

WEISS Spindeltechnologie GmbH – A Siemens Company



WEISS SPINDLE UNITS

Version: 2022-07

Author: Oliver Tsai

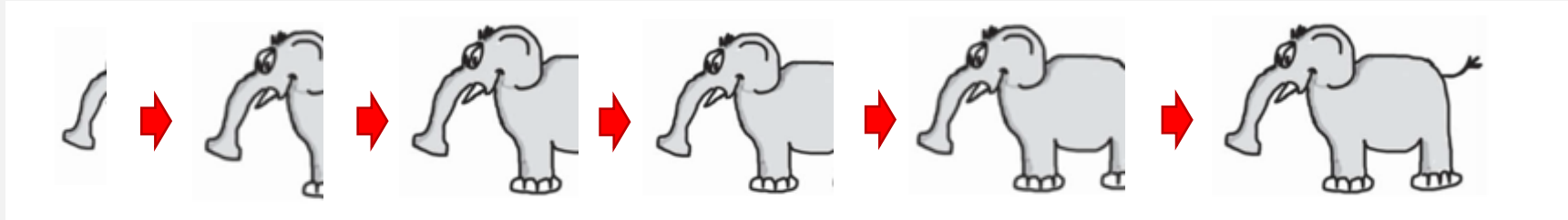
AGENDA

- Partnership GDT_{tech} and Weiss
- History and Applications
- Factory facilities
- Industry sectors
- Weiss Portfolio
 - New spindle series 2SP2
 - Milling-Turning spindle with B –Axis
- Customer application
- World wide service network
- The new Eco-Spindle advantage



PARTNERSHIP CONTRACT

"WEISS DRIVEN BY GDT IN TAIWAN"



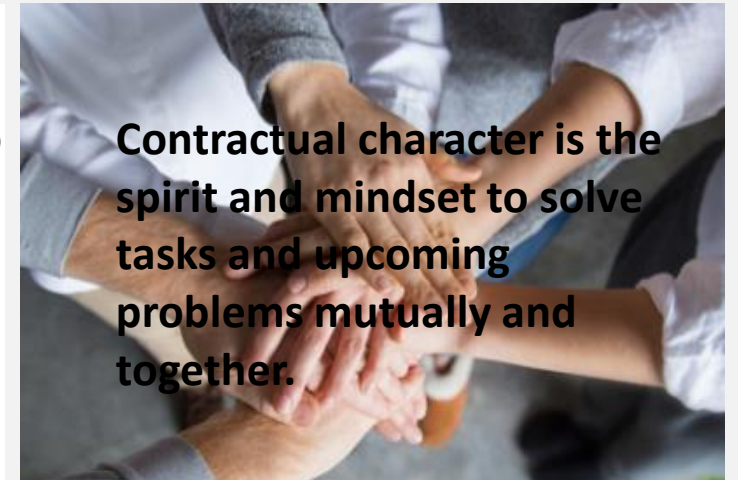
The business relationship between GDT and WEISS covers three main areas:

- GDT supplies motor spindle single parts as well as components to WEISS
- GDT sells WEISS Products (WEISS Spindle units) in Taiwan
- GDT and WEISS are working together within regarding repair and other services in Taiwan



	20210310_GDT_CONTRACT.docx	100%	(9 pages)
	Annex 1 FRAMEWORK AGREEMENT FOR THE PROCUREMENT OF GOODS.docx	90%/10%	(22 pages)
	Annex 2 T&C PRODUCTS.docx	90%/10%	(8 pages)
	Annex 3 T&C SERVICES.docx	90%/10%	(6 pages)
	Annex 4 SUBJECT OF PARTICIPATION FEES 2021-02-24.doc	100%	(1 page)
	Annex 5 MATERIAL DEFECT LIABILITY 2021-02-24.doc	100%	(1 page)
	Annex 6 CALCULATION 2021-02-24.doc	100%	(1 page)
	Annex 7 GENERAL QUALITY AGREEMENT 2021-02-24.doc	100%	(so far 1 page)

Contractual character is the spirit and mindset to solve tasks and upcoming problems mutually and together.





環宇動力貿易有限公司
Global Dynamic Trade Ltd.
台中市清水區中清路九段152-2號
No.152-6,Sec.9,Zhongqing Rd.,
Qingshui Dist.,Taichung City,
Taiwan

Phone: +886 4 26272989

Fax: +886 4 26272990

E-Mail: gdttech168@gmail.com
t0963299569@gmail.com

WEISS SPINDELTECHNOLOGIE GMBH

EXPERIENCE IN SPINDLE TECHNOLOGY FOR ABOUT 60 YEARS



History

1957

First hydrodynamic bearing for FAG own production

1960

First hydrodynamic and hydrostatic spindles at FAG

1968

First spindle units with roller bearings at FAG

1993

Establishment of WEISS GmbH by management-buy-out by Mr. Siegfried Weiß with 77 employees and a know-how in spindle technology for more than 25 years.

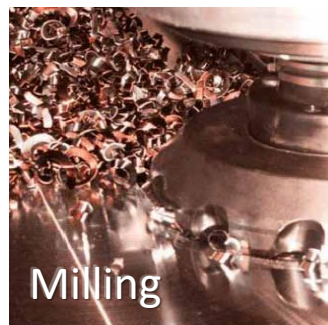
2001

Majority takeover by Siemens AG, becoming A Siemens Company

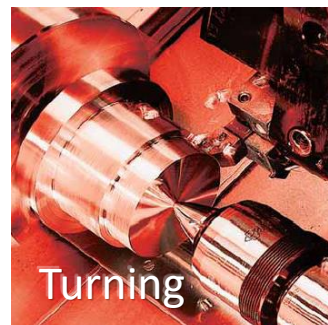
2017

opening of the latest service workshop in Shanghai (SFAE)

Applications



Milling



Turning

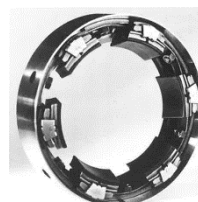


Grinding



Special Applications

Different bearings types in spindle



Hydrodynamic



Hydrostatic



Roller elements

Service worldwide



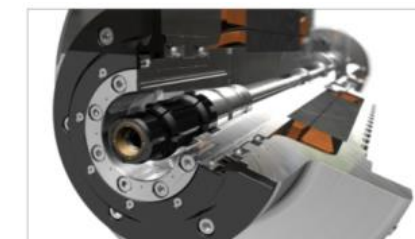
WEISS Spindeltechnologie GmbH

SWSS headquarters
Birkenfelder Weg 14
96126 Maroldswiesach, Germany

Mail: service@weissgmbh.de

Fax: +49 9532 9229 377

Web: www.weissgmbh.com



WEISS PARTIAL OF FACILITY (1)



WEISS PARTIAL OF FACILITY (2)



*THE CHOICE IS YOURS –
IMPROVEMENTS MADE BY WEISS !*



WEISS SPINDELTECHNOLOGIE GMBH

INDUSTRY SECTORS



Automotive and E-mobility



Consumer goods



Robot



Aerospace

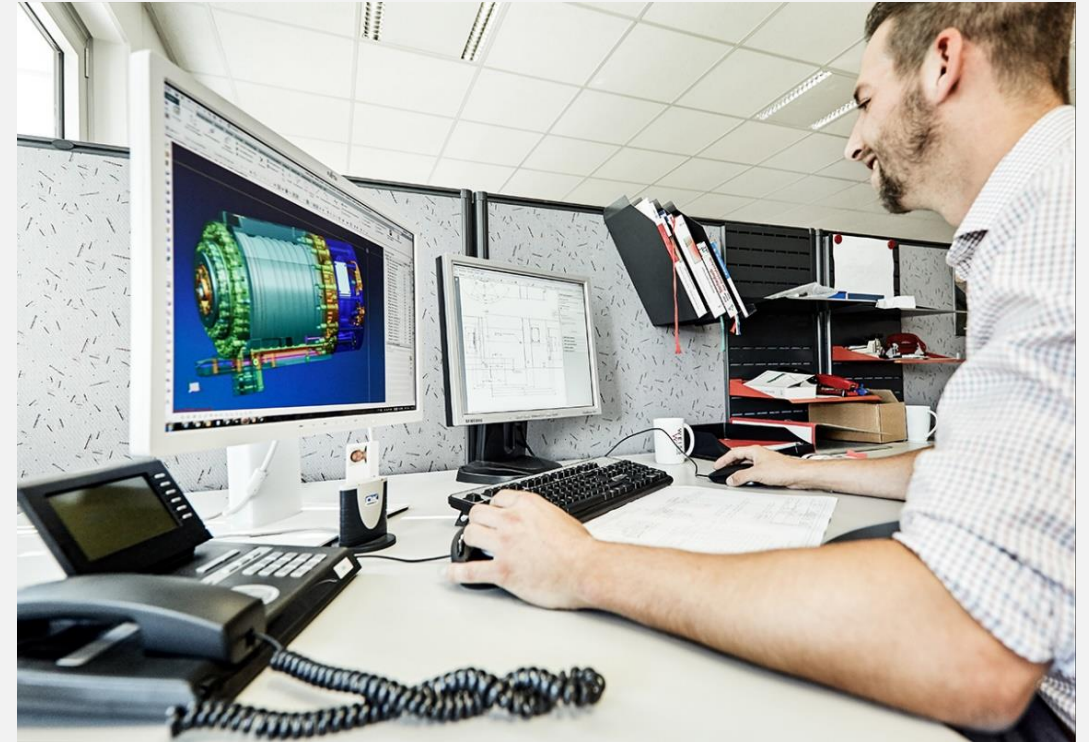
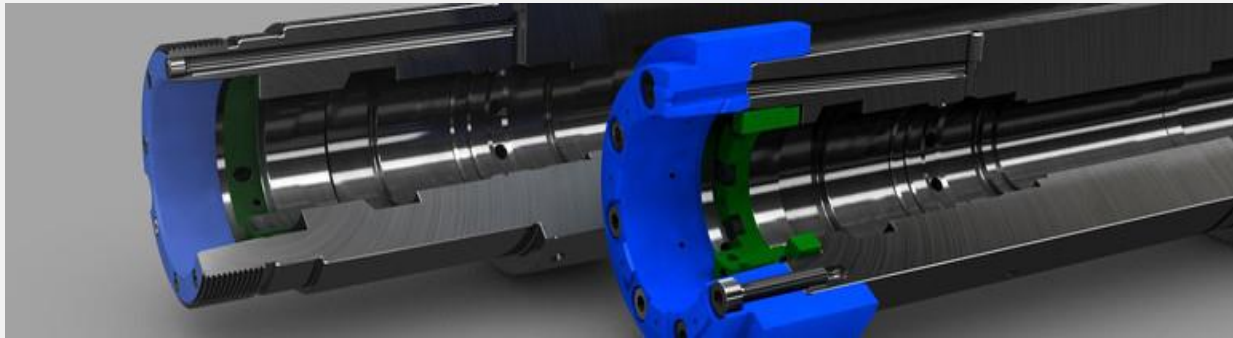


Power generation

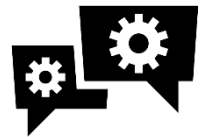


Steel industry

OUR DESIGNERS AT SWSS BRING YOUR EXISTING SPINDLES UP TO THE STATE OF THE ART DESIGN AND MODERNIZE YOUR EQUIPMENT



Retrofit to increase performance



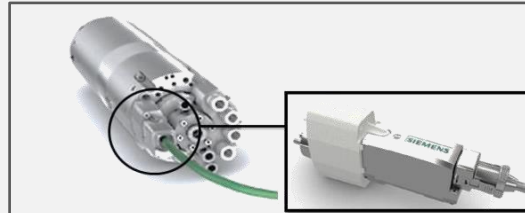
Technical Topics

Customer requirements and goals at spindles

- Customized spindles
- Fair price-performance ratio
- High quality/ reliability
- Leading spindle technology
- Best choice for application
- Local and world wide service availability
- Flexibility in delivery
- Digitalization



Standard spindles



Smart spindles



Customized spindles



Motor units



Mill-turn spindles
with integrated B-axis

How to access WEISS

- www.weissgmbh.com
- Single-handed preselection via [Product finder](#)
- Taiwanese spindle experience (market & technology):
Oliver Tsai

contact data!

- German spindle know how:
WEISS Spindeltechnologie GmbH
Birkenfelder Weg 14
Germany, 96126 Maroldsweisach
Contact: Volker Schultheiss
Phone: +49 9532 9229-120
volker.schultheiss@weissgmbh.de



Increase
productivity



Create
sustainability



Reduce
costs



World wide service
availability

ANALYZE MY SPINDLE IMPROVES AVAILABILITY

With Cloud

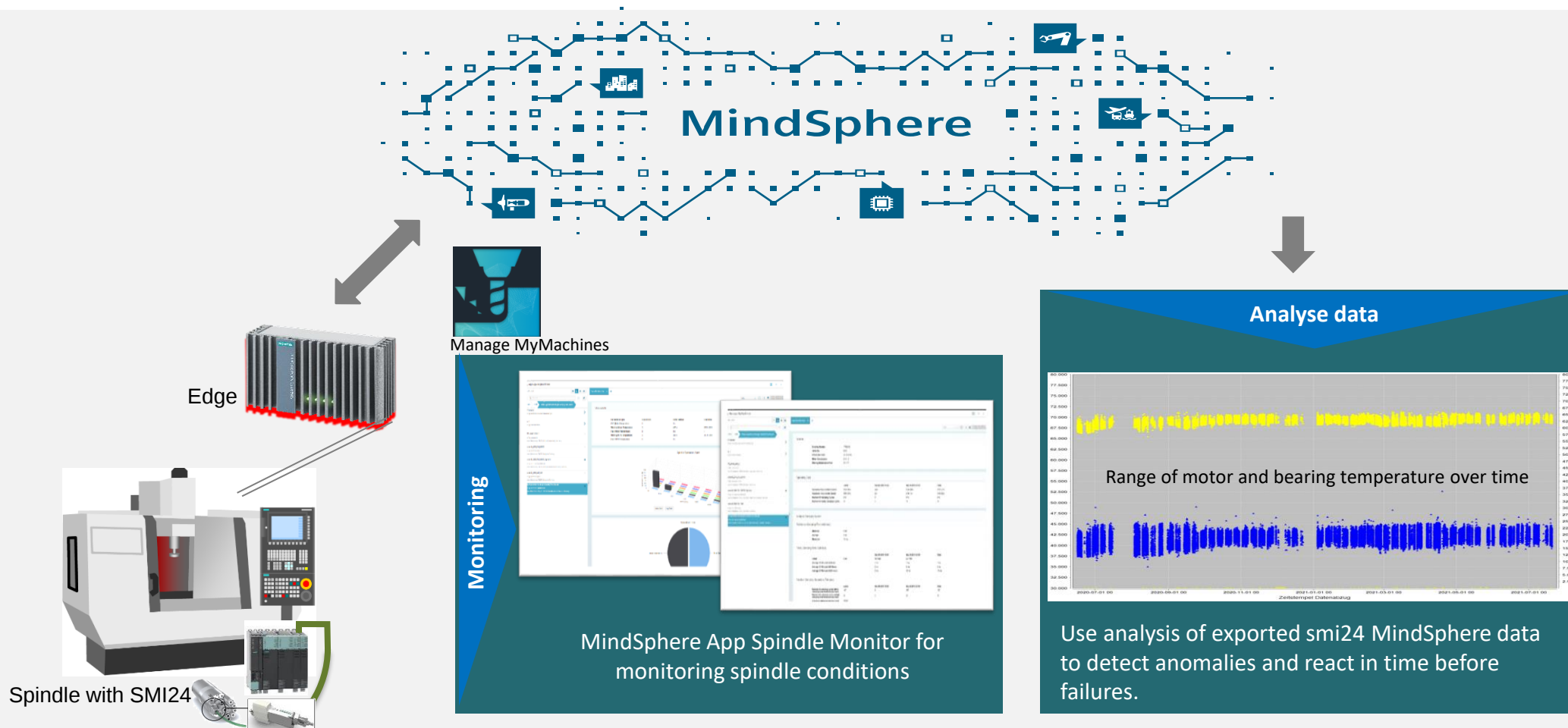
Task:

- Analysis / Interpretation
- Long term diagnosis

On Machine

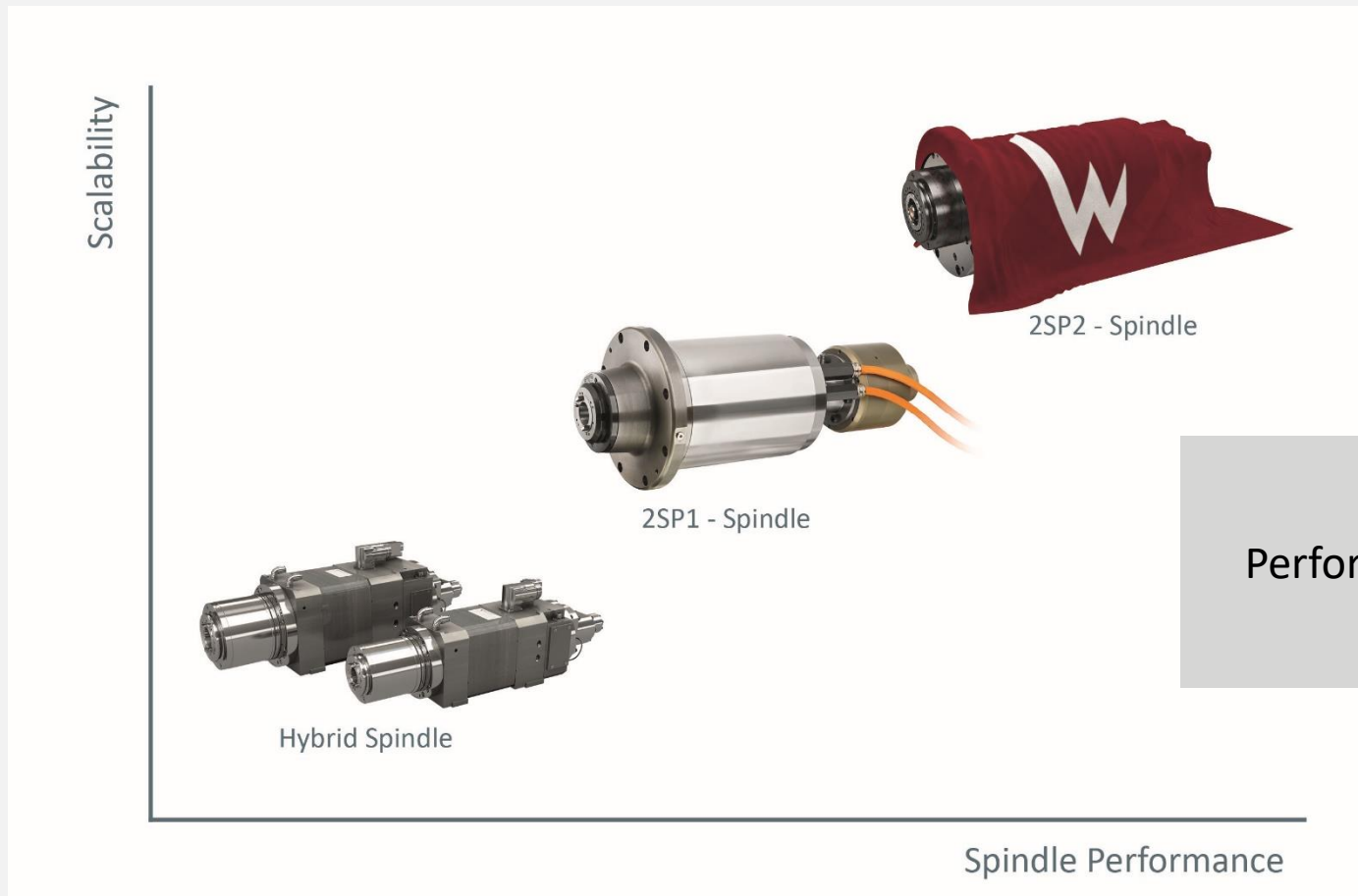
Task:

- Spindle status
- Temperature monitoring
- Analysis clamping times



Spindles with SMI24 and Mindsphere can generate spindle data with which to analyze anomalies in the behavior of the bearings, motor cooling and clamping system.

2SP2 – THE NEXT STEP IN EXPANSION OF STANDARD SERIES BY WEISS



Performed for your Standard machine.

THE NEW ECO-SPINDLE 2SP2

PERFORMANCE ON A HIGH STANDARD FOR STANDARD TOOL MACHINE CENTERS

Diameter: 210 mm h6



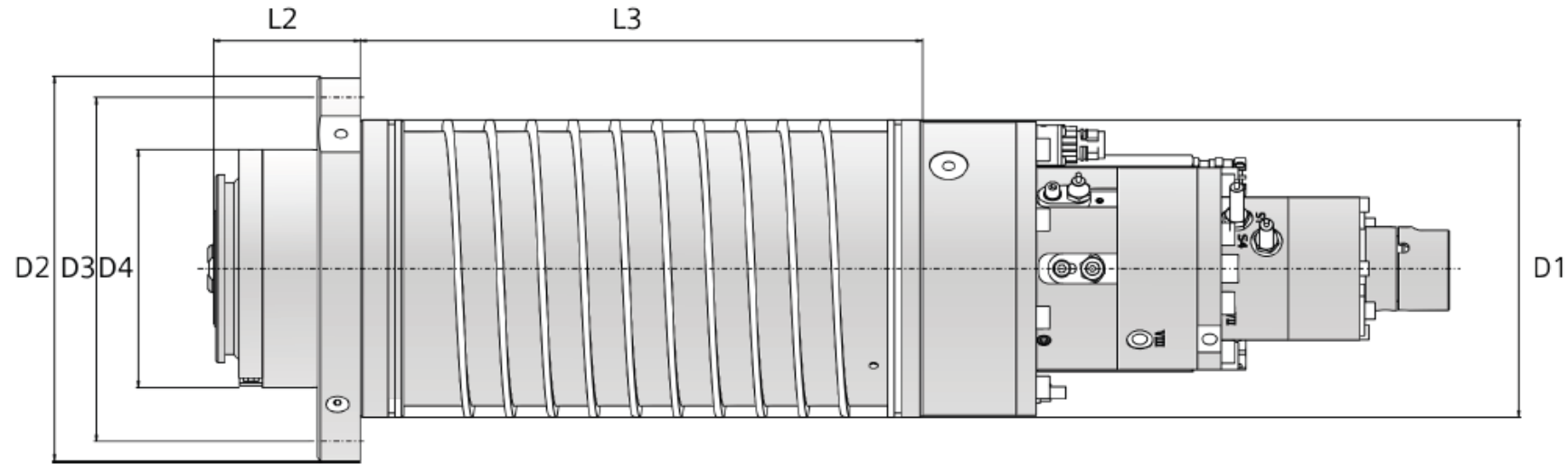
Total Length:	683 mm	732 mm
Speed:	16,000/18,000 rpm	16,000 rpm
S1 Power:	18/17 kW	22 kW
S1 Torque:	136/90 Nm	177 Nm

Diameter: 170 mm h6



Total Length:	663 mm
Speed:	18,000,20000,24,000 rpm
S1 Power:	18 kW
S1 Torque:	46 Nm

2SP2174 SPINDLE ROUGHLY DIMENSION



Dimensions

	Tool interface	D1 Centering ø [mm]	D2 A-ø Flange [mm]	D3 TK-ø Counter- sinks [mm]	D4 A-ø Nose [mm]	L1 Overall length* [mm]	L2 Nose projec- tion [mm]	L3 Rear support distance [mm]
2SP2174-xxA	HSK A-63	170 h6	220	195	136	661,5	84	322
2SP2174-xxB	BBT40	170 h6	220	195	136	662,5	85	322

2SP2174 SPINDLE POWER & TORQUE & SPEED CHOICE CODE

Order No.	Maximum speed	Rated speed	Rated power	Rated torque	Rated current	Rated power	Rated torque	Rated current
	[rpm]	[rpm]	S1 [kW]	S1 [Nm]	S1 [A]	S6-25% [kW]	S6-25% [Nm]	S6-25% [A]
2SP2174- G 18-0	18,000	3,760	18	46	45	26	68	63
2SP2174- G 20-0	20,000	3,760	18	46	45	26	68	63
2SP2174- A 24-0	24,000	3,760	18	46	45	26	68	63

Options

Double oil air booster

0: Without
1: With

Sensors

A: PT1000 + clamping status digital
B: PT1000 + clamping status digital + bearing temperature PT100
C: PT1000 + clamping status digital + bearing temperature PT100 + vibration sensor
D: PT1000 + clamping status analog
E: PT1000 + clamping status analog + bearing temperature PT100
F: PT1000 + clamping status analog + bearing temperature PT100 + vibration sensor
G: PT1000 + clamping status analog + bearing temperature PT100 + SMI24
H: PT1000 + clamping status analog + bearing temperature PT100 + SMI 24 + vibration sensor

Cooling sleeve / rotary unit

A: Open cooling sleeve, without rotary unit
B: Open cooling sleeve, with rotary unit
C: Closed cooling sleeve, without rotary unit
D: Closed cooling sleeve, with rotary unit

Tool interfaces

A: HSK-A63
B: BBT40 (MAS 45°)

Lubrication

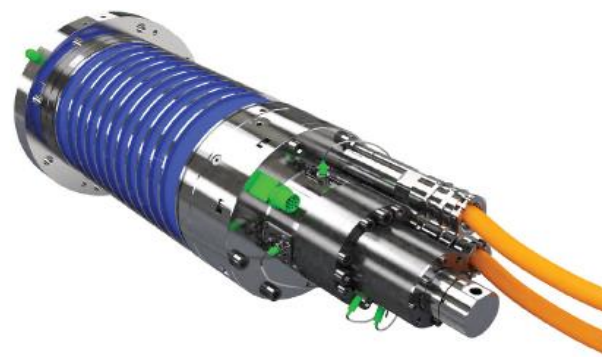
G: Grease
A: Air-oil

Voltage

2: 200V
4: 400V

Iron lenght

4: 4x50mm
5: 5x50mm



Max. Power: 26 Kw, Max. Torque: 68 Nm

With or without Double oil Booster

Sensors: SMI 24, PT1000, Clamping State, Bearing Temperature PT100, Vibration Sensor

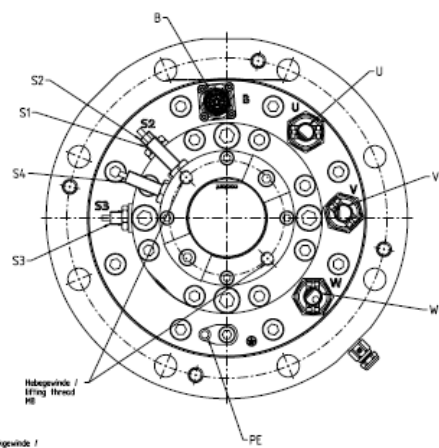
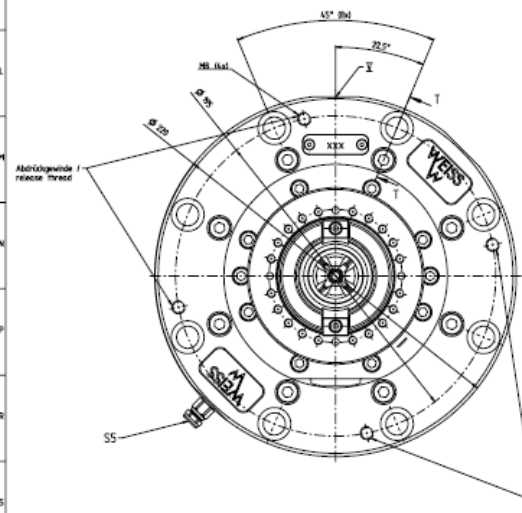
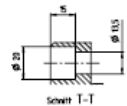
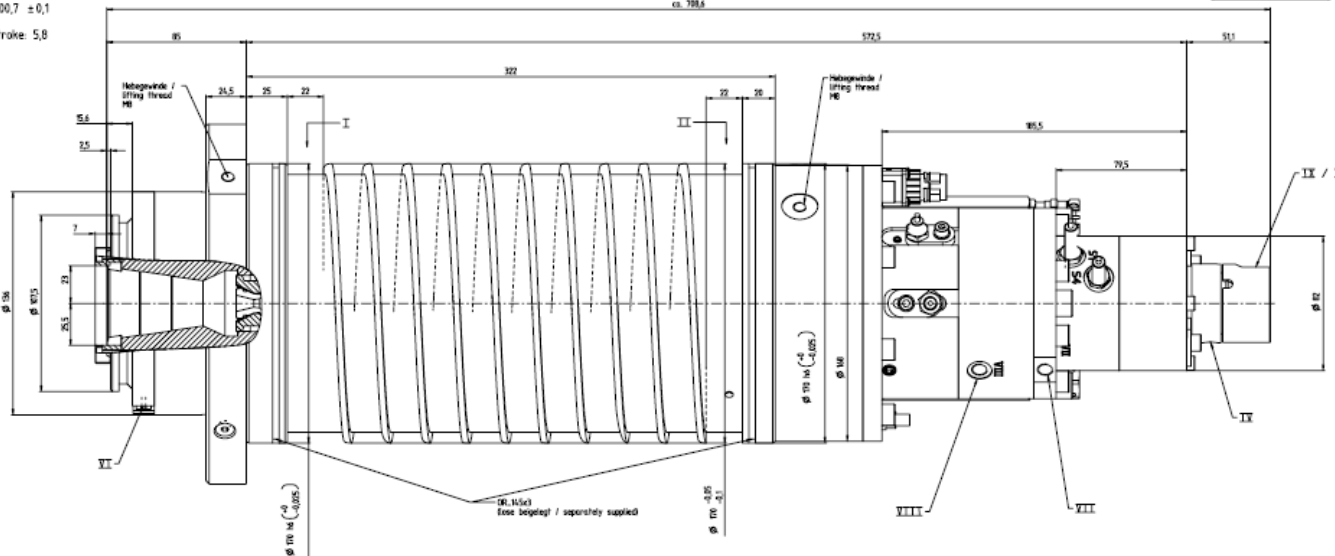
Open / closed Cooling Sleeve
With / without Rotary Union

Tool interface: HSKA63/ BBT40 (MAS 45°)

Lubrication: Grease (18k,20k rpm)/Oil-Air(24krpm)

Voltage: 200 V / 400 V

BBT = 40
 ähnl. ISO 7388
 E.M.: 100,7 ± 0,1
 Hub/Stroke: 5,8



max. gravität / envolving	1 HES5 (10045-0001 (-0002 use.)
max. Drehzahl / max. Speed	18,000 min ⁻¹
Einbaulage / Working position	horizontal / horizontal vertical Kopf unten / vertical nose down
Laufgenauigkeit / Runout	
Hauptrotationsmoment aller rotierenden Teile / Inertia of all rotating parts	radial 3 µm / 15 µm bei 250 mm axial 2 µm
Nüchternheit / Balancing quality Fettvorschaubereitstellung / grease lubrication for life	0,0158 kgm ² 01

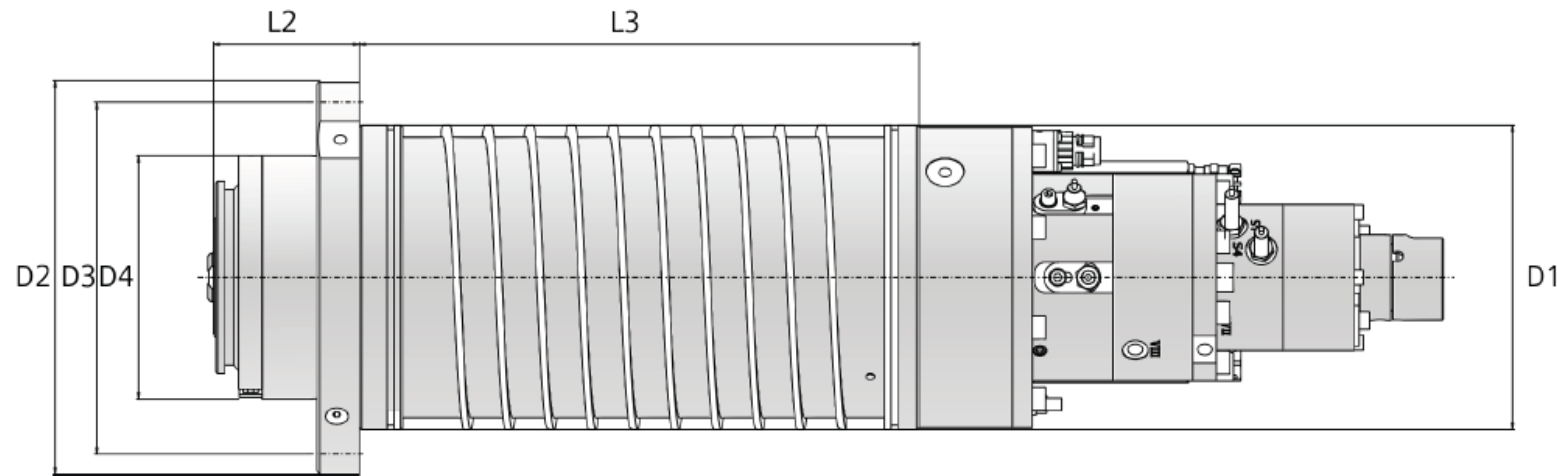
Stat: Warerunner / commodity code: 84469360
AL: 99990P
ECON: N
By JW at 202403/03

I Motoriköhlung EIN / Motor cooling IN		Wasser / Water
Druck / Medium		max. 5 bar
Druck / Pressure		10-15 l/min
Meng. / Flow rate		ISO 295 CLARIANT
Zusätze / Additives		Anti-Frosten M
II Motoriköhlung AUS / Motor cooling OUT		
III 51/4	Leckage DDF / Leakage of rotary union	
X PT1/B	Sperrluft EIN / sealing air IN	3 x 0,2 bar
	Druck / Pressure	
XI	Druckluft Qualitätssklasse / Compressed air quality class	ISO 8573-1:2001 (410)
	Luftmenge / Air flow rate	1,5 - 2,0 Nm³/h
Sperrluft AUS / sealing air OUT		
weitere Details siehe Betriebsanleitung / for more details acc. to operating manual		
XII PT1/B	Werkzeug /Brenn / Tool unclamp	50-70 bar
	Druck / Pressure	40-70 °C
XIII PT1/B	Kolbenfläche / Piston area	50 °C
	Hubvolumen / Stroke volume	50 °C
IX 01/4	Werkzeug sperren / Tool clamp	5-80 bar
	Druck / Pressure	27 °C
K	Kolbenfläche / Piston area	44,5 °C
	Hubvolumen / Stroke volume	
IX 01/4 Kegelreinigungsluft / Taper cleaning air		1-6 bar
Druck / Pressure		
IX 01/4 innere KDF-Ölführung / inside tool cooling		
Druck / Pressure		max. 80 bar
Medienreinheit (ISO 4406) / Medium cleanliness		1 - 17/14
Filterfeinheit / Filter mesh width		< 50 µm
weitere Technische Daten siehe Betriebsanleitung / more technical data acc. to operating manual		
A Leistungseinschub / Power supply		UI 10 m²
Kabellänge / Cable length 1,5 m		WI 10 m²
		PEI 10 m²
B 17.31	Drägerherg und Motortemperatur / Encoder and Motor temperature	21-40 °C
	21-40 °C	101-150 °C
	21-40 °C	121-150 °C
	21-40 °C	131-150 °C
	21-40 °C	141-150 °C
	21-40 °C	151-150 °C
	21-40 °C	161-150 °C
	21-40 °C	171-150 °C
	21-40 °C	181-150 °C
	21-40 °C	191-150 °C
Stecker: Infocancon / Shield aufgelegt / Shield put on socket		
Typ: ADB0749H1000050000 (M17)		
C Sensoren / Sensors		Kabellänge / Cable length 1,5 m
51	Zuglagenpositioniert Werkzeug ausgeklappt / Drawbar position tool unclamped	OV (blau/brown)
		Signal (schwarz/black)
52	Zuglagenpositioniert Werkzeug gespannt / Drawbar position tool clamped	OV (blau/brown)
		Signal (schwarz/black)
53	Zuglagenpositioniert gespannt ohne Werkzeug / Drawbar position clamped without tool	OV (blau/brown)
		Signal (schwarz/black)
54	Libelkolbenposition / Platon position	OV (blau/brown)
		Signal (schwarz/black)
55	Temperatursensor vorne / Temperature sensor front	PT100 (grün/brown)
		PT100 (gelb/white)
Kabellänge / Cable length 1,0 m		
— 51		
— 52 40%		
P (kW)		
n (rev)		
Kennlinie / Data		
synchro / synchrotron		
Druck / Speed		3700 4050 4750 5000
Leistung / Power		18 20 22 24
Drehmoment / Torque		42,5 45,5 50 55
Spannung / Voltage		10 12 14 16
Verbrauch / Consumption		300 400 450 500
Maximale zulässige axiale Zugbelastung / Maximum allowed axial tensile force		$F_{ax} = 650 \text{ N}$
weitere Details siehe Betriebsanleitung / for more details acc. to operating manual		

2SP2174-4GA18-0AB0
SPINDLE FINAL DRAWING

www.weissgmbh.com | Folie-Nr. 19

2SP2214 SPINDLE ROUGHLY DIMENSION



Dimensions

	Tool interface	D1 Centering ø [mm]	D2 A-ø Flange [mm]	D3 TK-ø Counter- sinks [mm]	D4 A-ø Nose [mm]	L1 Overall length* [mm]	L2 Nose projec- tion [mm]	L3 Rear support distance [mm]
2SP2214-xxA	HSK-A63	210 h6	268	240	146	681,5	94	332
2SP2214-xxB	BBT40	210 h6	268	240	146	682,5	95	332
2SP2215-xxA	HSK-A63	210 h6	268	240	146	731,5	94	382

2SP2214 SPINDLE POWER & TORQUE & SPEED CHOICE CODE

Order No.	Maximum speed	Rated speed	Rated power	Rated torque	Rated current	Rated power	Rated torque	Rated current
	[rpm]	[rpm]	S1 [kW]	S1 [Nm]	S1 [A]	S6-25% [kW]	S6-25% [Nm]	S6-25% [A]
2SP2214- G 18-0	18,000	4,750/1,600	17/15	34/90	45	28/25	56/148	75
2SP2214- G 16-0	16,000	3,200/1,050	18/15	55/136	45	31/25	91/226	74
2SP2215- G 16-0	16,000	3,000/1,000	22/18	70/177	60	36/31	116/292	99

Options

Double oil air booster

- 0: Without
- 1: With

Sensors

- A: PT1000 + clamping status digital
- B: PT1000 + clamping status digital + bearing temperature PT100
- C: PT1000 + clamping status digital + bearing temperature PT100 + vibration sensor
- D: PT1000 + clamping status analog
- E: PT1000 + clamping status analog + bearing temperature PT100
- F: PT1000 + clamping status analog + bearing temperature PT100 + vibration sensor
- G: PT1000 + clamping status analog + bearing temperature PT100 + SMI24
- H: PT1000 + clamping status analog + bearing temperature PT100 + SMI 24 + vibration sensor

Cooling sleeve / rotary unit

- A: Open cooling sleeve, without rotary unit
- B: Open cooling sleeve, with rotary unit
- C: Closed cooling sleeve, without rotary unit
- D: Closed cooling sleeve, with rotary unit

Tool interfaces

- A: HSK-A63
- B: BBT40 (MAS 45°)

Lubrication

- G: Grease
- A: Air-oil

Voltage

- 2: 200V
- 4: 400V

Iron lenght

- 4: 4x50mm
- 5: 5x50mm



Max. Power: 36Kw, Max. Torque: 292 Nm

With or without Double oil Booster

Sensors: SMI 24, PT1000, Clamping State, Bearing Temperature PT100, Vibration Sensor

Open / closed Cooling Sleeve
With / without Rotary Union

Tool interface: HSKA63

Lubrication: Grease

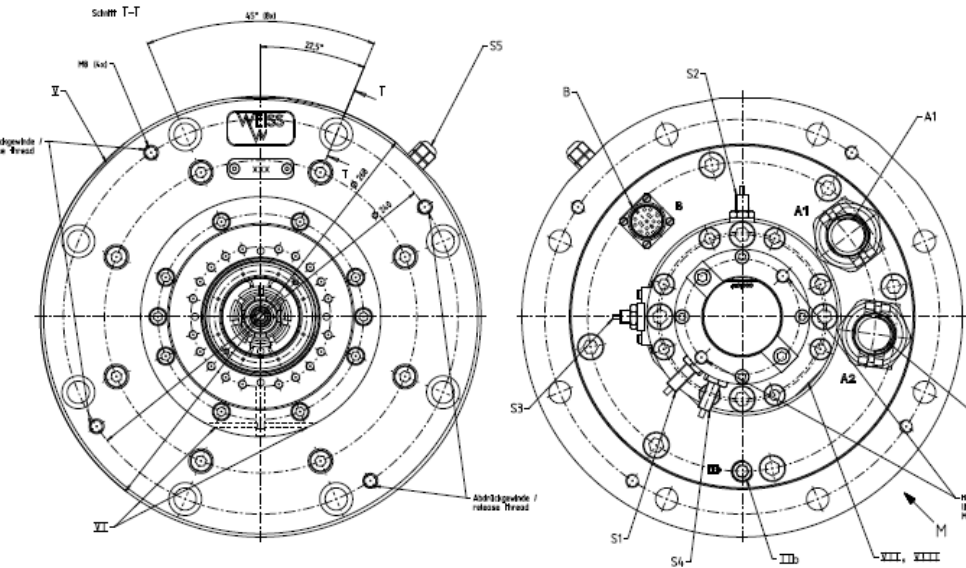
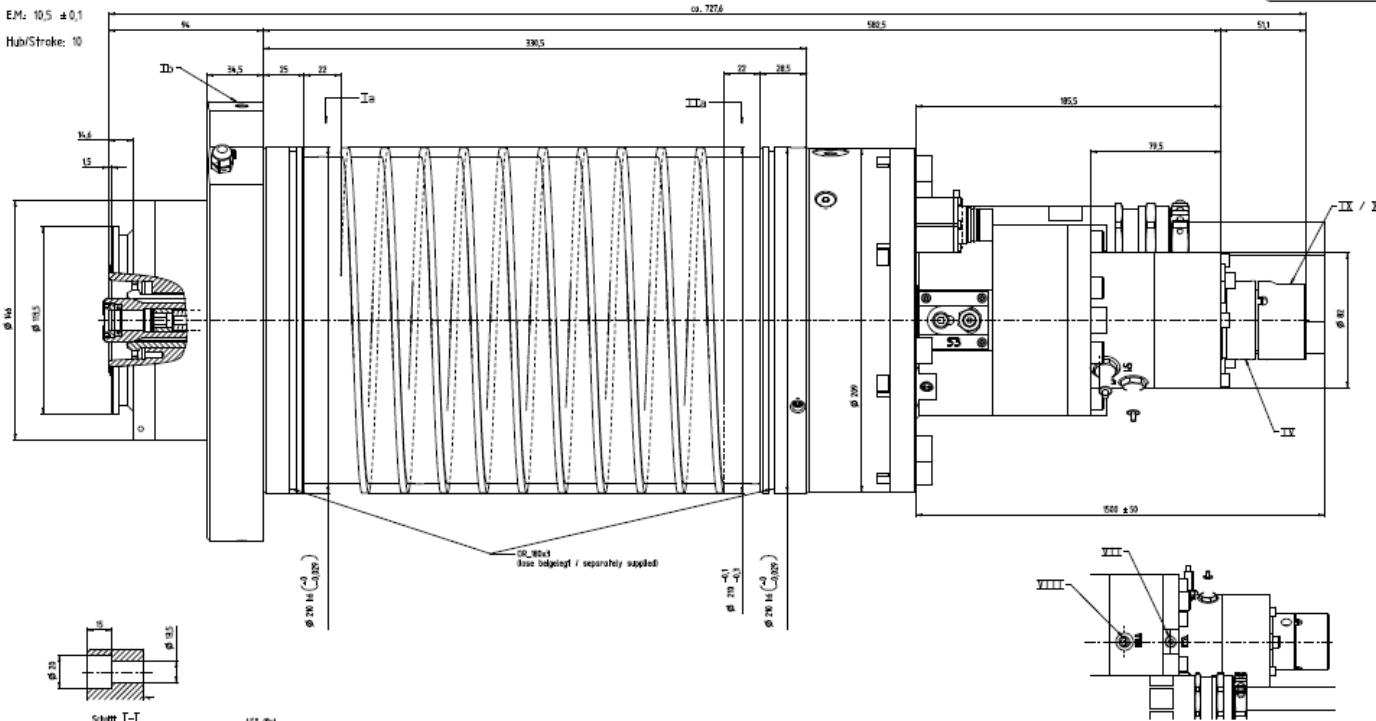
Voltage: 200 V / 400 V

HSK - A63
Druck ISO 10164-1
(DIN 69893-1)

EM: 10,5 ± 0,1

Hohlstrecke: 10

Nur Werkzeuge mit einem beweglichen Übergabrohr verwendet!
Use only tools with a flexible coolant supply pipe!



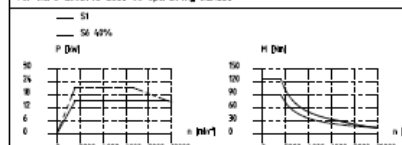
xxx graviert / engraving
max. Drehzahl / max. Speed
Erkennung / marking position
Laufgenauigkeit / Runout
Messwertübertragung aller rotierenden Teile / Transfer of all rotating parts
Ausgleich / Balancing
Fertigstellungszeitpunkt / grossed fabrication for life

MEISS 180005-0001 (-0002 unv.)
18.000 min⁻¹
horizontal / horizontal
vertikal Kopf unten / vertical nose down
radial 3 µm 15 µm bei 250 mm axial 2 µm

Maximale zulässige axiale Zugbelastung / Maximal allowed axial tensile force: $F_{ax} = 1200 \text{ N}$

weitere Details siehe Betriebsanleitung / for more details see operating manual

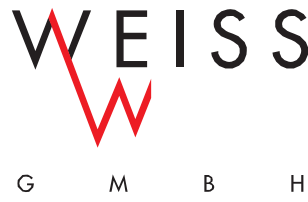
weitere Details siehe Betriebsanleitung / for more details see operating manual



Kennlinie / Data	A: Einbaueinstellung / shaft connection	1800	9750	10000
Drehzahl / Speed: n [min ⁻¹]		1800	9750	10000
Leistung / Power: P [kW]		15	15	14,8
Drehmoment / Torque: M [Nm]		70	15	14
Strom / Current: I [A]		280		
Spannung / Voltage U [V]				

Da	Motor Kühlung EIN / Motor cooling IN	Medium / Medium	Druck / Pressure	Temperatur / Temperature	Druck / Pressure	Temperatur / Temperature
Di	Motor Kühlung AUS / Motor cooling OUT	Medium / Medium	Druck / Pressure	Temperatur / Temperature	Druck / Pressure	Temperatur / Temperature
IX	Leckage ODR / Leakage of rotary union					
IX	Sperrluft EIN / sealing air IN					
IX	Sperrluft AUS / sealing air OUT					
IX	weitere Details siehe Betriebsanleitung / for more details see operating manual					
IX	Werkzeug lösen / Tool unclamp					
IX	Werkzeug spannen / Tool clamp					
IX	weitere Details siehe Betriebsanleitung / for more details see operating manual					
IX	weitere Details siehe Betriebsanleitung / for more details see operating manual					
A	Leistungsanschluss / Power supply					
B	Drehgeber und Motortemperatur / Encoder and motor temperature					
C	Sensoren / Sensors					
S1	Zugstangenposition Werkzeug ausgefahren / Drucker position: tool unclamped					
S2	Zugstangenposition Werkzeug gespannt / Drucker position: tool clamped					
S3	Zugstangenposition gespannt ohne Werkzeug / Drucker position: clamped without tool					
S4	Löskeposition / Piston position					
S5	Temperatursensor vorne / Temperature sensor front					
S1 - S4	Schlüssel / normally-open					

2SP2174-4GA18-0AB0
SPINDLE FINAL DRAWING

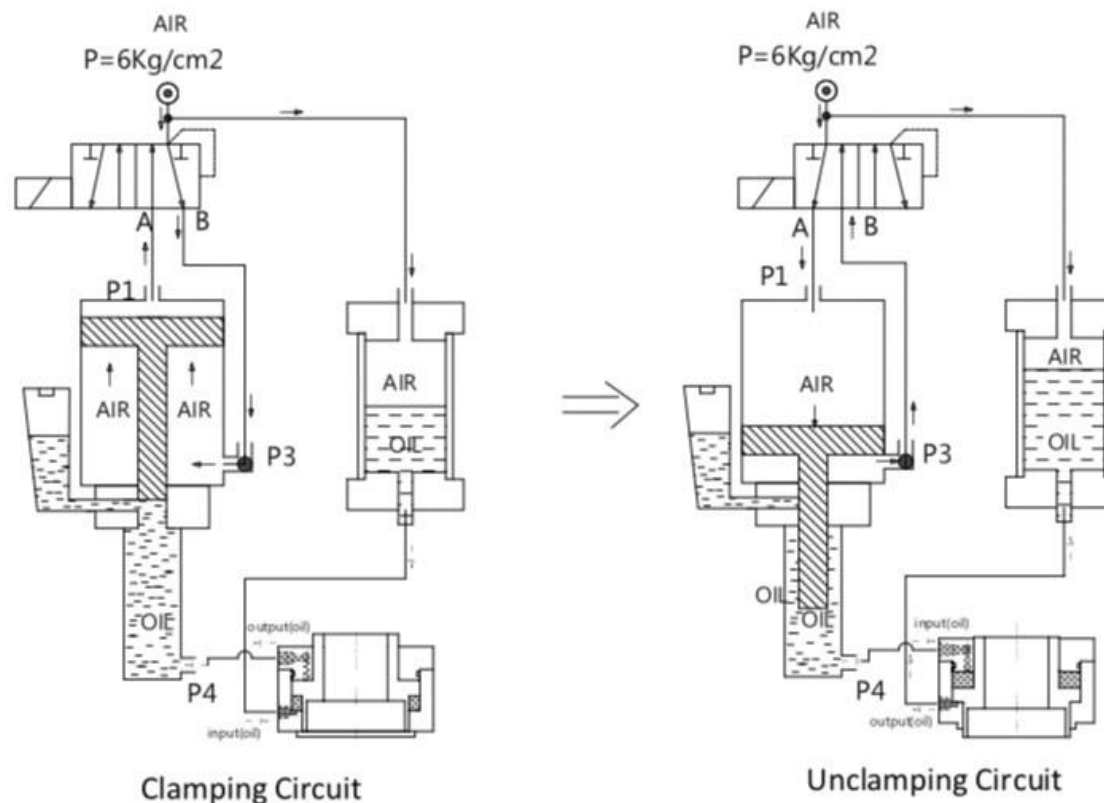


DOUBLE OIL BOOSTER FOR SPINDLE RELEASE HYDRAULIC UNIT



Oil-Air-Booster

Oil Circuit diagram

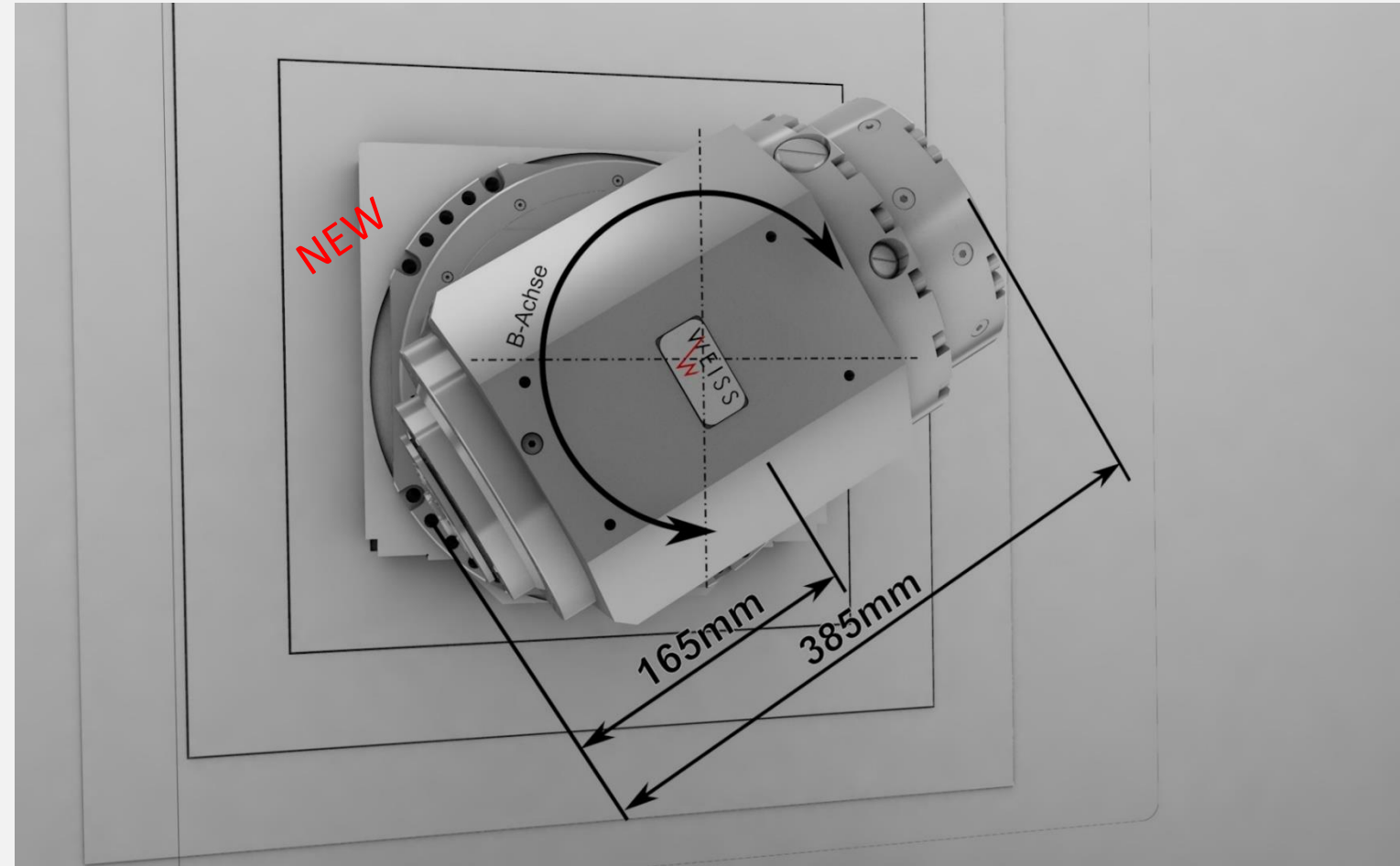


New develop double oil booster oil loop for clamping & unclamping apply our 2SP2 spindle can get longer service life and prevent spindle hydraulic unit easy damage

MOST COMPACT CLAMPABLE MILLING SPINDLES AS ATTACHMENT SPINDLE FOR B AXIS APPLICATIONS

Attachment Milling Spindle with very compactness design

- HSK T63
- 24.5 KW at 5,000 rpm (S1)
- $n_{\max}$ 20,000 rpm



Compact spindle design allows reduced machine installation dimensions in height and width.

MILLING-TURNING SPINDLE WITH B -AXIS



Combined Milling-Turning Spindles with B-Axis

WEISS Spindeltechnologie GmbH - A Siemens Company
November 2021

Classification

Mill-turn spindle completed with B-Axis

3DC-	☒	-	☒	☒
------	-------------------------------------	---	-------------------------------------	-------------------------------------

B-axis spindle

3DB-	☒
------	-------------------------------------

Holding torque:

1	15,000 Nm
2	6,000 Nm

Mill-Turn spindle

3DMT-	☒	☒
-------	-------------------------------------	-------------------------------------

Torque / Speed:	
A:	430 Nm / 6,500 rpm
B:	250 Nm / 11,500 rpm
C:	127 Nm / 12,000 rpm
D:	165 Nm / 12,000 rpm

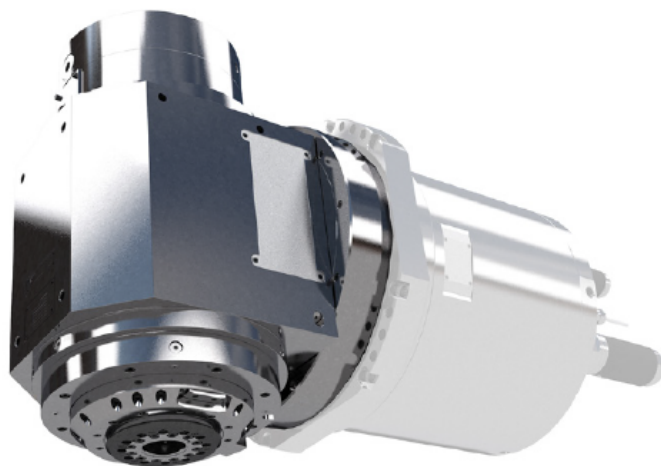
Tool interface:

T63:	HSK-T63
T100:	HSK-T10
C6:	Capto C63
C8:	Capto C80

MILLING-TURNING-SPINDLE

Milling spindles with high performance motor and shaft clamping function.

The 3DMT milling-turning spindle modules are available in 4 torque classes and with 4 different tool interfaces.



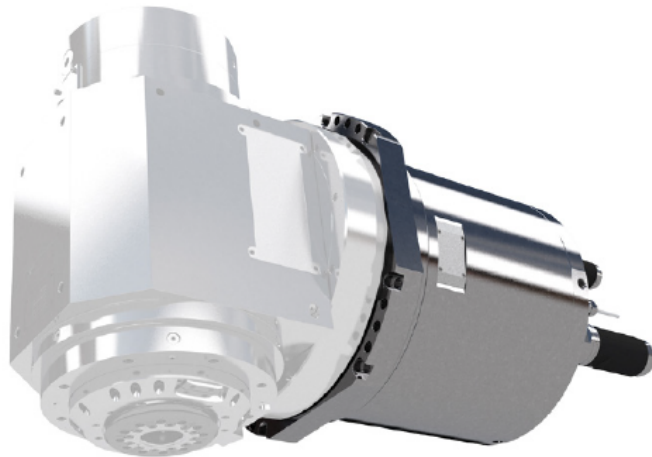
Technical data

Mill-Turn-Spindle	A*		B*		C		D*
	3DMT-AT10	3DMT-AC80	3DMT-BT10	3DMT-BC80	3DMT-CT63	3DMT-CC63	3DMT-DT10
Tool interface	HSK-T100	PSC 80 (Capto C8)	HSK-T100	PSC 80 (Capto C8)	HSK-T63	PSC 63 (Capto C6)	HSK-T100
Maximum speed [rpm]	6,500		11,500		12,000		
Rated torque [Nm]	430		250		127		165
Rated power [kW]	63		65		40		38
Height [mm]	362				285		
Width [mm]	362				275		
Length [mm]	723				556		646
CTS [bar]	80						
Lubrication	grease						
Holding torque for turningfunction [Nm]	1,400				500		
Index angle for turningfunction [°]	3				6		

B -AXIS

B-axis with torque motor, shaft clamping and fail-safe function.

The 3DB B-axis modules in two sizes differ mainly in the holding torque. An index-free clamping system is optionally available.

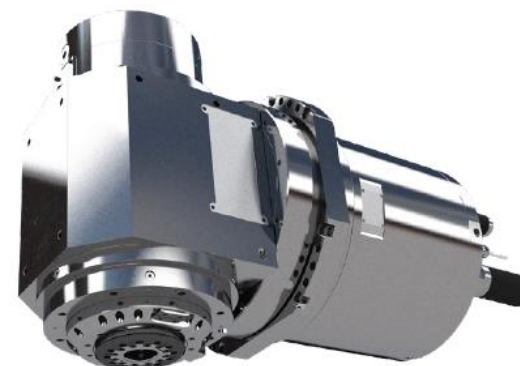


Technical data

B-axis	3DB-1	3DB-2
Holding torque (hydraulic) index angle 2,5° [Nm]	15,000	6,000
<i>optionally:</i> Holding torque (hydraulic) index-free collet, infinitely variable [Nm]	2,800	1,000
Operating torque (motor) [Nm]	1,050	878
Holding torque (fail-safe function) index angle 2,5° [Nm]	500	200
Swivelling angle [°]	+/-120	+/-120
Swivelling speed [rpm]	50	80
Housing diameter [mm]	430	346
Flange diameter [mm]	486	420
Total length [mm]	719	428

MILL - TURN COMPLETED WITH B-AXIS

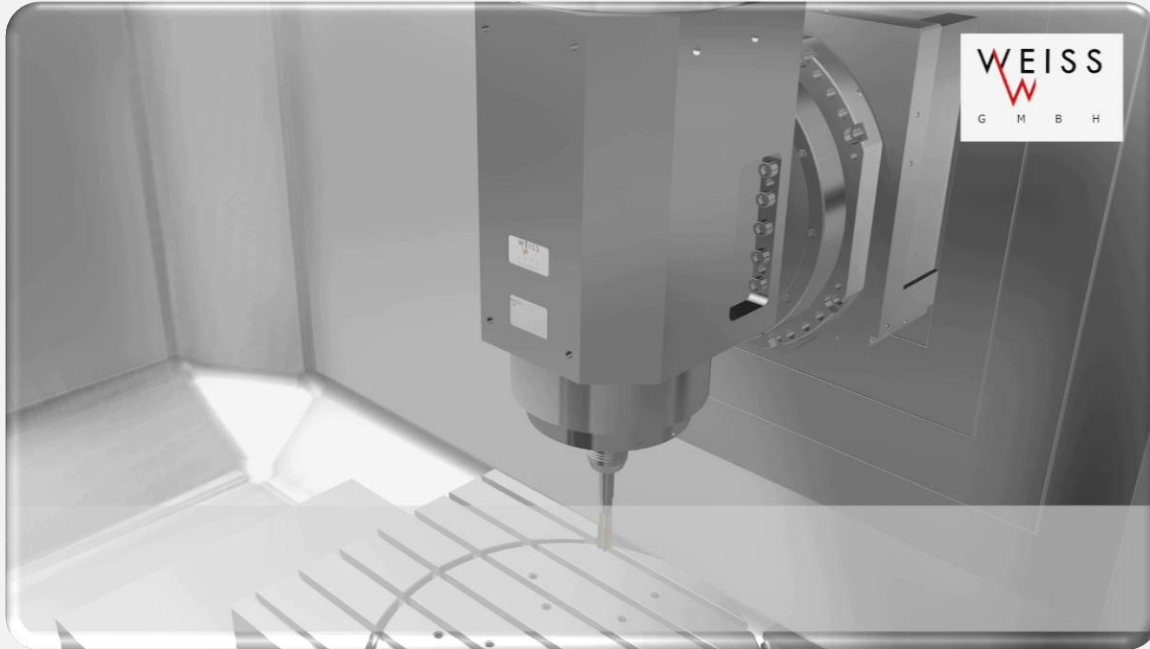
The designation of the completed 3DC unit reflects the meaningful combination of the 3DMT and 3DB modules in a plain way.



Possible combinations

Suitable combination of mill-turn spindle and B-axis		Mill-Turn Spindle				Tool interface
		A (430 Nm, 6,500 rpm)	B (250 Nm, 11,500 rpm)	C (127 Nm, 12,000 rpm)	D (165 Nm, 12,000 rpm)	
B-axis Spindle	Size 1 (15,000 Nm)	3DC-1-AT10	3DC-1-BT10	-	-	HSK-T100
		3DC-1-AC80	3DC-1-BC80			PSC 80 (Capto C8)
	Size 2 (6,000 Nm)	-	-		3DC-2-DT10	HSK-T100
				3DC-2-CT63		HSK-T63
				3DC-2-CC63		PSC 63 (Capto C6)

OUR CUSTOMER EMCO FOR MILL-TURN SPINDLES



WEISS STANDARD SPINDLES



Application Example: Spinner VC850

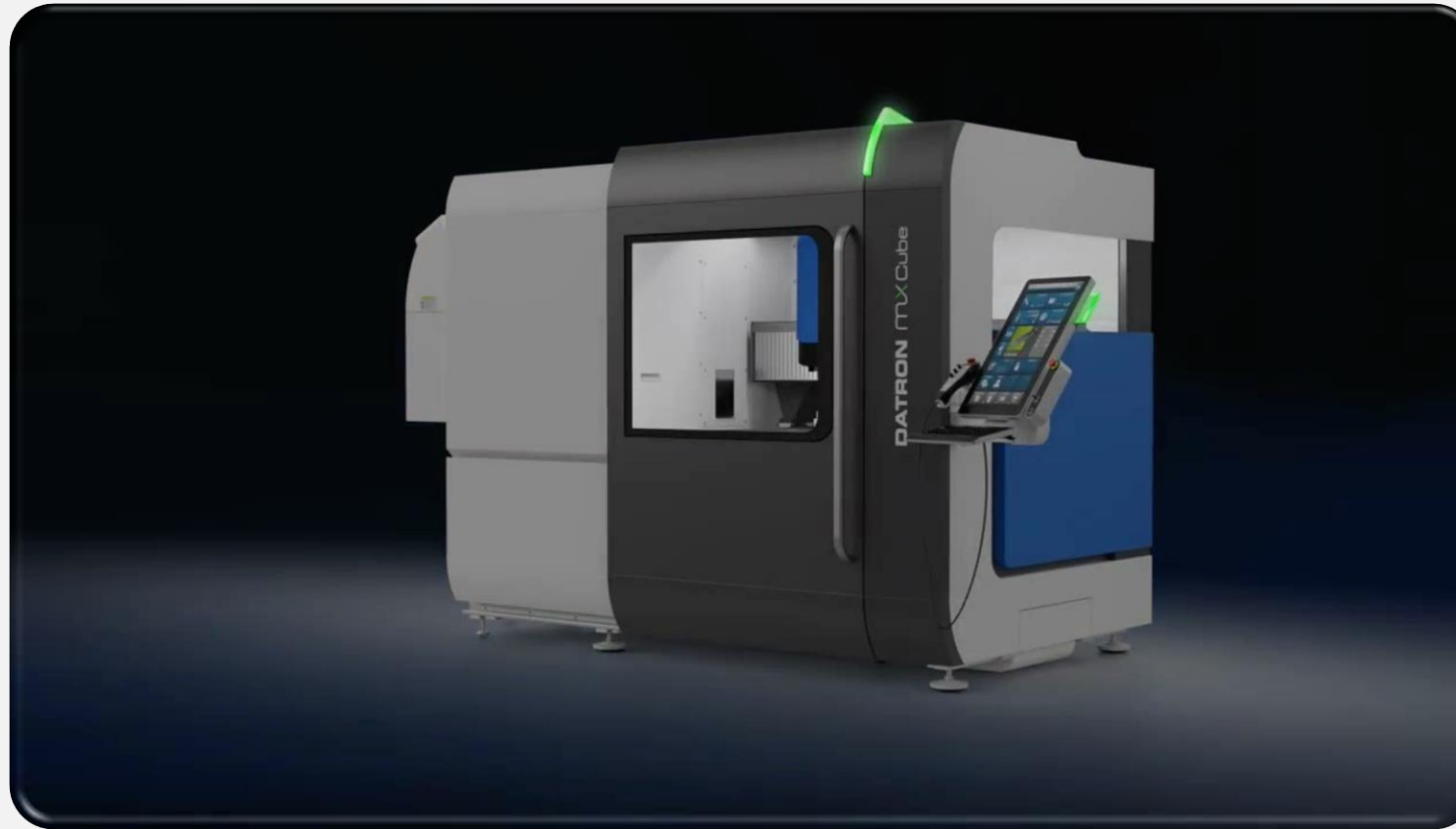
Hybrid spindles are more compact compared to coupled motor - spindle solutions. This means that the required machine height can be reduced.



Application Example: Voortmann V631

With the hybrid spindle, machining processes such as drilling, tapping and surface milling can be integrated into existing machine processes in a cost-effective manner.

*OUR CUSTOMER THAT SPINDLES WITH HSK-E25 -E32 AND -E40
TOOL INTERFACE FOR MACHINING OF DEMANDING SURFACES
AND ACCURACIES.*



Application Example: Datron MX Cube

Spindle solutions with HSK E interface with speeds up to 54,000 rpm for machining workpieces with high demands for best surface qualities.

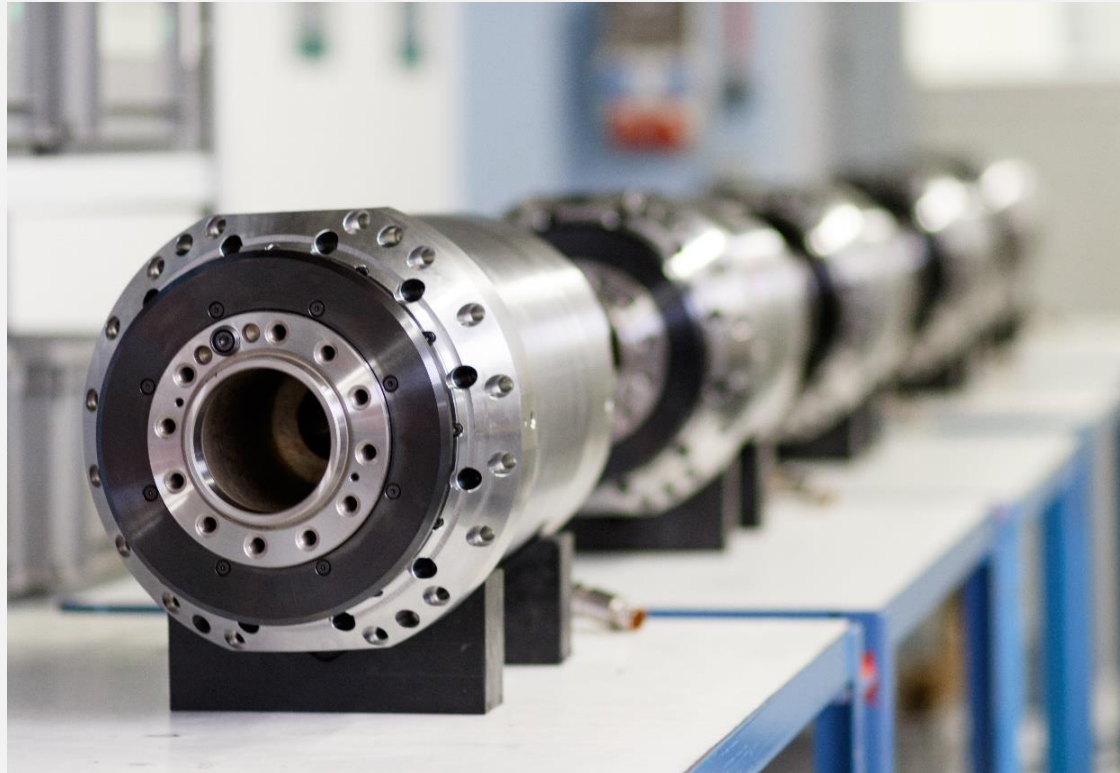
OUR CUSTOMER FOR GRINDING SPINDLES



Application Example: WEMA Glauchau at WEISS production

Grinding spindles for internal and external cylindrical grinding for μm accurate finishing. Workpiece spindles with hydrostatic bearing for required concentricity and axial run-out properties smaller than one μm .

WE STORE 30,000 SPARE PARTS FOR OUR CUSTOMERS

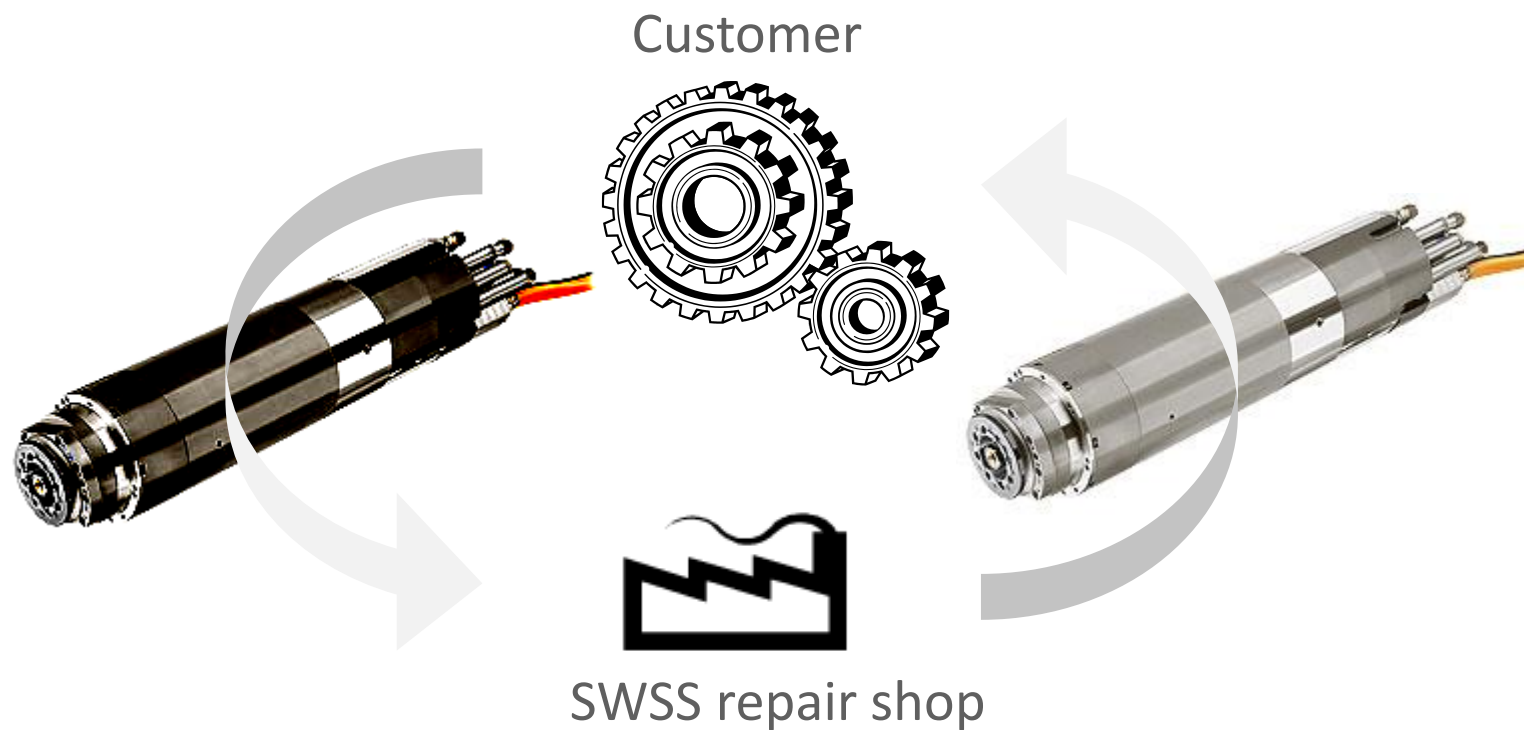


Spare spindles and spare parts
Increase availability and reduce repair time



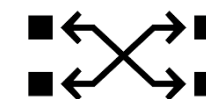
Time Saving

WE KEEP THE “HEART” OF YOUR MACHINE RUNNING



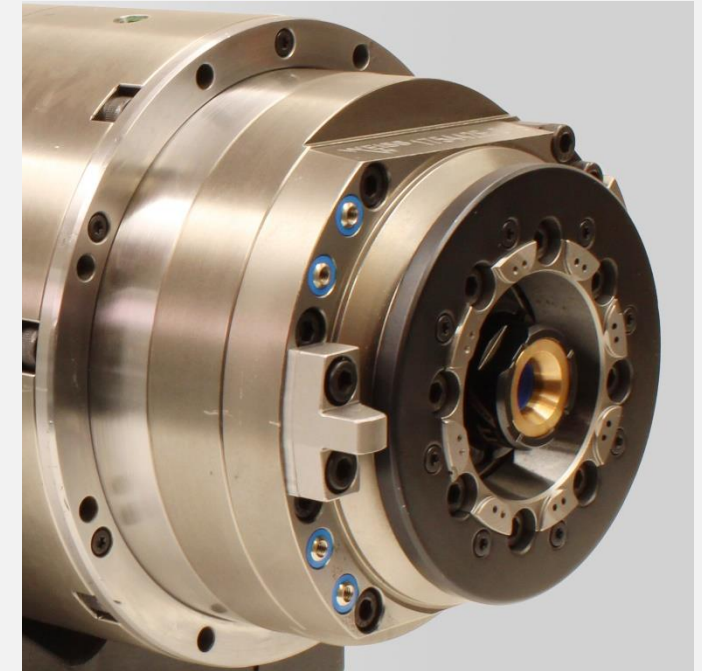
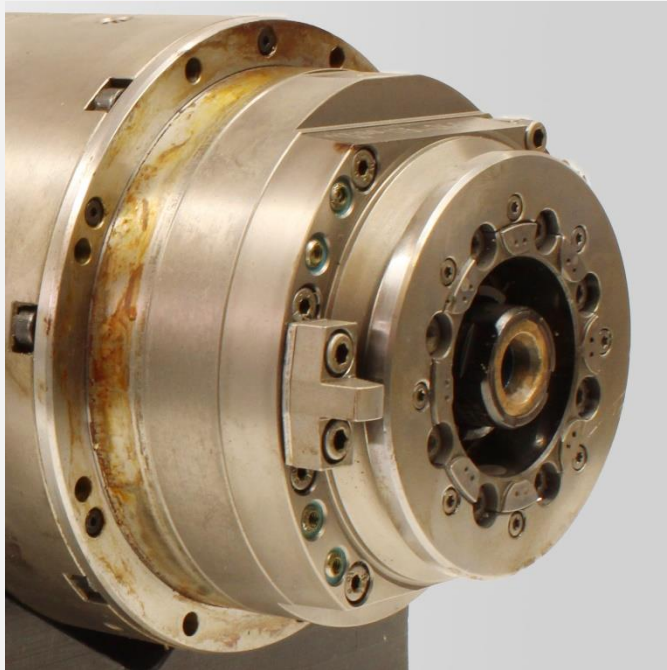
Spindlepool

Ensure availability and minimize machine downtime



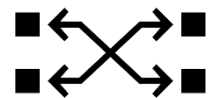
Switching

FOR A MAXIMUM OF FLEXIBILITY



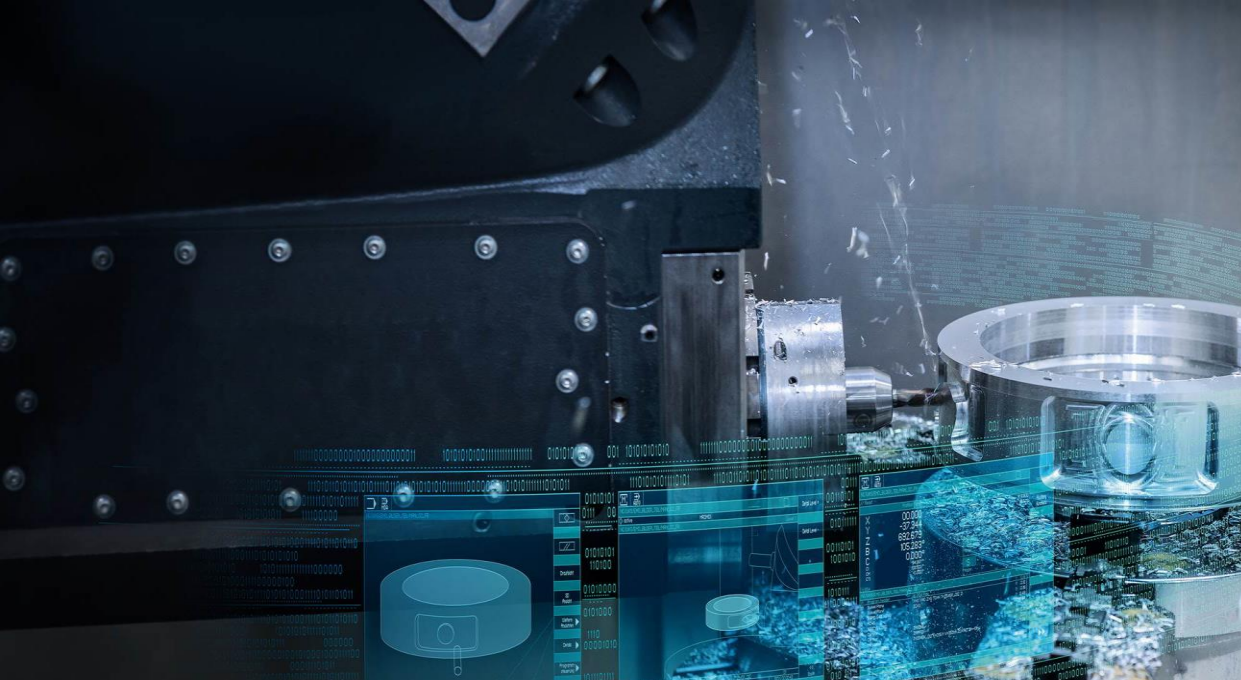
Repair splitting

Ensure availability and minimize machine downtime



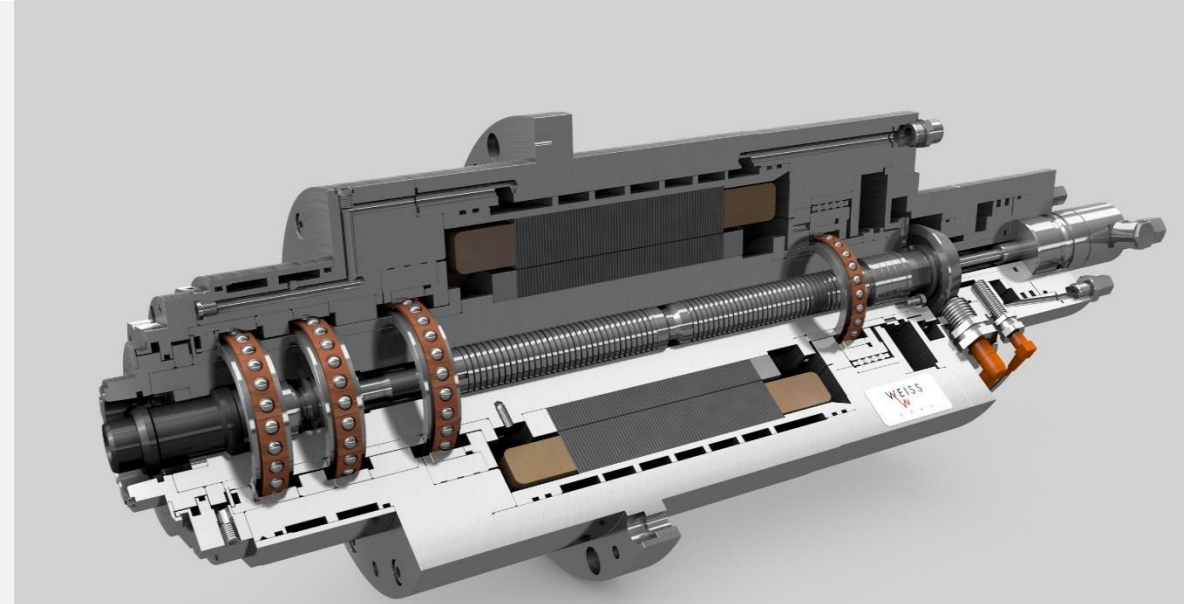
Switching

WE SUPPORT OUR CUSTOMERS AROUND THE SPINDLE WORLD, IF...



... your spindle in the machine is mechanically and / or electrically damaged

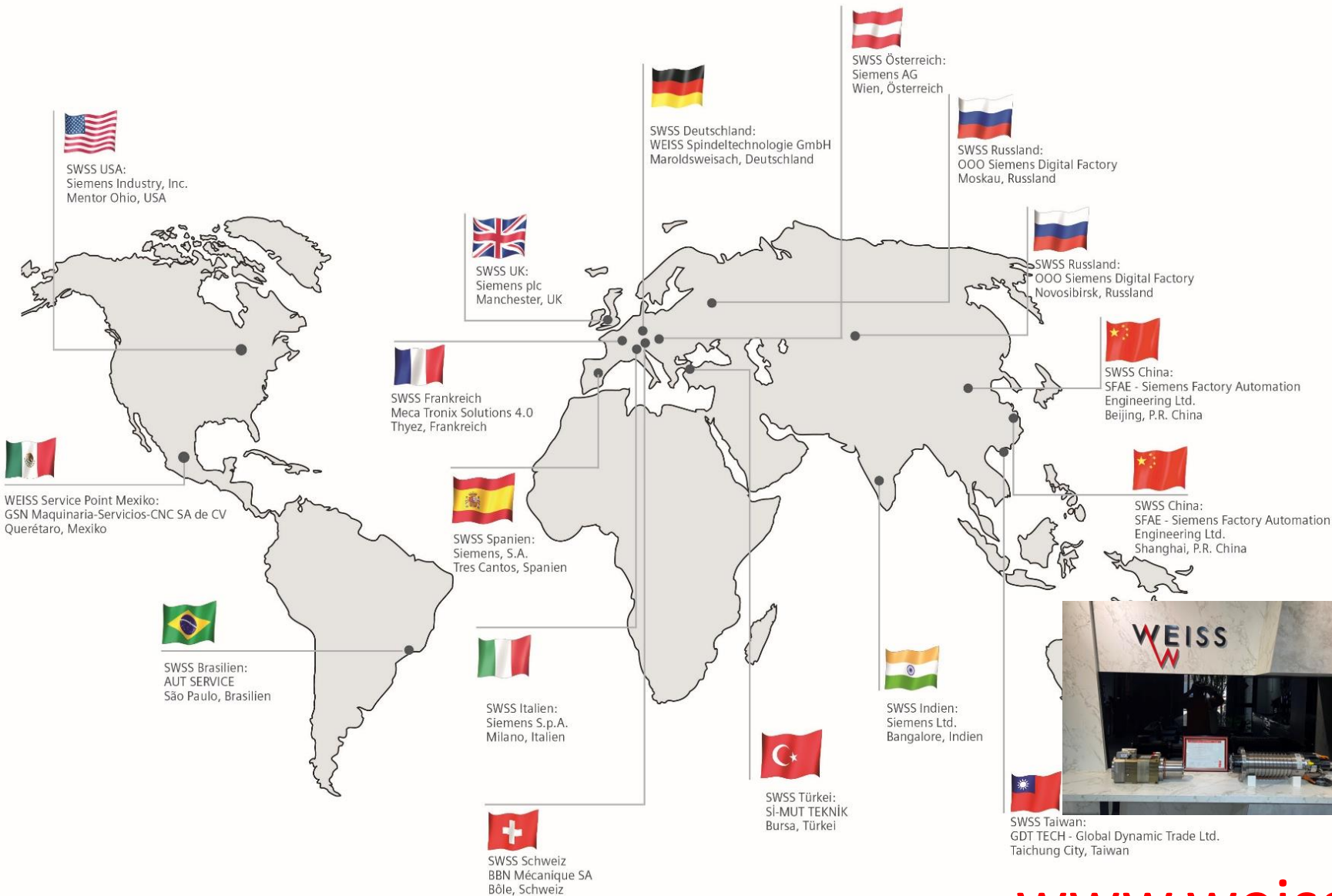
... you would like to increase the availability of your machine



... you would like to achieve a longer lifetime for your spindle

... you are interested in the longterm further development of spindle technology

WEISS GLOBE WORD SERVICE CENTER



WEISS spindle on site service: quick help for optimal operation



www.weissgmbh.com

THE NEW ECO-SPINDLE 2SP2

PERFORMANCE ON A HIGH STANDARD FOR STANDARD TOOL MACHINE CENTRES



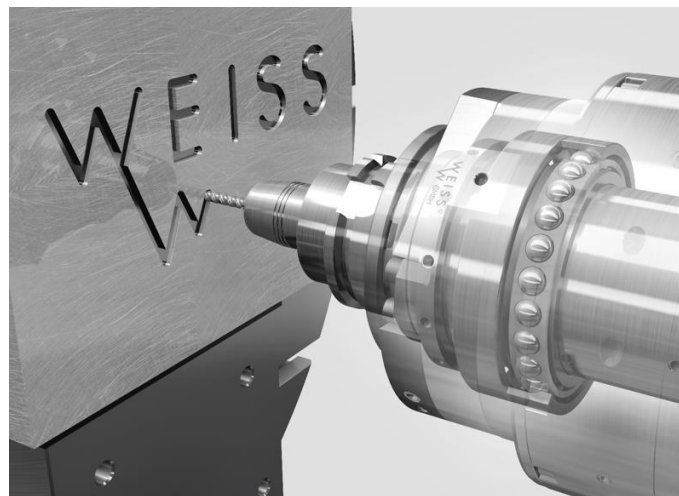
The new generation of economical and competitive spindle solutions offers the following advantages:

Robustness and performance in compact dimension design for our 2SP2 spindles

Wide spindle speed range
18,000 rpm - 24,000rpm for any machining application

Two face contact system BBT40 & HSK-A63 after tool change stable and high accuracy

Competitive spindle solution means reasonable price and high performance support you to win the competition in the global market and create your machine value with our Weiss spindle



The robust bearing ensure speed up to 20,000 rpm with grease lubrication

A wide power range from 18 kW to 36 kW can be required for machine tools in all sectors

Enough power and high torque consider suitable amplifier/ drives to save cost

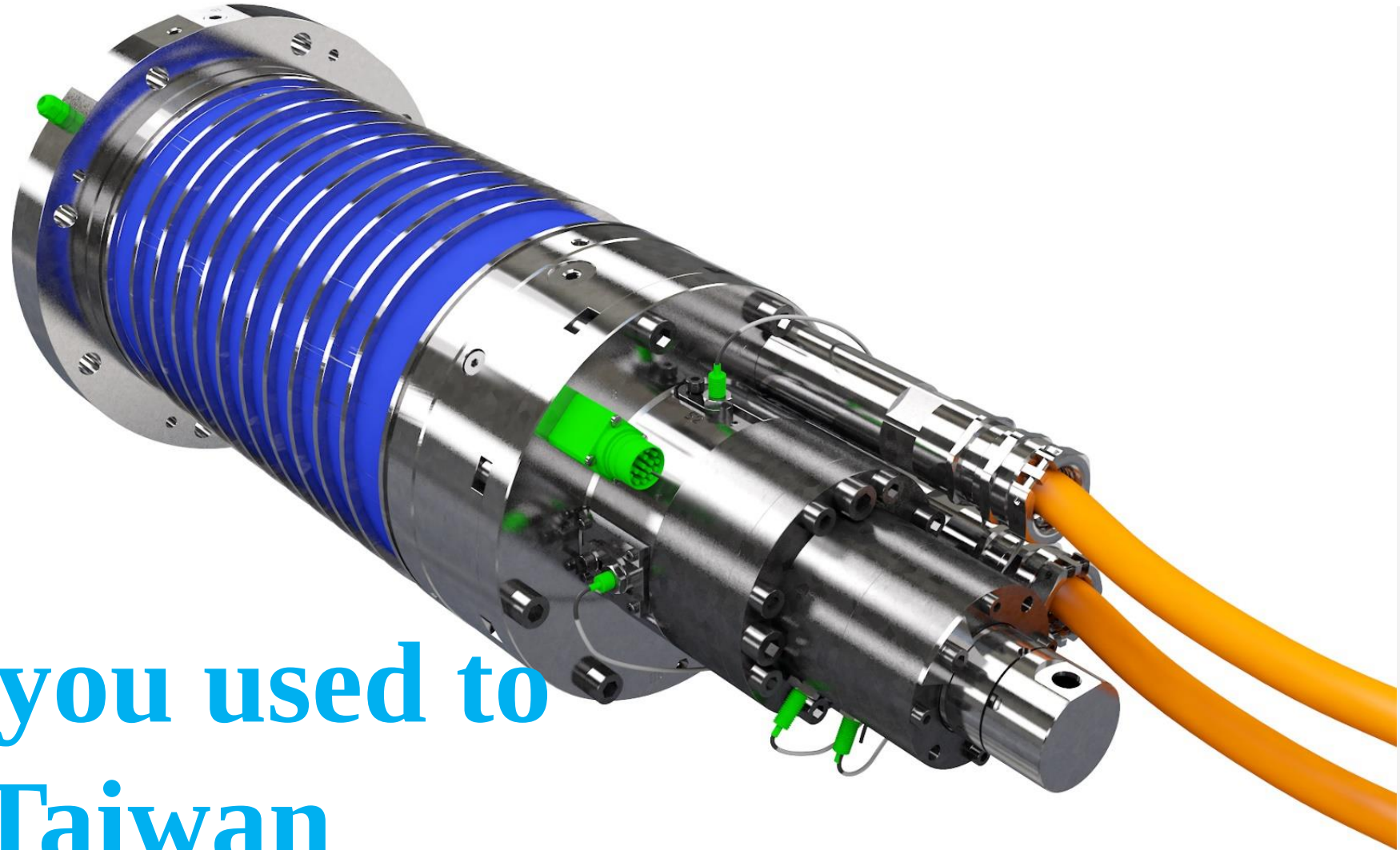
A wide torque range from 46 Nm to 292 Nm can be applied to machine tools in all industries

WEISS

G M B H

*SPINDLE SOLUTIONS FROM WEISS
PROVEN TOP PERFORMANCE*

Thanks for your attention.



Weiss is not you used to
think in Taiwan