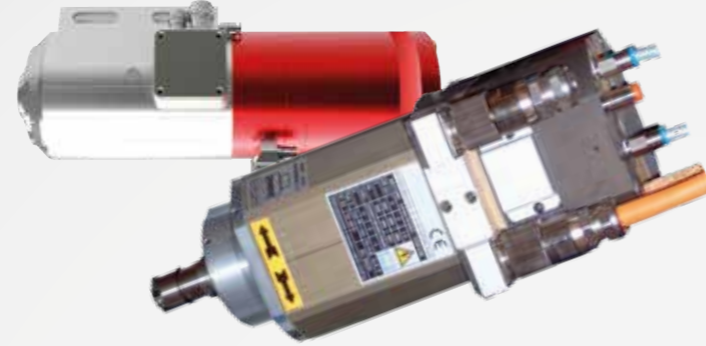


# Accessories for Premium CNC machines

## HF spindle motors

### General features

- High-frequency spindle motors from 1.5 to 4.0 kW, also available with higher outputs upon request
- Speeds up to 100,000 rpm possible
- HSK-E 25 interface and others available upon request
- Water-cooled spindle motors



## Contactless tool control

### General features

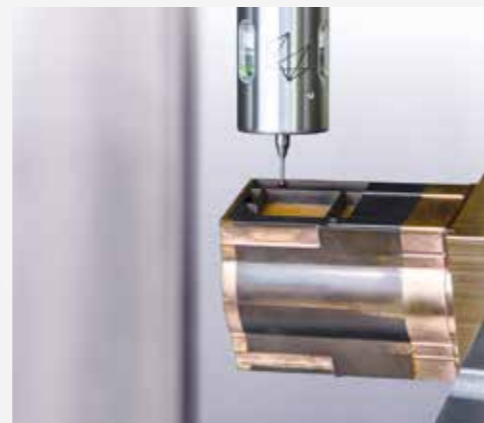
- Connection with i-8000, Heidenhain® and B&R® controller through separate electrical interface unit
- Tool break check
- Tool length measurement
- Tool diameter check
- Pneumatic lock to protect the laser unit
- Dimensions: 133.5 x 30 x 80 mm
- Repetition accuracy: 0.2 µm
- Smallest tool to be captured: 0.05 µm



## m&h infrared measuring switch system

### General features

- Ultra-small infrared measuring switch, d= 25 mm, h= 42.4 mm
- HDR technology (high data rate)
- Workpiece zero point detection
- Workpiece position detection
- Check measurement for workpieces
- Suitable for small and delicate workpieces



## Minimum quantity cooling lubrication systems

Our minimum quantity cooling lubrication systems are available in different designs:

### General features

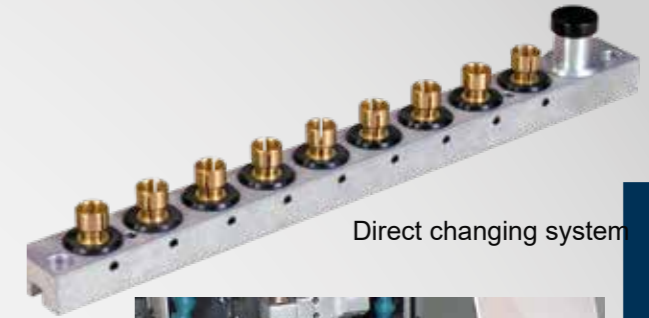
- Economical systems according to the downdraught functional principle
- Closed pressure tanks for the coolant, pneumatically-actuated coaxial spray head



## Tool change systems

### General features

- HSK-E or SK change systems as linear or round changers with chip protection cover
- Sensor-monitored tool stations
- Management of the tools inside the machine controller
- Pneumatic rotating cylinder with end position check for chip protection cover and safe tool change



Direct changing system

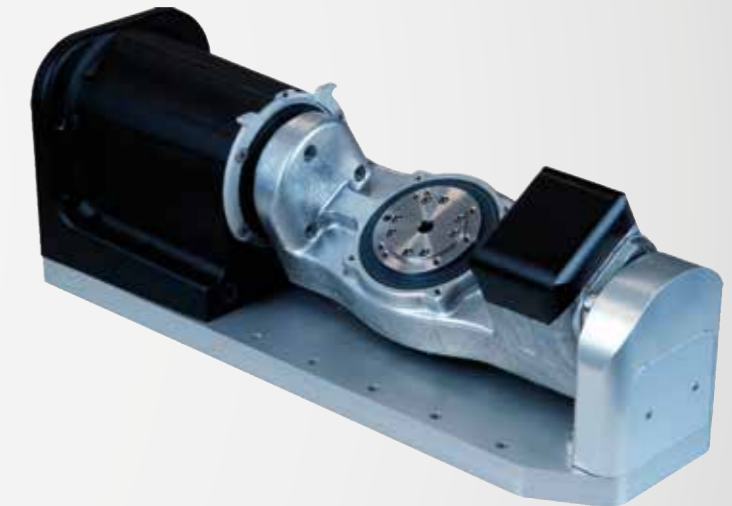


HSK-E linear changer

## Rotating/swivelling unit

### General features

- Precision gearing
- Servomotor
- Maintenance-free
- Protection class IP 65
- Play-free and high torsional stiffness
- Gear reduction 1:51 or 1:101
- Rust-free finish
- Transmission accuracy: < 1.5 arcmin
- Repetition accuracy: <± 6 arcsec
- Swivelling range steplessly adjustable
- Highly durable and stiff output bearing



## Extraction systems

Extraction technology is increasingly gaining in significance. When utilised correctly and perfectly designed for the respective application, it provides enormous advantages:

- Extraction system for special dusts
- Production interruptions (downtimes plus cleaning work), resulting from frequent cleaning work on the CNC system, are significantly reduced by automatic cleaning
- Premature wear and unnecessary defects in high-value components (axes, control, accessory components) are avoided.

The aspect of health should always be the priority. Fine dust is generated with many applications, visible as deposits on level surfaces. However, the fact that respirable fine dust in the intake area of the CNC system swirls invisibly in the air is often underestimated.



PROFI-120

STANDARD