





NORIS WE-L/ER

Quick-change adapters NORIS WE-L/ER

Operating instruction

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### Warning signs, symbols

This operating instruction uses the following symbols:



Sectional view:



Quick-change adapter NORIS WE-L/ER

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### 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 via collets according to DIN ISO 15488
- These adapters are designed to be used in all quick-change tap holders, REIME NORIS types:
- NORIS UNI NORIS UNI HP The size of the adapter to be used is defined by the size of quick-change tap holder.
- For taps/cold-forming taps with and without internal coolant-lubricant supply (oil channel). The max. coolant-lubricant pressure is defined by the used quick-change tap holder, but not more than 50 bar.
- The quick-change adapters NORIS WE-L/ER are used if the machining requires a rigid tool holder, e.g. for:
  - Horizontal use
  - Use of solid carbide tools
  - Applications with high coolant-lubricant pressure
  - High speed machining
- The quick-change adapter is equipped with a length adjustment and can therefore be used on multi-spindle heads and transfer lines.
- Production of right- and left-hand threads
- All machining directions

The taps/cold-forming taps are clamped via collets type ER or ER-GB or ET-1-PCM. With collets type ER the taps/cold-forming taps are centered and clamped via the shank diameter. With collets type ER-GB the torque arising during the thread producing cycle is transferred via the square integrated in the collet. The collets type ET-1-PCM are equipped with a length compensation on tension and a square driving.

The collets must be chosen according to the used quick-change adapter and tap/ cold-forming tap.

If taps/cold-forming taps with internal coolant-lubricant supply (oil channel) are used, the clamping nut must be provided with a sealing disk. The assembly instruction is given in chapter 2.2, page 7.

The collets type ET-1-PCM are **not** suited for internal coolant-lubricant supply

### 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:



### 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 REIME NORIS GmbH.



### 1.4 Dimensions and technical data



Picture 1: Dimensions of the quick-change adapters NORIS WE-L/ER

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Туре	Cutting range	Adapter size <sup>1</sup>	Collet size <sup>2</sup>	ØD [mm]	ØD1 [mm]	ØD2 <sup>3</sup> [mm]	ØD₃ [mm]	L <sub>1</sub> [mm]	L₂ [mm]	L₄ [mm]
NORIS WE-L/ER 00	M2 - M8 Nr.2 - <sup>5</sup> / <sub>16</sub>	00	ER11 (GB)	23	13	2,5-7	16	57,5	38	8
NORIS WE-L/ER 01	M4 -M12 Nr.8 - <sup>7</sup> / <sub>16</sub>	01	ER16 (GB)	30	19	4,5-9	22	72	50,5	10
NORIS WE-L/ER 03	M4 - M20 Nr.8 - <sup>3</sup> /4	03	ER25 (GB)	48	31	4,5-16	35	103	68	15

For further dimensions please refer to our REIME NORIS main catalogue.

 $<sup>^{\</sup>rm 1}\,{\rm Size}$  is defined by the used quick-change tap holder

<sup>&</sup>lt;sup>2</sup> Nominal size according to DIN ISO 15488

<sup>&</sup>lt;sup>3</sup> 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 uso fibrous materials i o stool wool	

 $oldsymbol{V}$ The quick-change adapter is now ready for operation

### 2.2 Sealing disks for clamping nuts

### 2.2.1 Application

The sealing disks are inserted into the clamping nuts if threads with internal coolant-lubricant supply are produced (max. coolant-lubricant pressure 50 bar). The sealing disks additionally avoid the penetration of dirt and chips into the collet slots. We recommend the use of sealing disks.

### 🚺 Note

For quick-change adapter sizes 01 and 03 the delivery contains a clamping nut for sealing disks. This sealing disk must be ordered separately according to the size of clamping nut and clamping diameter!

There are special clamping nuts with integrated sealing for size 00. These sealed clamping nuts must also be ordered separately for the required clamping diameter.

### 2.2.2 Assembly of the sealing disks into the clamping nuts

- 1. Insert sealing disk into clamping nut as described in picture 2.
- 2. Push sealing disk in clamping nut forward until it clearly engages. The sealing disk must be flush with the clamping nut at the front.





Click!

picture 2: assembly of sealing disk

### 2.3 Insert collet and tap/cold-forming tap

### Attention

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

### 🚺 Note

Choose collet according to the quick-change adapter size and required tap/cold-forming tap!

### Required tool:

Wrench

For tightening and loosening the clamping nut, you can order the following tool sets suitable for the used adapter size:

WE00-L/ER: AZWZ0E50011 WE01-L/ER: AZWZ0E50116 WE03-L/ER: AZWZ0E50325

Each tool set consists of a wrench for the clamping nut and a spanner to support the spindle.



1. Screw off clamping nut



2. Insert collet into the clamping nut, tilt collet.

The groove of the collet must engage at the marked position in the eccentric ring of the clamping nut.

Tilt collet in opposite direction until it clearly engages.

 $\rightarrow$  Collet is flush with the clamping nut or the sealing disk.

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3. Screw clamping nut with the engaged collet manually onto the thread of the quick-change adapter.



Only mount clamping nut with correctly engaged collet!

4. Push in tap/cold-forming tap.







5. Use wrench to tighten clamping nut. Tightening torque see Table 2, page 10



In order to avoid damaging the quickchange adapter it is necessary to support the spindle with the openended spanner ② when tightening the clamping nut with the wrench ①.

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

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Note

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

### Table 2: Tightening torque of the clamping nuts

Туре	Recommended tightening torque [Nm]
Hi-Q/ERM11 Hi-Q/ERMC11	12
Hi-Q/ERMC16	24
Hi-Q/ERMC25	32

Data valid for the use of ER-GB collets. The maximum tightening torque must not be more than 25% above the recommended tightening torque. Higher torque may result in the damage of the collet holder.

### 🚺 Note

To adjust the correct tightening torque we recommend the use of a torque wrench with fitting shell-type wrench.

### 2.4 Remove tap/cold-forming tap and collet

### Attention

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

Note

# **Required tool:** Wrench

Suitable tool sets see chapter 2.3, page 8!



1. Use wrench to loosen the clamping nut.



In order to avoid damaging the quick-change adapter it is necessary to support the spindle with the open-ended spanner ② when loosening the clamping nut with the wrench ①.



2. Pull out the tap/cold-forming tap.





3. Screw off clamping nut.



4. Tilt collet up to the marking until it is removed from the eccentric ring. Remove collet.

### Note

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

### 2.5 Length adjustment

The overhang length of the quick-change adapters NORIS WE-L/ER can be adjusted if required. This could be necessary, e.g. when adjusting a predetermined length on multi spindle heads or transfer lines.



### 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 e.g. 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



## 5 Application and choice of other quick-change adapters

Туре	Description	Recommended Applications		
WE	Rigid type	Through hole threads		
WE/MMS	Rigid type, for minimum-quantity lubrication (MQL)	Through hole threads		
WEU	With adjustable overload clutch	Blind hole threads		
WEU/MKBAWith adjustable overload clutch, and internal coolant supply through channels along the tap/cold-forming tap shank.		Blind hole threads		
WEL	With length adjustment	On multi-spindle heads and transfer lines		
WEUL	With adjustable overload clutch and length adjustment	Blind hole threads on multi-spindle heads		
WEZ	Rigid type with adaptation for collets according to DIN ISO 15488	Clamping of carbide tools High coolant-lubricant pressures High-speed machining		
WEZ/MMS	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-speed machining		
WEPGR	Rigid type with adaptation for collets according to type PGR (GB)	Clamping of carbide tools High coolant-lubricant pressures High-speed machining		
WESERigid type with adaptation for dies according to DIN 223		External threads		
WER Reducing adaptation for all WE types		For the extension of the clamping range downwards		

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

### REIME NORIS quick-change adapter NORIS WE-L/ER Operating instruction

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Please keep this for future use!

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