IFANGER
THE CUTTING TOOL THAT KEEPS YOU AHEAD

# Swiss-MicroTurn

Swiss tools for Swiss-type lathes
Starting from an inner diameter of 0.2 mm

MT-EN-V4.1b

SWISS MADE
QUALITY SINCE 1917

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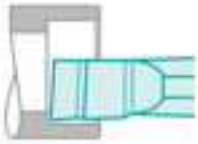
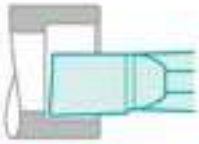
# Swiss-MicroTurn Tools

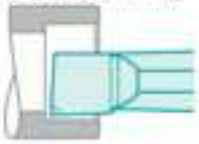

**MTEC** 12
Boring tool



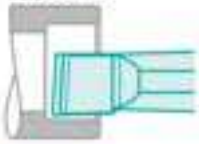
**MTEN** 14
Boring tool neutral



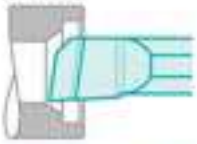
**MTEF** 16
Boring tool
Chip Control finishing



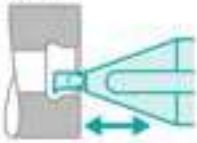
**MTEP** 18
Boring tool
Chip Control



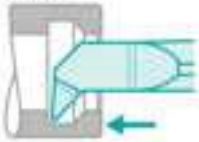
**MTEE** 20
Boring tool
released



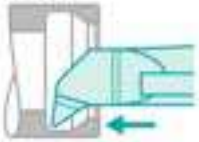
**MTKN** 21
Profiling tool
neutral



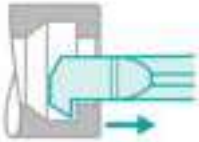
**MTKH** 22
Profiling tool
3° / 47°



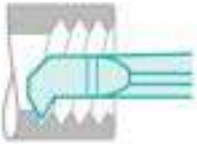
**MTKO** 23
Profiling tool
8° / 32°



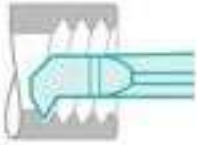
**MTKR** 24
Backboring tool



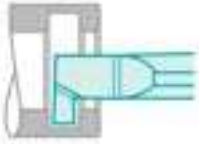
**MTGE** 26
Threading tool 60°



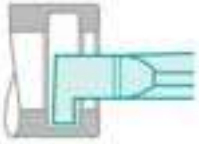
**MTGW** 27
Threading tool 55°



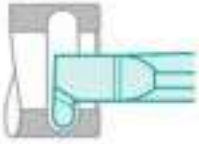
**MTNU** 28
Grooving tool



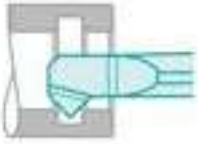
**MTNN** 29
Grooving tool
neutral



**MTNR** 30
Grooving tool
with full radius

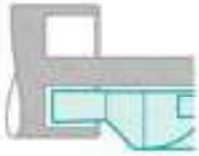


**MTFA** 31
Chamfering tool



**MTNX** 32
Face grooving tool

**MTNY** 33
Face grooving tool



**MTRO** 33
Swiss-MicroTurn
blank

**CBN AND PKD** 34
Tools with CBN-
or PKD-Inserts


# Swiss-MicroTurn holders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# Swiss Tools
## History and values

As a "Swiss-made product", Swiss-MicroTurn stands for quality and reliability. The result of the tireless commitment of the IFANGER team is to push the boundaries of innovation while exceeding quality and performance standards.

Based on this belief, IFANGER developed the monoblock tool family "Swiss-MicroTurn". It is regarded as the original among micro turning tools for internal machining. Over decades, these have been continually developed and refined under the Swiss Made label.

"Swiss-type automatic lathe" stands internationally for automatic lathe. The invention is attributed to the watchmaker Jakob Schweizer in 1872. This technology embodies all aspects of the Swiss manufacturing industry.

In 1917, tool pioneer Eduard Ifanger laid the foundations for the success story with the market launch of modular and regrindable turning tools. To this day, the family-run company strives to develop tool concepts with the decisive "technological edge".

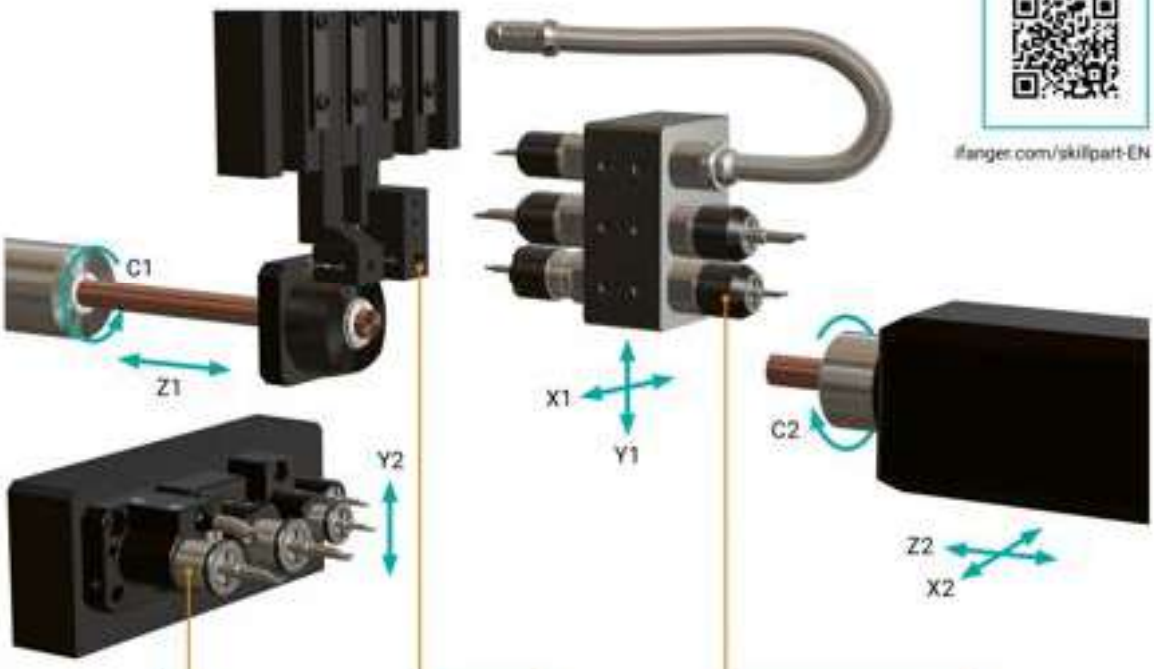
Development and production take place entirely in Switzerland under the highest quality standards.

# Swiss-MicroTurn System

## For Swiss-type lathes

**The Swiss-MicroTurn tools have been designed for high performance production without compromise on Swiss Type Lathes and have proven themselves millions of times over. The tool concepts are characterized by their enormous precision, reliability and cost-effectiveness.**

ifanger.com/skillpart-EN




**BACK OPERATION HOLDER**

**SQUARE SHANK HOLDER**

**ROUND SHANK HOLDER**

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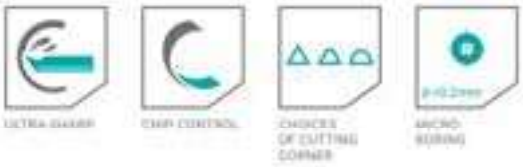
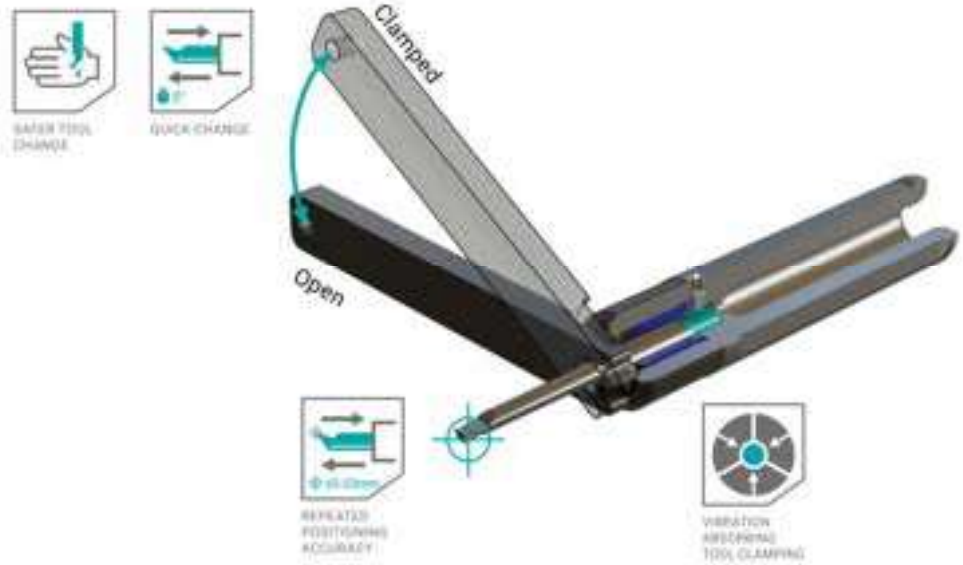
# Swiss-MicroTurn System

## Functions and benefits

**The Swiss-MicroTurn tool system offers maximum precision, efficiency, flexibility and reliability for machining a wide range of materials. It improves working conditions and end product quality through a large coolant channel, which ensures better cooling, lubrication, chip evacuation, higher machining quality, and tool life. The unique round holders increase flexibility, safety and comfort for the machine operator, especially in demanding working environments such as narrow and oily machine rooms, which significantly increases the efficiency and safety of work processes.**



ifanger.com/microturn


Clamped
Open

# Nomenclature

## For Swiss-MicroTurn cutting tools

**Composition of tool number**

| M | T | K | H | 4 | 3 | 2 | 1 | 7 | | – | R | – | TiAlN |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Brand | | Typ | | øS | ømin | | $L_1$ | | R | | Direction of rotation | | Coating |
| Swiss-MicroTurn | | Profiling tool 3° / 47° | | 4 mm | 3.2 mm | | 17 mm | | 0.08 mm | | Right | | Titanium-Aluminium-Nitrid |

# Cutting materials

## Carbide grades and coatings

**Coatings primarily improve the wear resistance of tools and enable higher cutting speeds. The tool cutting edge is protected against wear and abrasive removal of the chip as it runs off, with the aim of keeping the tool cutting for as long as possible. Coatings also contribute to corrosion protection and the reduction of residual compressive stress in the carbide.**

### TiAlN (Titanium-Aluminum-Nitride)

Titanium-aluminum-nitride coatings are particularly suitable for machining hard and tough materials such as stainless steel and titanium alloys. They are used as an all-round coating for machining steel, non-ferrous metals and plastics. The most effective measure for reducing wear is the TiAlN coating. The TiAlN coating protects the cutting edge primarily through its significantly higher hardness compared to the substrate and leads to a significant reduction in abrasive wear. The titanium-aluminum-nitride coating also offers the advantage of improved dissipation of the heat generated during the machining process. This results in a reduced thermal load on the tool. Better heat dissipation also helps to increase the service life of the tool and improve machining accuracy, as overheating is avoided.

### DLC (Diamond Like Carbon)

Diamond-coated cutting tools are suitable for machining difficult-to-cut or highly abrasive materials, such as graphite, ceramics
materials and carbide green bodies, carbon fiber-reinforced plastics and for maximum precision and very smooth surfaces when machining non-ferrous metals. The amorphous carbon coating is harder and smoother than the TiAlN coating, for example.

### SPEC (special coatings)

We are also happy to offer you customized coating solutions. Do not hesitate to contact us for a personal consultation.

Examples:
**AlCrN** aluminum-chromium-nitride coatings for tough alloys such as 300 series stainless steel and steels up to HRC 50.
**AlTiSiN** aluminum-titanium-silicon nitride coatings for stainless steel and high-temperature alloys and for hard machining from HRC 55.

### Carbide K10 Micrograin

Ultra-fine grain (grain size. 0.8 micrometers) with 6 % cobalt and 94 % tungsten carbide. K10 is suitable for the machining of high-strength materials and non-ferrous metals and when high cutting ability and and dimensional accuracy is required. Standard for all Swiss-MicroTurn steels except threaded steels.

### Carbide K20 Micrograin

Ultra-fine grain (grain size 0.8 micrometers) with 10 % cobalt and 90 % tungsten carbide. This carbide is slightly less hard than K10 but significantly tougher. This carbide grade is particularly suitable for
for threading tools.

The carbides are sourced from European manufacturers who have committed themselves to the principles of the "Responsible Minerals Initiative".

# Standard values

## Cutting speed ($v_c$)

**The optimum cutting values ($v_c$ / $f_n$ / $a_p$) depend on various factors, including the machine, the cooling system, the tool coatings, the tool holder and the desired quality grade of the workpiece geometry to be machined.**

| ISO | | Material | N/mm² | Example | Specification | $v_c$ (m/min) |
|---|---|---|---|---|---|---|
| P | P1 | Free-cutting steels | ≤800 | St 70-2 / E 360 | DIN 1.0070 | 70 – 100 |
| | | Case-hardening steels | ≤800 | 16 MnCr 5 | DIN 1.7131 | 70 – 100 |
| | | Cast steel | ≤800 | 25 CrMo 4 | DIN 1.7218 | 70 – 100 |
| | P2 | Case-hardening steels | ≤1000 | 20 MoCr 3 | DIN 1.7320 | 70 – 100 |
| | | Tempering steels | ≤1000 | 42 CrMo 4 | DIN 1.7225 | 70 – 100 |
| | | Cold work steels | ≤1000 | 102 Cr 6 | DIN 1.2067 | 70 – 100 |
| | P3 | High-alloy steels | ≤1400 | X 38 CrMoV 5-3 | DIN 1.2367 | 60 – 90 |
| | | Cold work steels | ≤1400 | X 100 CrMoV 8-1-1 | DIN 1.2990 | 60 – 90 |
| | | Hot-work steels | ≤1400 | X 40 CrMoV 5-1 | DIN 1.2344 | 60 – 90 |
| | P4 | Stainless steels, ferritic | ≤1200 | X 17 CrNi 16-2 | DIN 1.4057 | 60 – 80 |
| M | M1 | Stainless steels, austenitic | ≤900 | X 5 CrNi 18-10 | DIN 1.4301 | 30 – 60 |
| | M2 | Stainless steels, austenitic, heat-resistant | ≤1200 | X 2 CrNiMoN 25-7-4 | DIN 1.4410 | 25 – 30 |
| K | K1 | Cast iron with lamellar graphite | ≤400 | EN GJL 300 (GG30) | DIN 1561 | 40 – 80 |
| | K2 | Cast iron with nodular graphite | ≤900 | EN GJS 700 2 (GGG70) | DIN 1563 | 40 – 70 |
| | K3 | Cast iron with vermicular graphite | ≤500 | GJV 450 | | 40 – 80 |
| N | N1 | Aluminum wrought alloys | ≤250 | AlMg 1 | DIN 3.3315 | 80 – 150 |
| | N2 | Aluminum wrought alloys | ≤550 | AlZn 5 Mg 3 Cu | DIN 3.4345 | 80 – 150 |
| | N4 | Pure copper, low-alloyed copper | ≤500 | E-Cu 57 | | 80 – 150 |
| | | Brass with lead, short-chipping | ≤540 | CuZn 39 Pb 3 / CuZn 36 Pb 3 | | 80 – 150 |
| | | Brass without lead, long-chipping | ≤700 | CuZn 42 / CuZn 21 Si 3 P | | 30 – 60 |
| S | S1 | Titanium alloys | ≤1250 | Ti 6 Al 4 V | WL 3.7164 | 40 – 60 |
| | S2 | Titanium alloys | ≤1400 | Ti 4 Al 4 Mo 2 Sn | WL 3.7184 | 40 – 60 |
| | S3 | Nickel alloys | ≤1000 | NiCu 30 Fe (Alloy 400) | DIN 2.436 | 20 – 40 |
| | S4 | Nickel alloys | ≤1600 | NiCr 19 Fe 19 Nb 5 Mo 3 (INCONEL) | DIN 2.4668 | 20 – 40 |
| O | O1 | Duroplastics (short-chip) | | Bakelit, Pertinax | | On request |
| | O2 | Fiber-reinforced plastics (fiber content ≤ 30 %) | | GFK, CFK, AFK | | On request |
| | O3 | Graphite | | C 800 | | On request |

# Standard values

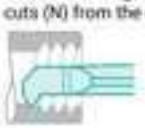
## Feed rate ($f_n$)

| Material ISO | | Boring tool MTEC, MTEN*, MTEE, MTEF***, MTEP*** ø min 1.0–2.5 mm $f_n$ (mm) | ø min >2.5 mm $f_n$ (mm) | ** | Profiling tool MTKN*, MTKH, MTKO, MTKR ø min >1.0 mm $f_n$ (mm) | ** | Grooving tool MTNU, MTNR, MTNN ø min >2.0 mm | ** | Face grooving tool MTNX, MTNY ø min >6.0 mm $f_n$ (mm) |
|---|---|---|---|---|---|---|---|---|---|
| P | P1 | 0.02 – 0.04 | 0.03 – 0.08 | | 0.05 – 0.15 | | 0.02 – 0.06 | | 0.02 – 0.05 |
| | | 0.02 – 0.04 | 0.03 – 0.08 | | 0.05 – 0.15 | | 0.02 – 0.06 | | 0.02 – 0.05 |
| | | 0.02 – 0.04 | 0.03 – 0.08 | | 0.05 – 0.15 | | 0.02 – 0.06 | | 0.02 – 0.05 |
| | P2 | 0.01 – 0.03 | 0.03 – 0.07 | | 0.05 – 0.12 | | 0.02 – 0.06 | | 0.02 – 0.05 |
| | | 0.01 – 0.03 | 0.03 – 0.07 | | 0.05 – 0.12 | | 0.02 – 0.06 | | 0.02 – 0.05 |
| | | 0.01 – 0.03 | 0.03 – 0.07 | | 0.05 – 0.12 | | 0.02 – 0.06 | | 0.02 – 0.05 |
| | P3 | 0.005 – 0.02 | 0.03 – 0.06 | | 0.03 – 0.10 | | 0.015 – 0.04 | | 0.01 – 0.03 |
| | | 0.005 – 0.02 | 0.03 – 0.06 | | 0.03 – 0.10 | | 0.015 – 0.04 | | 0.01 – 0.03 |
| | | 0.005 – 0.02 | 0.03 – 0.06 | | 0.03 – 0.10 | | 0.015 – 0.04 | | 0.01 – 0.03 |
| | P4 | 0.005 – 0.02 | 0.02 – 0.06 | | 0.03 – 0.10 | | 0.015 – 0.04 | | 0.005 – 0.02 |
| M | M1 | 0.01 – 0.03 | 0.02 – 0.05 | | 0.005 – 0.01 | | 0.005 – 0.01 | | 0.005 – 0.01 |
| | M2 | 0.005 – 0.02 | 0.02 – 0.06 | | 0.003 – 0.06 | | 0.003 – 0.006 | | 0.003 – 0.006 |
| K | K1 | 0.01 – 0.03 | 0.04 – 0.08 | MTEN | 0.05 – 0.15 | MTKN | 0.02 – 0.07 | MTNN | 0.02 – 0.05 |
| | K2 | 0.01 – 0.03 | 0.03 – 0.08 | MTEN | 0.003 – 0.12 | MTKN | 0.02 – 0.05 | MTNN | 0.01 – 0.04 |
| | K3 | 0.01 – 0.03 | 0.04 – 0.08 | MTEN | 0.05 – 0.15 | MTKN | 0.02 – 0.07 | MTNN | 0.02 – 0.05 |
| N | N1 | 0.01 – 0.05 | 0.03 – 0.08 | | 0.05 – 0.15 | | 0.03 – 0.06 | | 0.02 – 0.05 |
| | N2 | 0.01 – 0.05 | 0.03 – 0.08 | | 0.05 – 0.15 | | 0.03 – 0.06 | | 0.02 – 0.05 |
| | N4 | 0.01 – 0.05 | 0.03 – 0.08 | | 0.05 – 0.15 | | 0.03 – 0.06 | | 0.02 – 0.05 |
| | | 0.02 – 0.05 | 0.03 – 0.08 | MTEN | 0.05 – 0.15 | MTKN | 0.03 – 0.06 | MTNN | 0.02 – 0.05 |
| | | *** *** | *** *** | MTEF MTEP | | | | | |
| S | S1 | 0.01 – 0.03 | 0.02 – 0.05 | | 0.02 – 0.1 | | 0.02 – 0.05 | | 0.01 – 0.03 |
| | S2 | 0.01 – 0.03 | 0.02 – 0.05 | | 0.02 – 0.1 | | 0.02 – 0.05 | | 0.01 – 0.03 |
| | S3 | 0.005 – 0.02 | 0.01 – 0.04 | | 0.02 – 0.08 | | 0.01 – 0.04 | | 0.005 – 0.02 |
| | S4 | 0.005 – 0.02 | 0.01 – 0.04 | | 0.02 – 0.08 | | 0.01 – 0.04 | | 0.005 – 0.02 |
| O | O1 | On request | | | | | | | |
| | O2 | On request | | | | | | | |
| | O3 | On request | | | | | | | |

### Threading tool

MTGE, MTGW

Take the cutting depth ($a_p$) and number of cuts (N) from the corresponding tool pages



**Notes**

* MTEN, MTKN: For bore diameters <1 mm begin with maximum feed rate of 0.01 mm

** Recommended tool

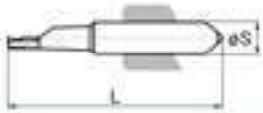
*** MTEF, MTEP: Take the cutting depth ($a_p$) and feed rate ($f_n$) from the diagram on the corresponding tool pages

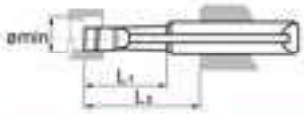
# MTEC

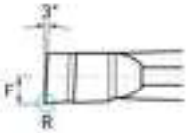
## Boring tool
## Rake angle (γ) = 6–12°

P M N* S O *Brass with lead: use MTEN
Brass without lead: use MTSR MTSF

Standard values ($V_c$ / $f_n$) Page 10–11
Carbide grades and coatings Page 9






| ømin | øS | L | L1 | L2 | F | γ | R | | | Ref. N° | Rotation | | Coating | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | △ | △ | △ | | R | L | K10 | TiAlN | DLC | SPEC |
| 1.0 | 4 | 26 | 3 | 10 | 0.50 | 6° | 0 | | | MTEC 410030 | ● | ● | ● | ● | ○ | ○ |
| 1.0 | 4 | 26 | 3 | 10 | 0.50 | 6° | | 0.02 × 45° | | MTEC 41003 | ● | ● | ● | ● | ○ | ○ |
| 1.0 | 4 | 26 | 5 | 10 | 0.50 | 6° | 0 | | | MTEC 410050 | ● | ● | ● | ● | ○ | ○ |
| 1.0 | 4 | 26 | 5 | 10 | 0.50 | 6° | | 0.02 × 45° | | MTEC 41005 | ● | ● | ● | ● | ○ | ○ |
| 1.2 | 4 | 31 | 4 | 15 | 0.60 | 12° | 0 | | | MTEC 412040 | ● | ● | ● | ● | ○ | ○ |
| 1.2 | 4 | 31 | 4 | 15 | 0.60 | 12° | | 0.02 × 45° | | MTEC 41204 | ● | ● | ● | ● | ○ | ○ |
| 1.2 | 4 | 31 | 7 | 15 | 0.60 | 12° | 0 | | | MTEC 412070 | ● | ● | ● | ● | ○ | ○ |
| 1.2 | 4 | 31 | 7 | 15 | 0.60 | 12° | | 0.02 × 45° | | MTEC 41207 | ● | ● | ● | ● | ○ | ○ |
| 1.5 | 4 | 31 | 5 | 15 | 0.75 | 12° | 0 | | | MTEC 415050 | ● | ● | ● | ● | ○ | ○ |
| 1.5 | 4 | 31 | 5 | 15 | 0.75 | 12° | | 0.02 × 45° | | MTEC 41505 | ● | ● | ● | ● | ○ | ○ |
| 1.5 | 4 | 31 | 8 | 15 | 0.75 | 12° | 0 | | | MTEC 415080 | ● | ● | ● | ● | ○ | ○ |
| 1.5 | 4 | 31 | 8 | 15 | 0.75 | 12° | | 0.02 × 45° | | MTEC 41508 | ● | ● | ● | ● | ○ | ○ |
| 1.8 | 4 | 31 | 5 | 15 | 0.90 | 12° | 0 | | | MTEC 418050 | ● | ● | ● | ● | ○ | ○ |
| 1.8 | 4 | 31 | 5 | 15 | 0.90 | 12° | | 0.03 × 45° | | MTEC 41805 | ● | ● | ● | ● | ○ | ○ |
| 1.8 | 4 | 31 | 9 | 15 | 0.90 | 12° | 0 | | | MTEC 418090 | ● | ● | ● | ● | ○ | ○ |
| 1.8 | 4 | 31 | 9 | 15 | 0.90 | 12° | | 0.03 × 45° | | MTEC 41809 | ● | ● | ● | ● | ○ | ○ |
| 1.8 | 4 | 31 | 14 | 15 | 0.90 | 12° | 0 | | | MTEC 418140 | ● | ● | ● | ● | ○ | ○ |
| 1.8 | 4 | 31 | 14 | 15 | 0.90 | 12° | | 0.03 × 45° | | MTEC 41814 | ● | ● | ● | ● | ○ | ○ |
| 2.2 | 4 | 31 | 6 | 15 | 1.10 | 12° | 0 | | | MTEC 422060 | ● | ● | ● | ● | ○ | ○ |
| 2.2 | 4 | 31 | 6 | 15 | 1.10 | 12° | | | R0.05 | MTEC 42206 | ● | ● | ● | ● | ○ | ○ |
| 2.2 | 4 | 31 | 10 | 15 | 1.10 | 12° | 0 | | | MTEC 422100 | ● | ● | ● | ● | ○ | ○ |
| 2.2 | 4 | 31 | 10 | 15 | 1.10 | 12° | | | R0.05 | MTEC 42210 | ● | ● | ● | ● | ○ | ○ |
| 2.2 | 4 | 31 | 14 | 15 | 1.10 | 12° | 0 | | | MTEC 422140 | ● | ● | ● | ● | ○ | ○ |
| 2.2 | 4 | 31 | 14 | 15 | 1.10 | 12° | | | R0.05 | MTEC 42214 | ● | ● | ● | ● | ○ | ○ |
| 2.5 | 4 | 31 | 6 | 15 | 1.25 | 12° | 0 | | | MTEC 425060 | ● | ● | ● | ● | ○ | ○ |
| 2.5 | 4 | 31 | 6 | 15 | 1.25 | 12° | | | R0.05 | MTEC 42506 | ● | ● | ● | ● | ○ | ○ |
| 2.5 | 4 | 31 | 10 | 15 | 1.25 | 12° | 0 | | | MTEC 425100 | ● | ● | ● | ● | ○ | ○ |
| 2.5 | 4 | 31 | 10 | 15 | 1.25 | 12° | | | R0.05 | MTEC 42510 | ● | ● | ● | ● | ○ | ○ |
| 2.5 | 4 | 31 | 14 | 15 | 1.25 | 12° | 0 | | | MTEC 425140 | ● | ● | ● | ● | ○ | ○ |
| 2.5 | 4 | 31 | 14 | 15 | 1.25 | 12° | | | R0.05 | MTEC 42514 | ● | ● | ● | ● | ○ | ○ |
| 3.2 | 4 | 31 | 8 | 15 | 1.60 | 12° | 0 | | | MTEC 432080 | ● | ● | ● | ● | ○ | ○ |
| 3.2 | 4 | 31 | 8 | 15 | 1.60 | 12° | | | R0.05 | MTEC 43208S | ● | ● | ● | ● | ○ | ○ |
| 3.2 | 4 | 31 | 8 | 15 | 1.60 | 12° | | | R0.08 | MTEC 43208 | ● | ● | ● | ● | ○ | ○ |
| 3.2 | 4 | 31 | 12 | 15 | 1.60 | 12° | 0 | | | MTEC 432120 | ● | ● | ● | ● | ○ | ○ |
| 3.2 | 4 | 31 | 12 | 15 | 1.60 | 12° | | | R0.05 | MTEC 432125 | ● | ● | ● | ● | ○ | ○ |
| 3.2 | 4 | 31 | 12 | 15 | 1.60 | 12° | | | R0.08 | MTEC 43212 | ● | ● | ● | ● | ○ | ○ |
| 3.2 | 4 | 36 | 17 | 20 | 1.60 | 12° | 0 | | | MTEC 432170 | ● | ● | ● | ● | ○ | ○ |

Dimensions in mm

| ømin | øS | L | $L_1$ | $L_2$ | F | Y | R | | | Ref. N° | Rotation | | Coating | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | △ | △ | △ | | R | L | K10 | TiAlN | DLC | SPEC |
| 3.2 | 4 | 36 | 17 | 20 | 1.60 | 12° | | | R0.05 | MTEC 432175 | ● | ● | ● | ● | ○ | ○ |
| 3.2 | 4 | 36 | 17 | 20 | 1.60 | 12° | | | R0.08 | MTEC 43217 | ● | ● | ● | ● | ○ | ○ |
| 4.0 | 4 | 31 | 10 | 15 | 1.95 | 12° | 0 | | | MTEC 440100 | ● | ● | ● | ● | ○ | ○ |
| 4.0 | 4 | 31 | 10 | 15 | 1.95 | 12° | | | R0.05 | MTEC 440105 | ● | ● | ● | ● | ○ | ○ |
| 4.0 | 4 | 31 | 10 | 15 | 1.95 | 12° | | | R0.12 | MTEC 44010 | ● | ● | ● | ● | ○ | ○ |
| 4.0 | 4 | 31 | 14 | 15 | 1.95 | 12° | 0 | | | MTEC 440140 | ● | ● | ● | ● | ○ | ○ |
| 4.0 | 4 | 31 | 14 | 15 | 1.95 | 12° | | | R0.05 | MTEC 440145 | ● | ● | ● | ● | ○ | ○ |
| 4.0 | 4 | 31 | 14 | 15 | 1.95 | 12° | | | R0.12 | MTEC 44014 | ● | ● | ● | ● | ○ | ○ |
| 4.0 | 4 | 36 | 19 | 20 | 1.95 | 12° | 0 | | | MTEC 440190 | ● | ● | ● | ● | ○ | ○ |
| 4.0 | 4 | 36 | 19 | 20 | 1.95 | 12° | | | R0.05 | MTEC 440195 | ● | ● | ● | ● | ○ | ○ |
| 4.0 | 4 | 36 | 19 | 20 | 1.95 | 12° | | | R0.12 | MTEC 44019 | ● | ● | ● | ● | ○ | ○ |
| 4.0 | 6 | 48 | 25 | 29 | 1.95 | 12° | 0 | | | MTEC 640250 | ● | ● | ● | ● | ○ | ○ |
| 4.0 | 6 | 48 | 25 | 29 | 1.95 | 12° | | | R0.05 | MTEC 640255 | ● | ● | ● | ● | ○ | ○ |
| 4.0 | 6 | 48 | 25 | 29 | 1.95 | 12° | | | R0.12 | MTEC 64025 | ● | ● | ● | ● | ○ | ○ |
| 4.0 | 6 | 53 | 30 | 34 | 1.95 | 12° | 0 | | | MTEC 640300 | ● | ● | ● | ● | ○ | ○ |
| 4.0 | 6 | 53 | 30 | 34 | 1.95 | 12° | | | R0.05 | MTEC 640305 | ● | ● | ● | ● | ○ | ○ |
| 4.0 | 6 | 53 | 30 | 34 | 1.95 | 12° | | | R0.12 | MTEC 64030 | ● | ● | ● | ● | ○ | ○ |
| 5.0 | 6 | 35 | 12 | 16 | 2.50 | 12° | | | R0.05 | MTEC 650125 | ● | ● | ● | ● | ○ | ○ |
| 5.0 | 6 | 35 | 12 | 16 | 2.50 | 12° | | | R0.15 | MTEC 65012 | ● | ● | ● | ● | ○ | ○ |
| 5.0 | 6 | 43 | 17 | 24 | 2.50 | 12° | | | R0.05 | MTEC 650175 | ● | ● | ● | ● | ○ | ○ |
| 5.0 | 6 | 43 | 17 | 24 | 2.50 | 12° | | | R0.15 | MTEC 65017 | ● | ● | ● | ● | ○ | ○ |
| 5.0 | 6 | 48 | 25 | 29 | 2.50 | 12° | | | R0.05 | MTEC 650255 | ● | ● | ● | ● | ○ | ○ |
| 5.0 | 6 | 48 | 25 | 29 | 2.50 | 12° | | | R0.15 | MTEC 65025 | ● | ● | ● | ● | ○ | ○ |
| 5.0 | 6 | 53 | 32 | 34 | 2.50 | 12° | | | R0.05 | MTEC 650325 | ● | ● | ● | ● | ○ | ○ |
| 5.0 | 6 | 53 | 32 | 34 | 2.50 | 12° | | | R0.15 | MTEC 65032 | ● | ● | ● | ● | ○ | ○ |
| 5.0 | 6 | 61 | 40 | 42 | 2.50 | 12° | | | R0.05 | MTEC 650405 | ● | ● | ● | ● | ○ | ○ |
| 5.0 | 6 | 61 | 40 | 42 | 2.50 | 12° | | | R0.15 | MTEC 65040 | ● | ● | ● | ● | ○ | ○ |
| 6.0 | 6 | 35 | 12 | 16 | 2.95 | 12° | | | R0.05 | MTEC 660125 | ● | ● | ● | ● | ○ | ○ |
| 6.0 | 6 | 35 | 12 | 16 | 2.95 | 12° | | | R0.20 | MTEC 66012 | ● | ● | ● | ● | ○ | ○ |
| 6.0 | 6 | 43 | 20 | 24 | 2.95 | 12° | | | R0.05 | MTEC 660205 | ● | ● | ● | ● | ○ | ○ |
| 6.0 | 6 | 43 | 20 | 24 | 2.95 | 12° | | | R0.20 | MTEC 66020 | ● | ● | ● | ● | ○ | ○ |
| 6.0 | 6 | 53 | 30 | 34 | 2.95 | 12° | | | R0.05 | MTEC 660305 | ● | ● | ● | ● | ○ | ○ |
| 6.0 | 6 | 53 | 30 | 34 | 2.95 | 12° | | | R0.20 | MTEC 66030 | ● | ● | ● | ● | ○ | ○ |
| 6.0 | 6 | 61 | 40 | 42 | 2.95 | 12° | | | R0.05 | MTEC 660405 | ● | ● | ● | ● | ○ | ○ |
| 6.0 | 6 | 61 | 40 | 42 | 2.95 | 12° | | | R0.20 | MTEC 66040 | ● | ● | ● | ● | ○ | ○ |
| 6.0 | 6 | 71 | 50 | 52 | 2.95 | 12° | | | R0.05 | MTEC 660505 | ● | ● | ● | ● | ○ | ○ |
| 6.0 | 6 | 71 | 50 | 52 | 2.95 | 12° | | | R0.20 | MTEC 66050 | ● | ● | ● | ● | ○ | ○ |

Dimensions in mm

**Order directly online**
Order the right tool online using the QR code or weblink.

**Example order number: MTEC 410030-R-TiAlN**

■ E-Shop items ○ On request

ifanger.com/en/shop

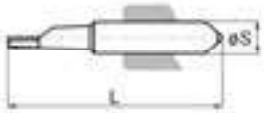
# MTEN

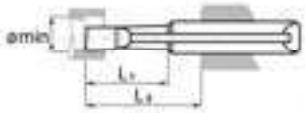
## Boring tool neutral
## Rake angle (γ) = 0°

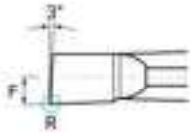
P M K N* S O

*Brass with lead: use MTEN
Brass without lead: use MTEP, MTEF

Standard values (V<sub>c</sub> / f<sub>n</sub>) Page 10–11
Carbide grades and coatings Page 9




| ømin | øS | L | L1 | L2 | F | γ | R | | | Ref. N° | Rotation | | Coating | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | △ | △ | △ | | R | L | K10 | TiAlN | DLC | SPEC |
| 0.2 | 4 | 26 | 0.3 | 10 | 0.10 | 0° | 0 | | | MTEN 402010 | ● | ● | ● | ● | ○ | ○ |
| 0.3 | 4 | 26 | 0.4 | 10 | 0.15 | 0° | 0 | | | MTEN 403010 | ● | ● | ● | ● | ○ | ○ |
| 0.4 | 4 | 26 | 0.5 | 10 | 0.20 | 0° | 0 | | | MTEN 404010 | ● | ● | ● | ● | ○ | ○ |
| 0.5 | 4 | 26 | 0.6 | 10 | 0.25 | 0° | 0 | | | MTEN 405010 | ● | ● | ● | ● | ○ | ○ |
| 0.5 | 4 | 26 | 1.5 | 10 | 0.25 | 0° | 0 | | | MTEN 405020 | ● | ● | ● | ● | ○ | ○ |
| 0.7 | 4 | 26 | 0.8 | 10 | 0.35 | 0° | 0 | | | MTEN 407010 | ● | ● | ● | ● | ○ | ○ |
| 0.7 | 4 | 26 | 2.0 | 10 | 0.35 | 0° | 0 | | | MTEN 407020 | ● | ● | ● | ● | ○ | ○ |
| 0.7 | 4 | 26 | 2.0 | 10 | 0.35 | 0° | | 0.02 × 45° | | MTEN 40702 | ● | ● | ● | ● | ○ | ○ |
| 1.0 | 4 | 26 | 1.2 | 10 | 0.50 | 0° | 0 | | | MTEN 410020 | ● | ● | ● | ● | ○ | ○ |
| 1.0 | 4 | 26 | 3.0 | 10 | 0.50 | 0° | 0 | | | MTEN 410030 | ● | ● | ● | ● | ○ | ○ |
| 1.0 | 4 | 26 | 3.0 | 10 | 0.50 | 0° | | 0.02 × 45° | | MTEN 41003 | ● | ● | ● | ● | ○ | ○ |
| 1.0 | 4 | 26 | 5.0 | 10 | 0.50 | 0° | 0 | | | MTEN 410050 | ● | ● | ● | ● | ○ | ○ |
| 1.0 | 4 | 26 | 5.0 | 10 | 0.50 | 0° | | 0.02 × 45° | | MTEN 41005 | ● | ● | ● | ● | ○ | ○ |
| 1.2 | 4 | 26 | 2.0 | 10 | 0.60 | 0° | 0 | | | MTEN 412020 | ● | ● | ● | ● | ○ | ○ |
| 1.2 | 4 | 31 | 4.0 | 15 | 0.60 | 0° | 0 | | | MTEN 412040 | ● | ● | ● | ● | ○ | ○ |
| 1.2 | 4 | 31 | 4.0 | 15 | 0.60 | 0° | | 0.02 × 45° | | MTEN 41204 | ● | ● | ● | ● | ○ | ○ |
| 1.2 | 4 | 31 | 7.0 | 15 | 0.60 | 0° | 0 | | | MTEN 412070 | ● | ● | ● | ● | ○ | ○ |
| 1.2 | 4 | 31 | 7.0 | 15 | 0.60 | 0° | | 0.02 × 45° | | MTEN 41207 | ● | ● | ● | ● | ○ | ○ |
| 1.5 | 4 | 26 | 3.0 | 10 | 0.75 | 0° | 0 | | | MTEN 415030 | ● | ● | ● | ● | ○ | ○ |
| 1.5 | 4 | 31 | 5.0 | 15 | 0.75 | 0° | 0 | | | MTEN 415050 | ● | ● | ● | ● | ○ | ○ |
| 1.5 | 4 | 31 | 5.0 | 15 | 0.75 | 0° | | 0.02 × 45° | | MTEN 41505 | ● | ● | ● | ● | ○ | ○ |
| 1.5 | 4 | 31 | 8.0 | 15 | 0.75 | 0° | 0 | | | MTEN 415080 | ● | ● | ● | ● | ○ | ○ |
| 1.5 | 4 | 31 | 8.0 | 15 | 0.75 | 0° | | 0.02 × 45° | | MTEN 41508 | ● | ● | ● | ● | ○ | ○ |
| 1.8 | 4 | 26 | 4.0 | 10 | 0.90 | 0° | 0 | | | MTEN 418040 | ● | ● | ● | ● | ○ | ○ |
| 1.8 | 4 | 31 | 5.0 | 15 | 0.90 | 0° | 0 | | | MTEN 418050 | ● | ● | ● | ● | ○ | ○ |
| 1.8 | 4 | 31 | 5.0 | 15 | 0.90 | 0° | | 0.03 × 45° | | MTEN 41805 | ● | ● | ● | ● | ○ | ○ |
| 1.8 | 4 | 31 | 9.0 | 15 | 0.90 | 0° | 0 | | | MTEN 418090 | ● | ● | ● | ● | ○ | ○ |
| 1.8 | 4 | 31 | 9.0 | 15 | 0.90 | 0° | | 0.03 × 45° | | MTEN 41809 | ● | ● | ● | ● | ○ | ○ |
| 1.8 | 4 | 31 | 14.0 | 15 | 0.90 | 0° | 0 | | | MTEN 418140 | ● | ● | ● | ● | ○ | ○ |
| 1.8 | 4 | 31 | 14.0 | 15 | 0.90 | 0° | | 0.03 × 45° | | MTEN 41814 | ● | ● | ● | ● | ○ | ○ |
| 2.2 | 4 | 31 | 6.0 | 15 | 1.10 | 0° | 0 | | | MTEN 422060 | ● | ● | ● | ● | ○ | ○ |
| 2.2 | 4 | 31 | 6.0 | 15 | 1.10 | 0° | | | R0.05 | MTEN 42206 | ● | ● | ● | ● | ○ | ○ |
| 2.2 | 4 | 31 | 10.0 | 15 | 1.10 | 0° | 0 | | | MTEN 422100 | ● | ● | ● | ● | ○ | ○ |
| 2.2 | 4 | 31 | 10.0 | 15 | 1.10 | 0° | | | R0.05 | MTEN 42210 | ● | ● | ● | ● | ○ | ○ |
| 2.2 | 4 | 31 | 14.0 | 15 | 1.10 | 0° | 0 | | | MTEN 422140 | ● | ● | ● | ● | ○ | ○ |
| 2.2 | 4 | 31 | 14.0 | 15 | 1.10 | 0° | | | R0.05 | MTEN 42214 | ● | ● | ● | ● | ○ | ○ |
| 2.5 | 4 | 31 | 6.0 | 15 | 1.25 | 0° | 0 | | | MTEN 425060 | ● | ● | ● | ● | ○ | ○ |

Dimensions in mm

| ø min | øS | L | $L_1$ | $L_2$ | F | γ | R | | | Ref. N° | Rotation | | Coating | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | △ | △ | △ | | R | L | K10 | TiAlN | DLC | SPEC |
| 2.5 | 4 | 31 | 6.0 | 15 | 1.25 | 0° | | | R0.05 | MTEN 42506 | ● | ● | ● | ● | ○ | ○ |
| 2.5 | 4 | 31 | 10.0 | 15 | 1.25 | 0° | 0 | | | MTEN 425100 | ● | ● | ● | ● | ○ | ○ |
| 2.5 | 4 | 31 | 10.0 | 15 | 1.25 | 0° | | | R0.05 | MTEN 42510 | ● | ● | ● | ● | ○ | ○ |
| 2.5 | 4 | 31 | 14.0 | 15 | 1.25 | 0° | 0 | | | MTEN 425140 | ● | ● | ● | ● | ○ | ○ |
| 2.5 | 4 | 31 | 14.0 | 15 | 1.25 | 0° | | | R0.05 | MTEN 42514 | ● | ● | ● | ● | ○ | ○ |
| 3.2 | 4 | 31 | 8.0 | 15 | 1.60 | 0° | 0 | | | MTEN 432080 | ● | ● | ● | ● | ○ | ○ |
| 3.2 | 4 | 31 | 8.0 | 15 | 1.60 | 0° | | | R0.05 | MTEN 432085 | ● | ● | ● | ● | ○ | ○ |
| 3.2 | 4 | 31 | 8.0 | 15 | 1.60 | 0° | | | R0.08 | MTEN 43208 | ● | ● | ● | ● | ○ | ○ |
| 3.2 | 4 | 31 | 12.0 | 15 | 1.60 | 0° | 0 | | | MTEN 432120 | ● | ● | ● | ● | ○ | ○ |
| 3.2 | 4 | 31 | 12.0 | 15 | 1.60 | 0° | | | R0.05 | MTEN 432125 | ● | ● | ● | ● | ○ | ○ |
| 3.2 | 4 | 31 | 12.0 | 15 | 1.60 | 0° | | | R0.08 | MTEN 43212 | ● | ● | ● | ● | ○ | ○ |
| 3.2 | 4 | 36 | 17.0 | 20 | 1.60 | 0° | 0 | | | MTEN 432170 | ● | ● | ● | ● | ○ | ○ |
| 3.2 | 4 | 36 | 17.0 | 20 | 1.60 | 0° | | | R0.05 | MTEN 432175 | ● | ● | ● | ● | ○ | ○ |
| 3.2 | 4 | 36 | 17.0 | 20 | 1.60 | 0° | | | R0.08 | MTEN 43217 | ● | ● | ● | ● | ○ | ○ |
| 4.0 | 4 | 31 | 10.0 | 15 | 1.95 | 0° | 0 | | | MTEN 440100 | ● | ● | ● | ● | ○ | ○ |
| 4.0 | 4 | 31 | 10.0 | 15 | 1.95 | 0° | | | R0.05 | MTEN 440105 | ● | ● | ● | ● | ○ | ○ |
| 4.0 | 4 | 31 | 10.0 | 15 | 1.95 | 0° | | | R0.12 | MTEN 44010 | ● | ● | ● | ● | ○ | ○ |
| 4.0 | 4 | 31 | 14.0 | 15 | 1.95 | 0° | 0 | | | MTEN 440140 | ● | ● | ● | ● | ○ | ○ |
| 4.0 | 4 | 31 | 14.0 | 15 | 1.95 | 0° | | | R0.05 | MTEN 440145 | ● | ● | ● | ● | ○ | ○ |
| 4.0 | 4 | 31 | 14.0 | 15 | 1.95 | 0° | | | R0.12 | MTEN 44014 | ● | ● | ● | ● | ○ | ○ |
| 4.0 | 4 | 36 | 19.0 | 20 | 1.95 | 0° | 0 | | | MTEN 440190 | ● | ● | ● | ● | ○ | ○ |
| 4.0 | 4 | 36 | 19.0 | 20 | 1.95 | 0° | | | R0.05 | MTEN 440195 | ● | ● | ● | ● | ○ | ○ |
| 4.0 | 4 | 36 | 19.0 | 20 | 1.95 | 0° | | | R0.12 | MTEN 44019 | ● | ● | ● | ● | ○ | ○ |
| 4.0 | 6 | 48 | 25.0 | 29 | 1.95 | 0° | 0 | | | MTEN 640250 | ● | ● | ● | ● | ○ | ○ |
| 4.0 | 6 | 48 | 25.0 | 29 | 1.95 | 0° | | | R0.05 | MTEN 640255 | ● | ● | ● | ● | ○ | ○ |
| 4.0 | 6 | 48 | 25.0 | 29 | 1.95 | 0° | | | R0.12 | MTEN 64025 | ● | ● | ● | ● | ○ | ○ |
| 4.0 | 6 | 53 | 30.0 | 34 | 1.95 | 0° | 0 | | | MTEN 640300 | ● | ● | ● | ● | ○ | ○ |
| 4.0 | 6 | 53 | 30.0 | 34 | 1.95 | 0° | | | R0.05 | MTEN 640305 | ● | ● | ● | ● | ○ | ○ |
| 4.0 | 6 | 53 | 30.0 | 34 | 1.95 | 0° | | | R0.12 | MTEN 64030 | ● | ● | ● | ● | ○ | ○ |
| 5.0 | 6 | 35 | 12.0 | 16 | 2.50 | 0° | | | R0.05 | MTEN 650125 | ● | ● | ● | ● | ○ | ○ |
| 5.0 | 6 | 35 | 12.0 | 16 | 2.50 | 0° | | | R0.15 | MTEN 65012 | ● | ● | ● | ● | ○ | ○ |
| 5.0 | 6 | 43 | 17.0 | 24 | 2.50 | 0° | | | R0.05 | MTEN 650175 | ● | ● | ● | ● | ○ | ○ |
| 5.0 | 6 | 43 | 17.0 | 24 | 2.50 | 0° | | | R0.15 | MTEN 65017 | ● | ● | ● | ● | ○ | ○ |
| 5.0 | 6 | 48 | 25.0 | 29 | 2.50 | 0° | | | R0.05 | MTEN 650255 | ● | ● | ● | ● | ○ | ○ |
| 5.0 | 6 | 48 | 25.0 | 29 | 2.50 | 0° | | | R0.15 | MTEN 65025 | ● | ● | ● | ● | ○ | ○ |
| 5.0 | 6 | 53 | 32.0 | 34 | 2.50 | 0° | | | R0.05 | MTEN 650325 | ● | ● | ● | ● | ○ | ○ |
| 5.0 | 6 | 53 | 32.0 | 34 | 2.50 | 0° | | | R0.15 | MTEN 65032 | ● | ● | ● | ● | ○ | ○ |
| 5.0 | 6 | 61 | 40.0 | 42 | 2.50 | 0° | | | R0.05 | MTEN 650405 | ● | ● | ● | ● | ○ | ○ |
| 5.0 | 6 | 61 | 40.0 | 42 | 2.50 | 0° | | | R0.15 | MTEN 65040 | ● | ● | ● | ● | ○ | ○ |
| 6.0 | 6 | 35 | 12.0 | 16 | 2.95 | 0° | | | R0.05 | MTEN 660125 | ● | ● | ● | ● | ○ | ○ |
| 6.0 | 6 | 35 | 12.0 | 16 | 2.95 | 0° | | | R0.20 | MTEN 66012 | ● | ● | ● | ● | ○ | ○ |
| 6.0 | 6 | 43 | 20.0 | 24 | 2.95 | 0° | | | R0.05 | MTEN 660205 | ● | ● | ● | ● | ○ | ○ |
| 6.0 | 6 | 43 | 20.0 | 24 | 2.95 | 0° | | | R0.20 | MTEN 66020 | ● | ● | ● | ● | ○ | ○ |
| 6.0 | 6 | 53 | 30.0 | 34 | 2.95 | 0° | | | R0.05 | MTEN 660305 | ● | ● | ● | ● | ○ | ○ |
| 6.0 | 6 | 53 | 30.0 | 34 | 2.95 | 0° | | | R0.20 | MTEN 66030 | ● | ● | ● | ● | ○ | ○ |
| 6.0 | 6 | 61 | 40.0 | 42 | 2.95 | 0° | | | R0.05 | MTEN 660405 | ● | ● | ● | ● | ○ | ○ |
| 6.0 | 6 | 61 | 40.0 | 42 | 2.95 | 0° | | | R0.20 | MTEN 66040 | ● | ● | ● | ● | ○ | ○ |
| 6.0 | 6 | 71 | 50.0 | 52 | 2.95 | 0° | | | R0.05 | MTEN 660505 | ● | ● | ● | ● | ○ | ○ |
| 6.0 | 6 | 71 | 50.0 | 52 | 2.95 | 0° | | | R0.20 | MTEN 66050 | ● | ● | ● | ● | ○ | ○ |

Dimensions in mm

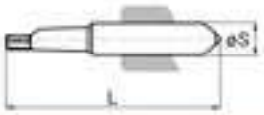
SWISS MADE
QUALITY SINCE 1917

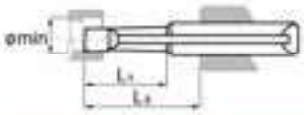
# MTEF

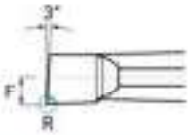
## Boring tool
## Rake angle (γ) = 12°
For long-chipping materials

P M N* S *Brass with lead: use MTEN
Brass without lead: use MTEP, MTEF

Standard values (V꜀ / f꜀) Page 10–11
Carbide grades and coatings Page 9



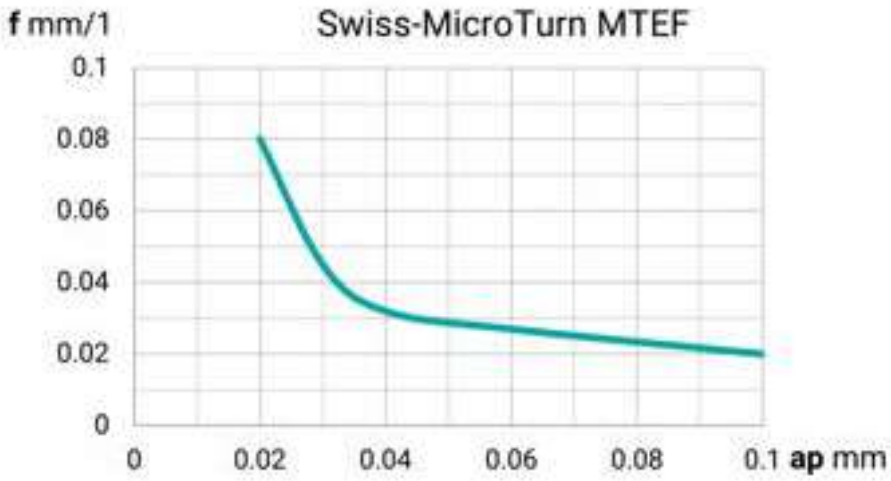



| ømin | øS | L | L1 | L2 | F | γ | R | | | Ref. N° | Rotation | | Coating | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | △ | △ | △ | | R | L | K10 | TiAlN | DLC | SPEC |
| 1.0 | 4 | 26 | 1.2 | 10 | 0.50 | 12° | 0 | | | MTEF 410020 | ● | ○ | ● | ● | ● | ○ |
| 1.0 | 4 | 26 | 3.0 | 10 | 0.50 | 12° | 0 | | | MTEF 410030 | ● | ○ | ● | ● | ● | ○ |
| 1.0 | 4 | 26 | 5.0 | 10 | 0.50 | 12° | 0 | | | MTEF 410050 | ● | ○ | ● | ● | ● | ○ |
| 1.2 | 4 | 26 | 2.0 | 10 | 0.60 | 12° | 0 | | | MTEF 412020 | ● | ○ | ● | ● | ● | ○ |
| 1.2 | 4 | 31 | 4.0 | 15 | 0.60 | 12° | 0 | | | MTEF 412040 | ● | ○ | ● | ● | ● | ○ |
| 1.2 | 4 | 31 | 7.0 | 15 | 0.60 | 12° | 0 | | | MTEF 412070 | ● | ○ | ● | ● | ● | ○ |
| 1.5 | 4 | 26 | 3.0 | 10 | 0.75 | 12° | 0 | | | MTEF 415030 | ● | ○ | ● | ● | ● | ○ |
| 1.5 | 4 | 31 | 5.0 | 15 | 0.75 | 12° | 0 | | | MTEF 415050 | ● | ○ | ● | ● | ● | ○ |
| 1.5 | 4 | 31 | 8.0 | 15 | 0.75 | 12° | 0 | | | MTEF 415080 | ● | ○ | ● | ● | ● | ○ |
| 1.8 | 4 | 26 | 4.0 | 10 | 0.90 | 12° | 0 | | | MTEF 418040 | ● | ○ | ● | ● | ● | ○ |
| 1.8 | 4 | 31 | 5.0 | 15 | 0.90 | 12° | 0 | | | MTEF 418050 | ● | ○ | ● | ● | ● | ○ |
| 1.8 | 4 | 31 | 9.0 | 15 | 0.90 | 12° | 0 | | | MTEF 418090 | ● | ○ | ● | ● | ● | ○ |
| 2.2 | 4 | 31 | 6.0 | 15 | 1.10 | 12° | 0 | | | MTEF 422060 | ● | ○ | ● | ● | ● | ○ |
| 2.2 | 4 | 31 | 10.0 | 15 | 1.10 | 12° | 0 | | | MTEF 422100 | ● | ○ | ● | ● | ● | ○ |
| 2.2 | 4 | 31 | 14.0 | 15 | 1.10 | 12° | 0 | | | MTEF 422140 | ● | ○ | ● | ● | ● | ○ |
| 2.5 | 4 | 31 | 6.0 | 15 | 1.25 | 12° | | 0.02 × 45° | | MTEF 425062 | ● | ○ | ● | ● | ● | ○ |
| 2.5 | 4 | 31 | 10.0 | 15 | 1.25 | 12° | | 0.02 × 45° | | MTEF 425102 | ● | ○ | ● | ● | ● | ○ |
| 2.5 | 4 | 31 | 14.0 | 15 | 1.25 | 12° | | 0.02 × 45° | | MTEF 425142 | ● | ○ | ● | ● | ● | ○ |
| 3.2 | 4 | 31 | 8.0 | 15 | 1.60 | 12° | | 0.02 × 45° | | MTEF 432082 | ● | ○ | ● | ● | ● | ○ |
| 3.2 | 4 | 31 | 12.0 | 15 | 1.60 | 12° | | 0.02 × 45° | | MTEF 432122 | ● | ○ | ● | ● | ● | ○ |
| 3.2 | 4 | 36 | 17.0 | 20 | 1.60 | 12° | | 0.02 × 45° | | MTEF 432172 | ● | ○ | ● | ● | ● | ○ |
| 4.0 | 4 | 31 | 10.0 | 15 | 1.95 | 12° | | 0.02 × 45° | | MTEF 440102 | ● | ○ | ● | ● | ● | ○ |
| 4.0 | 4 | 31 | 14.0 | 15 | 1.95 | 12° | | 0.02 × 45° | | MTEF 440142 | ● | ○ | ● | ● | ● | ○ |
| 4.0 | 4 | 36 | 19.0 | 20 | 1.95 | 12° | | 0.02 × 45° | | MTEF 440192 | ● | ○ | ● | ● | ● | ○ |
| 5.0 | 6 | 35 | 12.0 | 16 | 2.50 | 12° | | 0.02 × 45° | | MTEF 650122 | ● | ○ | ● | ● | ● | ○ |
| 5.0 | 6 | 43 | 17.0 | 24 | 2.50 | 12° | | 0.02 × 45° | | MTEF 650172 | ● | ○ | ● | ● | ● | ○ |
| 5.0 | 6 | 48 | 25.0 | 29 | 2.50 | 12° | | 0.02 × 45° | | MTEF 650252 | ● | ○ | ● | ● | ● | ○ |
| 6.0 | 6 | 35 | 12.0 | 16 | 2.95 | 12° | | 0.02 × 45° | | MTEF 660122 | ● | ○ | ● | ● | ● | ○ |
| 6.0 | 6 | 43 | 20.0 | 24 | 2.95 | 12° | | 0.02 × 45° | | MTEF 660202 | ● | ○ | ● | ● | ● | ○ |
| 6.0 | 6 | 53 | 30.0 | 34 | 2.95 | 12° | | 0.02 × 45° | | MTEF 660302 | ● | ○ | ● | ● | ● | ○ |

Dimensions in mm

## MTEF «finishing»

ifanger.com/chipbreaker




*For optimum chip formation, take the values for feed ($f_n$) and cutting depth ($a_p$) from the curve.*

***The maximum cutting depth ($a_p$) for MTEF is 0.15 mm***

**Order directly online**
Order the right tool online using the QR code or weblink.

**Example order number: MTEF 410020-R-TiAlN**

E-Shop items  On request

ifanger.com/en/shop

SWISS MADE
QUALITY SINCE 1917

# MTEP

## Boring tool

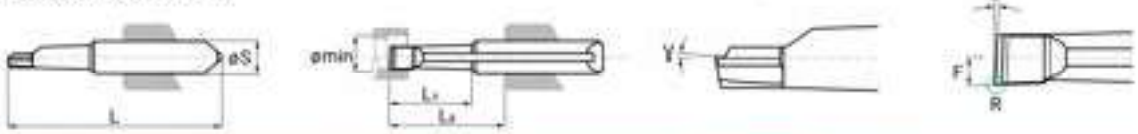
## Rake angle (γ) = 12°

For long-chipping materials

ULTRA-SHARP CHIP CONTROL

P M N* S *Brass with lead: use MTEN
Brass without lead: use MTEP, MTEF

Standard values (V<sub>c</sub> / f<sub>n</sub>) Page 10–11
Carbide grades and coatings Page 9

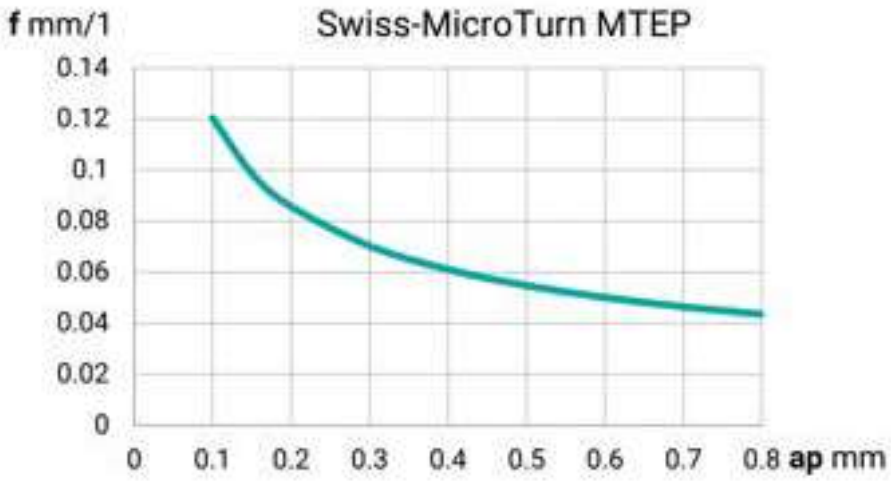



| ømin | øS | L | L1 | L2 | F | γ | R | | | Ref. N° | Rotation | | Coating | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | △ | △ | △ | | R | L | K10 | TiAlN | DLC | SPEC |
| 2.5 | 4 | 31 | 6 | 15 | 1.25 | 12° | | | R0.05 | MTEP 425065 | ● | ○ | ● | ● | ● | ○ |
| 2.5 | 4 | 31 | 10 | 15 | 1.25 | 12° | | | R0.05 | MTEP 425105 | ● | ○ | ● | ● | ● | ○ |
| 2.5 | 4 | 31 | 14 | 15 | 1.25 | 12° | | | R0.05 | MTEP 425145 | ● | ○ | ● | ● | ● | ○ |
| 3.2 | 4 | 31 | 8 | 15 | 1.60 | 12° | | | R0.05 | MTEP 432085 | ● | ○ | ● | ● | ● | ○ |
| 3.2 | 4 | 31 | 12 | 15 | 1.60 | 12° | | | R0.05 | MTEP 432125 | ● | ○ | ● | ● | ● | ○ |
| 3.2 | 4 | 36 | 17 | 20 | 1.60 | 12° | | | R0.05 | MTEP 432175 | ● | ○ | ● | ● | ● | ○ |
| 4.0 | 4 | 31 | 10 | 15 | 1.95 | 12° | | | R0.05 | MTEP 440105 | ● | ○ | ● | ● | ● | ○ |
| 4.0 | 4 | 31 | 14 | 15 | 1.95 | 12° | | | R0.05 | MTEP 440145 | ● | ○ | ● | ● | ● | ○ |
| 4.0 | 4 | 36 | 19 | 20 | 1.95 | 12° | | | R0.05 | MTEP 440195 | ● | ○ | ● | ● | ● | ○ |
| 5.0 | 6 | 35 | 12 | 16 | 2.50 | 12° | | | R0.05 | MTEP 650125 | ● | ○ | ● | ● | ● | ○ |
| 5.0 | 6 | 43 | 17 | 24 | 2.50 | 12° | | | R0.05 | MTEP 650175 | ● | ○ | ● | ● | ● | ○ |
| 5.0 | 6 | 48 | 25 | 29 | 2.50 | 12° | | | R0.05 | MTEP 650255 | ● | ○ | ● | ● | ● | ○ |
| 6.0 | 6 | 35 | 12 | 16 | 2.95 | 12° | | | R0.05 | MTEP 660125 | ● | ○ | ● | ● | ● | ○ |
| 6.0 | 6 | 43 | 20 | 24 | 2.95 | 12° | | | R0.05 | MTEP 660205 | ● | ○ | ● | ● | ● | ○ |
| 6.0 | 6 | 53 | 30 | 34 | 2.95 | 12° | | | R0.05 | MTEP 660305 | ● | ○ | ● | ● | ● | ○ |

Dimensions in mm

## MTEP

ifanger.com/chipbreaker




*For optimum chip formation, take the values for feed ($f_z$) and cutting depth ($a_p$) from the curve.*

***The minimal cutting depth ($a_p$) for MTEP is 0.1 mm.***

**Order directly online**
Order the right tool online using the QR code or weblink.

**Example order number: MTEP 425065-R-TiAlN**

E-Shop items On request

ifanger.com/en/shop

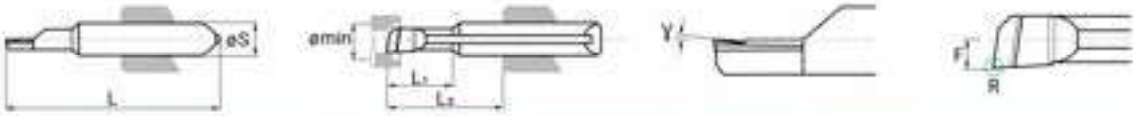
SWISS MADE
QUALITY SINCE 1917

# MTEE

Boring tool released
Rake angle (γ) = 8°

P M N S O

Standard values ($V_c$ / $f_n$) Page 10–11
Carbide grades and coatings Page 9




| ømin | øS | L | L1 | L2 | F | γ | R | | | Ref. N° | Rotation | | Coating | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | △ | △ | △ | | R | L | K10 | TiAlN | DLC | SPEC |
| 1.8 | 4 | 31 | 5.0 | 15 | 0.95 | 8° | | | R0.05 | MTEE 41805 | ● | ○ | ● | ● | ○ | ○ |
| 2.3 | 4 | 31 | 7.0 | 15 | 1.20 | 8° | | | R0.08 | MTEE 42307 | ● | ○ | ● | ● | ○ | ○ |
| 2.5 | 4 | 26 | 4.0 | 10 | 1.25 | 12° | | | R0.05 | MTEE 42504 | ● | ○ | ● | ● | ○ | ○ |
| 2.8 | 4 | 31 | 8.5 | 15 | 1.45 | 8° | | | R0.10 | MTEE 42808 | ● | ○ | ● | ● | ○ | ○ |
| 3.3 | 4 | 31 | 10.5 | 15 | 1.70 | 8° | | | R0.10 | MTEE 43310 | ● | ○ | ● | ● | ○ | ○ |
| 3.8 | 4 | 31 | 12.5 | 15 | 1.95 | 8° | | | R0.10 | MTEE 43812 | ● | ○ | ● | ● | ○ | ○ |
| 4.7 | 6 | 43 | 16.0 | 24 | 2.45 | 8° | | | R0.15 | MTEE 64716 | ● | ○ | ● | ● | ○ | ○ |
| 5.7 | 6 | 43 | 19.5 | 24 | 2.95 | 8° | | | R0.15 | MTEE 65719 | ● | ○ | ● | ● | ○ | ○ |

Dimensions in mm

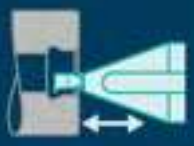
## Use case Ref. N° MTEE 42504

**Order directly online**
Order the right tool online using the QR code or weblink.

**Example order number: MTEE 41805-R-TiAlN**

● E-Shop items ○ On request

ifanger.com/en/shop

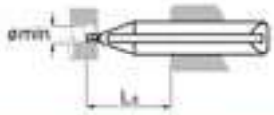


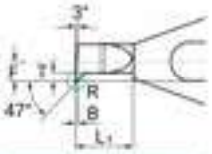
# MTKN

## Profiling tool neutral 3° / 47°
## Rake angle (γ) = 0°

P M K N S O

Standard values (V_c / f_z) Page 10-11
Carbide grades and coatings Page 9




| ømin | øS | L | L₁ | L₂ | F | T | γ | B | R | | | Ref. Nº | Rotation | | Coating | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | △ | △ | △ | | R | L | K10 | TiAlN | DLC | SPEC |
| 0.3 | 4 | 26 | 0.6 | 10 | 0.15 | 0.05 | 0° | 0.02 | 0 | | | MTKN 40301 | ● | ● | ● | ● | ○ | ○ |
| 0.3 | 4 | 26 | 1.0 | 10 | 0.15 | 0.05 | 0° | 0.02 | 0 | | | MTKN 40302 | ● | ● | ● | ● | ○ | ○ |
| 0.4 | 4 | 26 | 0.8 | 10 | 0.20 | 0.07 | 0° | 0.02 | 0 | | | MTKN 40401 | ● | ● | ● | ● | ○ | ○ |
| 0.4 | 4 | 26 | 1.3 | 10 | 0.20 | 0.07 | 0° | 0.02 | 0 | | | MTKN 40402 | ● | ● | ● | ● | ○ | ○ |
| 0.5 | 4 | 26 | 1.0 | 10 | 0.25 | 0.10 | 0° | 0.02 | 0 | | | MTKN 40501 | ● | ● | ● | ● | ○ | ○ |
| 0.5 | 4 | 26 | 1.6 | 10 | 0.25 | 0.10 | 0° | 0.02 | 0 | | | MTKN 40502 | ● | ● | ● | ● | ○ | ○ |
| 0.6 | 4 | 26 | 1.2 | 10 | 0.30 | 0.12 | 0° | 0.02 | 0 | | | MTKN 40601 | ● | ● | ● | ● | ○ | ○ |
| 0.6 | 4 | 26 | 2.0 | 10 | 0.30 | 0.12 | 0° | 0.02 | 0 | | | MTKN 40602 | ● | ● | ● | ● | ○ | ○ |
| 0.7 | 4 | 26 | 1.2 | 10 | 0.35 | 0.15 | 0° | 0.02 | 0 | | | MTKN 40701 | ● | ● | ● | ● | ○ | ○ |
| 0.7 | 4 | 26 | 2.2 | 10 | 0.35 | 0.15 | 0° | 0.02 | 0 | | | MTKN 40702 | ● | ● | ● | ● | ○ | ○ |
| 0.8 | 4 | 26 | 1.4 | 10 | 0.40 | 0.17 | 0° | 0.03 | 0 | | | MTKN 40801 | ● | ● | ● | ● | ○ | ○ |
| 0.8 | 4 | 26 | 2.5 | 10 | 0.40 | 0.17 | 0° | 0.03 | 0 | | | MTKN 40802 | ● | ● | ● | ● | ○ | ○ |
| 1.0 | 4 | 26 | 1.5 | 10 | 0.50 | 0.20 | 0° | 0.05 | 0 | | | MTKN 41002 | ● | ● | ● | ● | ○ | ○ |
| 1.0 | 4 | 26 | 3.1 | 10 | 0.50 | 0.20 | 0° | 0.05 | 0 | | | MTKN 41003 | ● | ● | ● | ● | ○ | ○ |
| 1.2 | 4 | 26 | 2.0 | 10 | 0.60 | 0.30 | 0° | | | | R0.03 | MTKN 41202 | ● | ● | ● | ● | ○ | ○ |
| 1.2 | 4 | 26 | 3.7 | 10 | 0.60 | 0.30 | 0° | | | | R0.03 | MTKN 41204 | ● | ● | ● | ● | ○ | ○ |
| 1.5 | 4 | 26 | 3.0 | 10 | 0.75 | 0.40 | 0° | | | | R0.03 | MTKN 41503 | ● | ● | ● | ● | ○ | ○ |
| 1.5 | 4 | 26 | 4.6 | 10 | 0.75 | 0.40 | 0° | | | | R0.03 | MTKN 41505 | ● | ● | ● | ● | ○ | ○ |
| 1.5 | 4 | 31 | 7.5 | 15 | 0.75 | 0.40 | 0° | | | | R0.03 | MTKN 41508 | ● | ● | ● | ● | ○ | ○ |
| 1.8 | 4 | 26 | 4.0 | 10 | 0.90 | 0.50 | 0° | | | | R0.03 | MTKN 41804 | ● | ● | ● | ● | ○ | ○ |
| 1.8 | 4 | 26 | 5.5 | 10 | 0.90 | 0.50 | 0° | | | | R0.03 | MTKN 41806 | ● | ● | ● | ● | ○ | ○ |

Dimensions in mm

**Order directly online**
Order the right tool online using the QR code or weblink.

**Example order number: MTKN 40301-R-TiAlN**

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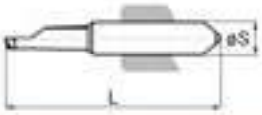
QUALITY SINCE 1917

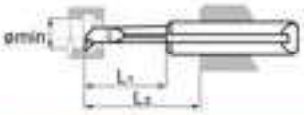
# MTKH

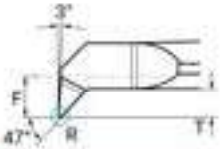
## Profiling tool 3° / 47°
## Rake angle (γ) = 8°

P M N S O

Standard values ($V_c$ / $f_n$) Page 10–11
Carbide grades and coatings Page 9






| ømin | øS | L | L1 | L2 | F | T | γ | R | | | Ref. N° | Rotation | | Coating | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | △ | △ | △ | | R | L | K10 | TiAlN | DLC | SPEC |
| 2.0 | 4 | 31 | 4 | 15 | 1.00 | 0.50 | 8° | | | R0.05 | MTKH 42004 | ● | ● | ● | ● | ○ | ○ |
| 2.5 | 4 | 31 | 6 | 15 | 1.25 | 0.50 | 8° | | | R0.05 | MTKH 42506 | ● | ● | ● | ● | ○ | ○ |
| 2.5 | 4 | 31 | 10 | 15 | 1.25 | 0.50 | 8° | | | R0.05 | MTKH 42510 | ● | ● | ● | ● | ○ | ○ |
| 3.2 | 4 | 31 | 8 | 15 | 1.60 | 0.60 | 8° | | | R0.08 | MTKH 43208 | ● | ● | ● | ● | ○ | ○ |
| 3.2 | 4 | 31 | 12 | 15 | 1.60 | 0.60 | 8° | | | R0.08 | MTKH 43212 | ● | ● | ● | ● | ○ | ○ |
| 3.2 | 4 | 36 | 17 | 20 | 1.60 | 0.60 | 8° | | | R0.08 | MTKH 43217 | ● | ● | ● | ● | ○ | ○ |
| 4.0 | 4 | 31 | 10 | 15 | 1.95 | 0.80 | 8° | | | R0.12 | MTKH 44010 | ● | ● | ● | ● | ○ | ○ |
| 4.0 | 4 | 31 | 14 | 15 | 1.95 | 0.80 | 8° | | | R0.12 | MTKH 44014 | ● | ● | ● | ● | ○ | ○ |
| 4.0 | 4 | 36 | 19 | 20 | 1.95 | 0.80 | 8° | | | R0.12 | MTKH 44019 | ● | ● | ● | ● | ○ | ○ |
| 4.0 | 6 | 48 | 25 | 29 | 1.95 | 0.80 | 8° | | | R0.12 | MTKH 64025 | ● | ● | ● | ● | ○ | ○ |
| 4.0 | 6 | 53 | 30 | 34 | 1.95 | 0.80 | 8° | | | R0.12 | MTKH 64030 | ● | ● | ● | ● | ○ | ○ |
| 5.0 | 6 | 35 | 12 | 16 | 2.50 | 1.20 | 8° | | | R0.15 | MTKH 65012 | ● | ● | ● | ● | ○ | ○ |
| 5.0 | 6 | 43 | 17 | 24 | 2.50 | 1.20 | 8° | | | R0.15 | MTKH 65017 | ● | ● | ● | ● | ○ | ○ |
| 5.0 | 6 | 48 | 25 | 29 | 2.50 | 1.20 | 8° | | | R0.15 | MTKH 65025 | ● | ● | ● | ● | ○ | ○ |
| 5.0 | 6 | 53 | 32 | 34 | 2.50 | 1.20 | 8° | | | R0.15 | MTKH 65032 | ● | ● | ● | ● | ○ | ○ |
| 5.0 | 6 | 61 | 40 | 42 | 2.50 | 1.20 | 8° | | | R0.15 | MTKH 65040 | ● | ● | ● | ● | ○ | ○ |
| 6.0 | 6 | 35 | 12 | 16 | 2.95 | 1.45 | 8° | | | R0.20 | MTKH 66012 | ● | ● | ● | ● | ○ | ○ |
| 6.0 | 6 | 43 | 20 | 24 | 2.95 | 1.45 | 8° | | | R0.20 | MTKH 66020 | ● | ● | ● | ● | ○ | ○ |
| 6.0 | 6 | 53 | 30 | 34 | 2.95 | 1.45 | 8° | | | R0.20 | MTKH 66030 | ● | ● | ● | ● | ○ | ○ |
| 6.0 | 6 | 61 | 40 | 42 | 2.95 | 1.45 | 8° | | | R0.20 | MTKH 66040 | ● | ● | ● | ● | ○ | ○ |
| 6.0 | 6 | 71 | 50 | 52 | 2.95 | 1.45 | 8° | | | R0.20 | MTKH 66050 | ● | ● | ● | ● | ○ | ○ |

Dimensions in mm

**Order directly online**
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**Example order number: MTKH 42004-R-TiAlN**

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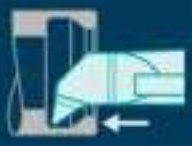
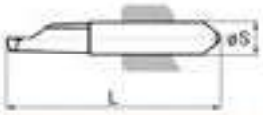


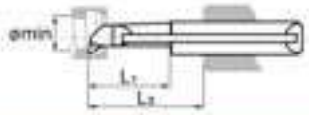
# MTKO

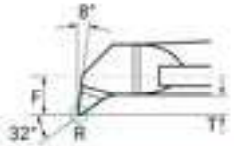
Profiling tool 8° / 32°
Rake angle (γ) = 8°

P M N S O

Standard values (V_c / f_z) Page 10-11
Carbide grades and coatings Page 9






| ømin | øS | L | L1 | L2 | F | T | γ | R | | | Ref. N° | Rotation | | Coating | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | △ | △ | △ | | R | L | K10 | TiAlN | DLC | SPEC |
| 2.0 | 4 | 31 | 4 | 15 | 1.00 | 0.50 | 8° | | | R0.05 | MTKO 42004 | ● | ● | ● | ● | ○ | ○ |
| 2.5 | 4 | 31 | 6 | 15 | 1.25 | 0.60 | 8° | | | R0.05 | MTKO 42506 | ● | ● | ● | ● | ○ | ○ |
| 2.5 | 4 | 31 | 10 | 15 | 1.25 | 0.60 | 8° | | | R0.05 | MTKO 42510 | ● | ● | ● | ● | ○ | ○ |
| 2.5 | 4 | 31 | 14 | 15 | 1.25 | 0.60 | 8° | | | R0.05 | MTKO 42514 | ● | ● | ● | ● | ○ | ○ |
| 3.2 | 4 | 31 | 8 | 15 | 1.60 | 0.80 | 8° | | | R0.08 | MTKO 43208 | ● | ● | ● | ● | ○ | ○ |
| 3.2 | 4 | 31 | 12 | 15 | 1.60 | 0.80 | 8° | | | R0.08 | MTKO 43212 | ● | ● | ● | ● | ○ | ○ |
| 3.2 | 4 | 36 | 17 | 20 | 1.60 | 0.80 | 8° | | | R0.08 | MTKO 43217 | ● | ● | ● | ● | ○ | ○ |
| 4.0 | 4 | 31 | 10 | 15 | 1.95 | 0.80 | 8° | | | R0.12 | MTKO 44010 | ● | ● | ● | ● | ○ | ○ |
| 4.0 | 4 | 31 | 14 | 15 | 1.95 | 0.80 | 8° | | | R0.12 | MTKO 44014 | ● | ● | ● | ● | ○ | ○ |
| 4.0 | 4 | 36 | 19 | 20 | 1.95 | 0.80 | 8° | | | R0.12 | MTKO 44019 | ● | ● | ● | ● | ○ | ○ |
| 4.0 | 6 | 48 | 25 | 29 | 1.95 | 0.80 | 8° | | | R0.12 | MTKO 64025 | ● | ● | ● | ● | ○ | ○ |
| 4.0 | 6 | 53 | 30 | 34 | 1.95 | 0.80 | 8° | | | R0.12 | MTKO 64030 | ● | ● | ● | ● | ○ | ○ |
| 5.0 | 6 | 35 | 12 | 16 | 2.50 | 1.20 | 8° | | | R0.15 | MTKO 65012 | ● | ● | ● | ● | ○ | ○ |
| 5.0 | 6 | 43 | 17 | 24 | 2.50 | 1.20 | 8° | | | R0.15 | MTKO 65017 | ● | ● | ● | ● | ○ | ○ |
| 5.0 | 6 | 48 | 25 | 29 | 2.50 | 1.20 | 8° | | | R0.15 | MTKO 65025 | ● | ● | ● | ● | ○ | ○ |
| 5.0 | 6 | 53 | 32 | 34 | 2.50 | 1.20 | 8° | | | R0.15 | MTKO 65032 | ● | ● | ● | ● | ○ | ○ |
| 5.0 | 6 | 61 | 40 | 42 | 2.50 | 1.20 | 8° | | | R0.15 | MTKO 65040 | ● | ● | ● | ● | ○ | ○ |
| 6.0 | 6 | 35 | 12 | 16 | 2.95 | 1.45 | 8° | | | R0.20 | MTKO 66012 | ● | ● | ● | ● | ○ | ○ |
| 6.0 | 6 | 43 | 20 | 24 | 2.95 | 1.45 | 8° | | | R0.20 | MTKO 66020 | ● | ● | ● | ● | ○ | ○ |
| 6.0 | 6 | 53 | 30 | 34 | 2.95 | 1.45 | 8° | | | R0.20 | MTKO 66030 | ● | ● | ● | ● | ○ | ○ |
| 6.0 | 6 | 61 | 40 | 42 | 2.95 | 1.45 | 8° | | | R0.20 | MTKO 66040 | ● | ● | ● | ● | ○ | ○ |
| 6.0 | 6 | 71 | 50 | 52 | 2.95 | 1.45 | 8° | | | R0.20 | MTKO 66050 | ● | ● | ● | ● | ○ | ○ |

Dimensions in mm

**Order directly online**
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**Example order number: MTKO 42004-R-TiAlN**

● E-Shop items ○ On request

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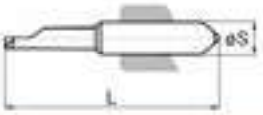
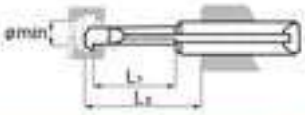
# MTKR

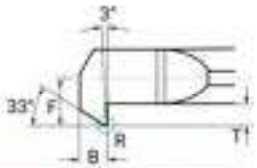
## Backboring tool
## Rake angle (γ) = 0°

P M K N S O

Standard values (Vc / fn) Page 10–11
Carbide grades and coatings Page 9




| ømin | øS | L | L1 | L2 | T | F | γ | B | R | | | Ref. N° | Rotation | | Coating | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | △ | △ | △ | | R | L | K10 | TiAlN | DLC | SPEC |
| 2.0 | 4 | 31 | 6 | 15 | 0.5 | 1.00 | 0° | 0.6 | | | R0.05 | MTKR 42006 | ● | ○ | ● | ● | ○ | ○ |
| 2.5 | 4 | 31 | 10 | 15 | 0.6 | 1.15 | 0° | 0.6 | | | R0.05 | MTKR 42510 | ● | ○ | ● | ● | ○ | ○ |
| 3.2 | 4 | 31 | 12 | 15 | 0.8 | 1.50 | 0° | 1.0 | | | R0.08 | MTKR 43212 | ● | ○ | ● | ● | ○ | ○ |
| 4.0 | 4 | 36 | 17 | 20 | 1.0 | 1.90 | 0° | 1.2 | | | R0.12 | MTKR 44017 | ● | ○ | ● | ● | ○ | ○ |
| 5.0 | 6 | 48 | 22 | 25 | 1.2 | 2.40 | 0° | 1.5 | | | R0.15 | MTKR 65022 | ● | ○ | ● | ● | ○ | ○ |
| 6.0 | 6 | 53 | 25 | 32 | 1.5 | 2.85 | 0° | 1.8 | | | R0.20 | MTKR 66025 | ● | ○ | ● | ● | ○ | ○ |

Dimensions in mm

**Order directly online**
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**Example order number: MTKR 42006-R-TiAlN**

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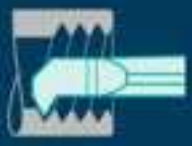
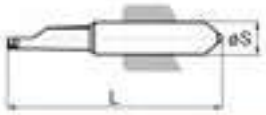
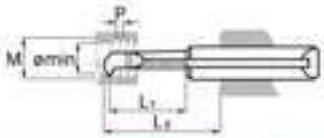


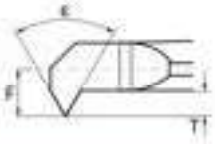
# MTGE
## Threading tool 60°

P M K N S O

Standard values ($V_c$ / $f_n$) Page 10–11
Carbide grades and coatings Page 9




| øemin | øS | L | L1 | L2 | F | ε | M | P | T | Ref. N° | Rotation | | Coating | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | mm/rev | | | R | L | K20 | TiAlN | DLC | SPEC |
| 1.2 | 4 | 26 | 2.3 | 10 | 0.60 | 60° | M1.6 | 0.20–0.40 | 0.30 | MTGE 41203 | ● | ● | ● | ● | ○ | ○ |
| 1.6 | 4 | 26 | 3.7 | 10 | 0.80 | 60° | M2 | 0.20–0.50 | 0.40 | MTGE 41604 | ● | ● | ● | ● | ○ | ○ |
| 2.2 | 4 | 31 | 5.1 | 15 | 1.10 | 60° | M3 | 0.20–0.50 | 0.60 | MTGE 42206 | ● | ● | ● | ● | ○ | ○ |
| 3.2 | 4 | 31 | 7.5 | 15 | 1.60 | 60° | M4 | 0.50–0.80 | 1.00 | MTGE 43208 | ● | ● | ● | ● | ○ | ○ |
| 4.0 | 4 | 31 | 9.4 | 15 | 1.95 | 60° | M5 | 0.75–1.00 | 0.95 | MTGE 44010 | ● | ● | ● | ● | ○ | ○ |
| 4.0 | 4 | 31 | 13.4 | 15 | 1.95 | 60° | M5 | 0.75–1.00 | 0.95 | MTGE 44014 | ● | ● | ● | ● | ○ | ○ |
| 5.0 | 6 | 35 | 11.1 | 16 | 2.50 | 60° | M6 | 0.75–1.25 | 1.50 | MTGE 65012 | ● | ● | ● | ● | ○ | ○ |
| 5.0 | 6 | 43 | 16.1 | 24 | 2.50 | 60° | M6 | 0.75–1.25 | 1.50 | MTGE 65017 | ● | ● | ● | ● | ○ | ○ |
| 6.0 | 6 | 35 | 11.0 | 16 | 2.95 | 60° | M8 | 1.00–1.75 | 1.50 | MTGE 66012 | ● | ● | ● | ● | ○ | ○ |
| 6.0 | 6 | 43 | 19.0 | 24 | 2.95 | 60° | M8 | 1.00–1.75 | 1.50 | MTGE 66020 | ● | ● | ● | ● | ○ | ○ |
| 6.0 | 6 | 53 | 29.0 | 34 | 2.95 | 60° | M8 | 1.00–1.75 | 1.50 | MTGE 66030 | ● | ● | ● | ● | ○ | ○ |

Dimensions in mm

The number of cuts depends heavily on the material to be machined, the tension of the workpiece and the desired quality class of the thread to be cut.

The last cut should be made with an infeed ($a_p$) of at least 0.04 mm.

| The number of cuts (N) depends on the ISO material class | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ISO | P1 | P2 | P3 | P4 | M1 | M2 | K1 | K2 | K3 | N1 | N2 | N4 | S1 | S2 | S3 | S4 | O1–O3 |
| N | 6–8 | 6–8 | 7–9 | 7–9 | 7–9 | 8–10 | 7–9 | 8–10 | 7–9 | 6–8 | 6–8 | 6–8 | 7–9 | 7–9 | 7–9 | 7–9 | On request |

WATCHMAKING TOOLS

**Also available:**
tools for manufacturing watchmaking threads, trapezoidal threads, as well as customized special threads in solid carbide or HSS versions.

**Tools for watchmaking threads according to NIHS standards:**
**S0.6** (P=0.15), **S0.7** (P=0.175), **S0.8** (P=0.20), **S0.9** (P=0.225), **S1.0** (p=0.25), **S1.2** (p=0.25)
The neck length $L_1$ of the tool can be freely selected (recommended $L_1$ = max.. 5×D).

**Order directly online**
Order the right tool online using the QR code or weblink.

**Example order number: MTGE 41203-R-TiAlN**

● E-Shop items ○ On request

ifanger.com/en/shop

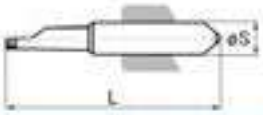
# MTGW

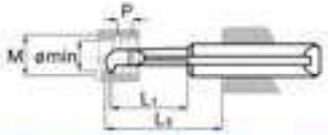
## Threading tool 55°

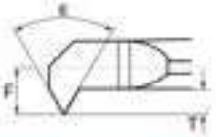
For pipe thread / whitworth thread

P M K N S O

Standard values (V_c / f_z) Page 10–11
Carbide grades and coatings Page 9




| ømin | øS | L | L1 | L2 | F | ε | M | P | T | Ref. N° | Rotation | | Coating | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | threads/inch | | | R | L | K20 | TiAlN | DLC | SPEC |
| 4.0 | 4 | 31 | 9.4 | 15 | 1.95 | 55° | W 7/32" | 20–28 | 1.00 | MTGW 44010 | ● | ○ | ● | ● | ○ | ○ |
| 5.0 | 6 | 35 | 11.1 | 16 | 2.50 | 55° | W 5/16" | 18–26 | 1.50 | MTGW 65012 | ● | ○ | ● | ● | ○ | ○ |
| 6.0 | 6 | 43 | 19.0 | 24 | 2.95 | 55° | W 3/8" | 16–22 | 1.50 | MTGW 66020 | ● | ○ | ● | ● | ○ | ○ |

Dimensions in mm

The number of cuts depends heavily on the material to be machined, the tension of the workpiece and the desired quality class of the thread to be cut.

The last cut should be made with an infeed ($a_p$) of at least 0.04 mm.

| The number of cuts (N) depends on the ISO material class | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ISO | P1 | P2 | P3 | P4 | M1 | M2 | K1 | K2 | K3 | N1 | N2 | N4 | S1 | S2 | S3 | S4 | 01–03 |
| N | 9–12 | 8–10 | 9–12 | 9–12 | 9–12 | 12–15 | 11–14 | 12–15 | 11–14 | 8–10 | 6–8 | 9–12 | 10–14 | 10–14 | 10–14 | 10–14 | On request |

**Order directly online**
Order the right tool online using the QR code or weblink.

**Example order number: MTGW 44010-R-K20**

E-Shop items  On request

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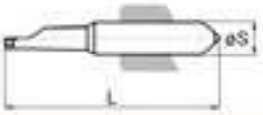
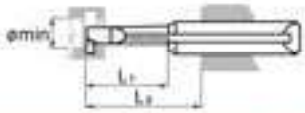
# MTNU

## Grooving tool
## Rake angle (γ) = 12°

P M S O

Standard values ($V_c$ / $f_n$) Page 10–11
Carbide grades and coatings Page 9



| ømin | øS | L | $L_1$ | $L_2$ | F | T | B | γ | Ref. N° | Rotation | | Coating | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | R | L | K10 | TiAlN | DLC | SPEC |
| 2.0 | 4 | 31 | 6 | 15 | 1.00 | 0.5 | 0.6 | 12° | MTNU 42006 | ● | ● | ● | ● | ○ | ○ |
| 2.5 | 4 | 31 | 8 | 15 | 1.25 | 0.6 | 0.8 | 12° | MTNU 42508 | ● | ● | ● | ● | ○ | ○ |
| 3.2 | 4 | 31 | 8 | 15 | 1.60 | 0.8 | 1.0 | 12° | MTNU 43208 | ● | ● | ● | ● | ○ | ○ |
| 3.2 | 4 | 31 | 12 | 15 | 1.60 | 0.8 | 1.0 | 12° | MTNU 43212 | ● | ● | ● | ● | ○ | ○ |
| 3.2 | 4 | 36 | 17 | 20 | 1.60 | 0.8 | 1.0 | 12° | MTNU 43217 | ● | ● | ● | ● | ○ | ○ |
| 4.0 | 4 | 31 | 10 | 15 | 1.95 | 0.8 | 1.0 | 12° | MTNU 44010 | ● | ● | ● | ● | ○ | ○ |
| 4.0 | 4 | 31 | 14 | 15 | 1.95 | 0.8 | 1.0 | 12° | MTNU 44014 | ● | ● | ● | ● | ○ | ○ |
| 4.0 | 4 | 36 | 19 | 20 | 1.95 | 0.8 | 1.0 | 12° | MTNU 44019 | ● | ● | ● | ● | ○ | ○ |
| 4.0 | 6 | 48 | 25 | 29 | 1.95 | 0.8 | 1.0 | 12° | MTNU 64025 | ● | ● | ● | ● | ○ | ○ |
| 4.0 | 6 | 53 | 30 | 34 | 1.95 | 0.8 | 1.0 | 12° | MTNU 64030 | ● | ● | ● | ● | ○ | ○ |
| 5.0 | 6 | 35 | 12 | 16 | 2.50 | 1.5 | 1.2 | 12° | MTNU 65012 | ● | ● | ● | ● | ○ | ○ |
| 5.0 | 6 | 43 | 17 | 24 | 2.50 | 1.5 | 1.2 | 12° | MTNU 65017 | ● | ● | ● | ● | ○ | ○ |
| 5.0 | 6 | 48 | 25 | 29 | 2.50 | 1.5 | 1.2 | 12° | MTNU 65025 | ● | ● | ● | ● | ○ | ○ |
| 5.0 | 6 | 53 | 32 | 34 | 2.50 | 1.5 | 1.2 | 12° | MTNU 65032 | ● | ● | ● | ● | ○ | ○ |
| 5.0 | 6 | 61 | 40 | 42 | 2.50 | 1.5 | 1.2 | 12° | MTNU 65040 | ● | ● | ● | ● | ○ | ○ |
| 6.0 | 6 | 35 | 12 | 16 | 2.95 | 2.0 | 1.5 | 12° | MTNU 66012 | ● | ● | ● | ● | ○ | ○ |
| 6.0 | 6 | 43 | 20 | 24 | 2.95 | 2.0 | 2.0 | 12° | MTNU 66020 | ● | ● | ● | ● | ○ | ○ |
| 6.0 | 6 | 53 | 30 | 34 | 2.95 | 2.0 | 2.0 | 12° | MTNU 66030 | ● | ● | ● | ● | ○ | ○ |
| 6.0 | 6 | 61 | 40 | 42 | 2.95 | 2.0 | 2.0 | 12° | MTNU 66040 | ● | ● | ● | ● | ○ | ○ |

Dimensions in mm

**Order directly online**
Order the right tool online using the QR code or weblink.

**Example order number: MTNU 42006-R-TiAlN**

● E-Shop items ○ On request

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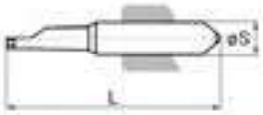
IFANGER

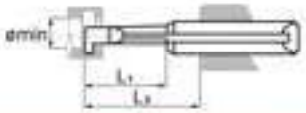
# MTNN

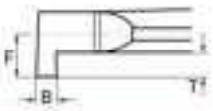
## Grooving tool neutral
## Rake angle (γ) = 0°

P M K N S O

Standard values (V_c / f_n) Page 10-11
Carbide grades and coatings Page 9




| ømin | øS | L | L1 | L2 | F | T | B | γ | Ref. N° | Rotation | | Coating | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | R | L | K10 | TiAlN | DLC | SPEC |
| 0.3 | 4 | 26 | 0.6 | 10 | 0.15 | 0.05 | 0.10 | 0° | MTNN 40301 | ● | ● | ● | ● | ○ | ○ |
| 0.4 | 4 | 26 | 0.8 | 10 | 0.20 | 0.07 | 0.10 | 0° | MTNN 40401 | ● | ● | ● | ● | ○ | ○ |
| 0.5 | 4 | 26 | 1.0 | 10 | 0.25 | 0.10 | 0.15 | 0° | MTNN 40501 | ● | ● | ● | ● | ○ | ○ |
| 0.7 | 4 | 26 | 1.2 | 10 | 0.35 | 0.15 | 0.20 | 0° | MTNN 40701 | ● | ● | ● | ● | ○ | ○ |
| 0.8 | 4 | 26 | 1.4 | 10 | 0.30 | 0.17 | 0.25 | 0° | MTNN 40801 | ● | ● | ● | ● | ○ | ○ |
| 1.0 | 4 | 26 | 1.5 | 10 | 0.50 | 0.20 | 0.30 | 0° | MTNN 41002 | ● | ● | ● | ● | ○ | ○ |
| 1.2 | 4 | 26 | 2.0 | 10 | 0.60 | 0.30 | 0.40 | 0° | MTNN 41202 | ● | ● | ● | ● | ○ | ○ |
| 1.5 | 4 | 26 | 3.0 | 10 | 0.75 | 0.40 | 0.40 | 0° | MTNN 41503 | ● | ● | ● | ● | ○ | ○ |
| 1.8 | 4 | 26 | 4.0 | 10 | 0.90 | 0.50 | 0.50 | 0° | MTNN 41804 | ● | ● | ● | ● | ○ | ○ |
| 2.0 | 4 | 31 | 6.0 | 15 | 1.00 | 0.50 | 0.60 | 0° | MTNN 42006 | ● | ● | ● | ● | ○ | ○ |
| 2.5 | 4 | 31 | 8.0 | 15 | 1.25 | 0.60 | 0.80 | 0° | MTNN 42508 | ● | ● | ● | ● | ○ | ○ |
| 3.2 | 4 | 31 | 8.0 | 15 | 1.60 | 0.80 | 1.00 | 0° | MTNN 43208 | ● | ● | ● | ● | ○ | ○ |
| 3.2 | 4 | 31 | 12.0 | 15 | 1.60 | 0.80 | 1.00 | 0° | MTNN 43212 | ● | ● | ● | ● | ○ | ○ |
| 3.2 | 4 | 36 | 17.0 | 20 | 1.60 | 0.80 | 1.00 | 0° | MTNN 43217 | ● | ● | ● | ● | ○ | ○ |
| 4.0 | 4 | 31 | 10.0 | 15 | 1.95 | 0.80 | 1.00 | 0° | MTNN 44010 | ● | ● | ● | ● | ○ | ○ |
| 4.0 | 4 | 31 | 14.0 | 15 | 1.95 | 0.80 | 1.00 | 0° | MTNN 44014 | ● | ● | ● | ● | ○ | ○ |
| 4.0 | 4 | 36 | 19.0 | 20 | 1.95 | 0.80 | 1.00 | 0° | MTNN 44019 | ● | ● | ● | ● | ○ | ○ |
| 4.0 | 6 | 48 | 25.0 | 29 | 1.95 | 0.80 | 1.00 | 0° | MTNN 64025 | ● | ● | ● | ● | ○ | ○ |
| 4.0 | 6 | 53 | 30.0 | 34 | 1.95 | 0.80 | 1.00 | 0° | MTNN 64030 | ● | ● | ● | ● | ○ | ○ |
| 5.0 | 6 | 35 | 12.0 | 16 | 2.50 | 1.50 | 1.20 | 0° | MTNN 65012 | ● | ● | ● | ● | ○ | ○ |
| 5.0 | 6 | 43 | 17.0 | 24 | 2.50 | 1.50 | 1.20 | 0° | MTNN 65017 | ● | ● | ● | ● | ○ | ○ |
| 5.0 | 6 | 48 | 25.0 | 29 | 2.50 | 1.50 | 1.20 | 0° | MTNN 65025 | ● | ● | ● | ● | ○ | ○ |
| 5.0 | 6 | 53 | 32.0 | 34 | 2.50 | 1.50 | 1.20 | 0° | MTNN 65032 | ● | ● | ● | ● | ○ | ○ |
| 5.0 | 6 | 61 | 40.0 | 42 | 2.50 | 1.50 | 1.20 | 0° | MTNN 65040 | ● | ● | ● | ● | ○ | ○ |
| 6.0 | 6 | 35 | 12.0 | 16 | 2.95 | 2.00 | 1.50 | 0° | MTNN 66012 | ● | ● | ● | ● | ○ | ○ |
| 6.0 | 6 | 43 | 20.0 | 24 | 2.95 | 2.00 | 2.00 | 0° | MTNN 66020 | ● | ● | ● | ● | ○ | ○ |
| 6.0 | 6 | 53 | 30.0 | 34 | 2.95 | 2.00 | 2.00 | 0° | MTNN 66030 | ● | ● | ● | ● | ○ | ○ |
| 6.0 | 6 | 61 | 40.0 | 42 | 2.95 | 2.00 | 2.00 | 0° | MTNN 66040 | ● | ● | ● | ● | ○ | ○ |

Dimensions in mm

**Order directly online**
Order the right tool online using the QR code or weblink.

**Example order number: MTNN 40301-R-TiAlN**

● E-Shop items ○ On request

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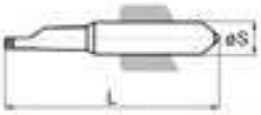
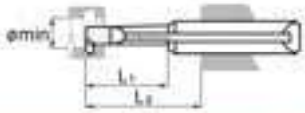
# MTNR

## Grooving tool with full radius
## Rake angle (γ) = 6°

P M N S O

Standard values (V꜀ / f꜀) Page 10–11
Carbide grades and coatings Page 9



| ømin | øS | L | L1 | L2 | F | T | γ | B | R | Ref. N° | Rotation | | Coating | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | R | L | K10 | TiAlN | DLC | SPEC |
| 2.5 | 4 | 31 | 6 | 15 | 1.25 | 0.6 | 6° | 0.8 | 0.40 | MTNR 425064 | ● | ● | ● | ● | ○ | ○ |
| 3.2 | 4 | 31 | 8 | 15 | 1.60 | 0.8 | 6° | 1.0 | 0.50 | MTNR 432085 | ● | ● | ● | ● | ○ | ○ |
| 3.2 | 4 | 31 | 12 | 15 | 1.60 | 0.8 | 6° | 1.0 | 0.50 | MTNR 432125 | ● | ● | ● | ● | ○ | ○ |
| 4.0 | 4 | 31 | 10 | 15 | 1.95 | 0.8 | 6° | 1.0 | 0.50 | MTNR 440105 | ● | ● | ● | ● | ○ | ○ |
| 4.0 | 4 | 31 | 14 | 15 | 1.95 | 0.8 | 6° | 1.0 | 0.50 | MTNR 440145 | ● | ● | ● | ● | ○ | ○ |
| 4.0 | 4 | 36 | 19 | 20 | 1.95 | 0.8 | 6° | 1.0 | 0.50 | MTNR 440195 | ● | ● | ● | ● | ○ | ○ |
| 5.0 | 6 | 35 | 12 | 16 | 2.50 | 1.5 | 6° | 1.0 | 0.50 | MTNR 650125 | ● | ● | ● | ● | ○ | ○ |
| 5.0 | 6 | 35 | 12 | 16 | 2.50 | 1.5 | 6° | 1.5 | 0.75 | MTNR 650127 | ● | ● | ● | ● | ○ | ○ |
| 5.0 | 6 | 35 | 12 | 16 | 2.50 | 1.5 | 6° | 2.0 | 1.00 | MTNR 650129 | ● | ● | ● | ● | ○ | ○ |
| 5.0 | 6 | 43 | 17 | 24 | 2.50 | 1.5 | 6° | 1.0 | 0.50 | MTNR 650175 | ● | ● | ● | ● | ○ | ○ |
| 5.0 | 6 | 43 | 17 | 24 | 2.50 | 1.5 | 6° | 1.5 | 0.75 | MTNR 650177 | ● | ● | ● | ● | ○ | ○ |
| 5.0 | 6 | 43 | 17 | 24 | 2.50 | 1.5 | 6° | 2.0 | 1.00 | MTNR 650179 | ● | ● | ● | ● | ○ | ○ |
| 6.0 | 6 | 43 | 20 | 24 | 2.95 | 2.0 | 6° | 1.0 | 0.50 | MTNR 660205 | ● | ● | ● | ● | ○ | ○ |
| 6.0 | 6 | 43 | 20 | 24 | 2.95 | 2.0 | 6° | 1.5 | 0.75 | MTNR 660207 | ● | ● | ● | ● | ○ | ○ |
| 6.0 | 6 | 43 | 20 | 24 | 2.95 | 2.0 | 6° | 2.0 | 1.00 | MTNR 660209 | ● | ● | ● | ● | ○ | ○ |

Dimensions in mm

**Order directly online**
Order the right tool online using the QR code or weblink.

**Example order number: MTNR 425064-R-TiAlN**

● E-Shop items ○ On request

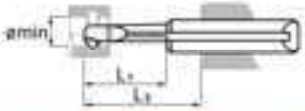
ifanger.com/en/shop

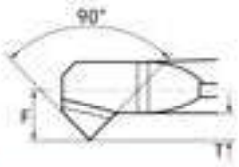
# MTFA

## Chamfering tool
## Rake angle (γ) = 8°

P M K N S O

Standard values (V<sub>c</sub> / f) Page 10-11
Carbide grades and coatings Page 9




| ømin | øS | L | L1 | L2 | F | T | γ | Ref. N° | Rotation | | Coating | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | R | L | K10 | TiAlN | DLC | SPEC |
| 2.0 | 4 | 31 | 5.4 | 15 | 1.00 | 0.50 | 8° | MTFA 42006 | ● | ● | ● | ● | ○ | ○ |
| 2.5 | 4 | 31 | 7.3 | 15 | 1.25 | 0.60 | 8° | MTFA 42508 | ● | ● | ● | ● | ○ | ○ |
| 3.2 | 4 | 31 | 11.0 | 15 | 1.60 | 0.80 | 8° | MTFA 43212 | ● | ● | ● | ● | ○ | ○ |
| 4.0 | 4 | 31 | 13.0 | 15 | 1.95 | 0.80 | 8° | MTFA 44014 | ● | ● | ● | ● | ○ | ○ |
| 4.0 | 4 | 36 | 18.0 | 20 | 1.95 | 0.80 | 8° | MTFA 44019 | ● | ● | ● | ● | ○ | ○ |
| 5.0 | 6 | 43 | 15.4 | 24 | 2.50 | 1.45 | 8° | MTFA 65017 | ● | ● | ● | ● | ○ | ○ |
| 6.0 | 6 | 43 | 18.4 | 24 | 2.95 | 1.45 | 8° | MTFA 66020 | ● | ● | ● | ● | ○ | ○ |
| 6.0 | 6 | 53 | 28.4 | 34 | 2.95 | 1.45 | 8° | MTFA 66030 | ● | ● | ● | ● | ○ | ○ |

Dimensions in mm

Use MTKN, MTKH, MTKO or MTKR tools for profile turning.

**Order directly online**
Order the right tool online using the QR code or weblink.

**Example order number: MTFA 42006-R-TiAlN**

● E-Shop items ○ On request

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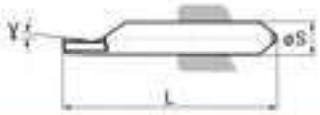
# MTNX

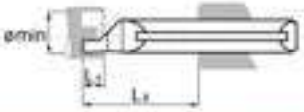
## Face grooving tool
## Rake angle (γ) = 6–8°

For axial grooves

P M K N S O

Standard values ($V_c$ / $f_n$) Page 10–11
Carbide grades and coatings Page 9



| ømin | øS | L | $L_1$ | $L_2$ | F | T | B | γ | Ref. N° | Rotation | | Coating | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | R | L | K10 | TiAlN | DLC | SPEC |
| 4.0 | 4 | 26 | 3 | 10 | 1.95 | 1.2 | 0.7 | 6° | MTNX 40710 | ● | ● | ● | ● | ○ | ○ |
| 6.0 | 4 | 26 | 5 | 10 | 1.95 | 1.5 | 1.0 | 8° | MTNX 41015 | ● | ● | ● | ● | ○ | ○ |
| 6.0 | 4 | 26 | 7 | 10 | 1.95 | 2.0 | 1.5 | 8° | MTNX 41520 | ● | ● | ● | ● | ○ | ○ |
| 8.0 | 6 | 35 | 8 | 16 | 2.95 | 2.5 | 1.5 | 8° | MTNX 61525 | ● | ● | ● | ● | ○ | ○ |
| 8.0 | 6 | 35 | 10 | 16 | 2.95 | 3.0 | 2.0 | 8° | MTNX 62030 | ● | ● | ● | ● | ○ | ○ |

Dimensions in mm

**Order directly online**
Order the right tool online using the QR code or weblink.

**Example order number: MTNX 40710-R-TiAlN**

● E-Shop items ○ On request

ifanger.com/en/shop

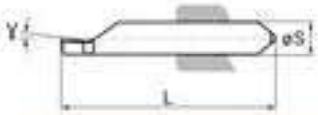
# MTNY

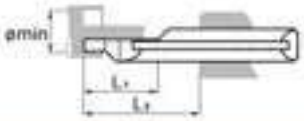
## Face grooving tool
## Rake angle (γ) = 6–8°

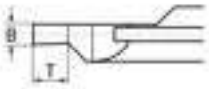
For axial grooves with collar

P M K N S O

Standard values (V_c / f_z) Page 10–11
Carbide grades and coatings Page 9



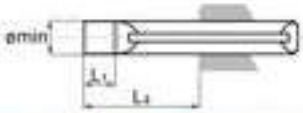
| ømin | øS | L | L1 | L2 | T | B | γ | Ref. N° | Rotation R | Rotation L | Coating K10 | Coating TiAlN | Coating DLC | Coating SPEC |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 4.0 | 4 | 26 | 6 | 10 | 1.2 | 0.7 | 6° | MTNY 40710 | ● | ● | ● | ● | ○ | ○ |
| 6.0 | 4 | 31 | 8 | 15 | 1.5 | 1.0 | 8° | MTNY 41015 | ● | ● | ● | ● | ○ | ○ |
| 6.0 | 4 | 31 | 12 | 15 | 2.0 | 1.5 | 8° | MTNY 41520 | ● | ● | ● | ● | ○ | ○ |
| 8.0 | 6 | 35 | 14 | 16 | 2.5 | 1.5 | 8° | MTNY 61525 | ● | ● | ● | ● | ○ | ○ |
| 8.0 | 6 | 43 | 20 | 24 | 3.0 | 2.0 | 8° | MTNY 62030 | ● | ● | ● | ● | ○ | ○ |

Dimensions in mm

# MTRO

## Swiss-MicroTurn blank
## Rake angle (γ) = 0°

For in-house production of the cutting-edge geometry




| øS | L | L1 | L2 | γ | Ref. N° | Rotation R | Rotation L | Coating K10 | Coating TiAlN | Coating DLC | Coating SPEC |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 4 | 26 | 4 | 10 | 0° | MTRO 40010 | | | ● | | | |
| 4 | 31 | 4 | 15 | 0° | MTRO 40015 | | | ● | | | |
| 6 | 43 | 6 | 23 | 0° | MTRO 60023 | | | ● | | | |

Dimensions in mm

**Order directly online**
Order the right tool online using the QR code or weblink.

**Example order number: MTNY 40710-R-K10**

● E-Shop items ○ On request

ifanger.com/en/shop

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# Swiss-MicroTurn

## with CBN or PCD cutting edge
## Precisely tailored to your application

### CBN (Cubic-Boron-Nitride)

is considered a milestone in cutting technology. CBN is the second hardest known cutting material after diamond. It is characterized by exceptional hardness, high wear resistance, and excellent resistance to heat and chemical stress. This makes it ideal for machining very hard ferrous materials and superalloys, where other cutting materials quickly reach their limits.

### Examples of applications for CBN tools

1. **Hardened steel**
   CBN tools can be used to machine hardened workpieces directly on the lathe – an economical alternative to grinding.

2. **High-temperature alloys**
   CBN tools prove their strength in the high-precision machining of demanding nickel- and cobalt-based high-temperature alloys.

3. **Sintered materials**
   For machining sintered workpieces.

ifanger.com/en/site/successful-ifanger-swiss-microturn-cbn-

### PCD (Polycrystalline Diamond)

is a synthetic cutting material produced by sintering diamond particles in a metal matrix. PCD is characterized by high hardness, exceptional wear resistance, and excellent thermal conductivity. This makes it particularly well suited for machining non-ferrous metals and abrasive materials where long tool life, exceptional surface quality, and precise cuts are required.

# Standard tools with special neck lengths

Boring tools in stock can be individually adapted to **special neck lengths ($L_1$ + X)** within a few working days from a ø min. of 1.2 mm, as illustrated in the figures below.

Xmax = $L_2 - L_1$

# Get in touch

Please contact us; we will be happy to advise you personally. Together we will find the optimal solution for your application.

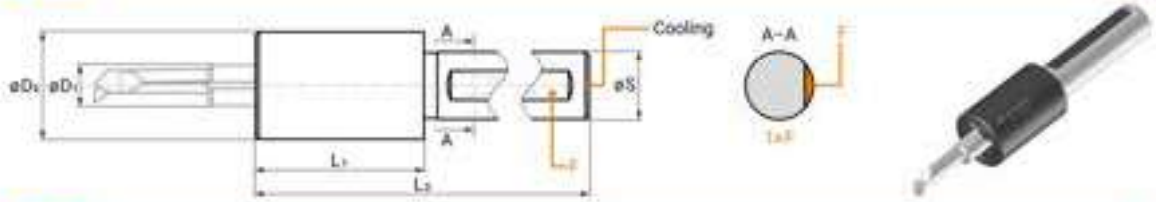
ifanger.com/en/contact

# MTHA

Holders with round shank and clamping surface (F)

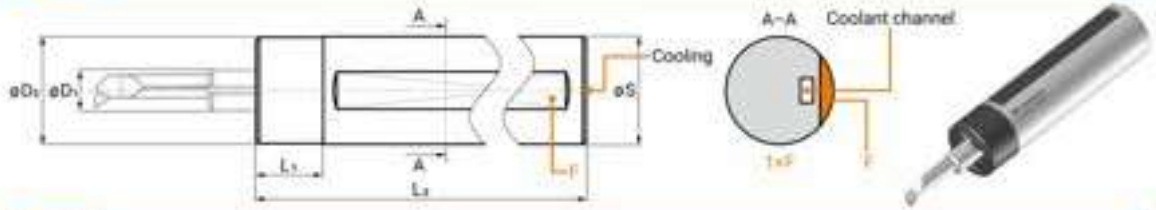
HIGH VOLUME COOLING | QUICK CHANGE | REPEATED POSITIONING ACCURACY | VIBRATION ABSORBING TOOL CLAMPING

## N° 1



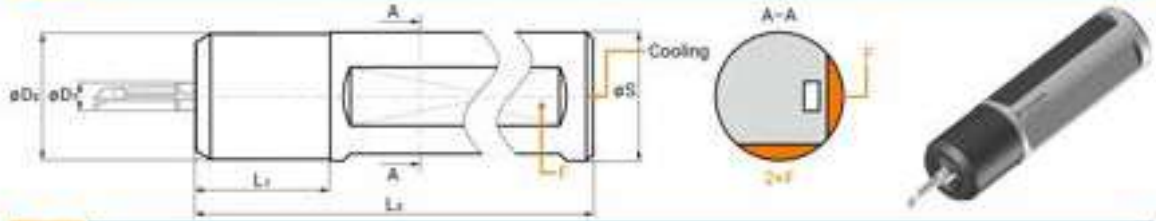



## N° 2



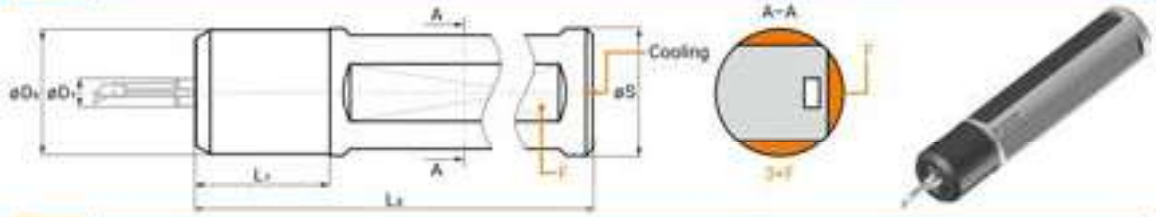



## N° 3



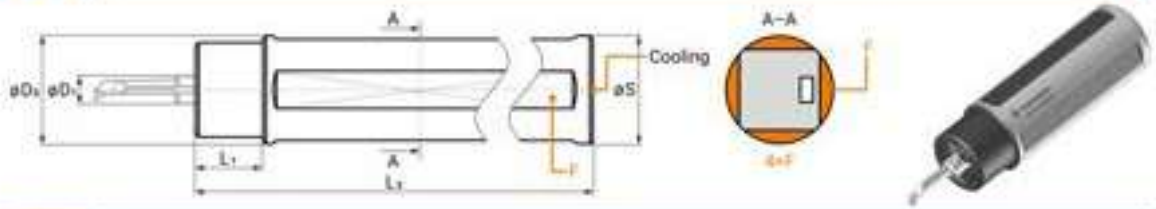



## N° 4



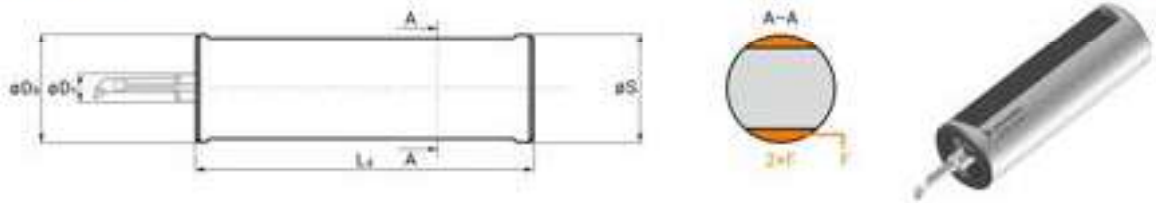



## N° 5






## N° 6



| N° | øS | øD₁ | øD₂ | L₁ | L₂ | F | Cooling | Ref. N° |
|---|---|---|---|---|---|---|---|---|
| 1 | 7 | 4 | 14.0 | 25 | 49 | 1× | – | MTHA 07049/4 |
| 1 | 8 | 4 | 14.0 | 21 | 60 | 1× | – | MTHA 08060/4 |
| 1 | 10 | 4 | 14.0 | 21 | 60 | 1× | – | MTHA 10060/4 |
| 1 | 10 | 6 | 16.0 | 25 | 60 | 1× | – | MTHA 10060/6 |
| 1 | 12 | 4 | 14.0 | 10 | 50 | 1× | – | MTHA 12050/4 |
| 1 | 12 | 4 | 14.0 | 10 | 90 | 1× | G1/8" | MTHA 12090/4 |
| 1 | 12 | 6 | 16.0 | 25 | 60 | 1× | – | MTHA 12060/6 |
| 6 | 5/8" | 4 | 5/8" | | 50 | 2× | – | MTHA 15050/4 |
| 2 | 16 | 4 | 14.0 | 10 | 50 | 1× | G1/8" | MTHA 16050/4 |
| 5 | 16 | 4 | 14.0 | 10 | 52 | 4× | G1/8" | MTHA 16052/4 |
| 2 | 16 | 4 | 14.0 | 10 | 90 | 1× | G1/8" | MTHA 16090/4 |
| 2 | 16 | 6 | 15.8 | 10 | 60 | 1× | G1/8" | MTHA 16060/6 |
| 2 | 16 | 6 | 15.8 | 10 | 90 | 1× | G1/8" | MTHA 16090/6 |
| 3 | 3/4" | 4 | 18.6 | 20 | 70 | 2× | G1/8" | MTHA 19070/4 |
| 3 | 3/4" | 6 | 18.6 | 20 | 70 | 2× | G1/8" | MTHA 19070/6 |
| 4 | 3/4" | 4 | 18.6 | 20 | 90 | 3× | G1/8" | MTHA 19090/4 |
| 4 | 3/4" | 6 | 18.6 | 20 | 90 | 3× | G1/8" | MTHA 19090/6 |
| 3 | 3/4" | 4 | 18.6 | 20 | 145 | 2× | G1/8" | MTHA 19145/4 |
| 3 | 3/4" | 6 | 18.6 | 20 | 145 | 2× | G1/8" | MTHA 19145/6 |
| 3 | 20 | 4 | 19.6 | 20 | 70 | 2× | G1/8" | MTHA 20070/4 |
| 3 | 20 | 6 | 19.6 | 20 | 70 | 2× | G1/8" | MTHA 20070/6 |
| 3 | 20 | 4 | 19.6 | 20 | 160 | 2× | G1/8" | MTHA 20160/4 |
| 3 | 20 | 6 | 19.6 | 20 | 160 | 2× | G1/8" | MTHA 20160/6 |
| 5 | 22 | 4 | 21.6 | 20 | 90 | 4× | G1/8" | MTHA 22090/4 |
| 5 | 22 | 6 | 21.6 | 20 | 90 | 4× | G1/8" | MTHA 22090/6 |
| 3 | 22 | 4 | 21.6 | 20 | 130 | 2× | G1/8" | MTHA 22130/4 |
| 3 | 22 | 6 | 21.6 | 20 | 130 | 2× | G1/8" | MTHA 22130/6 |
| 2 | 25 | 4 | 24.6 | 20 | 80 | 1× | G1/8" | MTHA 25080/4 |
| 2 | 25 | 6 | 24.6 | 20 | 80 | 1× | G1/8" | MTHA 25080/6 |
| 2 | 25 | 4 | 24.6 | 20 | 100 | 1× | G1/8" | MTHA 25100/4 |
| 2 | 25 | 6 | 24.6 | 20 | 100 | 1× | G1/8" | MTHA 25100/6 |
| 5 | 25 | 4 | 24.6 | 20 | 170 | 4× | G1/8" | MTHA 25170/4 |
| 5 | 25 | 6 | 24.6 | 20 | 170 | 4× | G1/8" | MTHA 25170/6 |
| 3 | 1" | 4 | 25.0 | 20 | 70 | 2× | G1/8" | MTHA 26070/4 |
| 3 | 1" | 6 | 25.0 | 20 | 70 | 2× | G1/8" | MTHA 26070/6 |
| 3 | 1" | 4 | 25.0 | 20 | 145 | 2× | G1/8" | MTHA 26145/4 |
| 3 | 1" | 6 | 25.0 | 20 | 145 | 2× | G1/8" | MTHA 26145/6 |
| 3 | 28 | 4 | 27.6 | 20 | 100 | 2× | M12×1.5 | MTHA 28100/4 |
| 3 | 28 | 6 | 27.6 | 23 | 100 | 2× | M12×1.5 | MTHA 28100/6 |
| 4 | 32 | 4 | 31.6 | 20 | 80 | 3× | G1/8" | MTHA 32080/4 |
| 4 | 32 | 6 | 31.6 | 23 | 80 | 3× | G1/8" | MTHA 32080/6 |
| 5 | 32 | 4 | 22.0 | 25 | 135 | 4× | G1/8" | MTHA 32135/4 |
| 5 | 32 | 6 | 22.0 | 25 | 135 | 4× | G1/8" | MTHA 32135/6 |

*Dimensions in mm*
*Spare parts, see page 54*

**Order directly online**
Order the right tool online using the QR code or weblink.
The MTSC wrench is included with every holder.

**Example order number: MTHA 07049/4**

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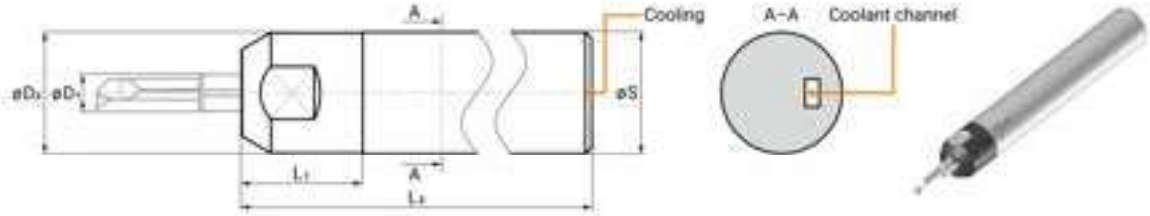
# MTHA

Holder with round shank
without clamping surface




| øS | øD₁ | øD₂ | L₁ | L₂ | Cooling | Ref. N° |
|---|---|---|---|---|---|---|
| 20 | 4 | 19.6 | 20 | 161 | G1/8" | MTHA 20161/4 |
| 20 | 6 | 19.6 | 20 | 162 | G1/8" | MTHA 20161/6 |
| 25 | 4 | 24.6 | 20 | 171 | G1/8" | MTHA 25171/4 |
| 25 | 6 | 24.6 | 20 | 171 | G1/8" | MTHA 25171/6 |

# MTRP

Adjusting tool

| øS | B | L₁ | L₂ | Ref. N° |
|---|---|---|---|---|
| 4 | 20 | 10 | 17 | MTRP 00004 |
| 5 | 20 | 10 | 18 | MTRP 00006 |

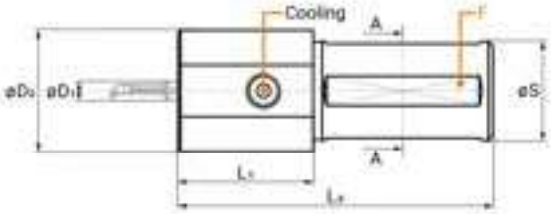
**Order directly online**
Order the right tool online using the QR code or weblink.
The MTSC wrench is included with every holder.

**Example order number: MTHA 20161/4**

ifanger.com/en/shop

# MTHA/SK

## Holders with round shank and lateral coolant connection



| øS | øD₁ | øD₂ | L₁ | L₂ | Cooling | Ref. N° |
|---|---|---|---|---|---|---|
| 16 | 4 | 27 | 30 | 70 | M8×1 | MTHA 16070/4SK |
| 3/4" | 4 | 27 | 30 | 70 | M8×1 | MTHA 19070/4SK |
| 3/4" | 6 | 27 | 30 | 70 | M8×1 | MTHA 19070/6SK |
| 20 | 4 | 27 | 30 | 70 | M8×1 | MTHA 20070/6SK |
| 22 | 4 | 27 | 30 | 70 | M8×1 | MTHA 22070/4SK |
| 22 | 6 | 27 | 30 | 70 | M8×1 | MTHA 22070/6SK |

*Dimensions in mm*
*Spare parts, see page 54*

**Order directly online**
Order the right tool online using the QR code or weblink.
The MTSC wrench is included with every holder.

**Example order number: MTHA 19070/4SK**

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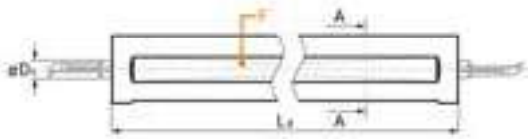
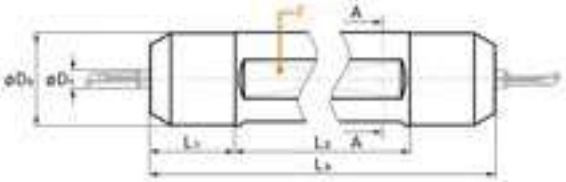
# MTHC

Double holders with round shank
for Swiss-MicroTurn tools

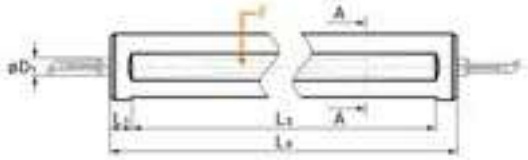
## N° 1



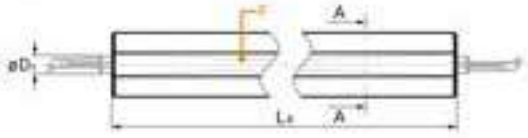
## N° 2



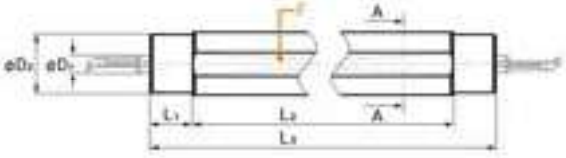
## N° 3



## N° 4



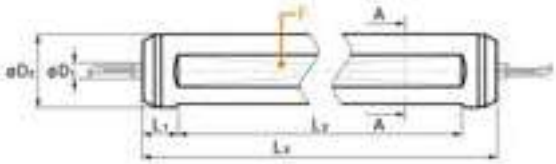
## N° 5

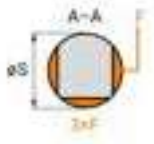


| N° | øS | øD₁ | øD₂ | øD₃ | L₁ | L₂ | L₃ | F | Ref. N° |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 5/8" | 4 | – | 4 | – | – | 48 | 2× | MTHC 15048/4 |
| 3 | 5/8" | 4 | – | 4 | 5 | 45 | 55 | 3× | MTHC 15055/4 |
| 3 | 5/8" | 4 | – | 4 | 5 | 55 | 65 | 3× | MTHC 15065/4 |
| 4 | 16 | 4 | – | 4 | – | – | 70 | 4× | MTHC 16070/4 |
| 5 | 16 | 4 | 14.0 | 4 | 10 | 90 | 110 | 4× | MTHC 16110/4 |
| 6 | 20 | 4 | 19.6 | 4 | 5 | 80 | 90 | 3× | MTHC 20090/4 |
| 3 | 22 | 4 | 21.6 | 4 | 20 | 74 | 114 | 2× | MTHC 22114/4 |
| 7 | 22 | 4 | 21.6 | 6 | 20 | 74 | 114 | 3× | MTHC 22114/46 |
| 3 | 22 | 6 | 21.6 | 6 | 20 | 74 | 114 | 2× | MTHC 22114/6 |
| 2 | 22 | 4 | 21.6 | 4 | 20 | 95 | 135 | 2× | MTHC 22135/4 |
| 2 | 22 | 6 | 21.6 | 6 | 20 | 95 | 135 | 2× | MTHC 22135/6 |
| 2 | 22 | 4 | 21.6 | 4 | 20 | 105 | 145 | 2× | MTHC 22145/4 |
| 2 | 22 | 6 | 21.6 | 6 | 20 | 105 | 145 | 2× | MTHC 22145/6 |

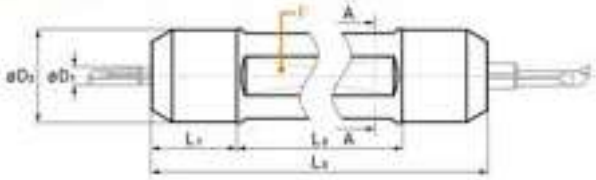
Dimensions in mm
Spare parts, see page 54

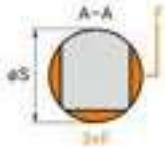
## N° 6



## N° 7



**Order directly online**
Order the right tool online using the QR code or weblink.
The MTSC wrench is included with every holder.

**Example order number: MTHC 15048/4**

ifanger.com/en/shop

SWISS MADE
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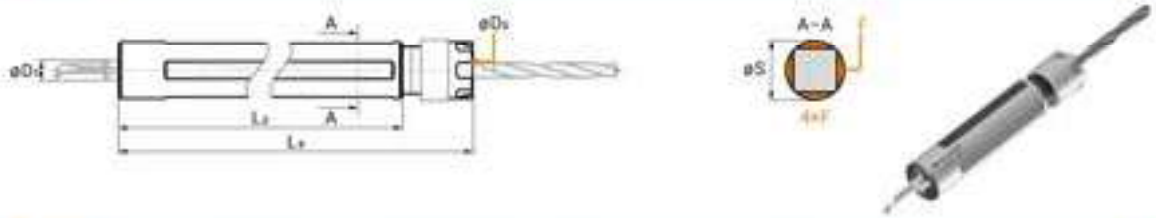
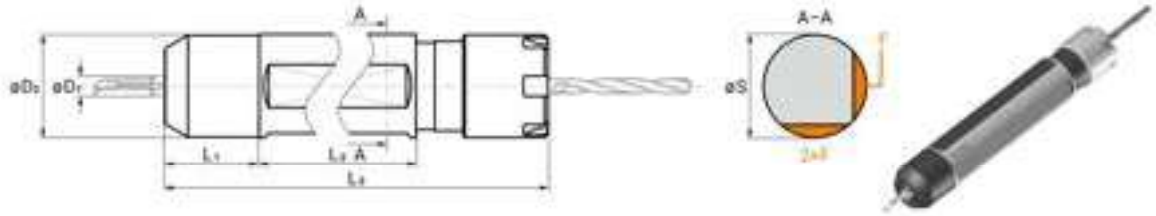
# MTHE

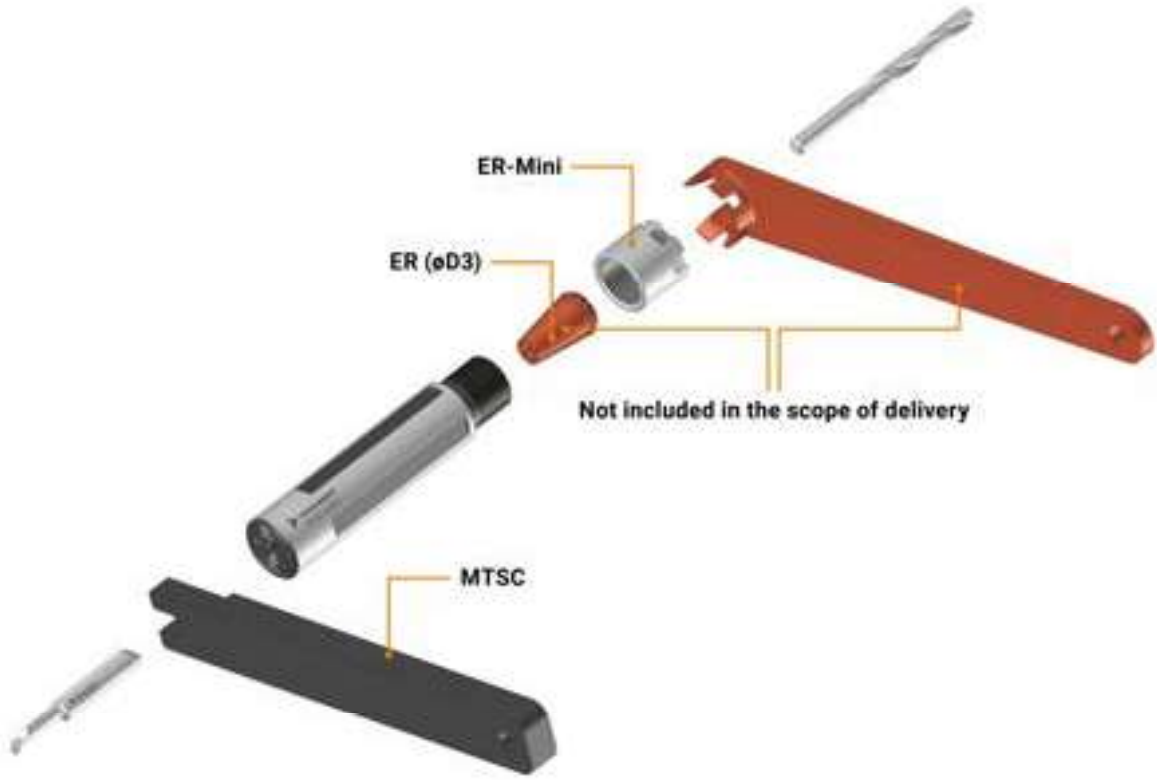
Double holders with round shank
for Swiss-MicroTurn and collet chuck ER

**N° 1**




**N° 2**



| N° | øS | øD₁ | øD₂ | øD₃ | L₁ | L₂ | L₃ | F | Ref. N° |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 12 | 4 | – | ER8 | – | – | 55 | 4× | MTHE 12055/4 |
| 1 | 5/8" | 4 | – | ER8 | – | – | 55 | 4× | MTHE 15055/4 |
| 1 | 16 | 4 | 16.0 | ER11 | – | 55 | 75 | 4× | MTHE 16071/4 |
| 2 | 16 | 4 | 14.0 | ER11 | 10 | 85 | 115 | 2× | MTHE 16110/4 |
| 2 | 3/4" | 4 | 18.6 | ER11 | 23 | 70 | 114 | 2× | MTHE 19108/4 |
| 2 | 3/4" | 6 | 18.6 | ER11 | 23 | 70 | 114 | 2× | MTHE 19108/6 |
| 2 | 3/4" | 4 | 18.6 | ER11 | 23 | 100 | 144 | 2× | MTHE 19138/4 |
| 2 | 3/4" | 6 | 18.6 | ER11 | 23 | 100 | 144 | 2× | MTHE 19138/6 |
| 2 | 20 | 4 | 19.6 | ER11 | 20 | 32 | 76 | 2× | MTHE 20071/4 |
| 2 | 22 | 4 | 21.6 | ER16 | 20 | 78 | 126 | 2× | MTHE 22114/4 |
| 2 | 22 | 6 | 21.6 | ER16 | 20 | 78 | 126 | 2× | MTHE 22114/6 |
| 2 | 22 | 4 | 21.6 | ER16 | 20 | 109 | 157 | 2× | MTHE 22145/4 |
| 2 | 22 | 6 | 21.6 | ER16 | 20 | 109 | 157 | 2× | MTHE 22145/6 |

*Dimensions in mm*
*Spare parts, see page 54*

**Order directly online**
Order the right tool online using the QR code or weblink.
The MTSC wrench is included with every holder.

**Example order number: MTHE 12055/4**

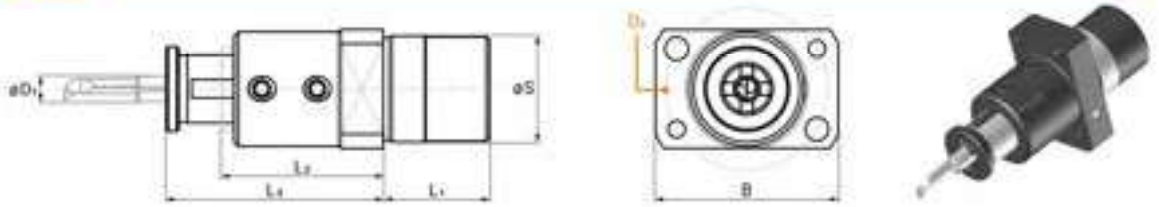
ifanger.com/en/shop

SWISS MADE
QUALITY SINCE 1917

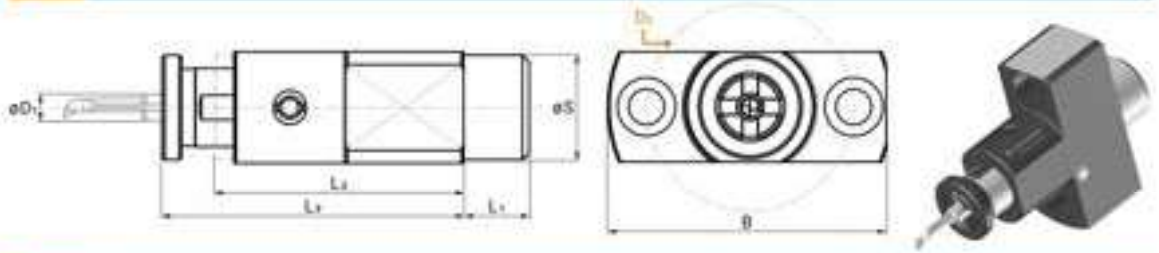
# MTHB

Holders for back operation
Steplessly adjustable length

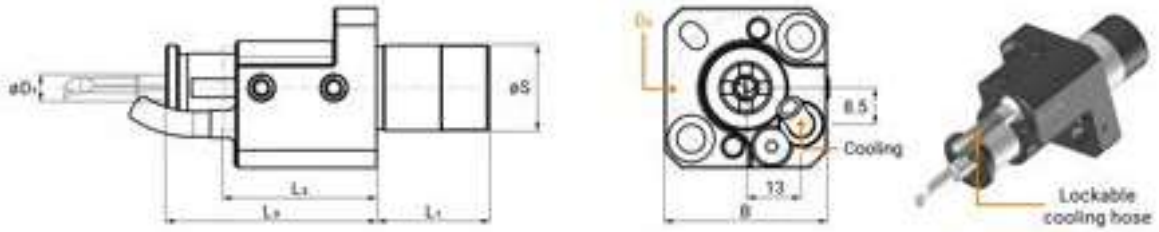
## N° 1



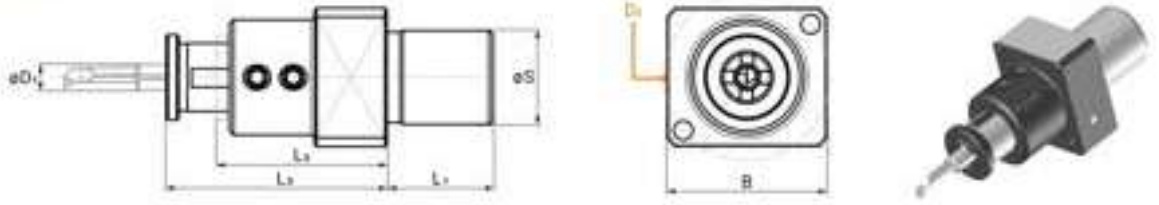

## N° 2



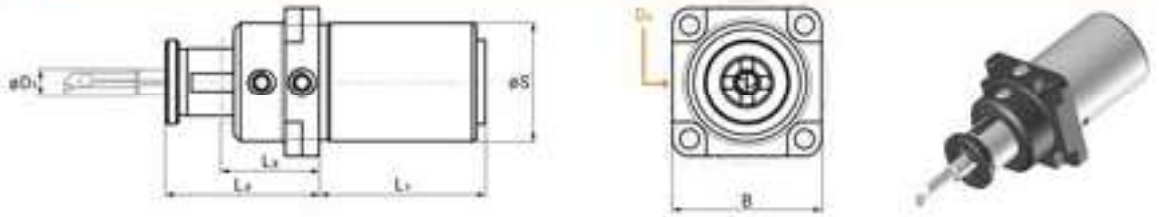

## N° 3




## N° 4




## N° 5



| N° | øS | øD₁ | øD₂ | L₁ | L₂ | L₃ | B | Cooling | Ref. N° |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 16 | 4 | 31.0 | 21.0 | 26 | 42 | 24.0 | - | MTHB 16065/4 |
| 2 | 16 | 4 | 32.0 | 10.0 | 38 | 54 | 17.0 | - | MTHB 16074/4 |
| 3 | 20 | 4 | 35.0 | 26.5 | 26 | 49 | 37.5 | ø6 | MTHB 20061/4 |
| 3 | 20 | 6 | 35.0 | 26.5 | 26 | 49 | 37.5 | ø6 | MTHB 20061/6 |
| 1 | 22 | 4 | 40.0 | 25.0 | 38 | 58 | 28.0 | - | MTHB 22078/4 |
| 1 | 22 | 6 | 40.0 | 25.0 | 38 | 58 | 28.0 | - | MTHB 22078/6 |
| 4 | 22 | 4 | 39.0 | 25.0 | 40 | 62 | 32.5 | - | MTHB 22079/4 |
| 4 | 22 | 6 | 39.0 | 25.0 | 40 | 62 | 32.5 | - | MTHB 22079/6 |
| 1 | 22 | 4 | 38.0 | 30.0 | 34 | 56 | 38.0 | - | MTHB 22080/4 |
| 1 | 22 | 6 | 38.0 | 30.0 | 34 | 56 | 38.0 | - | MTHB 22080/6 |
| 1 | 25 | 4 | 38.1 | 25.0 | 38 | 83 | 28.0 | - | MTHB 25062/4 |
| 1 | 25 | 6 | 38.1 | 25.0 | 38 | 83 | 28.0 | - | MTHB 25062/6 |
| 5 | 28 | 4 | 38.1 | 30.0 | 35 | 59 | 35.0 | - | MTHB 28057/4 |
| 5 | 28 | 6 | 38.1 | 30.0 | 35 | 59 | 35.0 | - | MTHB 28057/6 |
| 4 | 32 | 4 | 40.0 | 25.0 | 39 | 59 | 39.0 | - | MTHB 32081/4 |
| 4 | 32 | 6 | 40.0 | 25.0 | 39 | 59 | 39.0 | - | MTHB 32081/6 |
| 1 | 32 | 4 | 52.0 | 30.0 | 46 | 64 | 41.0 | - | MTHB 32093/4 |
| 1 | 32 | 6 | 52.0 | 30.0 | 46 | 64 | 41.0 | - | MTHB 32093/6 |
| 1 | 33 | 4 | 40.0 | 37.0 | 39 | 59 | 36.0 | - | MTHB 33091/4 |
| 1 | 33 | 6 | 40.0 | 37.0 | 39 | 59 | 36.0 | - | MTHB 33091/6 |
| 1 | 34 | 4 | 42.0 | 25.0 | 39 | 59 | 38.0 | - | MTHB 34081/4 |
| 1 | 34 | 6 | 42.0 | 25.0 | 39 | 59 | 38.0 | - | MTHB 34081/6 |

*Dimensions in mm*
*Spare parts, see page 54*

**Steplessly adjustable length**

**Order directly online**
Order the right tool online using the QR code or weblink.
The MTSC wrench is included with every holder.

**Example order number: MTHB 16065/4**

ifanger.com/en/shop

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QUALITY SINCE 1917

# MTQC

## Quick Change, BIMU – IFANGER

Quick change head for Swiss-MicroTurn tools

HIGH VOLUME COOLING | QUICK CHANGE | REPEATED POSITIONING ACCURACY | VIBRATION ABSORBING TOOL CLAMPING

### Presetting the tool outside the machine

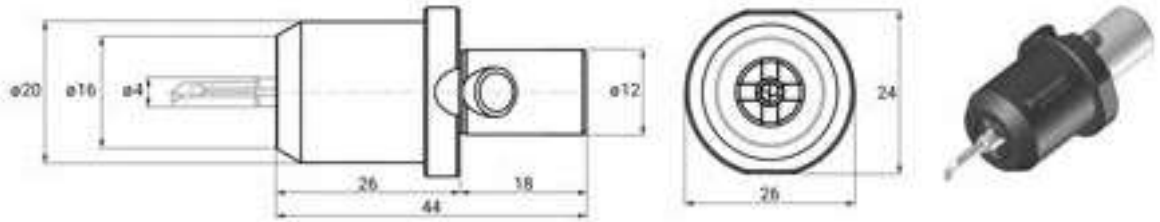
With the MTQC quick-change clamping heads Swiss-MicroTurn tools can be clamped and measured outside the lathe. This technology enables even non-specialists to quickly and reliably insert tools into the machine.

- Maximum process reliability
- Very high machine availability
- Machine operators have the freedom to look after more systems
- Extremely fast and safe use of the quick-change clamping head

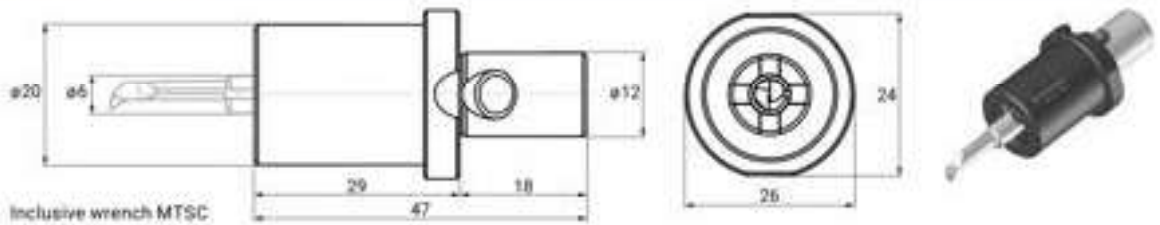
### Back operation

### Front operation

**Ref. N°: MTQC 12026/4**




**Ref. N°: MTQC 12029/6**




Inclusive wrench MTSC

# MTHV

## Holder with square shank

QUICK CHANGE | REPEATED POSITIONING ACCURACY | VIBRATION ABSORBING TOOL CLAMPING

| øS | øD₁ | øD₂ | L₁ | L₂ | Ref. N° |
|---|---|---|---|---|---|
| 12×12 | 4 | 14.0 | 85 | 10 | MTHV 12085/4 |
| 12×12 | 6 | 16.0 | 95 | 24 | MTHV 12100/6 |
| 16×16 | 4 | 14.0 | 100 | 3 | MTHV 16100/4 |
| 16×16 | 6 | 15.8 | 100 | 10 | MTHV 16100/6 |

Dimensions in mm
Spare parts, see page 54

**Order directly online**
Order the right tool online using the QR code or weblink.
The MTSC wrench is included with every holder.

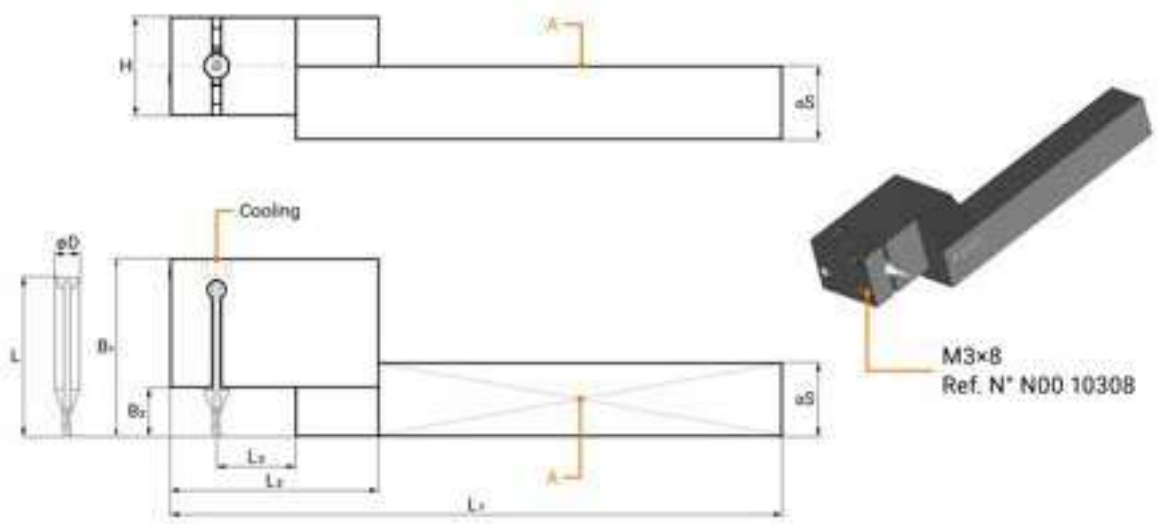
**Example order number: MTHV 12085/4**

ifanger.com/en/shop

SWISS MADE QUALITY SINCE 1917

# MTAR
Cranked holders, right hand

HIGH VOLUME COOLING




The stop surface (A) of the holder corresponds to the centre height of the tool.

| ⌀S | ⌀D | L | $L_1$ | $L_2$ | $L_3$ | $B_1$ | $B_2$ | H | Cooling | Ref. N° |
|---|---|---|---|---|---|---|---|---|---|---|
| 7 | 4 | 31 | 100 | 34 | 13 | 35 | 15 | 16 | Ref. N° MTAA-0000 | MTAR 07100/431 |
| 8 | 4 | 26 | 100 | 34 | 13 | 29 | 8 | 16 | Ref. N° MTAA-0000 | MTAR 08100/426 * |
| 8 | 4 | 31 | 100 | 34 | 13 | 35 | 15 | 16 | Ref. N° MTAA-0000 | MTAR 08100/431 |
| 10 | 4 | 26 | 100 | 34 | 13 | 29 | 8 | 16 | Ref. N° MTAA-0000 | MTAR 10100/426 * |
| 10 | 4 | 31 | 100 | 34 | 13 | 35 | 15 | 16 | Ref. N° MTAA-0000 | MTAR 10100/431 |
| 10 | 4 | 36 | 100 | 34 | 13 | 40 | 20 | 16 | Ref. N° MTAA-0000 | MTAR 10100/436 |
| 10 | 6 | 35 | 100 | 34 | 13 | 38 | 14 | 16 | Ref. N° MTAA-0000 | MTAR 10100/635 |
| 10 | 6 | 43 | 100 | 34 | 13 | 45 | 21 | 16 | Ref. N° MTAA-0000 | MTAR 10100/643 |
| 10 | 6 | 48 | 100 | 34 | 13 | 50 | 26 | 16 | Ref. N° MTAA-0000 | MTAR 10100/648 |
| 12 | 4 | 26 | 100 | 34 | 13 | 29 | 8 | 16 | Ref. N° MTAA-0000 | MTAR 12100/426 * |
| 12 | 4 | 31 | 100 | 34 | 13 | 35 | 15 | 16 | Ref. N° MTAA-0000 | MTAR 12100/431 |
| 12 | 4 | 36 | 100 | 34 | 13 | 40 | 20 | 16 | Ref. N° MTAA-0000 | MTAR 12100/436 |
| 12 | 6 | 35 | 100 | 34 | 13 | 38 | 14 | 16 | Ref. N° MTAA-0000 | MTAR 12100/635 |
| 12 | 6 | 43 | 100 | 34 | 13 | 45 | 21 | 16 | Ref. N° MTAA-0000 | MTAR 12100/643 |
| 12 | 6 | 48 | 100 | 34 | 13 | 50 | 26 | 16 | Ref. N° MTAA-0000 | MTAR 12100/648 |
| 12 | 6 | 53 | 100 | 34 | 13 | 55 | 33 | 16 | Ref. N° MTAA-0000 | MTAR 12100/653 |
| 16 | 4 | 31 | 130 | 34 | 13 | 35 | 15 | 16 | Ref. N° MTAA-0000 | MTAR 16130/431 |
| 16 | 4 | 36 | 130 | 34 | 13 | 40 | 20 | 16 | Ref. N° MTAA-0000 | MTAR 16130/436 |
| 16 | 6 | 35 | 130 | 34 | 13 | 38 | 14 | 16 | Ref. N° MTAA-0000 | MTAR 16130/635 |
| 16 | 6 | 43 | 130 | 34 | 13 | 45 | 21 | 16 | Ref. N° MTAA-0000 | MTAR 16130/643 |
| 16 | 6 | 48 | 130 | 34 | 13 | 50 | 26 | 16 | Ref. N° MTAA-0000 | MTAR 16130/648 |
| 16 | 6 | 53 | 130 | 38 | 17 | 55 | 33 | 16 | Ref. N° MTAA-0000 | MTAR 16130/653 |
| 16 | 6 | 61 | 130 | 38 | 17 | 64 | 42 | 16 | Ref. N° MTAA-0000 | MTAR 16130/661 |
| 16 | 6 | 71 | 130 | 38 | 17 | 74 | 52 | 16 | Ref. N° MTAA-0000 | MTAR 16130/671 |

Dimensions in mm
* Incl. MTAP-00426

## Positioning tool MTAP-00426

**Order directly online**
Order the right tool online using the QR code or weblink.

**Example order number: MTAR 07100/431**

Wrench included with holder.

ifanger.com/en/shop

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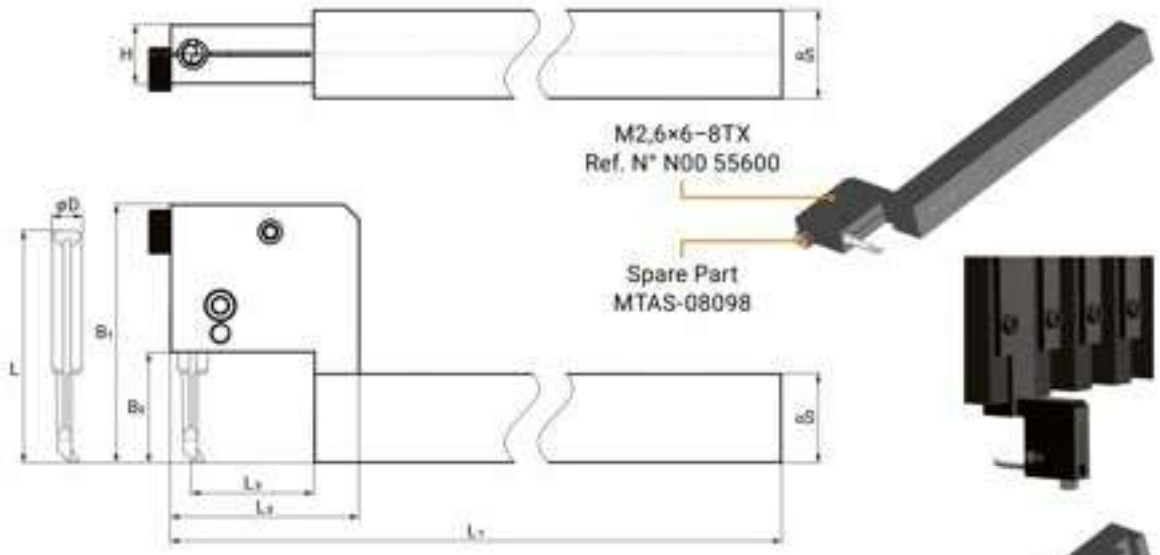
# MTAN

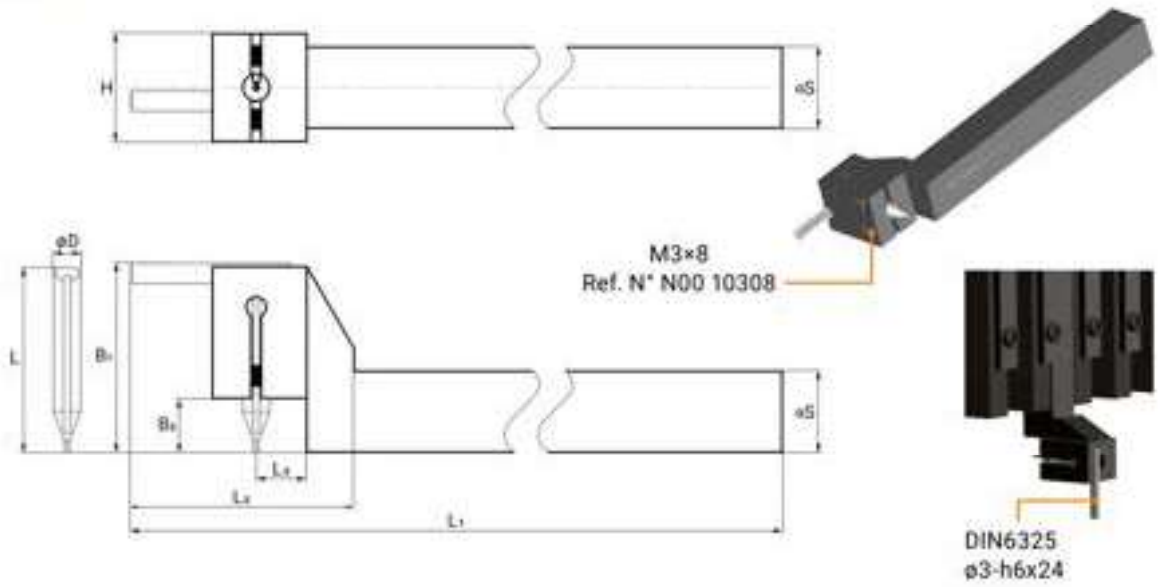
Cranked holders, neutral
Tool insertion from the rear, for tight spaces

## N° 1



With MODU-Line interface, see web store, Ref. N° 42411 and N° 42412

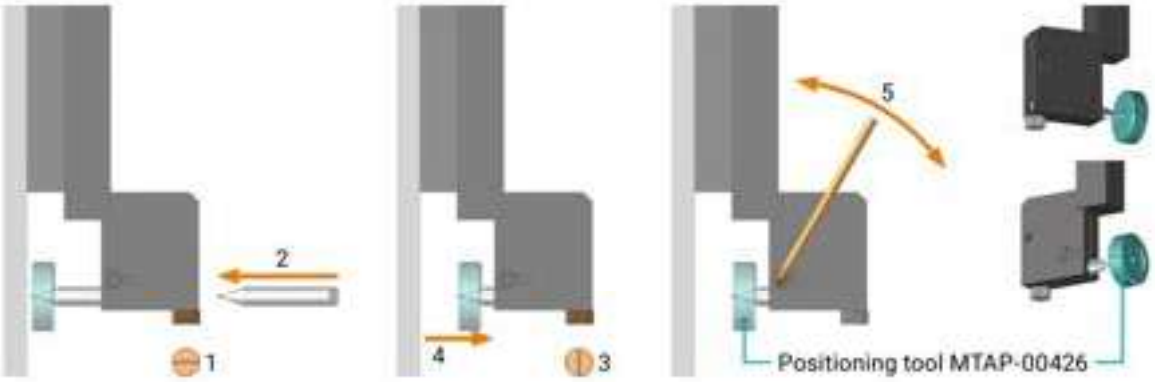
## N° 2



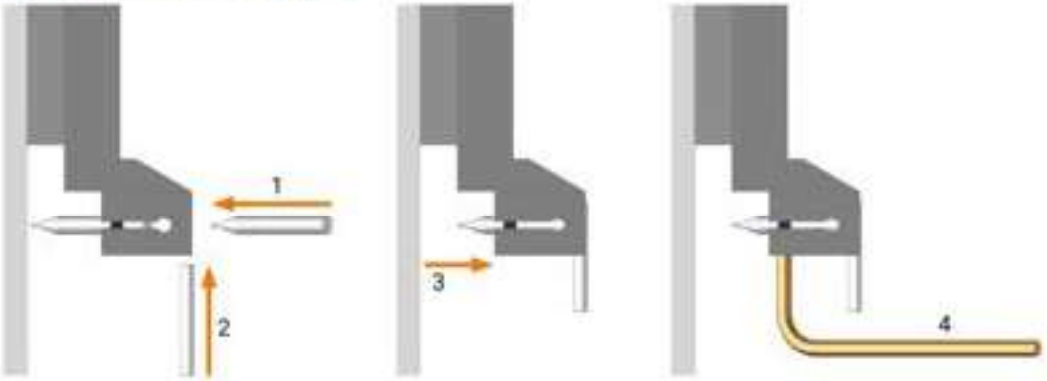
| N° | ≈S | øD | L | $L_1$ | $L_2$ | $L_3$ | $B_1$ | $B_2$ | H | Ref. N° |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 8 | 4 | 26 | 98 | 18.5 | 9.5 | 28.5 | 8 | 8 | MTAN 08098/426 * |
| 1 | 8 | 4 | 31 | 98 | 18.5 | 9.5 | 33.5 | 8 | 8 | MTAN 08098/431 |
| 1 | 10 | 4 | 26 | 98 | 25.5 | 13.0 | 29.0 | 8 | 8 | MTAN 10098/426 * |
| 1 | 10 | 4 | 31 | 98 | 25.5 | 13.0 | 33.5 | 8 | 8 | MTAN 10098/431 |
| 1 | 12 | 4 | 26 | 128 | 25.5 | 13.0 | 29.0 | 8 | 8 | MTAN 12128/426 * |
| 1 | 12 | 4 | 31 | 128 | 25.5 | 13.0 | 35.0 | 15 | 8 | MTAN 12128/431 |
| 2 | 10 | 4 | 26 | 100 | 21.0 | 7.5 | 27.5 | 8 | 16 | MTAN 10097/426 * |
| 2 | 12 | 4 | 26 | 100 | 21.0 | 7.5 | 27.5 | 8 | 16 | MTAN 12097/426 * |

Dimensions in mm
* incl. MTAP-00426

## MTAN instructions for N° 1




## MTAN instructions for N° 2




**Order directly online**
Order the right tool online using the QR code or weblink.

**Example order number: MTAN 08098/426**

Wrench included with holder.

ifanger.com/en/shop

SWISS MADE
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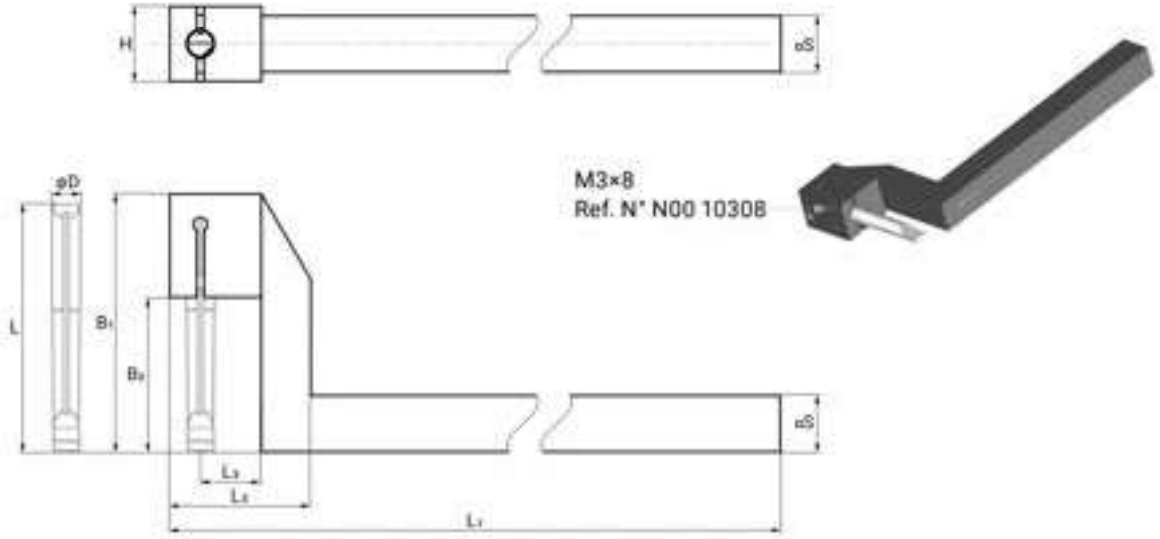
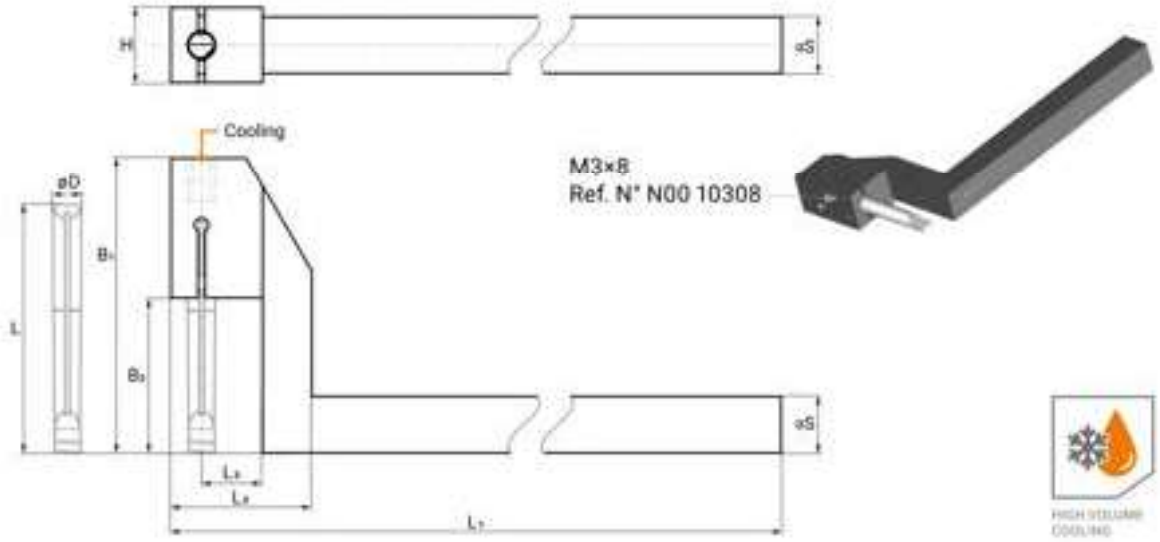
# MTAN
Cranked holders, neutral

## N° 1




## N° 2



| N° | øS | øD | L | L1 | L2 | L3 | B1 | B2 | H | Cooling | Ref. N° |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 8 | 4 | 26 | 100 | 21 | 7.5 | 29 | 8 | 16 | – | MTAN 08100/426 * |
| 1 | 8 | 4 | 31 | 100 | 21 | 7.5 | 35 | 15 | 16 | – | MTAN 08100/431 |
| 1 | 10 | 4 | 26 | 100 | 21 | 7.5 | 29 | 8 | 16 | – | MTAN 10100/426 * |
| 1 | 10 | 4 | 31 | 100 | 30 | 13.0 | 35 | 15 | 16 | – | MTAN 10100/431 |
| 1 | 10 | 4 | 36 | 100 | 30 | 13.0 | 40 | 20 | 16 | – | MTAN 10100/436 |
| 1 | 10 | 6 | 35 | 100 | 30 | 13.0 | 37 | 14 | 16 | – | MTAN 10100/635 |
| 1 | 10 | 6 | 43 | 100 | 30 | 13.0 | 45 | 21 | 16 | – | MTAN 10100/643 |
| 1 | 10 | 6 | 48 | 100 | 30 | 13.0 | 50 | 26 | 16 | – | MTAN 10100/648 |
| 1 | 12 | 4 | 26 | 130 | 21 | 7.5 | 29 | 8 | 16 | – | MTAN 12130/426 * |
| 1 | 12 | 4 | 31 | 130 | 30 | 13.0 | 35 | 15 | 16 | – | MTAN 12130/431 |
| 1 | 12 | 4 | 36 | 130 | 30 | 13.0 | 40 | 20 | 16 | – | MTAN 12130/436 |
| 1 | 12 | 6 | 35 | 130 | 30 | 13.0 | 37 | 14 | 16 | – | MTAN 12130/635 |
| 1 | 12 | 6 | 43 | 130 | 30 | 13.0 | 45 | 21 | 16 | – | MTAN 12130/643 |
| 1 | 12 | 6 | 48 | 130 | 30 | 13.0 | 50 | 26 | 16 | – | MTAN 12130/648 |
| 1 | 12 | 6 | 53 | 130 | 30 | 13.0 | 55 | 30 | 16 | – | MTAN 12130/653 |
| 2 | 12 | 4 | 31 | 130 | 30 | 13.0 | 43 | 15 | 16 | G1/8" | MTAN 12131/431 |
| 2 | 12 | 4 | 36 | 130 | 30 | 13.0 | 48 | 20 | 16 | G1/8" | MTAN 12131/436 |
| 2 | 12 | 6 | 43 | 130 | 30 | 13.0 | 53 | 21 | 16 | G1/8" | MTAN 12131/643 |
| 2 | 12 | 6 | 48 | 130 | 30 | 13.0 | 58 | 26 | 16 | G1/8" | MTAN 12131/648 |
| 2 | 12 | 6 | 53 | 130 | 30 | 13.0 | 63 | 33 | 16 | G1/8" | MTAN 12131/653 |
| 2 | 12 | 4 | 31 | 130 | 30 | 19.5 | 37 | 15 | 16 | M12×1.5 | MTAN 12132/431 |
| 1 | 16 | 4 | 31 | 130 | 34 | 13.0 | 35 | 15 | 16 | – | MTAN 16130/431 |
| 1 | 16 | 4 | 36 | 130 | 34 | 13.0 | 40 | 20 | 16 | – | MTAN 16130/436 |
| 1 | 16 | 6 | 35 | 130 | 34 | 13.0 | 37 | 14 | 16 | – | MTAN 16130/635 |
| 1 | 16 | 6 | 43 | 130 | 34 | 13.0 | 45 | 21 | 16 | – | MTAN 16130/643 |
| 1 | 16 | 6 | 48 | 130 | 34 | 13.0 | 50 | 26 | 16 | – | MTAN 16130/648 |
| 1 | 16 | 6 | 53 | 130 | 38 | 17.0 | 55 | 33 | 16 | – | MTAN 16130/653 |
| 1 | 16 | 6 | 61 | 130 | 38 | 17.0 | 64 | 42 | 16 | – | MTAN 16130/661 |
| 1 | 16 | 6 | 71 | 130 | 38 | 17.0 | 74 | 52 | 16 | – | MTAN 16130/671 |
| 2 | 16 | 4 | 31 | 130 | 34 | 13.0 | 43 | 15 | 16 | G1/8" | MTAN 16131/431 |
| 2 | 16 | 4 | 36 | 130 | 34 | 13.0 | 48 | 20 | 16 | G1/8" | MTAN 16131/436 |
| 2 | 16 | 6 | 43 | 130 | 34 | 13.0 | 53 | 21 | 16 | G1/8" | MTAN 16131/643 |
| 2 | 16 | 6 | 48 | 130 | 34 | 13.0 | 58 | 26 | 16 | G1/8" | MTAN 16131/648 |
| 2 | 16 | 6 | 53 | 130 | 40 | 17.0 | 63 | 33 | 16 | G1/8" | MTAN 16131/653 |
| 2 | 16 | 4 | 31 | 130 | 30 | 19.5 | 37 | 15 | 16 | G1/8" | MTAN 16132/431 |

Dimensions in mm
* incl. MTAP-00426

## Positioning tool MTAP-00426

**Order directly online**
Order the right tool online using the QR code or weblink.

**Example order number: MTAN 08100/426**

Wrench included with holder.

ifanger.com/en/shop

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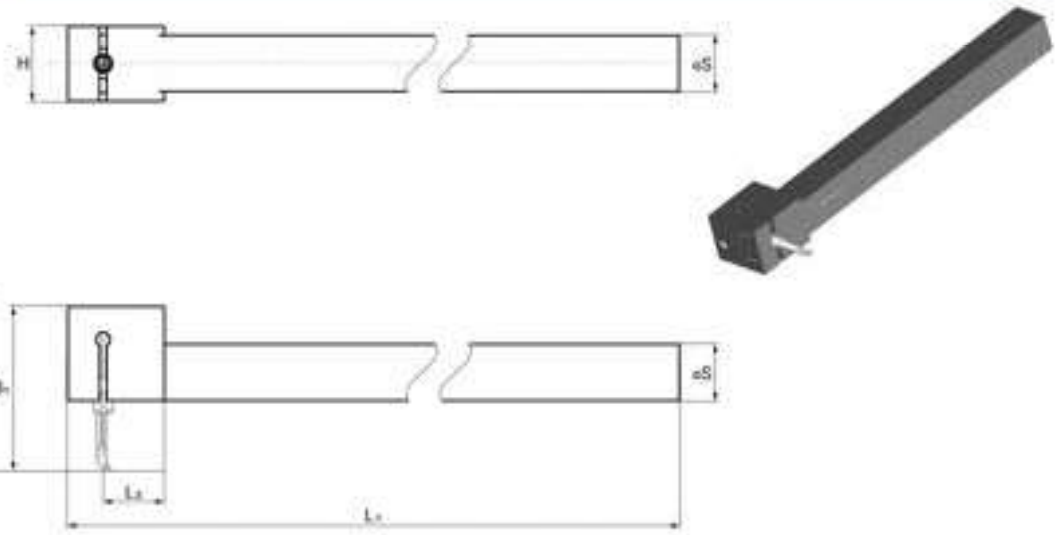
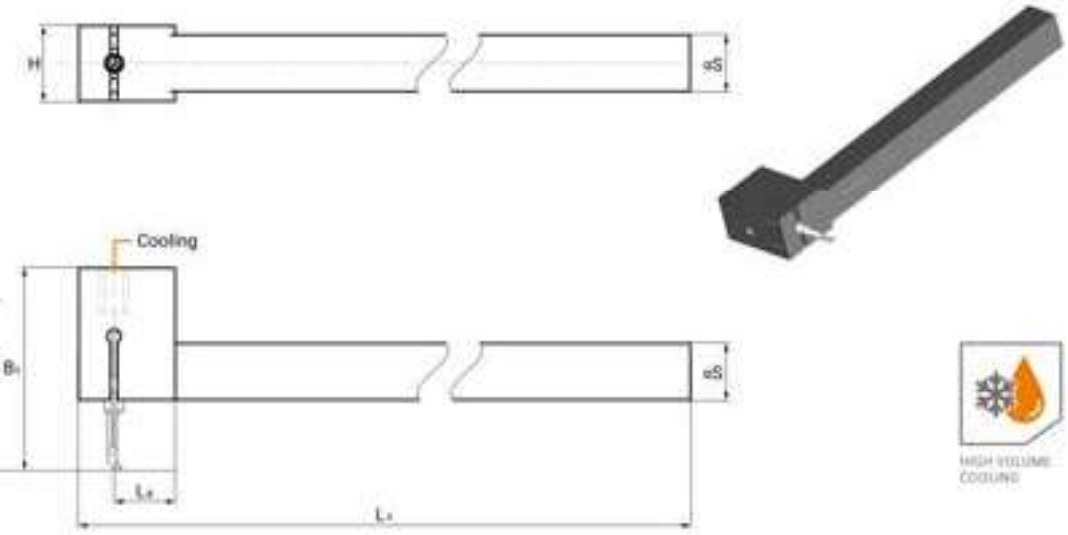
# MTAT
Holders, neutral

## N° 1




## N° 2



| N° | ⌀S | ⌀D | $L_1$ | $L_2$ | $B_1$ | H | Cooling | Ref. N° |
|---|---|---|---|---|---|---|---|---|
| 1 | 8 | 4 | 100 | 20.5 | 20 | 16 | – | MTAT 08100/4 |
| 1 | 10 | 4 | 100 | 20.5 | 20 | 16 | – | MTAT 10100/4 |
| 1 | 12 | 4 | 130 | 20.5 | 20 | 16 | – | MTAT 12130/4 |
| 1 | 12 | 6 | 130 | 20.5 | 24 | 16 | – | MTAT 12130/6 |
| 1 | 16 | 4 | 130 | 20.5 | 20 | 16 | – | MTAT 16130/4 |
| 1 | 16 | 6 | 130 | 20.5 | 24 | 16 | – | MTAT 16130/6 |
| 2 | 12 | 4 | 130 | 20.5 | 20 | 16 | G1/8" | MTAT 12131/4 |
| 2 | 12 | 6 | 130 | 20.5 | 24 | 16 | G1/8" | MTAT 12131/6 |
| 2 | 16 | 4 | 130 | 20.5 | 28 | 16 | G1/8" | MTAT 16131/4 |
| 2 | 16 | 6 | 130 | 20.5 | 32 | 16 | G1/8" | MTAT 16131/6 |

Dimensions in mm

**Order directly online**
Order the right tool online using the QR code or weblink.

**Example order number: MTAT 08100/4**

Wrench included with holder.

ifanger.com/en/shop

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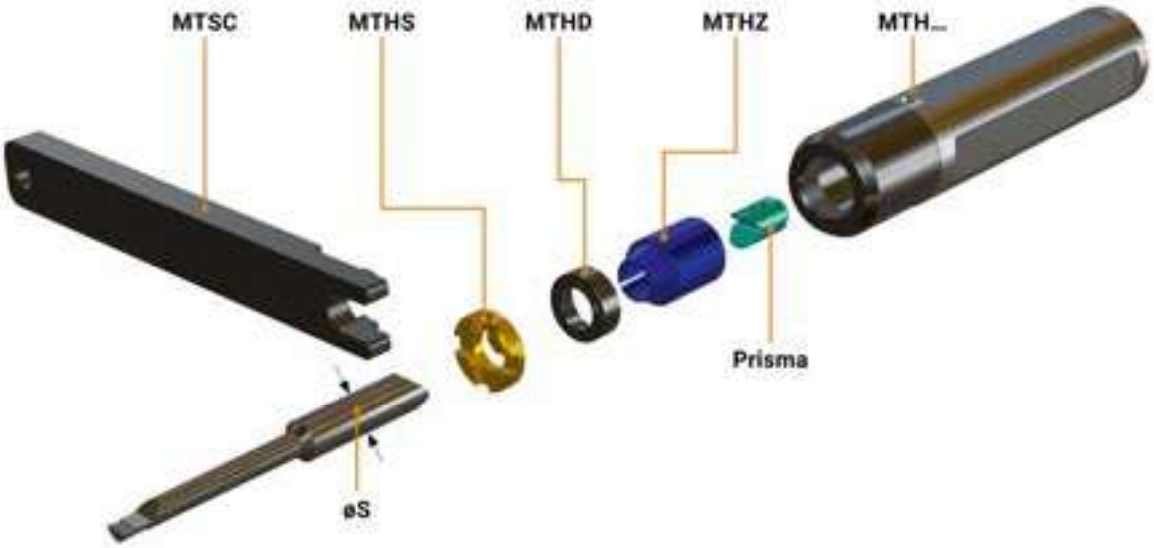
# Spare parts
## for holder type MTH...




| øS | Description | Ref. N° |
|---|---|---|
| 4 | Thrust collar | MTHD-0004 |
| 6 | Thrust collar | MTHD-0006 |
| 4 | Screw | MTHS-0004 |
| 6 | Screw | MTHS-0006 |
| 4 | Collet chuck | MTHZ-0004 |
| 6 | Collet chuck | MTHZ-0006 |
| 4 | Wrench | MTSC-0004 |
| 6 | Wrench | MTSC-0006 |
| | Prisma | On request |

**Other spare parts**
Ifanger.com/spare_microturn-EN

# Notes

# Search function

## Simple, fast and convenient

You can access a large selection of machine-specific holders in our webshop.
Simply enter your search term in the search field.

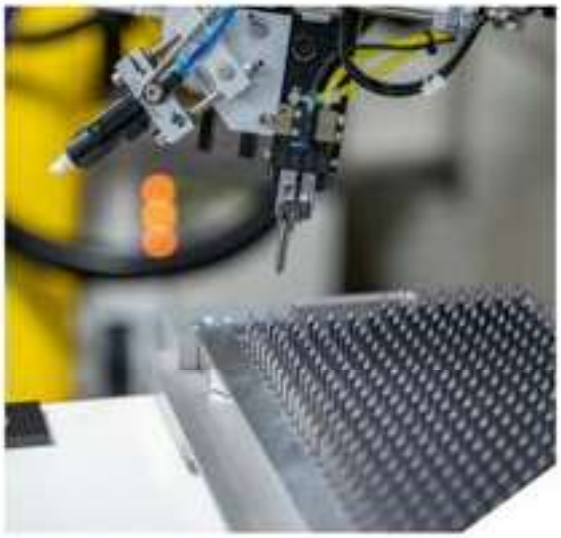
# Special solutions
## For your challenge

### Step by step to your special tool

1. **Get in touch**
   Get in touch with us directly – either via the contact form, a specialist consultant or a sales partner.
2. **Define specifications**
   We will contact you by telephone or visit you in person to discuss your requirements and specifications for the special tool.
3. **Non-binding quotation**
   After our consultation, you will receive a detailed quotation covering all aspects of the development and manufacture of the special tool.
4. **Development and production**
   After you place your order, we realize your special tool and make it available to you quickly.

## Get in touch

ifanger.com/en/contact



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