



HE 2 - IKZZ

HE 2 - IKZ

HE 2 - MK

HE 3

HE 3 - MK

EMUGE

Quick-change adapters HE

Operating instruction

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Warning signs, symbols

This operating instruction uses the following symbols:



Attention

Marks special instructions, rules and prohibitions which are important in order to avoid any damage.

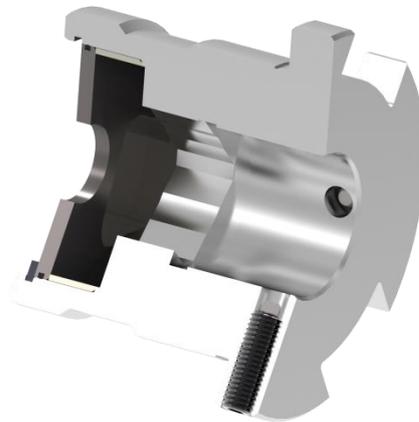
▶ Please observe these instructions!



Instruction

Marks application instructions and other useful information.

Sectional view:



Quick-change adapter HE

1 Application range, safety instructions and technical data

1.1 Application range, determined use

Application of the adapters:

- Adaptation of taps/cold-forming taps acc. to:
DIN or ISO or ASME dimensions
- These adapters are designed to be used in all quick-change tap holders, EMUGE types:
HF 20 HF20/HD/Spezial Softsynchro® 6 HF 30
- Production of right-hand and left-hand threads
- Possible use in vertical and horizontal machining level

Locking and centering of the taps/cold-forming taps with quick-change adapters type HE is executed via three screws. The torque arising during the thread producing cycle is transferred via the square in the quick-change adapter.

In quick-change adapters type HE-MK, drill or countersink are adapted by form-fitting via the inner taper of the quick-change adapters (acc. to DIN 228B).

Owing to the clamping principle, each shank diameter requires a separate quick-change adapter.

Following adapter types are available:

- **Type HE:**
For holders **without** internal coolant-lubricant supply, e.g. quick-change tap holder HF.
- **Type HE/IKZZ:**
For holders **with** internal coolant-lubricant supply e.g. quick-change tap holder Softsynchro® 6 and HF20/HD/Spezial and taps/cold-forming taps **with** coolant-lubricant bore hole.
The maximum coolant-lubricant pressure is determined by the used quick-change tap holder, but not more than 50 bar.
- **Type HE/IKZ:**
For adapters **with** internal coolant-lubricant supply, e.g. quick-change tap holder Softsynchro® 6 and HF20/HD/Spezial and taps/cold-forming taps **without** coolant-lubricant bore hole. The coolant-lubricant supply goes along the tool shank.
The maximum coolant-lubricant pressure is determined by the used quick-change tap holder, but not more than 50 bar.
- **Type HE/MK:**
Adaptation of drills and countersinks with taper shank according to DIN 228 B.

The non-determined use exempts the manufacturer from any liability.

1.2 Safety instructions and hints

For all works, i.e. putting into operation, production and maintenance, please observe the details given in the operating instructions.

All relevant safety regulations as well as local instructions are to be observed when working.

Below please find some basic rules:



Attention



- ▶ Please wear gloves during tool change to avoid injury.
- ▶ Basically change the tool yourself to avoid the sudden start of the spindle caused by mis-operating.



- ▶ Hold the tool when loosening the tool clamping to avoid it falling down and damaging the tool and the work piece.
- ▶ There are maximum values for cutting speeds and feeds for every kind of machining. Please observe such data.
- ▶ Please observe the maximum tool dimensions.
- ▶ Furthermore, the instructions of the tool manufacturers are valid!

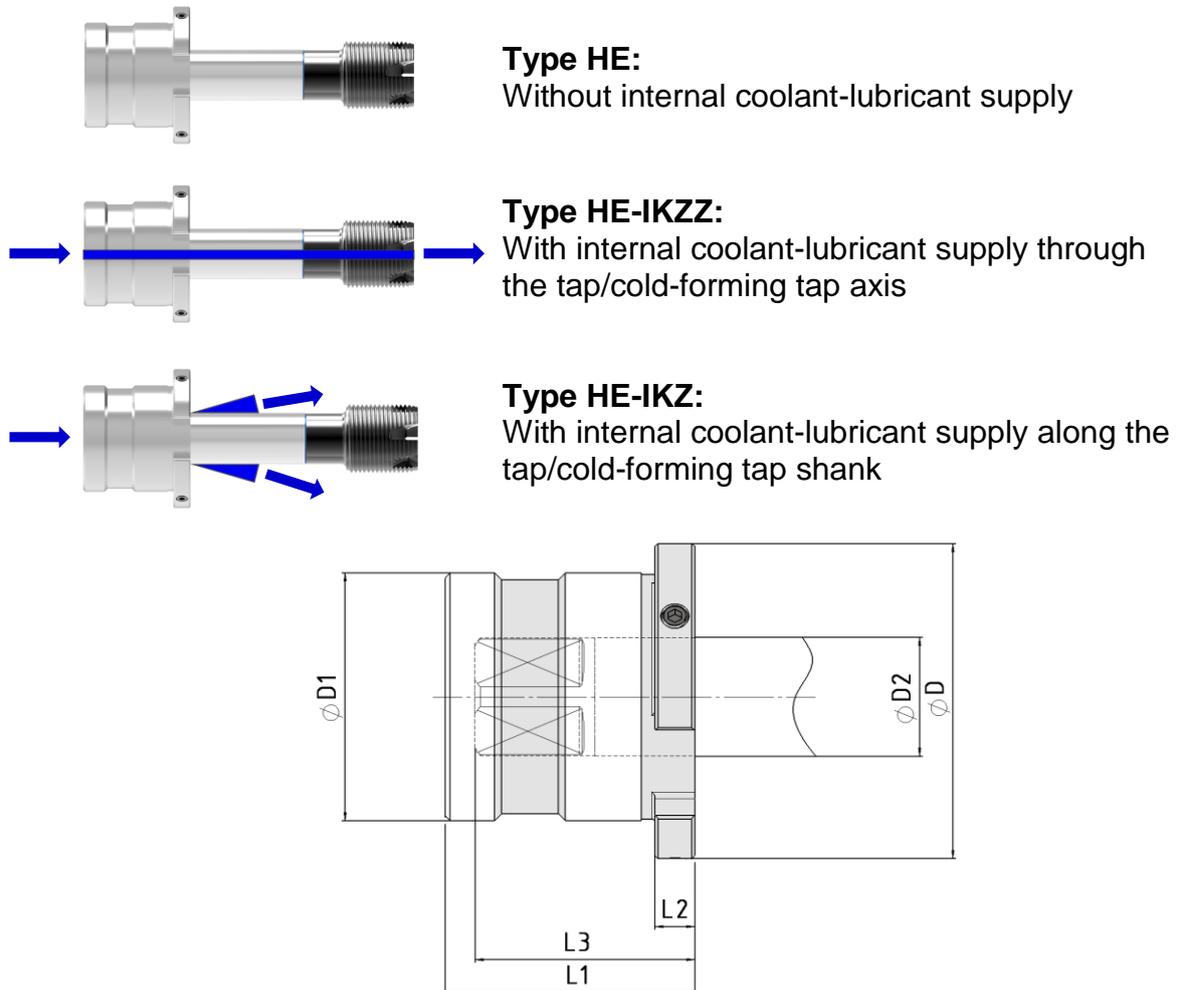
1.3 Proprietary rights

The entire contents of these operating instructions are subject to German proprietary rights legislation.

Any form of multiplication, processing, broadcasting, passing on to third parties - also in the form of extracts - and any kind of use outside the boundaries of proprietary rights requires the written consent of EMUGE GmbH&Co.KG.

1.4 Dimensions and technical data

1.4.1 Type HE, HE-IKZZ, HE-IKZ, for taps/cold-forming taps



Picture 1: Dimensions of the quick-change adapters HE, HE-IKZZ, HE-IKZ

Table 1: Technical data of the quick-change adapters HE, HE-IKZZ, HE-IKZ

Type	Cutting range	ØD [mm]	ØD ₁ [mm]	ØD ₂ [mm] [inch]	L ₁ [mm]	L ₂ [mm]	L ₃ ¹ [mm]	GB Typ ²
HE 2	M24 - M76 * M24 - M76 ** 1" - 2 1/2"	98	75	18-56 18-56 0,80-2,25"	75	12	53-66 53-66 43-66	DIN ISO ASME
HE 3	M36 - M160 M39 - M100 1 3/8 - 3 1/2"	128	90	28-70 28-56 1,11-2,81"	110	15	76-98 76-98 37-92	DIN ISO ASME

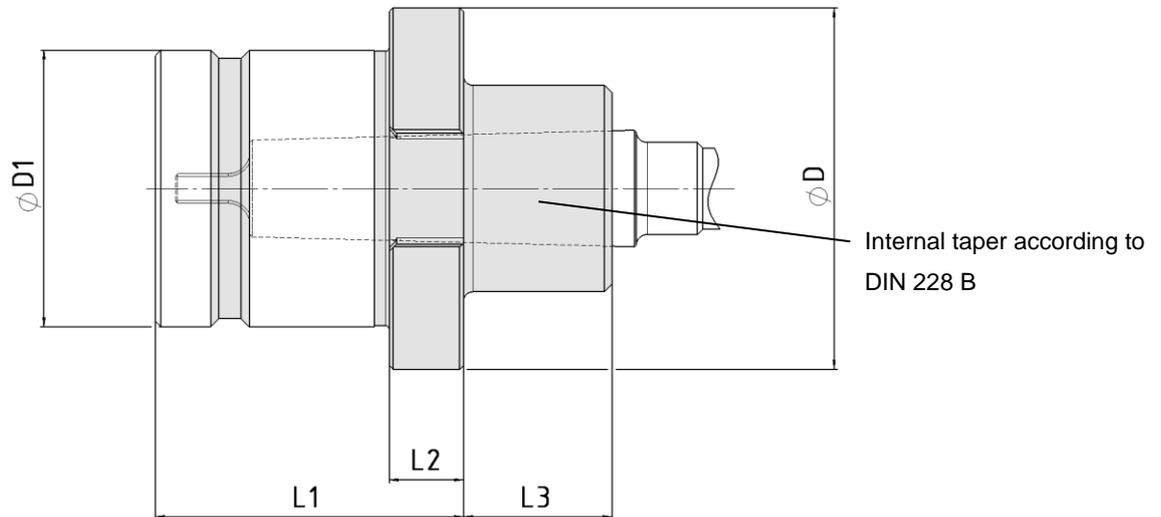
* Fine threads until M120x4 possible

** Fine threads until M100 possible

¹ Plug-in depth is defined by the clamping diameter

² Tool dimensions acc. to DIN or ISO or ASME

1.4.2 Type HE-MK, for drill and countersink



Picture 2: Dimensions of quick-change adapters HE-MK

Table 2: Technical data of quick-change adapters HE-MK

Type	For holders:	ØD [mm]	ØD ₁ [mm]	Internal taper acc. DIN 228 B	L ₁ [mm]	L ₂ [mm]	L ₃ [mm]
HE 2-MK	HF 20	98	75	MK 3	75	20	25
				MK 4			48
				MK 5			80
HE 3-MK	HF 30	128	90	MK 4	110	15	20
				MK 5			50
				MK 6			115

For further dimensions please refer to the EMUGE main catalogue.

2 Putting the quick-change adapters into operation

2.1 Unpacking

- Take the quick-change adapter from the plastic case.
- Clean the quick-change adapter with a duster to remove any conservation oil.

Note

- ▶ Do not use any aggressive solvents.
- ▶ Do not use fibrous materials i.e. steel wool.

 The quick-change adapter is now ready for operation

2.2 Insert tool

2.2.1 Insert tap / cold-forming tap

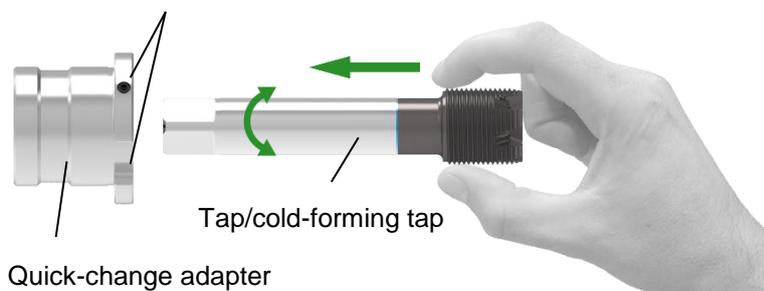
Attention

- ▶ Choose the appropriate quick-change adapter for the required tap/cold-forming tap!

Note

Required tool: Type HE 2: Hexagon socket wrench: width across flats 4
Type HE 3: Hexagon socket wrench: width across flats 5

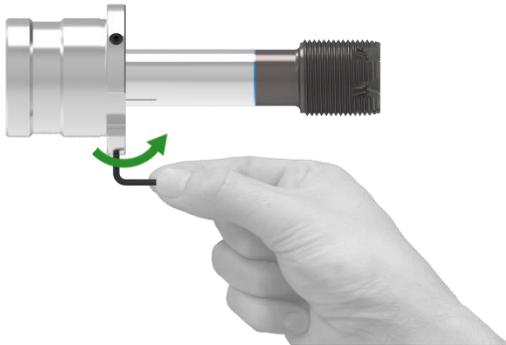
Screws for tightening the tap/cold-forming tap



1. Push tap/cold-forming tap into the quick-change adapter.

Note

Bring the square into the correct position by turning the tap/cold-forming tap.



2. Tighten all three screws equally.

⇒ tap/cold-forming tap is locked at the shank

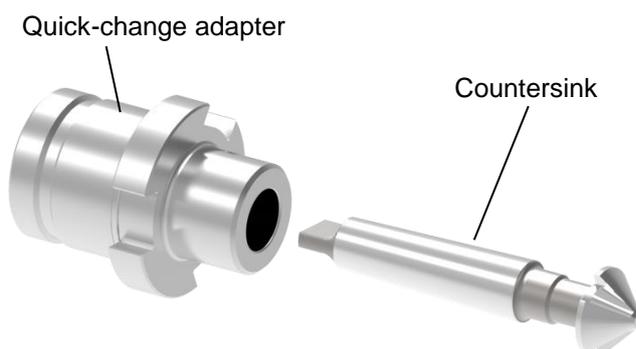
Insert the quick-change adapter into the quick-change tap holder as described in the operating instruction of the used quick-change tap holder.

2.2.2 Insert drill or countersink



Attention

- ▶ Choose appropriate quick-change adapter for required drill or countersink!



Strongly push in drill or countersink.



Note

Watch position of the tang!

Now insert the quick-change adapter into the quick-change tap holder as described in the operating instruction of the used quick-change tap holder.

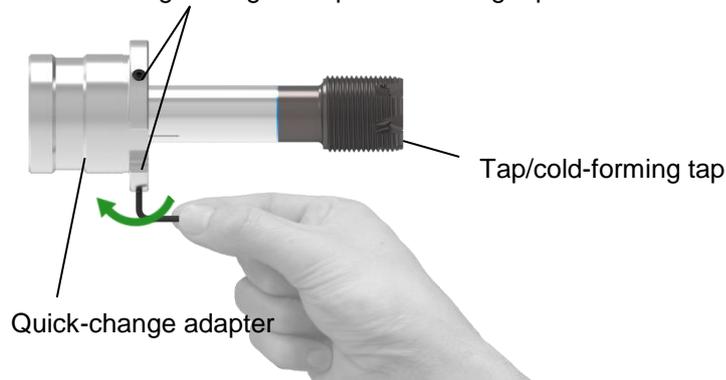
2.3 Detach tool

2.3.1 Detach tap / cold-forming tap

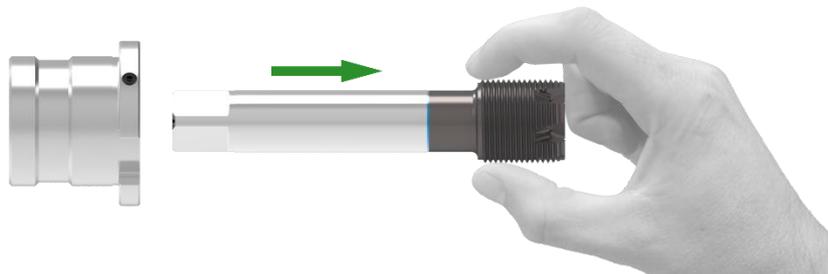
! Note

Required tool: Type HE 2: Hexagon socket wrench: width across flats 4
 Type HE 3: Hexagon socket wrench: width across flats 5

Screws for tightening the tap/cold-forming tap



1. Loosen all three screws

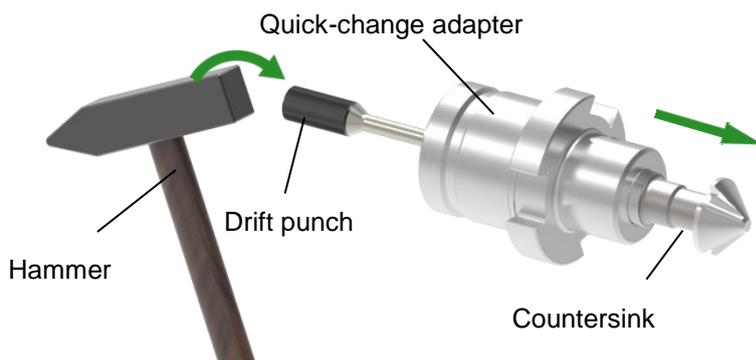


2. Pull out tap/cold-forming tap

2.3.2 Detach drill or countersink

! Note

Required tool: Drift punch
 Hammer



Use hammer and drift punch to drive out drill or countersink

3 Maintenance

3.1 Maintenance schedule

What?	When?	Who?
External cleaning	Periodically, depending on the degree of dirt.	Operator

3.2 External cleaning

Clean the quick-change adapter at periodic intervals depending on how dirty the adapter is.



Note

- ▶ Do not use any aggressive solvents.
- ▶ Do not use fibrous materials i.e. steel wool.

4 Storage when not in use

If the quick-change adapter is taken out of service, please go through the following working steps:

1. Clean the quick-change adapter with a duster, see chapter 3.2
2. Spray the quick-change adapter with a preservation oil to avoid rusting and to preserve the easy running of the adapter



Attention

Before storage all evidence of coolant-lubricant and machining residues must be removed!

EMUGE quick-change adapter HE
Operating instruction

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Please keep this for future use!

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