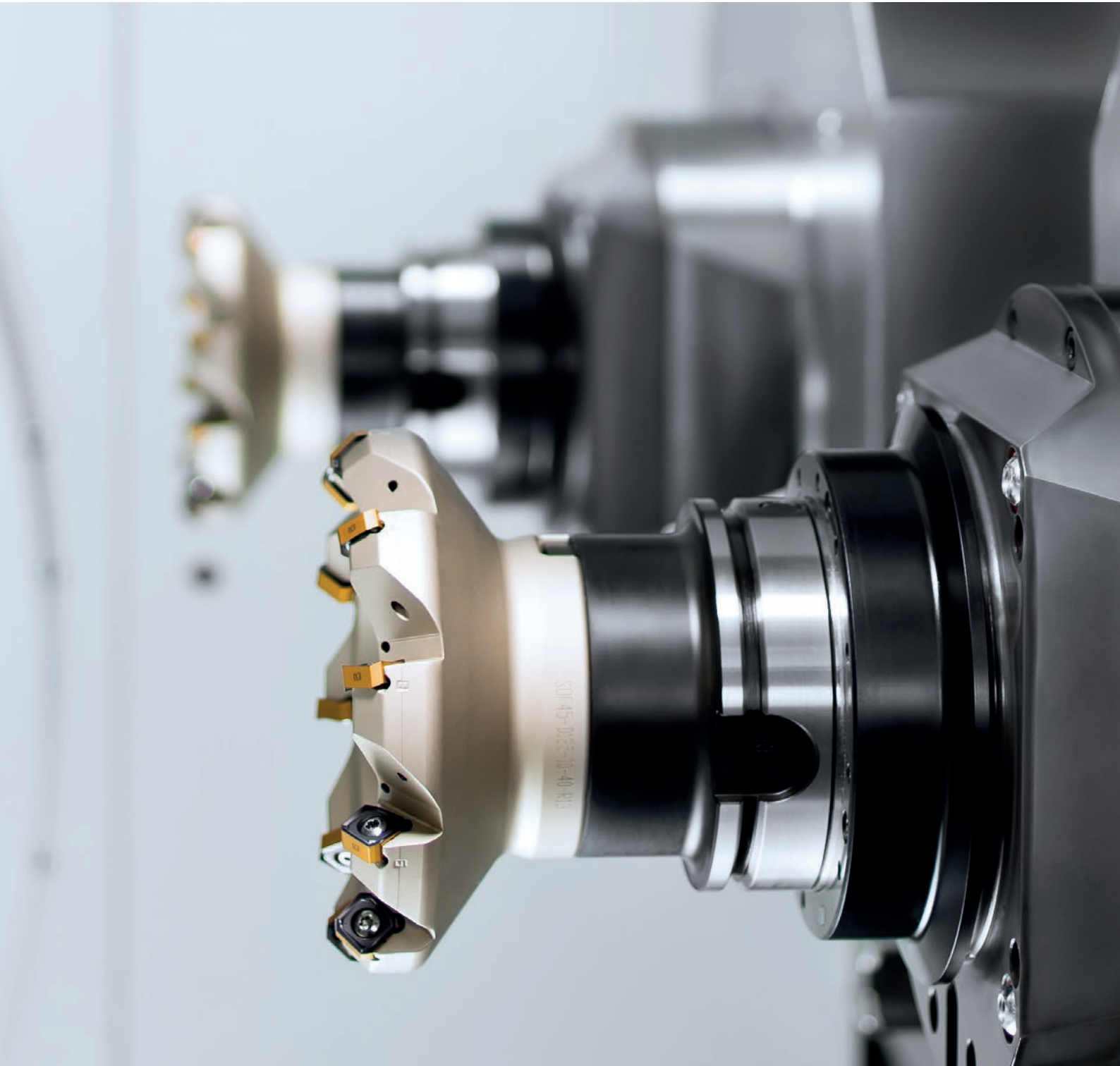


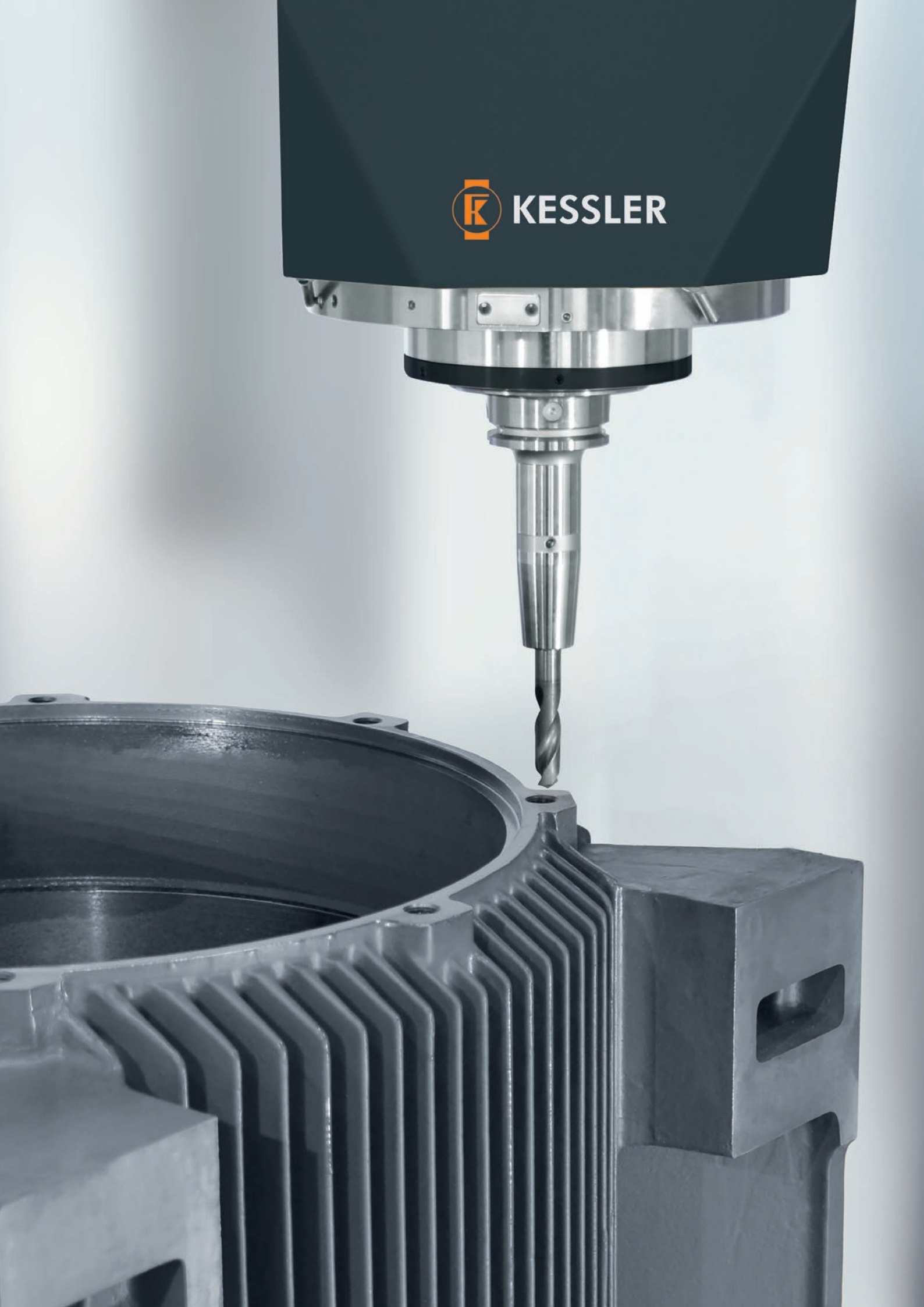
Milling spindles / H LINE

Rapidly up to speed:
Dynamic and robust for high loads





KESSLER



KESSLER SPINDELLINES

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: We are an internationally successful company with specialist expertise that enables us to provide comprehensive consultation in the design and manufacture of individual components, and project planning of complex systems. The very latest technology and analytical processes are used to test our components under realistic conditions, so that our products help your business to maintain flexibility and its competitive edge.

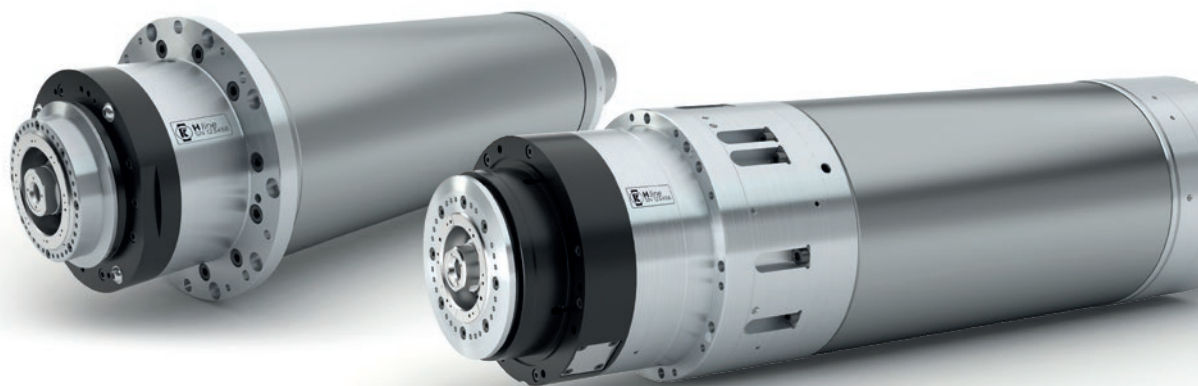
Our in-house development division is supported by extensive calculation and analysis skills and covers everything from direct drive technology to the construction of all-in-one systems. Furthermore, optimized production and assembly lines provide the framework for stable processes and the superior quality 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 almost 100 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.

As your service partner, service is our matter of trust and reliability. KESSLER has an established global network of technology and service centres.



Masterpieces

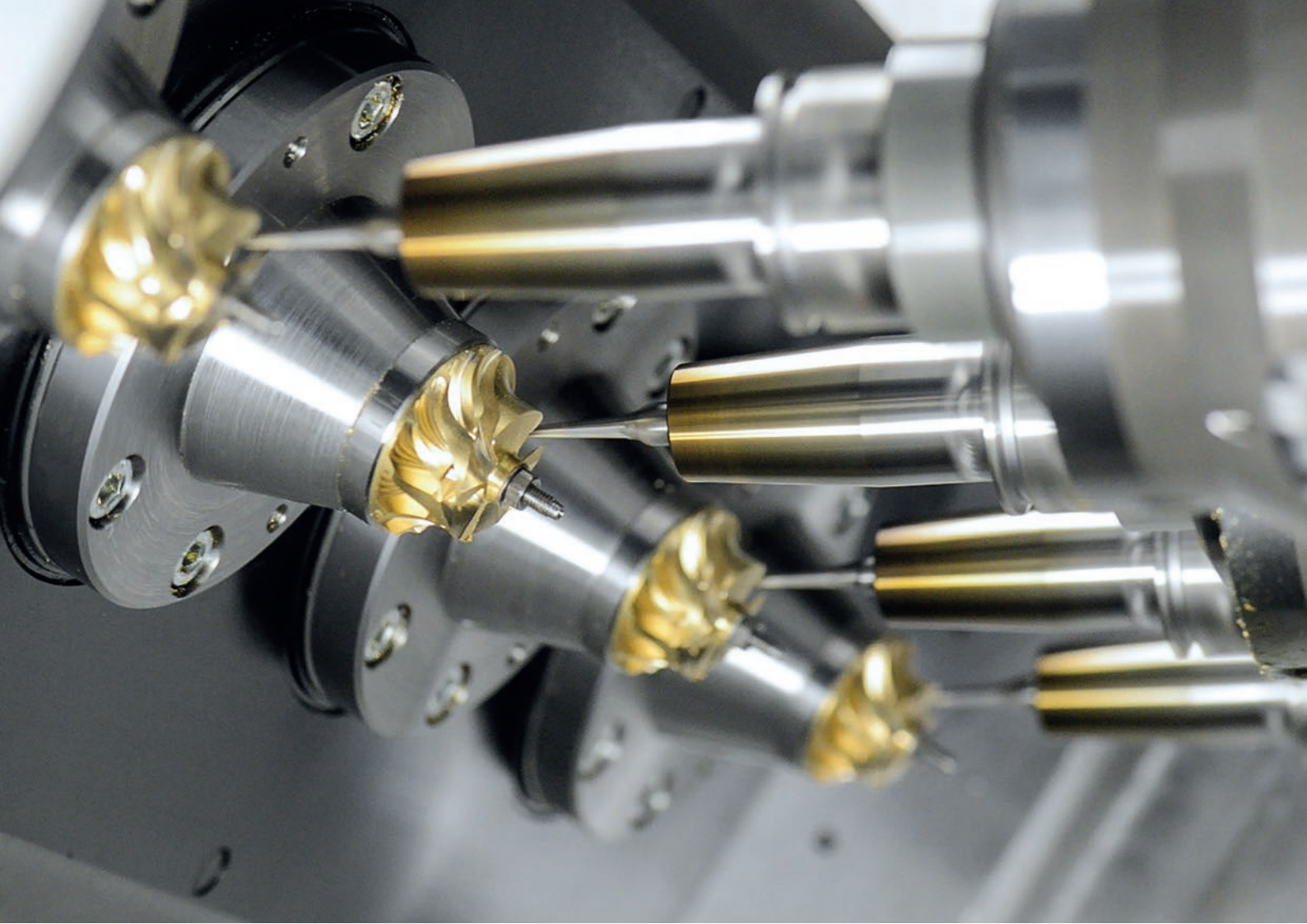
KESSLER provides tailor-made spindle technology to suit your needs: individual, flexible, modular and suitable for all areas of application

HC LINE <ul style="list-style-type: none"> ○ Heavy cutting ○ Aerospace titanium machining ○ Machining of large-scale parts 								HC500	HC600		
PCLINE <ul style="list-style-type: none"> ○ High speed ○ High power ○ High accuracy 			PC80		PC100			PC400			
H LINE <ul style="list-style-type: none"> ○ Horizontal installation ○ Very short acceleration and braking times 		H80		H100		H200					
MT LINE <ul style="list-style-type: none"> ○ Very short construction ○ Used in tilting heads, turning and milling operations 			MT80			MT100		MT400	MT500	MT600	
V LINE <ul style="list-style-type: none"> ○ Vertical installation ○ Tilting ○ Allrounder 		V60		V80		V100		V200	V400		
Spindle fitting Ø (mm)											
○ Open cooling housing	140	170	170			200		230	270	325	395
○ Closed with steel sleeve	150		180			210		240			
○ Closed with solid housing				200	230	240			310		

Availability on request

The H LINE is all about:

- Horizontal machining
- Typical applications: automotive industry, process machines
- Machining of similar work pieces with similar working cycles with a high work frequency
- Milling, drilling, thread cutting, grinding, boring of aluminium, cast iron and steel
- Internal monitoring of spindles (condition monitoring)
- Tool clamping system designed for a maximum amount of tool changes
- High speed: Up to 25,000 rpm
- High torque: More than 400 Nm



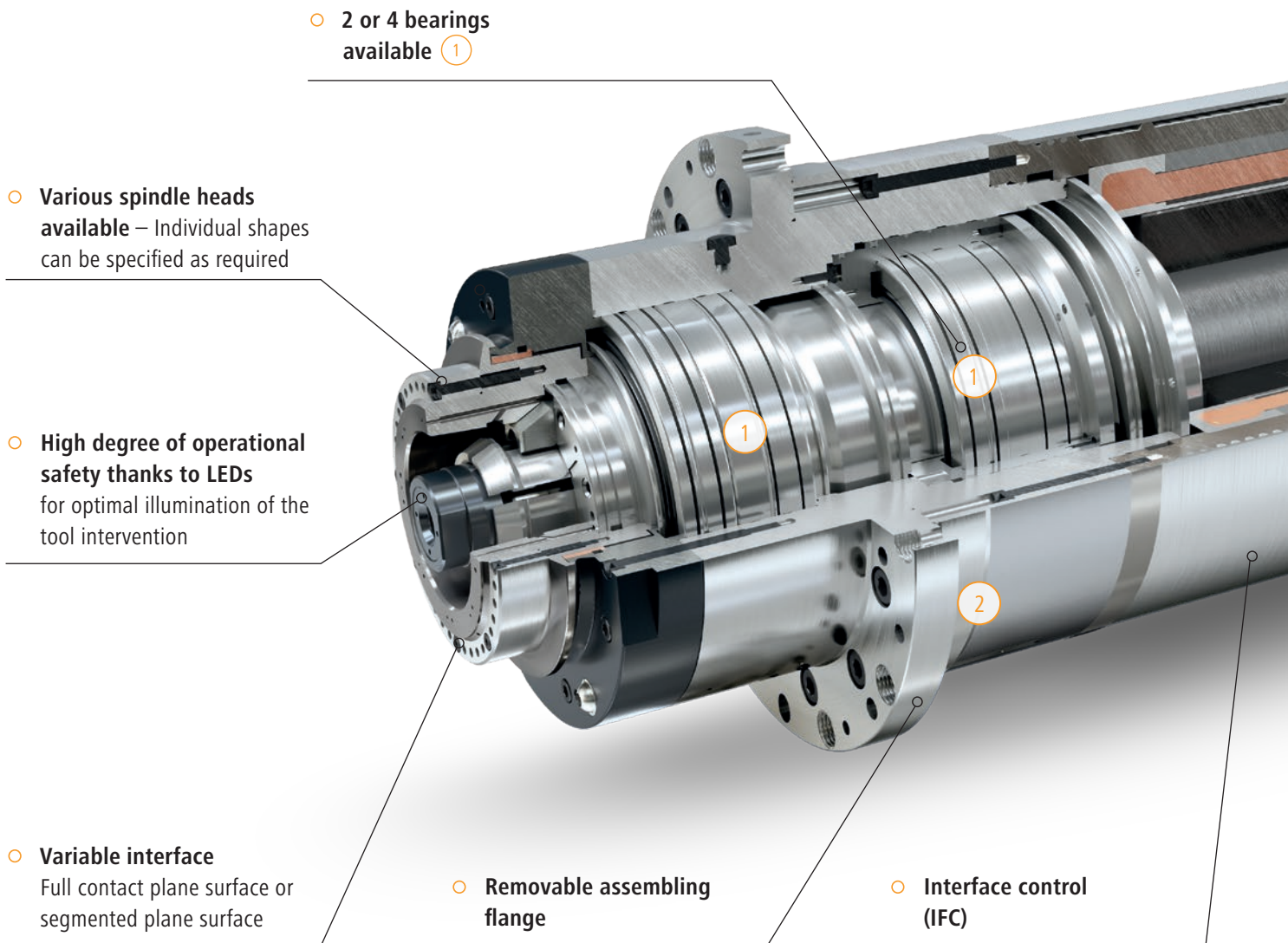
Our H LINE variants

Model	H80	H100	H200
Speed (rpm)	25,000	20,000	15,000 / 16,000
Spindle fitting Ø (mm)	170	200	240
Tool interface	HSK 63	HSK 63	HSK 63 / HSK 100

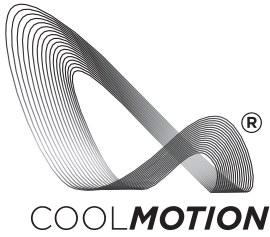
Impress with:

- Very short acceleration times
- High power
- Low rotor torque of inertia

All advantages of the modular system at a glance



Advantages



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

- **Various bearing lubrication** systems available

- **Hydraulic or electrical** release unit available

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

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

- **Spindle fitting diameter and position:** The spindle fitting diameter can be configured accordingly to meet your specific requirements ②

- **High productivity** due to short acceleration and braking times

- **High productivity** with KESSLER tool clamping system – Clamping spring package is designed for 5 million tool changes

HIGH QUALITY

MADE IN GERMANY

Milling spindle/H80

- **Spindle fitting:** Ø 170 mm
- **KESSLER COOLMOTION® motor**
- **KESSLER tool clamping system:**
Clamping spring package
designed for 5 million tool changes
- **Rotary union:** internal coolant
supply with high volume flow
- **Cooling:** closed with steel sleeve
- **Bearing lubrication:**
Grease / re-greasing / oil-air



Spindle fitting diameter, spindle length and projection length of spindle head can be configured according to your requirements.



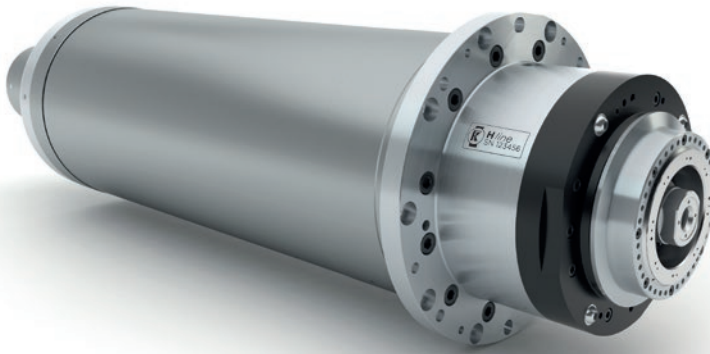
Choose the most suitable COOLMOTION® motor from the list of preferred motors

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)
H80-S25	25,000	80	33	100	33	105	33	115	33
H80-S20	20,000	95	33	110	33	125	33	140	33
H80-A24	24,000	40	16	60	24	75	30	95	38

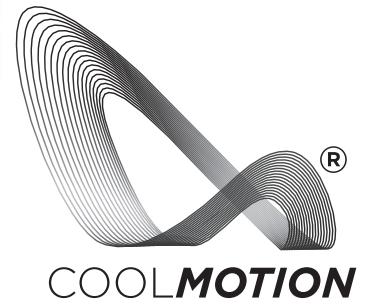
*Availability on request

Milling spindle / H100

- **Spindle fitting:** Ø 200 mm
- **KESSLER COOLMOTION® motor**
- **KESSLER tool clamping system:**
Clamping spring package
designed for 5 million tool changes
- **Rotary union:** Internal coolant
supply with high volume flow
- **Cooling:** closed with steel sleeve
- **Bearing lubrication:**
Grease / re-greasing / oil-air



Spindle fitting diameter, spindle length
and projection length of spindle head
can be configured according to your requirements.



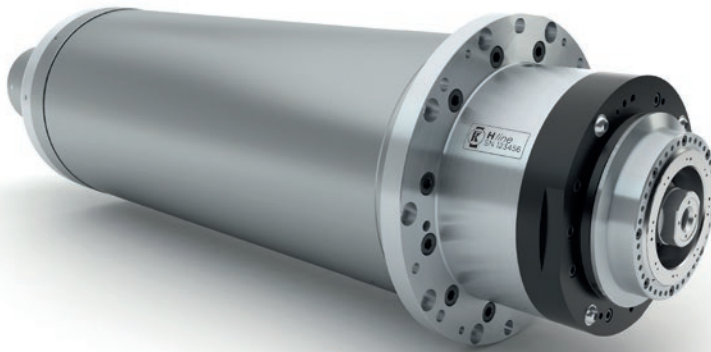
Choose the most suitable COOLMOTION® motor from the list of preferred motors

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)	
H100-S20	20,000	120	36	140	36	150	36	165	36	High speed*
H100-S15	15,000	170	32	210	32	235	32	270	32	High torque*
H100-A20	20,000	60	19	90	28	112	35	172	54	Entry-level*

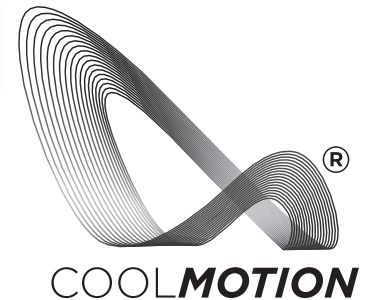
*Availability on request

Milling spindle/H200

- **Spindle fitting:** Ø 240 mm
- **KESSLER COOLMOTION® motor**
- **KESSLER tool clamping system:**
Clamping spring package
designed for 5 million tool changes
- **Rotary union:** Internal coolant
supply with high volume flow
- **Cooling:** closed with steel sleeve
- **Bearing lubrication:**
Grease / re-greasing / oil-air



Spindle fitting diameter, spindle length
and projection length of spindle head can be
configured according to your requirements.



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)	
H200-S16	16,000	160	63	180	63	215	63	231	63	High speed*
H200-S10	10,000	350	55	390	55	460	55	500	55	High torque*
H200-A14	14,000	200	42	300	62	300	62	300	62	Entry-level*

*Availability on request



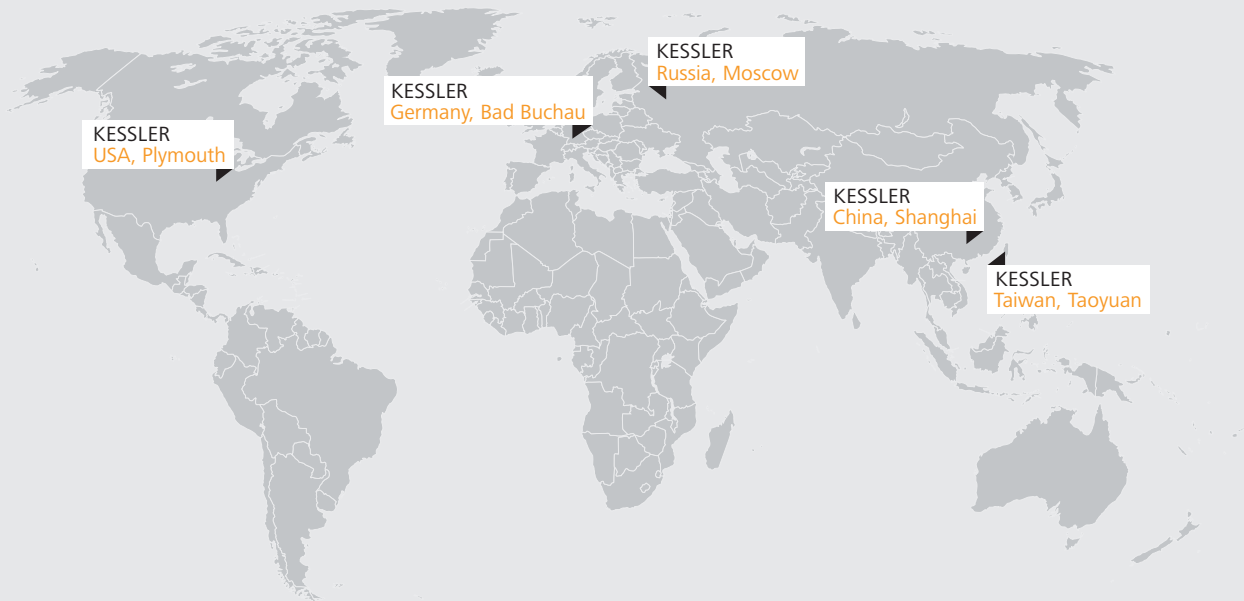
Modular extensions available

- + **Spindle heads**
variable
- + **Bearing**
2 or 4 bearings available
- + **Choose the most suitable KESSLER COOLMOTION® motor for your needs**
- + **KESSLER rotary union**
 - Coolant
 - Dry operation
 - Compressed air
 - MQL capability
- + **Spindle fitting Ø (position A and B side) variable**
- + **Sensor monitoring system**
 - Interface control (IFC)
 - Vibration sensor
 - Clamping status monitoring
 - Leakage monitoring
 - Temperature sensor PT100
- + **Segmented plane surface**
- + **Bearing preload**
variable
- + **Assembling flange**
removable
- + **Bearing lubrication**
Grease / re-greasing / oil-air
- + **Standard cable outlet, connector optional**
- + **Holding-function for collet chuck**
variable
- + **2-channel rotary union**

Accessories

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

Operating Worldwide for our Customers



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