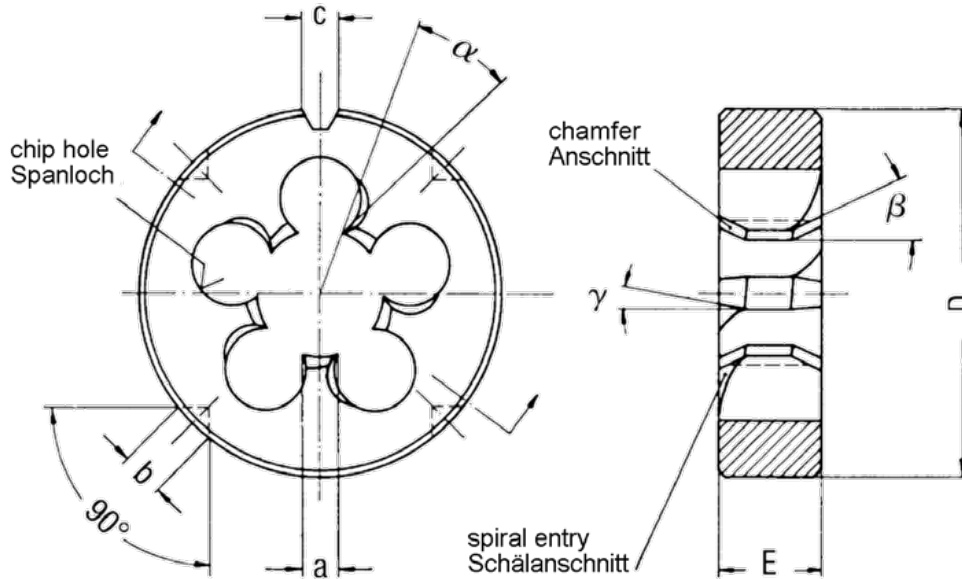
$1 \frac{\text{m}}{\text{s}} = 60 \frac{\text{m}}{\text{min}}$

1/s = 60/min = 1 Hz

$1 \text{ J} = 1 \text{ Nm} = 1 \frac{\text{kg} \cdot \text{m}^2}{\text{s}^2}$

$1 \text{ W} = 1 \frac{\text{J}}{\text{s}} = 1 \frac{\text{Nm}}{\text{s}} = 1 \frac{\text{kg} \cdot \text{m}^2}{\text{s}^3}$

## Round Dies Geometries



**D** outside diameter  
**E** thickness  
**a** width of tooth  
**c** width of notch

**b** diameter of hole for fixing screw  
**α** rake angle  
**β** chamfer angle  
**γ** spiral angle

### Preparation of workpiece:

- ☑ concentric chamfer - ease entry of cutting
- ☑ workpiece diameter must be less than the nominal diameter

### Chamfer

- ☑ Standard chamfer (length, see at the item)
- ☑ Spiral entry: free flow of chips ahead of the die and a reducing of cutting torque.

This result in an improved surface finish on the cut threads and longer die life

- ☑ 70° (short chamfer) - chamfer length: 1,25 pitch = 70°

## Tolerances for Round Dies

### Metric ISO thread acc. DIN 13 - coarse and fine thread

**4h** = tolerance class „fine“

**6h** = tolerance class „middle“, for small diameters (up to M 1,4)

**6g** = tolerance class „middle“ - Standard

**6e** = undersize tolerance; for bolts that receive a surface treatment or a galvanizing (layer thickness up to 8 μm).

Cutting dies with 6e tolerance are cutting about 0,03 mm smaller than normal cutting dies with 6g tolerance.

**8e** = undersize tolerance; for bolts that receive a strong surface coating (layer thickness about 16 - 18 μm)

### Unified thread UNC, UNF, UNEF, UNS, UN, UNJC, UNJF etc.

**3A** = tolerance „fine“

**2A** = standard tolerance „middle“

**1A** = tolerance „coarse“

### Whitworth pipe thread G (BSP) acc. DIN-ISO 228

**A** = standard tolerance „middle“

**B** = tolerance „coarse“

## Cutting speeds for Machine Forming Taps

| materials  | tensile strength         | forming speed in m/min                               | recommended lubrication  |
|--|--------------------------|--|--------------------------|
| construction steels,<br>free-machining steels,<br>cold-extrusion steels etc. | < 600 N/mm <sup>2</sup>  | 20 - 80  | Cutting oil/<br>Emulsion |
| construction steels,<br>heat-treatable steels,<br>cast steels etc.           | < 800 N/mm <sup>2</sup>  | 20 - 60  | Cutting oil/<br>Emulsion |
| heat-treatable steels,<br>cold-extrusion steels,<br>nitriding steels etc.    | < 1000 N/mm <sup>2</sup> | 10 - 40  | Cutting oil              |
| corrosion and acid proof steels<br>ferritic, martensitic                     | < 950 N/mm <sup>2</sup>  | 10 - 25 (with emulsion<br>just limitedly applicable) | Cutting oil              |
| corrosion and acid proof steels<br>austenitic                                | < 950 N/mm <sup>2</sup>  | 10 - 25 (with emulsion<br>just limitedly applicable) | Cutting oil              |
| aluminium wrought alloys   | < 550 N/mm <sup>2</sup>  | 15 - 40  | Cutting oil/<br>Emulsion |
| aluminium cast alloys  | Si < 12%                 | 15 - 40  | Cutting oil/<br>Emulsion |
| pure copper  | < 400 N/mm <sup>2</sup>  | 20 - 40  | Cutting oil/<br>Emulsion |
| copper-zinc alloys<br>(brass long-chipping)                                  | < 550 N/mm <sup>2</sup>  | 40 - 80  | Emulsion                 |

forming (cutting) speed [m/min] = (diameter \*  $\pi$  \* number of rotation) / 1000

number of rotation n [1/min] = (cutting speed in m/min \* 1000) / (diameter \*  $\pi$ )

feed programming [mm/min] = number of rotation \* pitch

Please notice that the mentioned cutting speeds are only for orientation.

The right cutting speed is depend on lubrication and application.



BAER Vertriebs GmbH  
Robert-Bosch-Str. 5  
68542 Heddeshheim  
Germany  
Tel: +49 (0) 6203 4048 790  
Fax: +49 (0) 6203 4048 791  
E-Mail: [info@gewindebohrer.de](mailto:info@gewindebohrer.de)  
[www.threading-tools.com](http://www.threading-tools.com)









BAER Vertriebs GmbH  
Robert-Bosch-Str. 5  
68542 Heddesheim  
Germany

Tel: +49 (0) 6203 4048 790  
Fax: +49 (0) 6203 4048 791  
E-Mail: [info@gewindebohrer.de](mailto:info@gewindebohrer.de)  
[www.threading-tools.com](http://www.threading-tools.com)

