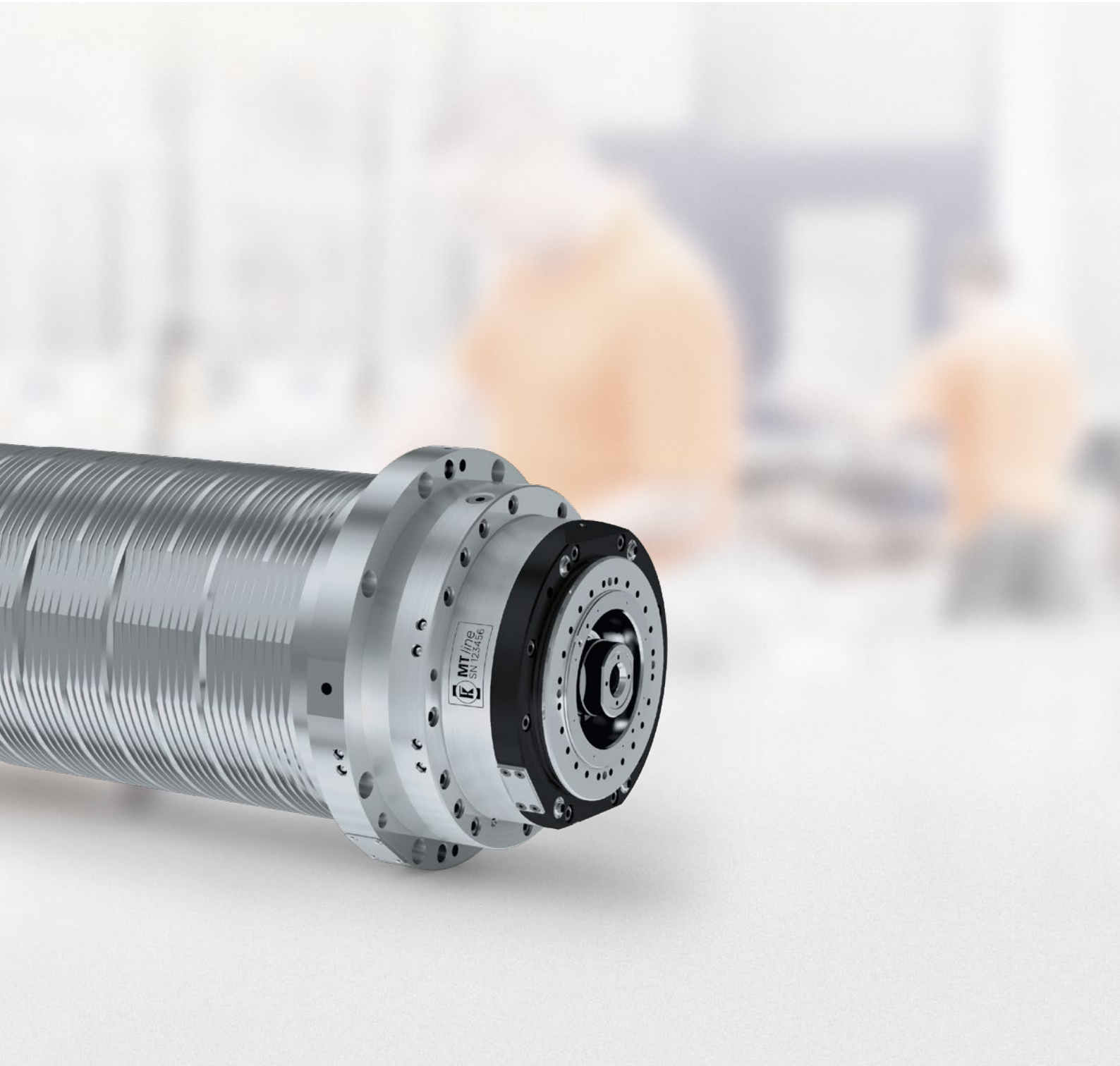
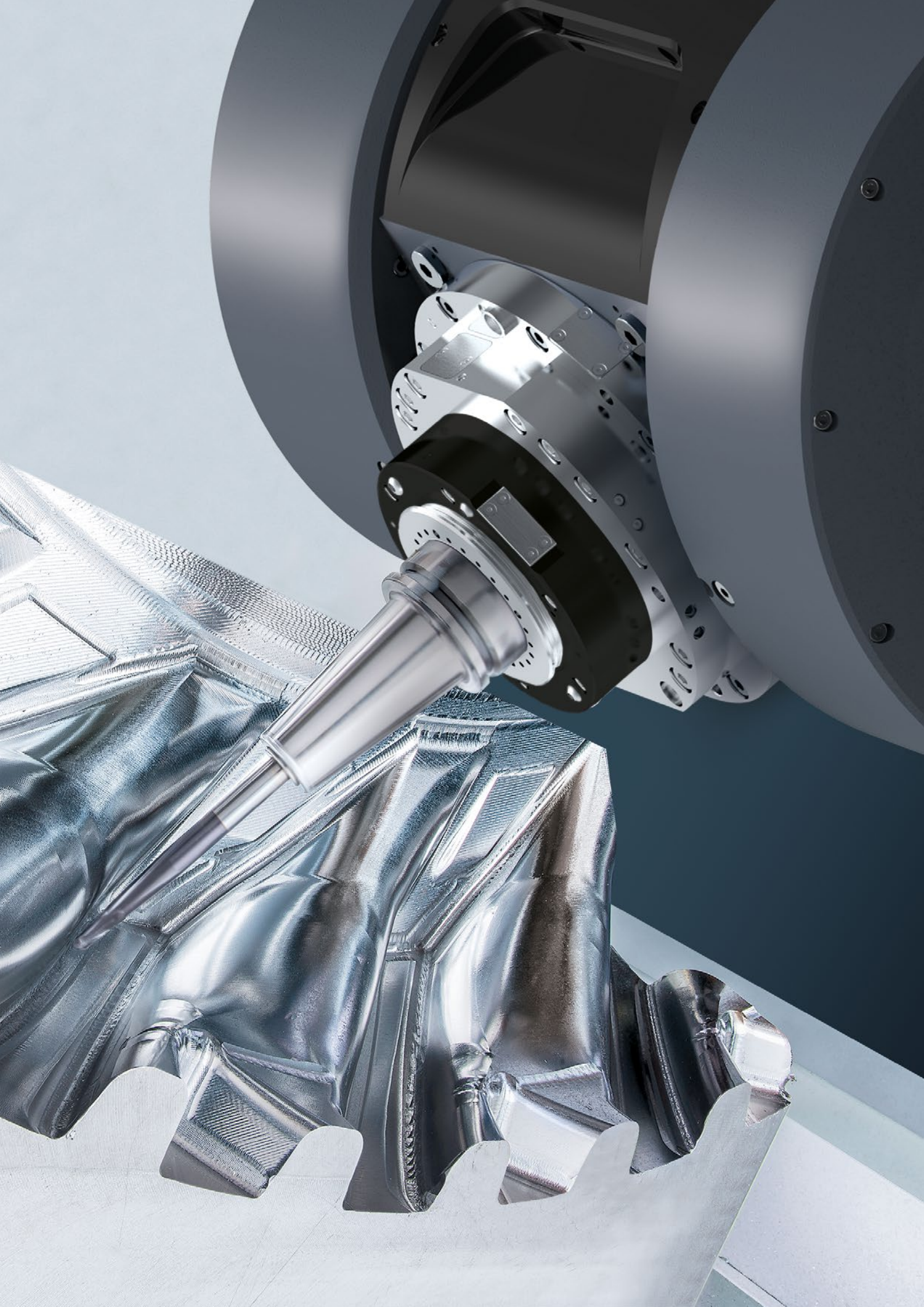


Mill turn spindles / *MT line*

Smart heads





KESSLER spindle *lines*

Spindle technology with passion and expertise

The KESSLER milling spindles have a modular design.

Configure your own milling spindle model by specifying the installation position, motor, speed, bearing, lubrication and sensor system – the perfect customized solution for your individual branch and application needs.

KESSLER offers more: As an internationally successful company with extensive and highly specialized expertise, we provide comprehensive advice about the design and manufacture of individual components and project management of complex system solutions. We use the very latest technology and analytical processes to test our components under realistic conditions, so that our products help your business to stay flexible and maintain its competitive edge.

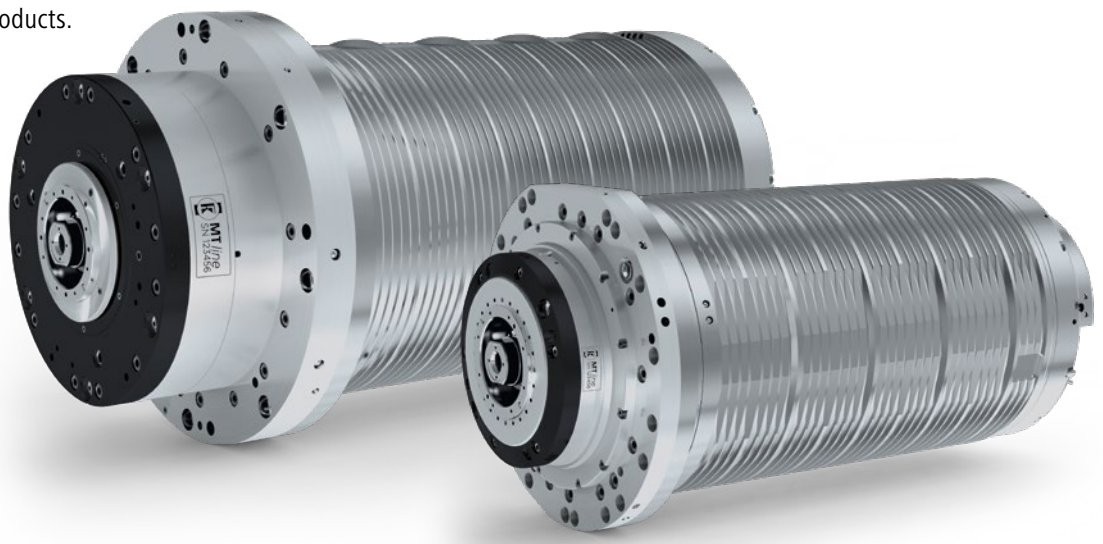
Our in-house development division is supported by extensive calculation and analysis skills and covers everything from direct drive technology to the construction of all-in-one systems. Furthermore, optimized production and assembly lines provide the framework for stable processes and the superior quality of our products.

End-to-end precision from the components to the on-site service

Founded in 1923 by Franz Kessler, the company has developed to become the leading supplier of motor spindles as well as directly driven 2-axis heads and rotary tilt tables for the machine tool industry. KESSLER is proud to list many major companies from the mechanical engineering sector amongst its long-standing customers.

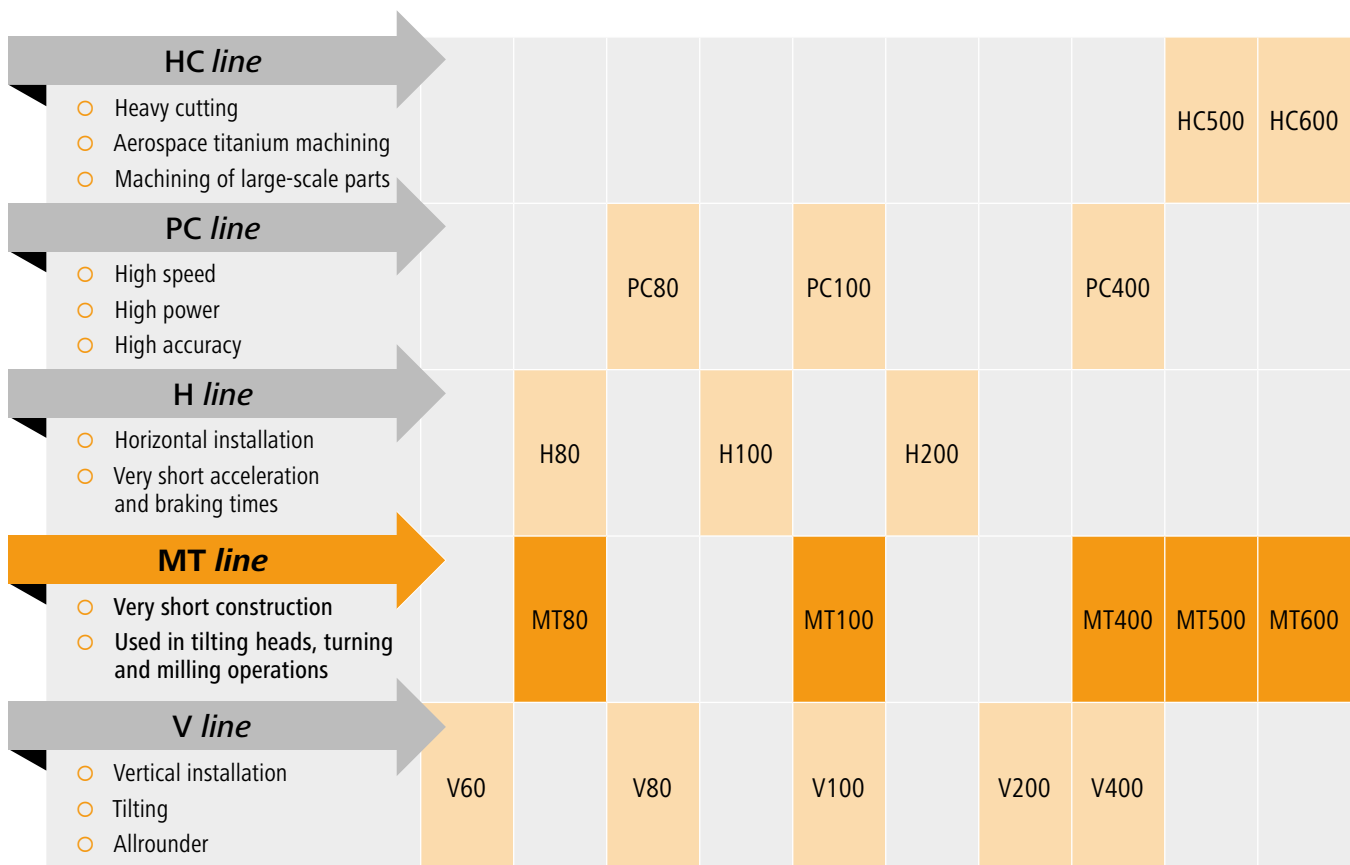
With the expertise of more than 95 years, KESSLER is continuously developing and optimising its products. The KESSLER product range serves a wide range of sectors, processes and applications. Close cooperation with our customers remains our key focus. The extensive product range, from hightech spindles, 2-axis heads, rotary and rotary tilt tables to motors and direct drive systems, enables KESSLER to implement customised solutions with speed and flexibility.

Service is a matter of trust. Rely on us as your trusted service partner: KESSLER has an established global network of technology and service centres.



Masterpieces

KESSLER provides tailor-made spindle technology to suit your needs:
Individual, flexible, modular and suitable for all areas of application



Spindle fitting Ø (mm)

Open cooling housing	140		170		200		230	270	325	395
Closed with steel sleeve	150		180		210		240			
Closed with solid housing		170		200	230	240		310		

Availability on request

The **MT line** is all about:

- **5-axis machining**
- Very short construction thanks to **release unit and rotary union integrated in the shaft**
- **Can be used in tilting heads**
- **Processing of different materials**
- Machining of **workpieces with varying geometries**
- Use in **small and large-scale production**
- **Short duration** until reaching the stable **Tool Centre Point (TCP)**
- As an option, can be supplied with **clamps for turning operations**
- Option to **measure the axial shaft displacement**



Our MT *line* variants

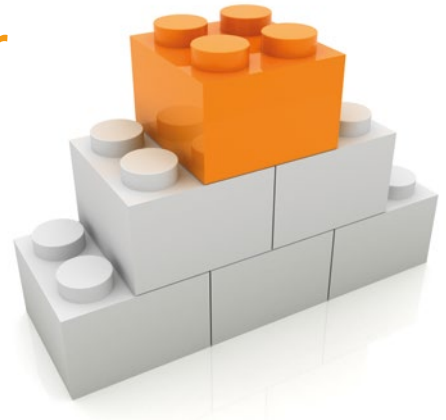
Model	MT80	MT100S	MT100L	MT100H	MT400	MT500	MT600
Maximum speed (rpm) to	24,000	20,000	20,000	20,000	18,000	10,000	8,000
Torque S6 / 40 % (Nm) to	95	120	210	235	560	850	1,250
Spindle fitting Ø (mm)	170	202	202	202	270	325	395
Length overall (mm)	475	385	475	530	628	TBD	TBD
Tool interface	HSK 63 Capto C6			HSK 100 Capto C8			HSK 125 Capto C10

Impress with:

- very short construction
- very short vector length
- high effective torque at the tool cutting edge
- Quick Connect Cartridge (QCC)*
reduced machine downtimes for servicing
- optional shaft clamping

*Not with MT80 and MT600

All advantages of the modular system at a glance



- **Robust**

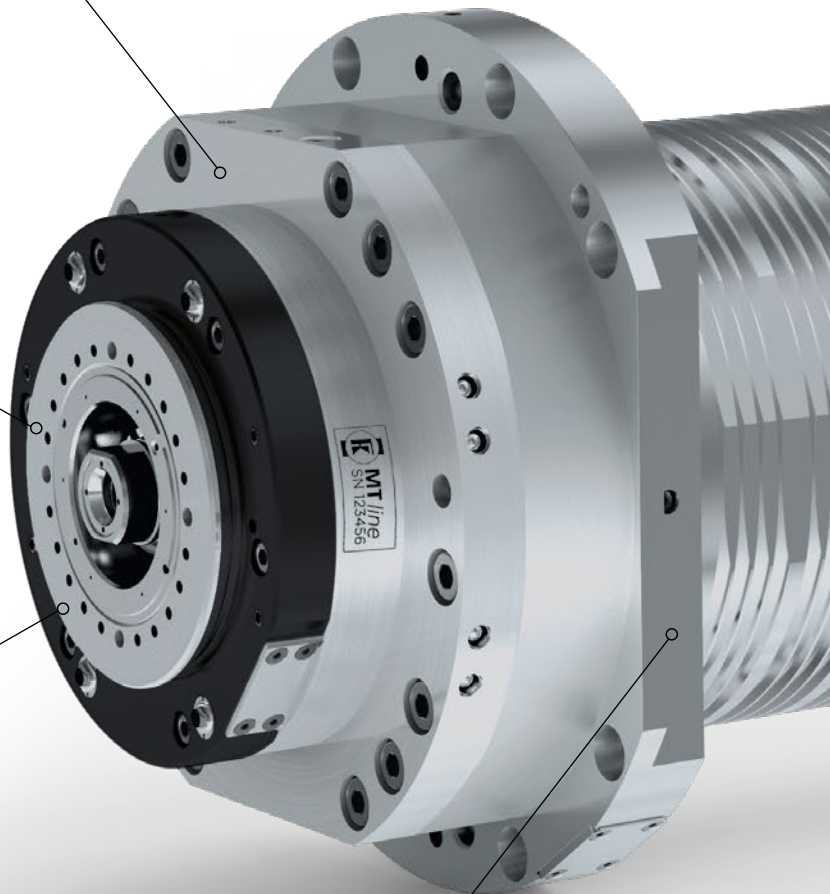
Designed for high load forces
in the machining process

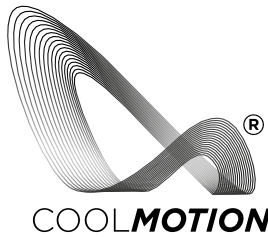
- **High degree of operational
safety thanks to LEDs**

due to optimal illumination
of the tool intervention

- **HSK and Capto
tool interfaces**

- **Reduction of TCO
(Total Costs of Ownership)**
due to the rapid change of the rotor
exchange group (KESSLER QCC)





- **The most suitable**
COOLMOTION® motor
for your individual needs:
with very high torque, very high speed
or high-compact design

- **Various bearing lubrication**
systems available

- **Hydraulic release unit**

- **High flexibility:**
KESSLER rotary union for
media: lubrication, dry
operation, compressed air,
MQL capability

- **Process reliability** due to
extensive sensory system

- **Analogue tool clamping**
status monitoring

- **Hydraulic clamping for turning**
operations available

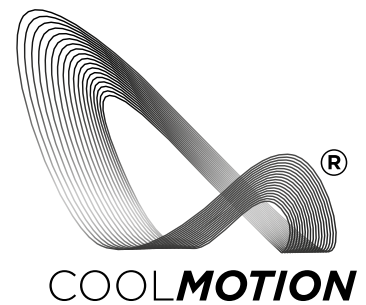
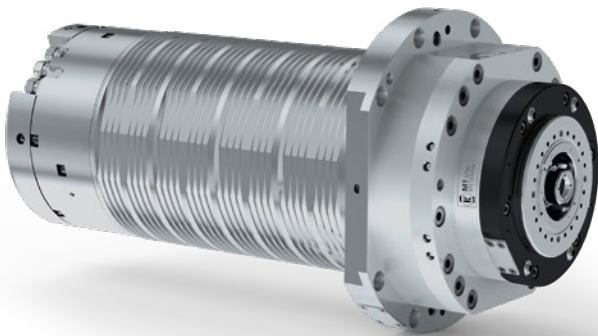
- **High power density,**
due to very compact, spacesaving
design and light weight

HIGH QUALITY

MADE IN GERMANY

Milling spindle / MT80

- **Spindle fitting:** Ø 170 mm
- **KESSLER COOLMOTION® motor**
- **Cooling:** Open cooling housing
- **Bearing lubrication:**
Oil-air / re-greasing



Choose the most suitable COOLMOTION® motor from the list of preferred motors

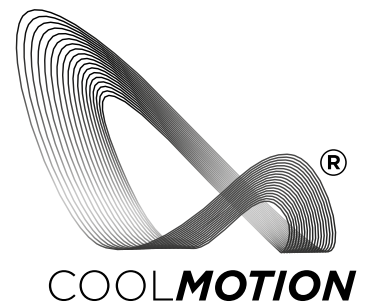
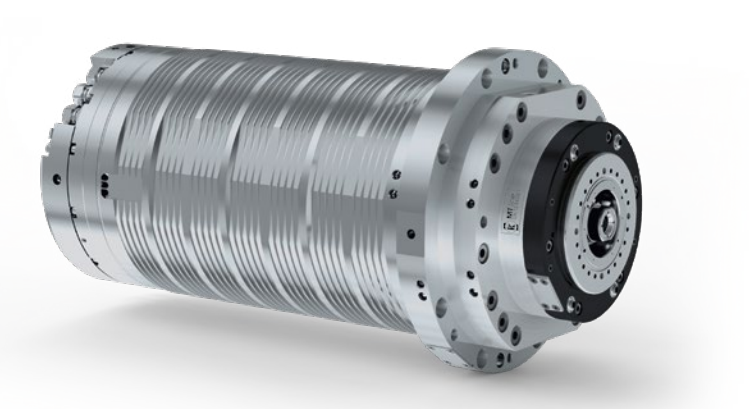
Model		S1		S6 / 40 %		S6 / 25 %		S6 max.		
		Max. speed (rpm)	Torque (Nm)	Power (kW)	Torque (Nm)	Power (kW)	Torque (Nm)	Power (kW)	Torque (Nm)	Power (kW)
MT80-S24	24,000	55	40	65	40	70	40	80	40	High speed
MT80-S20	20,000	80	45	95	45	110	45	145	45	High torque

Available on request

Not available with Quick Connect Cartridge (QCC)

Milling spindle/MT100 S/L/H

- **Spindle fitting:** Ø 202 mm
- **KESSLER COOLMOTION® motor**
- **Cooling:** Open cooling housing
- **Bearing lubrication:**
Oil-air / re-greasing



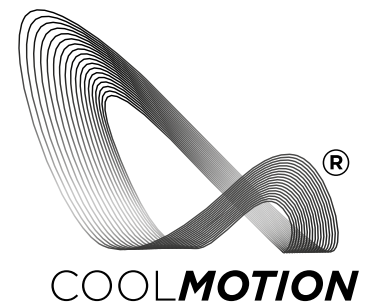
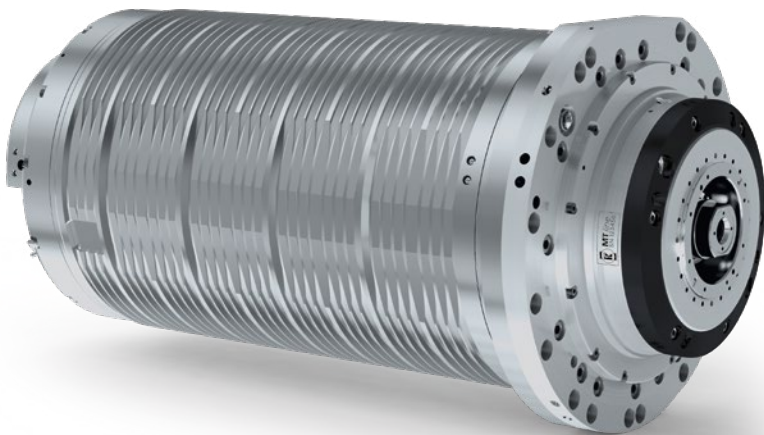
Choose the most suitable COOLMOTION® motor from the list of preferred motors

Model	Max. speed (rpm)	S1		S6 / 40 %		S6 / 25 %		S6 max.		
		Torque (Nm)	Power (kW)	Torque (Nm)	Power (kW)	Torque (Nm)	Power (kW)	Torque (Nm)	Power (kW)	
MT100S-S20	20,000	85	20	100	20	115	20	170	20	High speed
MT100S-S12	12,500	100	36	120	40	140	48	180	48	High torque
MT100L-S20	20,000	130	45	160	45	180	45	200	45	High speed
MT100L-S12	12,500	175	54	210	54	235	54	280	54	High torque
MT100L-A15	15,000	100	24	135	32	170	40	170	40	Entry-level
MT100H-S16	16,000	150	40	180	40	200	40	250	40	High speed
MT100H-S12	12,500	200	54	235	54	265	54	315	54	High torque
MT100H-A15	15,000	115	26	175	40	215	48	230	52	Entry-level

Available on request

Milling spindle / MT400

- **Spindle fitting:** Ø 270 mm
- **KESSLER COOLMOTION® motor**
- **Cooling:** Open cooling housing
- **Bearing lubrication:**
Oil-air / re-greasing



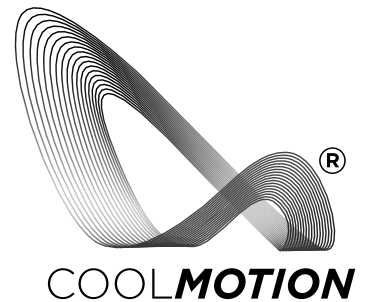
Choose the most suitable COOLMOTION® motor from the list of preferred motors

Model		S1		S6 / 40 %		S6 / 25 %		S6 max.		
	Max. speed (rpm)	Torque (Nm)	Power (kW)	Torque (Nm)	Power (kW)	Torque (Nm)	Power (kW)	Torque (Nm)	Power (kW)	
MT400-S18	18,000	200	71	230	71	280	71	300	71	High speed
MT400-A10	10,000	400	50	560	70	690	86	800	100	High torque
MT400-A15	15,000	300	48	445	70	535	84	640	100	Entry-level

Available on request

Milling spindle/MT500

- **Spindle fitting:** Ø325 mm
- **KESSLER COOLMOTION® motor**
- **Cooling:** Open cooling housing
- **Bearing lubrication:** Oil-air



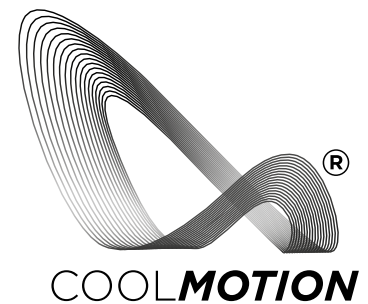
Choose the most suitable COOLMOTION® motor from the list of preferred motors

Model		S1		S6 / 40 %		S6 / 25 %		S6 max.		
	Max. speed (rpm)	Torque (Nm)	Power (kW)	Torque (Nm)	Power (kW)	Torque (Nm)	Power (kW)	Torque (Nm)	Power (kW)	
MT500-S10	10,000	470	60	550	60	650	60	820	60	High speed
MT500-S6	6,000	800	67	930	67	1,000	67	1,100	67	High torque

Available on request

Milling spindle/MT600

- **Spindle fitting:** Ø 395 mm
- **KESSLER COOLMOTION® motor**
- **Cooling:** Open cooling housing
- **Bearing lubrication:** Oil-air



Choose the most suitable COOLMOTION® motor from the list of preferred motors

Model		S1		S6 / 40 %		S6 / 25 %		S6 max.		
	Max. speed (rpm)	Torque (Nm)	Power (kW)	Torque (Nm)	Power (kW)	Torque (Nm)	Power (kW)	Torque (Nm)	Power (kW)	
MT600-S8	8,000	750	70	840	70	1,100	70	1,250	70	High speed
MT600-S5	5,000	1,200	75	1,350	75	1,500	75	1,600	75	High torque

Available on request

Not available with Quick Connect Cartridge (QCC)

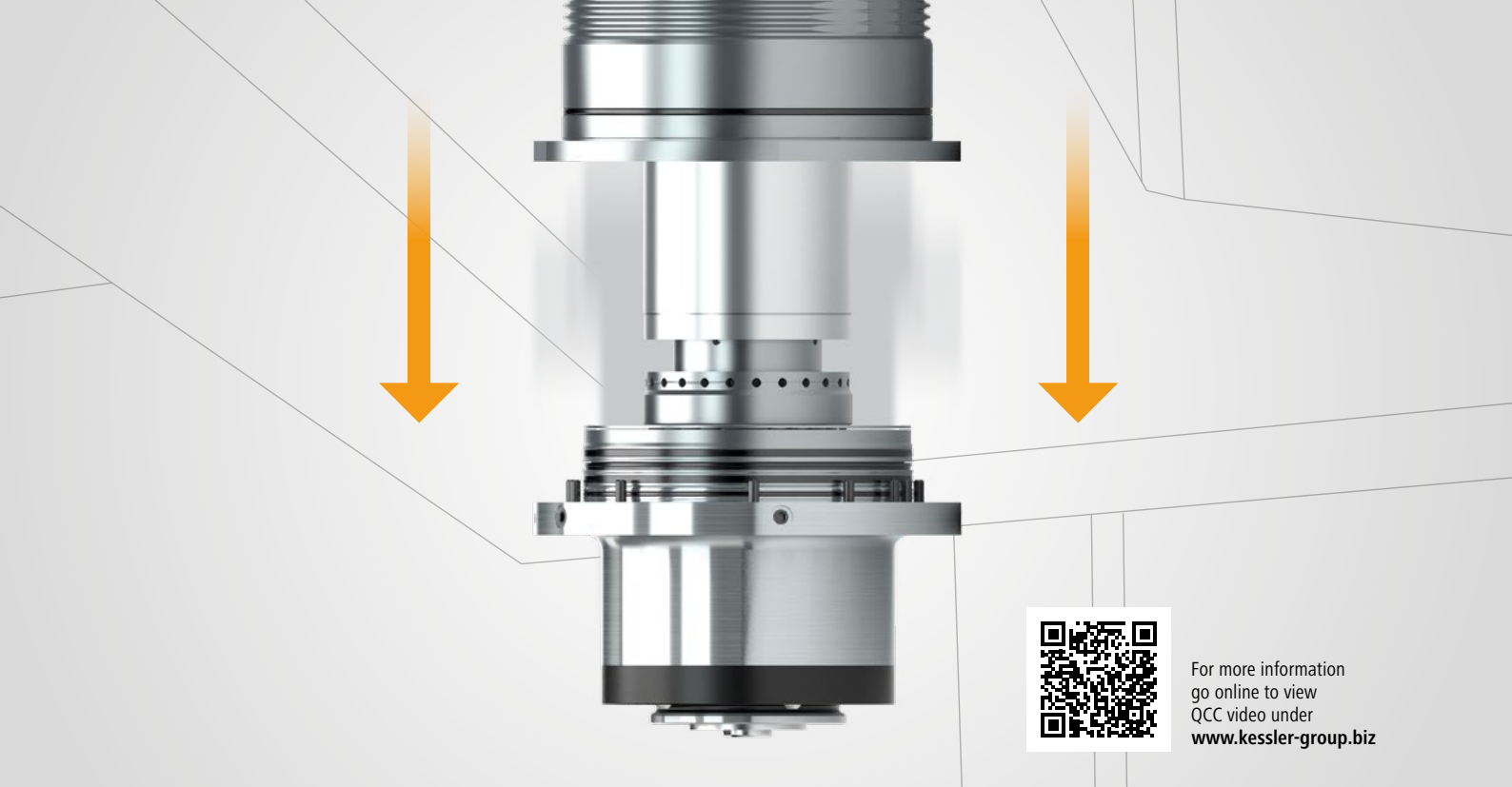


Modular extensions available

- + **Choose the most suitable
KESSLER COOLMOTION® motor**
- + **Sensor monitoring system**
 - Vibration sensor
 - Eddy current sensor detects axial shaft displacement
 - Clamping status monitoring
 - Clamping monitoring
 - Temperature sensor PT100
- + **Hydraulic clamping**
- + **Bearing preload
variable**
- + **Closed cooling jacket**
- + **Clamping spring package is designed
for 3 million tool changes**

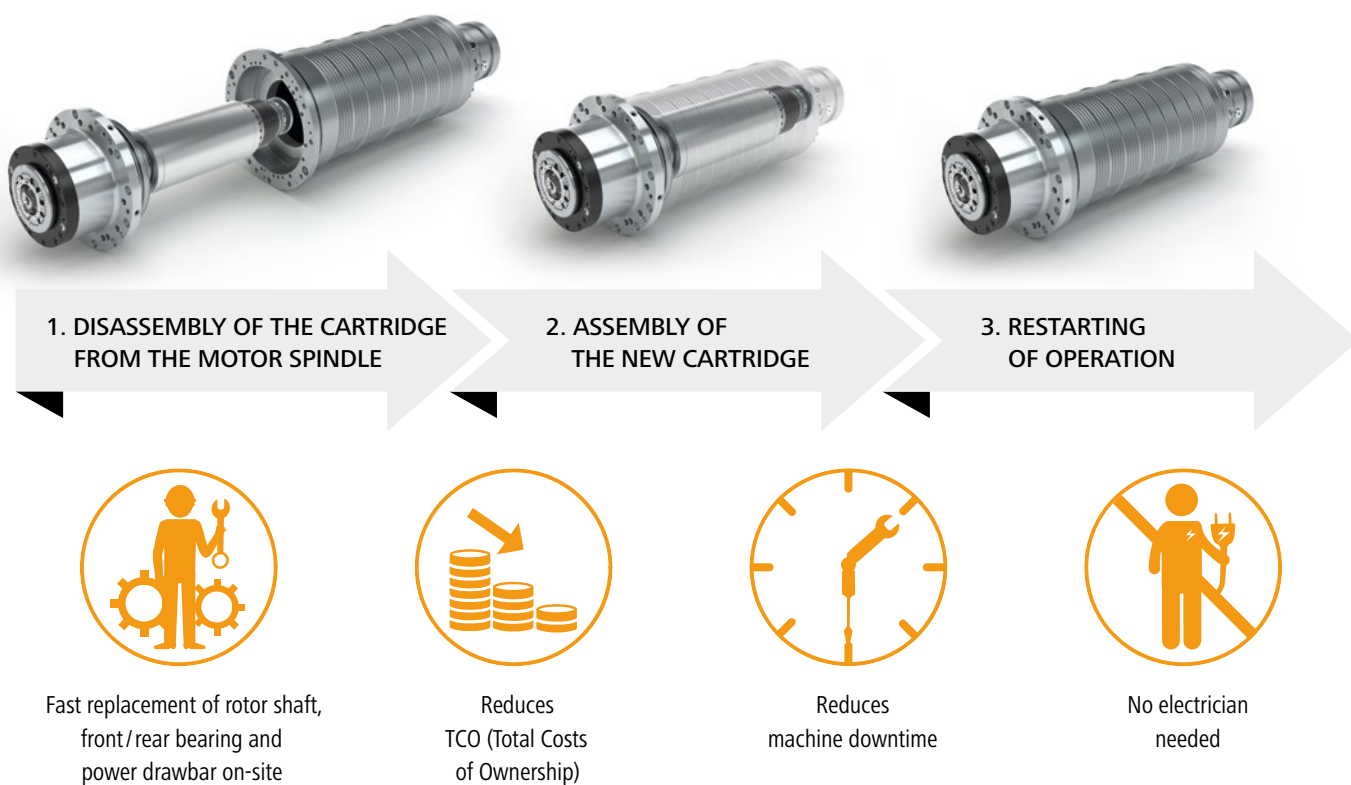
Accessories

- + **Oil-air lubrication unit**
- + **Re-greasing unit on demand**
- + **Direct lubrication on demand**



The spindle housing rests during the change in the headstock of the machine

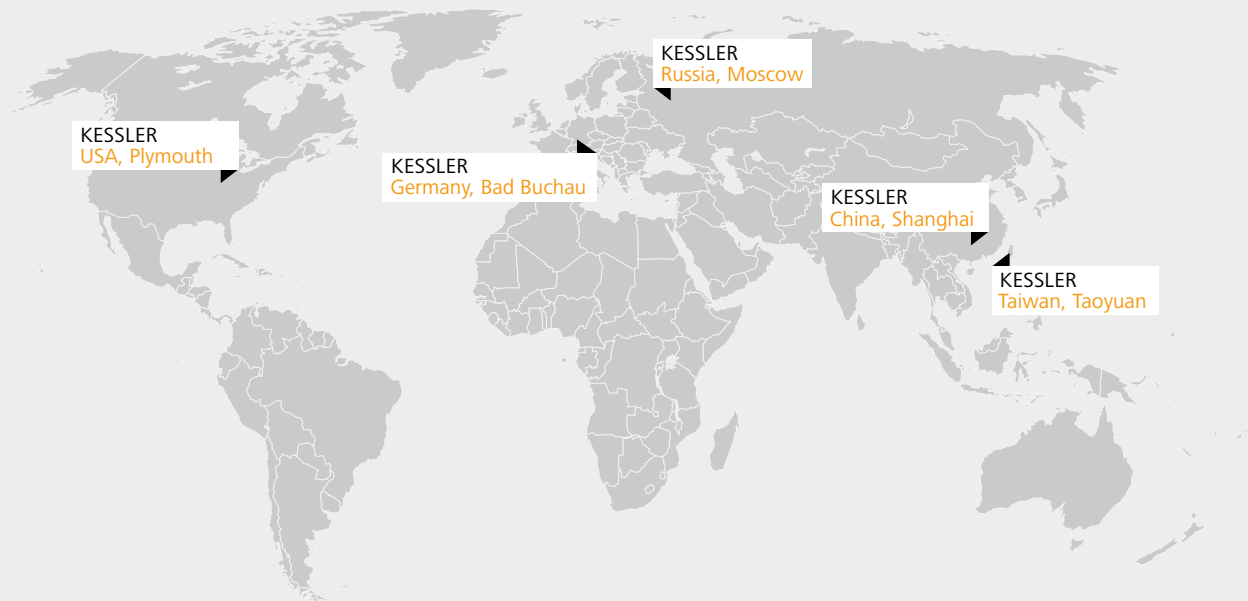
Quick Connect Cartridge (QCC)



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Operating Worldwide for our Customers



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