



■ Made
■ in
■ Germany



EM 01 / MQL

EM 03 / MQL

EMUGE

Quick-change adapters EM / MQL

Operating instruction

Contents:

1	Application range, safety instructions and technical data	4
1.1	Application range, determined use	4
1.2	Safety instructions and hints	5
1.3	Proprietary rights	5
1.4	Dimensions and technical data	6
2	Putting the quick-change adapters into operation	7
2.1	Unpacking	7
2.2	Insert tap/cold-forming tap	7
2.3	Detach tap/cold-forming tap	9
3	Maintenance	10
3.1	Maintenance schedule	10
3.2	External cleaning	10
4	Storage when not in use	10
5	Application and choice of other quick-change adapters	11

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!



Note

Marks application instructions and other useful information.

Sectional view:



Quick-change adapter EM / MQL

1 Application range, safety instructions and technical data

1.1 Application range, determined use

Application of the quick-change adapters:

- Clamping of taps/cold-forming taps according to:
DIN dimensions
- These adapters are designed to be used in quick-change tap holders with minimum-quantity lubrication: KSN / MQL

The size of the adapter to be used is defined by the size of quick-change tap holder.

- For taps/cold-forming taps **with** internal coolant-lubricant supply (oil channel). The max. coolant-lubricant pressure is defined by the used quick-change tap holder, but is usually not more than 10 bar for minimum quantity lubrication.
- Recommended Application: Production of through hole threads
- Production of right- and left-hand threads
- All machining directions

If the quick-change adapters EM/MQL are inserted with its large grip ring into the tap holder KSN/MQL, the seal assembled on the front of the tap holder will come into effect.

⇒ As result no dirt (chips) can penetrate between tap holder and quick-change adapter.

The adaptation of the tap/cold-forming tap is executed via a quick-change-ball clamping system, the tool is centered at the shank. The torque arising during the thread producing operation is transferred via the square in the quick-change adapter.

The required clamping diameter is determined by the tap/cold-forming used.

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

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 with the collet holders.

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.



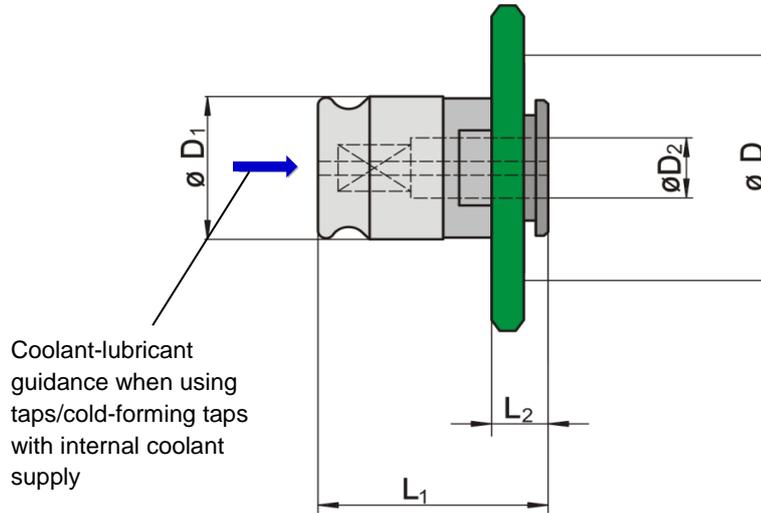
- ▶ Hold the tool when loosening the tool clamping to avoid it falling down and damaging the tool and the work piece.
- ▶ There are maximum values for cutting speeds and feeds for every kind of machining. Please observe such data.
- ▶ Please observe the maximum tool dimensions.
- ▶ Furthermore, the instructions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



Picture 1: Dimensions of the quick-change adapters EM/MQL

Table 1: Technical data of the quick-change adapters EM/MQL

Type	Cutting range	Adapter size ¹	ØD [mm]	ØD ₁ ¹ [mm]	ØD ₂ ² [mm]	L ₁ [mm]	L ₂ [mm]	GB Type
EM 01 / MQL	M6 – M12	01	39	19	6 - 10	29	7,5	DIN
EM 03 / MQL	M10 – M24	03	55	31	10 - 18	45	10	DIN

For further dimensions please refer to our EMUGE main catalogue.

¹ Size is defined by the used quick-change tap holder

² Clamping diameter is defined by the required tap/cold-forming tap

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

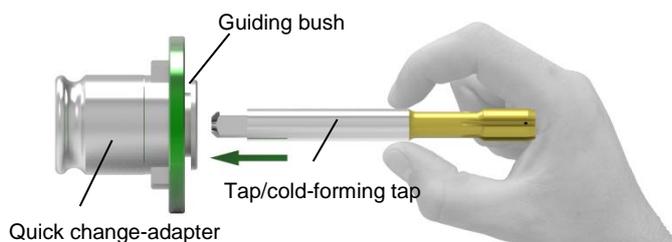
- ▶ Do not use any aggressive solvents.
- ▶ Do not use fibrous materials i.e. steel wool.

 The quick-change adapter is now ready for operation

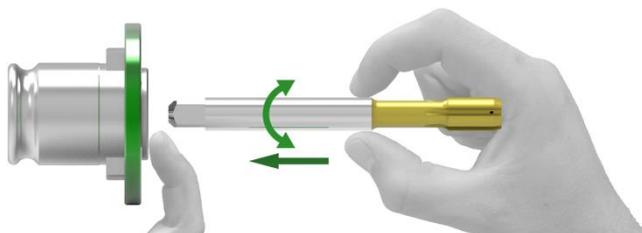
2.2 Insert tap/cold-forming tap

Attention

- ▶ Choose the appropriate quick-change adapter for the required tap/cold-forming tap!
- ▶ The exchange of the tap/cold-forming tap must not be executed while the machine spindle rotates!



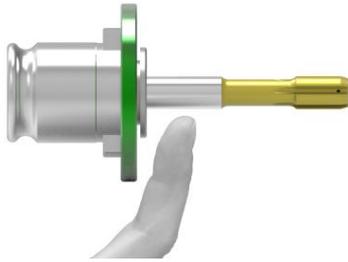
1. Press guiding bush back and hold it



2. Push tap/cold-forming tap into the guiding bush.

Note

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



3. Let go of the guiding bush

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



Note

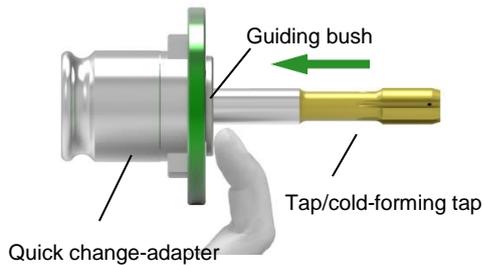
The tap/cold-forming tap may also be changed according to the above mentioned method if the quick-change adapter is fixed in the quick-change tap holder.

2.3 Detach tap/cold-forming tap

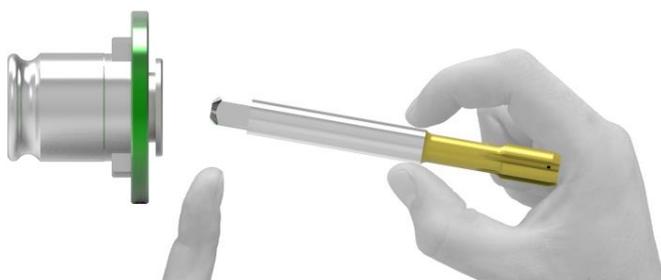
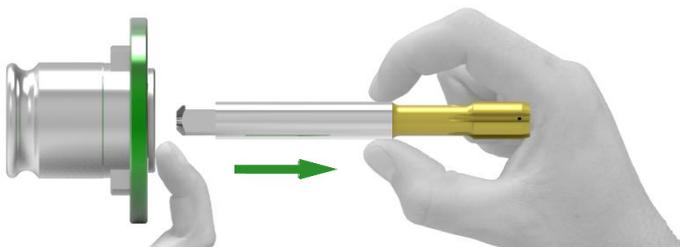


Attention

- ▶ The exchange of the tap/cold-forming tap must not be executed while the machine spindle rotates!



1. Press guiding bush back and hold it



Note

The tap/cold-forming tap may be loosened according to the above mentioned method if the quick-change adapter is fixed in the quick-change tap holder.

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!

5 Application and choice of other quick-change adapters

Type	Description	Recommended Applications
EM..	Rigid type	Through hole threads
EM..-E-Lock	Rigid type, locking of the tool is secured by form-fitting	Clamping of carbide tools High coolant-lubricant pressures High-speed machining
EM..-U	With adjustable overload clutch	Blind hole threads
EM..-U/IKZ	With adjustable overload clutch, and internal coolant supply through channels along the tap/cold-forming tap shank.	Blind hole threads
EM..-L	With length adjustment	On multi-spindle heads and transfer lines
EM..-UL	With adjustable overload clutch and length adjustment	Blind hole threads on multi-spindle heads
EM..-Z	Rigid type with adaptation for collets according to DIN ISO 15488	Clamping of carbide tools High coolant-lubricant pressures High-speed machining
EM..-Z/MQL	Rigid type with adaptation for collets according to DIN ISO 15488, for minimum-quantity lubrication, with adjustment screw for presetting the tap/cold-forming tap length	Clamping of carbide tools High coolant-lubricant pressures High-speed machining
EM..L/ER/IKZ	With length adjustment and adaptation for collets according to DIN ISO 15488	On multi-spindle heads and transfer lines Clamping of carbide tools High coolant-lubricant pressures High-speed machining
EM..-PGR	Rigid type with adaptation for collets according to type PGR (GB)	Clamping of carbide tools High coolant-lubricant pressures High-speed machining
EM..-SE	Rigid type with adaptation for dies according to DIN 223	External threads
EM..-R	Reducing adaptation for all EM types	For the extension of the clamping range downwards

All quick-change adapters, unless stated otherwise, can be used for internal coolant supply when the taps/cold-forming taps are designed accordingly.

EMUGE quick-change adapter EM / MQL
Operating instruction

Article number: **ZB10044.GB**

Original in German, Edition: 1, last change: -, change stage: 0

Please keep this for future use!

EMUGE-Werk Richard Glimpel GmbH & Co. KG

Fabrik für Präzisionswerkzeuge

🏠 Nürnberger Straße 96-100
91207 Lauf
GERMANY

☎ +49 9123 186-0

📠 +49 9123 186-230

✉ info@emuge-franken.com

🌐 www.emuge-franken.com