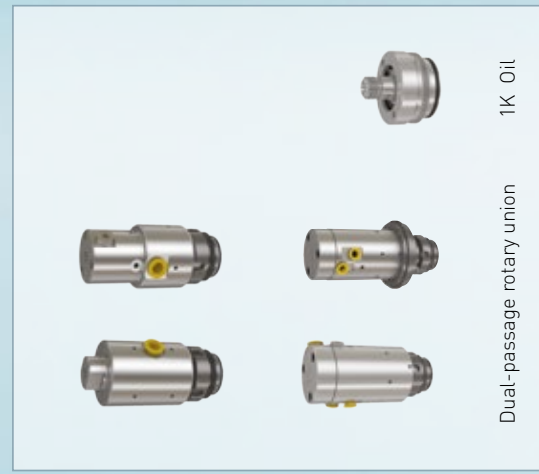


MODULAR CLAMPING SYSTEMS

UNCLAMPING UNITS + ROTARY UNIONS



Dual-passage rotary union

1K Oil



Single-passage rotary union

Cleaning air

Co₂

ASSISTANCE SYSTEMS



MSU

INWEST

GAUS

PLANKO

CONDITION MONITORING

LONG-LIFE CLAMPING TECHNOLOGY INSIDE



Hydraulic



Pneumatic



Electric

PULLING HEADS + CLAMPING UNITS



SK/BT

DIN

ANSI

MAS

45°

30°

HSK

K

B

C

D

BK short

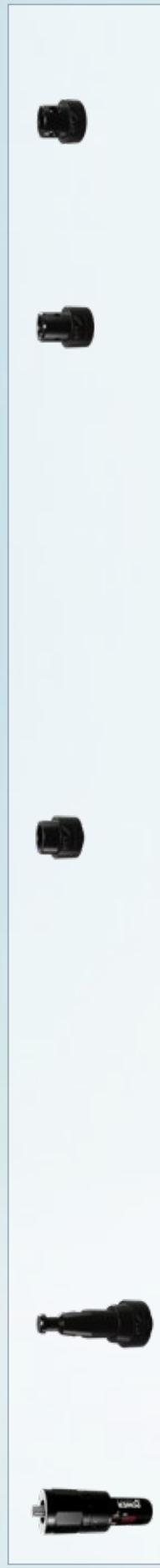
PSC

PB

KM

KM4X™

POWER-CHECK 2



www.ott-jakob.de

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09/2018

AUTOMATIC TOOL CLAMPING
MODULAR SYSTEMS –
INDIVIDUALLY CONFIGURED.

LONG-LIFE CLAMPING TECHNOLOGY INSIDE



OTT **JAKOB**
Spanntechnik

EVERYTHING FROM A SINGLE SOURCE

As a manufacturer of complete tool clamping units, the development of tailored system solutions lies at the heart of our expertise. Our decades of experience in automatic clamping technology are reflected in a range of perfectly coordinated products. OTT-JAKOB clamping systems are modular and make it possible to combine standard components as well as special elements manufactured to our customers' specifications.

STEEP TAPER – THE PROVEN INTERFACE

Decades after its development, the steep taper remains widespread, especially in standard machine tools. Steep tapers are not self-locking and are known for their short clamping strokes.

Advantages

- ▲ universal spindle inside contour for various tool standards
- ▲ integrated force intensifying mechanism



HSK – THE MOST COMMON INTERFACE

The hollow-shaft taper combines the advantages of the steep taper with other innovations. With its short, lightweight design, the hollow-shaft taper is ideal for high-speed applications. The congruence between the flange and taper contact surfaces produces repeat accuracy on the micro scale.

Advantages

- ▲ optimal power and torque transmission
- ▲ multiple intensification of spring force
- ▲ DLC-coated gripper segments and clamping cone



Clamping unit types

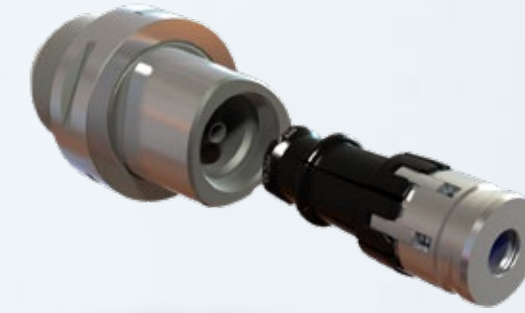
- ▲ Type K – basic variant for standard applications
- ▲ Type B – high-performance solution for frequent tool changes
- ▲ Type BK – short version of type B for short spindle lengths
- ▲ Type C – self-locking clamping unit for very short changing times
- ▲ Type D – special variant of type B with a higher transmission ratio

PSC – THE HIGH-PRECISION INTERFACE

The polygonal taper is used primarily for high-precision multitasking. The face contact ensures that the tool is held in position in the holder with no play.

Advantages

- ▲ DLC-coated gripper segments and clamping cone
- ▲ spindle sleeve available with PSC contour
- ▲ clamping unit compatible with coolant transfer



KM4X™ – THE INTERFACE FOR HIGH PULL FORCES

With the clamping unit for the KM4X™ high-performance spindle interface, OTT-JAKOB is providing the ideal solution for machining high-strength materials such as titanium. Three contact surfaces provide high stability and ensure that the clamping force is optimally distributed. The clamping unit was developed through an exclusive partnership with Kennametal.

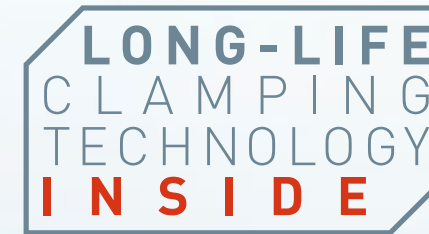
Advantages

- ▲ high pull forces
- ▲ maximum stiffness, precision and repeat accuracy
- ▲ excellent results in endurance tests



PULLING HEADS FOR ALL INTERFACES

Every OTT-JAKOB pulling head is customized. Our experts will design a pulling head that is individually adapted to your clamping system and will fulfil its task with precision and in the long term.



ROTARY UNIONS – SECURE TRANSFER OF ALL MEDIA

OTT-JAKOB rotary unions are available in single and dual-passage configurations as standard. The range of products includes solutions designed for use with hydraulics, air, coolant, MQL, internal spindle cooling and cryogenic machining.

Types

Single-passage oil

- ▲ hydraulic unclamping
- ▲ attached to the spindle shaft

Dual-passage

- ▲ passage 1 for hydraulic unclamping
- ▲ passage 2 for other media
- ▲ available in various configurations depending on the medium
- ▲ attached to the spindle shaft

Single-passage GD/single-passage GDP

- ▲ permanently closed sealing surfaces
- ▲ all conventional media can be used
- ▲ available with radial and axial connections
- ▲ attached to the unclamping unit

The range is rounded off by various special rotary unions designed to meet special machining requirements. These include rotary unions for higher flow rates, higher speeds and with integrated leakage sensors. A tri-passage version is also available to cool the spindle shaft.



UNCLAMPING UNITS – TOOL-CHANGING IN VARIOUS WAYS

OTT-JAKOB unclamping units can release clamping systems with hydraulic, pneumatic or electrical force. In order to provide the perfect release force for every clamping system, our range of products features various sizes of unclamping units.

Equipment options

(dependent on type of clamping unit)

- ▲ actuating mechanism with grippers to release the spindle bearing
- ▲ holder for GD rotary unions
- ▲ signal ring monitoring to precisely define clamping statuses
- ▲ INWEST electronic position monitor
- ▲ KAS piston monitoring system to identify the position of the release piston
- ▲ Cleaning air connection

