

High speed spindles



HIGH SPEED SPINDLES

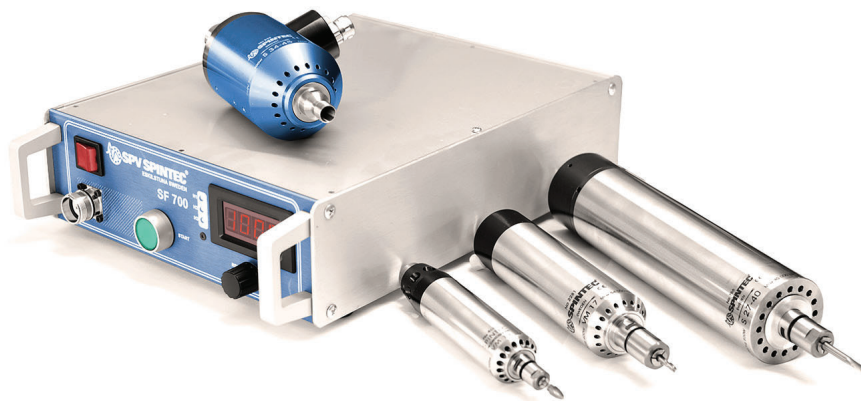
Introduction

High speed spindles for many different applications

SPV Spintec's spindles are designed for clients with high demands on accuracy and reliability of service. The spindles are manufactured with the highest accuracy. All rotating parts are dynamically balanced and exchangeable without impairing the tolerance of the spindle. We also carry out the service and repair of our spindles.

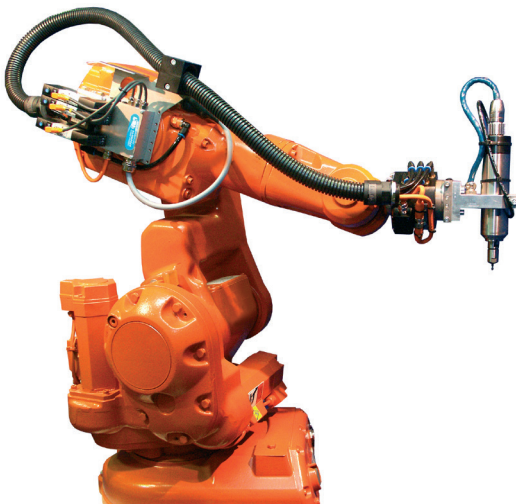
Our wide range of high frequency spindles helps you to renew and adapt your machinery to modern tools that require higher working speeds. The spindles can easily be clamped into existing machines.

SPV Spintec has a range of compact electronic converters to power the spindles. These have adjustable controls which enables the setting of optimum cutting speeds. Thermal and overload cut-outs are incorporated as well as RS-232 interface for connecting a computer.



Quick facts about our high speed spindles

- High speed allows machining with small tools.
- Runout accuracy better than 0,005 mm results in longer tool lifetime as well as improved surface finish.
- RPM ratio between 5,000 and 90,000 RPM, effects from 100 W to 5 kW.
- Short time of delivery and quick service.



Robot processing

The use of lightweight materials is increasing all the time and both materials and processing methods are developed continuously. Components become more complex and much of the processes of machining is currently governed over to robots and automation.

SPV Spintec presents in cooperation with RSP (Robot System Products AB) a unique system that allows very accurate and stable processing in a robotic cell with simple and rapid shift of the spindle.

With a robotic tool-changer you can fast and easy shift between different spindles or other robot-tools such as grippers etc. This makes it possible to use the robot to the maximum and get a much better overall economy.

Different types of spindles

Tool-motors

VM 10 and VM 17 are used for hand work, as auxiliary spindles in machines for deburring, drilling, milling, engraving and grinding.

Air-cooled spindles

S11, S16, S18, S19, S24 and S27. The slim dimensions of these spindles makes them suitable for building into multi-spindle machines. The spindles are used for bore grinding, jig grinding, drilling and milling.

Water-cooled spindles

S20 and S28 are designed for applications where heavy and continuous loading is required. Suitable for grinding, jig grinding, milling, deburring and drilling.

Water-cooled, oil-mist lubricated spindles

S21, S30, S33 and S50 are intended for production grinding with high precision like internal grinding etc.

Static frequency converters

SF 700, SF 1500 and SF 3000 are intended for speed control of SPV Spintec's motors and spindle series.

We also supply frequency converters for building into machine enclosures. The type CDA are available in a range of sizes and speed.

Technical specifications

Spindle model	Effect kW	Speed max RPM	Speed min RPM	Outer diameter Ømm	Type of cooling	Type of lubrication
VM 10	0,1	72 000	36 000	33	Compressed air / Fan	Permanently lubricated
VM 17	0,4	54 000	15 000	45	Compressed air / Fan	Permanently lubricated
S 11	0,1	72 000	36 000	33	Compressed air / Fan	Permanently lubricated
S 16	0,4	60 000	15 000	45	Compressed air / Fan	Permanently lubricated
S 18	0,4	60 000	15 000	50	Compressed air / Fan	Permanently lubricated
S 19	0,4	60 000	15 000	60	Compressed air / Fan	Permanently lubricated
S 20	0,65	60 000	15 000	60	Water-cooling	Permanently lubricated
S 21	0,7	90 000	15 000	60	Water-cooling	Oil-mist lubricated
S 24	0,3	75 000	30 000	70	Compressed air	Permanently lubricated
S 27	0,8	54 000	9 000	60	Compressed air / Fan	Permanently lubricated
S 28	1,1	40 000	9 000	80	Water-cooling	Permanently lubricated
S 30	2,0	60 000	15 000	80	Water-cooling	Oil-mist lubricated
S 33	1,2	75 000	25 000	80	Water-cooling	Oil-mist lubricated
S 34	0,5	45 000	15 000	70	Compressed air	Permanently lubricated
S 44	2,5	50 000	5 000	110	Water-cooling	Permanently lubricated
S 50	5,0	30 000	15 000	100	Water-cooling	Oil-mist lubricated

HIGH SPEED SPINDLES

Tool-motors

VM 10



Air-cooled motor intended for handwork and as spindle in machines where simpler drilling, grinding, milling and deburring is to be performed. Stainless steel housing (type R) is suitable for building into machines. Compressed air-cooling (type P) is advisable when operating in either dirty or hostile environments or if more effective cooling is required. The noise level will also be lower.

Technical specifications

VM 10

Housing:

Anodized aluminum
Stainless steel (type R)

Cooling:

Built-in fan
Compressed air (type P)

Ball bearings:

Permanently lubricated, pre-loaded, high performance groove ball bearings.

Electrical connection:

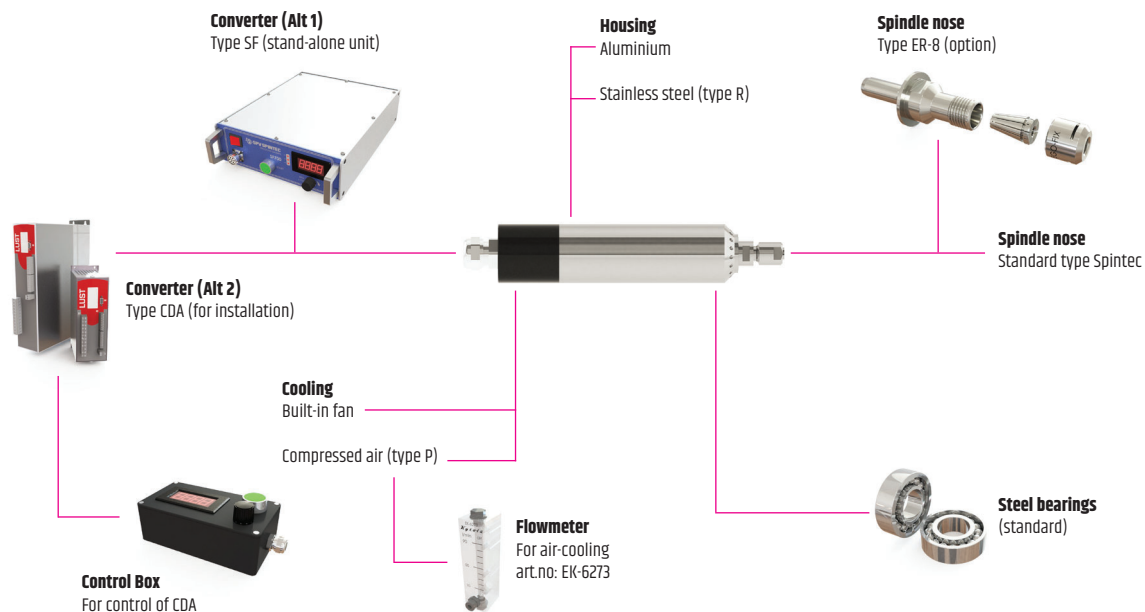
6-pin contact via frequency converter.

Rotation direction:

Right rotating
Left rotating (option)

VM 10
Fan-cooled

VM 10
Compressed
air-cooled



Standard accessories included

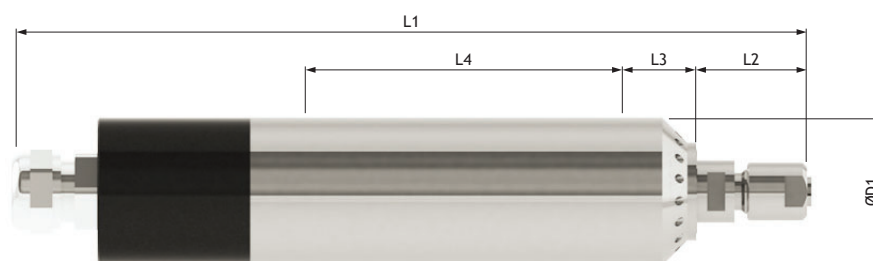
- 3 m cable
- 2 chuck keys
- 1 collet in any dimension (specify on order)

Drive unit

- Frequency converter, stand-alone unit: SF700
- Frequency converter for installation: CDA-0.75
- Control Box for control of CDA: CONTROL BOX

Spindle model	ØD1 mm	L1 mm	L2 mm	L3 mm	L4 mm	Weight kg	Spindle nose type	Collet max Ø mm
VM 10	33	177	26	15	71	0,3	Spintec 10	4,0
	Effect max kW	Voltage V	Speed max RPM	Speed min RPM	Run-out max mm	Coaxiality max mm	Air consumption l / min (type p)	Noise level dB
VM 10	0,1	184	72 000	36 000	0,01	0,3	50 *	74

* The air flow between the spindle and the flowmeter may vary depending on various conditions



HIGH SPEED SPINDLES

Tool-motors

VM 17



Air-cooled motor intended for handwork and as spindle in machines where simpler drilling, grinding, milling and deburring is to be performed. Stainless steel housing (type R) is suitable for building into machines. Compressed air-cooling (type P) is advisable when operating in either dirty or hostile environments or if more effective cooling is required. The noise level will also be lower.



▲ VM 17
Fan-cooled



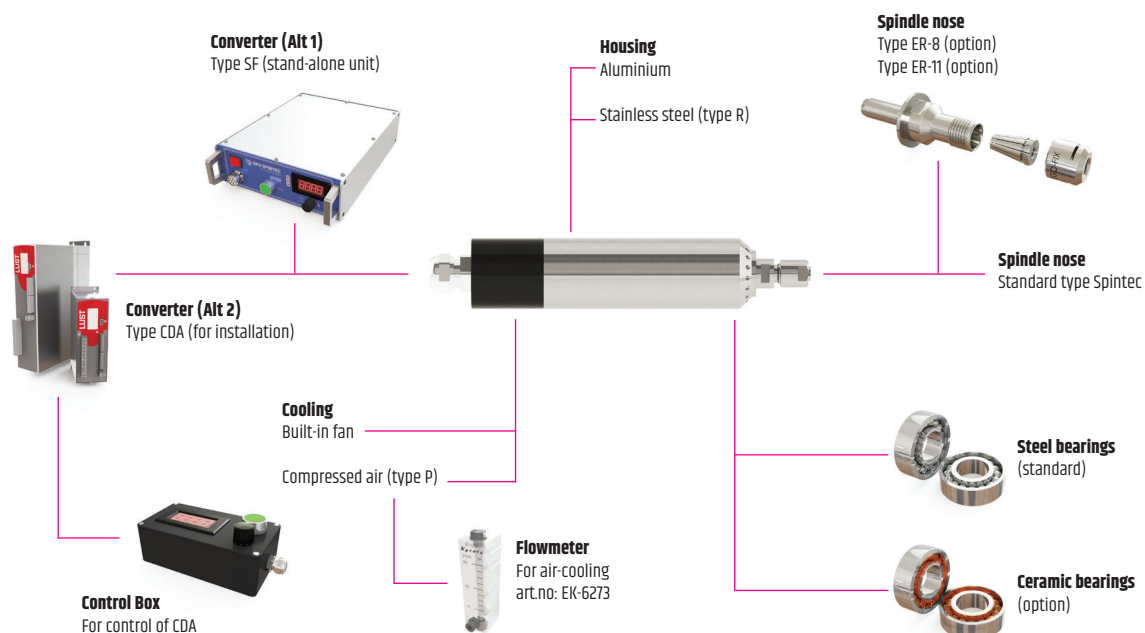
▲ VM 17 P
Air-cooled



▲ Type AC
Angular
connection

Technical specifications

VM 17
Housing:
Anodized aluminum Stainless steel (type R)
Cooling:
Built-in fan Compressed air (type P)
Ball bearings:
Permanently lubricated, pre-loaded, high performance groove ball bearings.
Electrical connection:
6-pin contact via frequency converter.
Rotation direction:
Right rotating Left rotating (option)



Standard accessories included

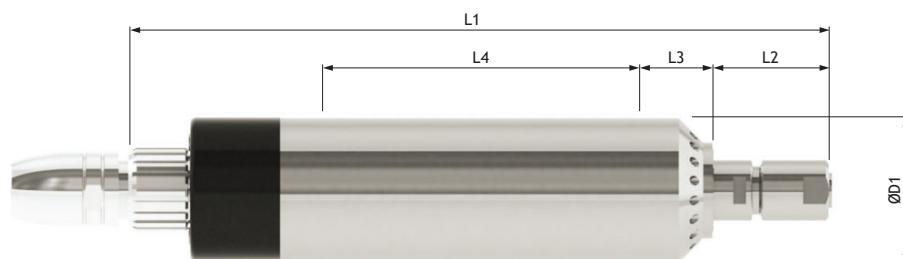
- 3 m cable
- 2 chuck keys
- 1 collet in any dimension (specify on order)

Drive unit

- Frequency converter, stand-alone unit: SF700
- Frequency converter for installation: CDA-0.75
- Control Box for control of CDA: CONTROL BOX

Spindle model	ØD1 mm	L1 mm	L2 mm	L3 mm	L4 mm	Weight kg	Spindle nose type	Collet max Ø mm
VM 17	45	226	37	20	102	0,9	Spintec 17	8,0
	Effect max kW	Voltage V	Speed max RPM	Speed min RPM	Run-out max mm	Coaxiality max mm	Air consumption l / min (type p)	Noise level dB
VM 17	0,4	189	54 000	15 000	0,01	0,3	90 *	82

* The air flow between the spindle and the flowmeter may vary depending on various conditions



HIGH SPEED SPINDLES

Air-cooled spindles

S 11



Air-cooled spindle designed for high speed, precision and reliability. It is intended for building into machines or automated cells for such operations as grinding, drilling, milling and deburring etc. Compressed air-cooling (type P) is advisable when operating in either dirty or hostile environments or if more effective cooling is requested. The noise level will also be lower.

Technical specifications

S 11 - 72
Housing:
Steel
Cooling:
Built-in fan Compressed air (type P)
Ball bearings:
Permanently lubricated, spring pre-loaded, high performance angular contact ball bearings.
Electrical connection:
6-pin contact with PTC via frequency converter.
Rotation direction:
Right rotating Left rotating (option)



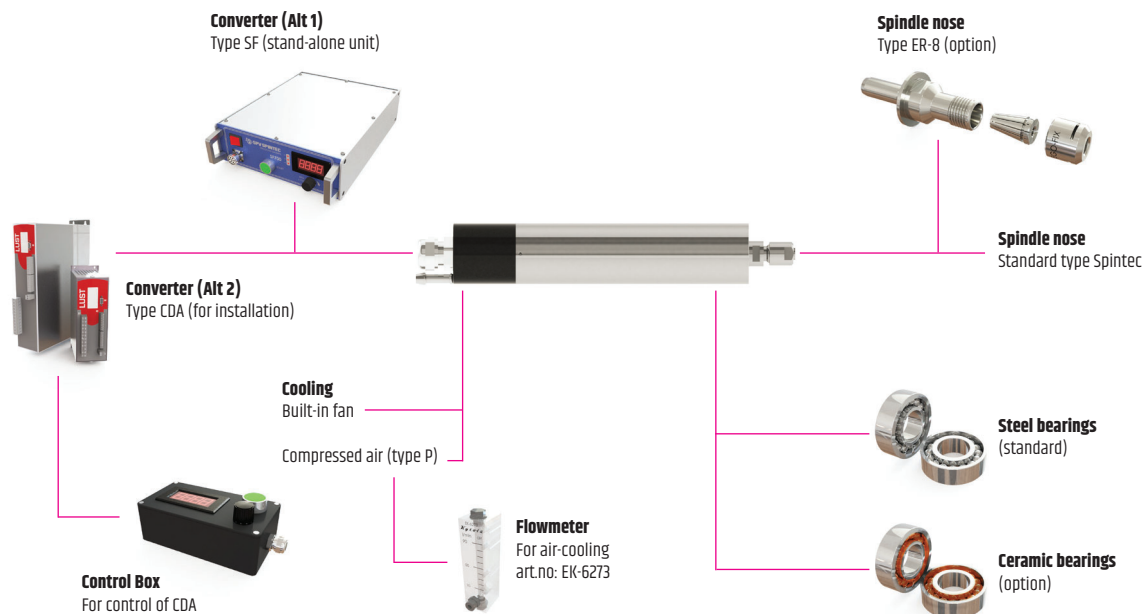
▲ S 11-72
Fan-cooled



▲ S 11-72 P
Compressed
air-cooled

HIGH SPEED SPINDLES

Air-cooled spindles



Standard accessories included

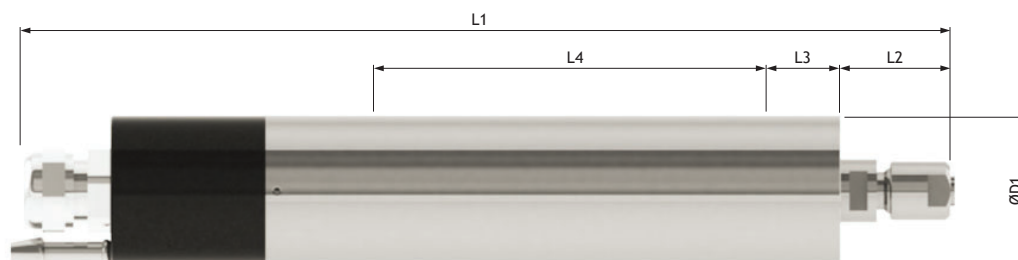
- ▲ 3 m cable
- ▲ 2 chuck keys
- ▲ 1 collet in any dimension (specify on order)

Drive unit

- ▲ Frequency converter, stand-alone unit: SF700
- ▲ Frequency converter for installation: CDA-0.75
- ▲ Control Box for control of CDA: CONTROL BOX

Spindle model	ØD1 mm	L1 mm	L2 mm	L3 mm	L4 mm	Weight kg	Spindle nose type	Collet max Ø mm
S 11 - 72	33	203	25	15	71	0,6	Spintec 10	4,0
	Effect max kW	Voltage V	Speed max RPM	Speed min RPM	Run-out max mm	Coaxiality max mm	Air consumption l / min (type p)	Noise level dB
S 11 - 72	0,1	184	72 000	36 000	0,005	0,05	50 *	74

* The air flow between the spindle and the flowmeter may vary depending on various conditions



HIGH SPEED SPINDLES

Air-cooled spindles

S 16 / S 18



Air-cooled spindle designed for high speed, precision and reliability. It is intended for building into machines or automated cells for such operations as grinding, drilling, milling and deburring etc. Compressed air-cooling (type P) is advisable when operating in either dirty or hostile environments or if more effective cooling is requested. The noise level will also be lower.

Technical specifications

S 16 / S 18

Housing:

Steel

Cooling:

Built-in fan
Compressed air (type P)

Ball bearings:

Permanently lubricated, spring pre-loaded,
high performance angular contact ball
bearings.

Electrical connection:

6-pin contact with PTC via frequency converter.

Rotation direction:

Right rotating
Left rotating (option)



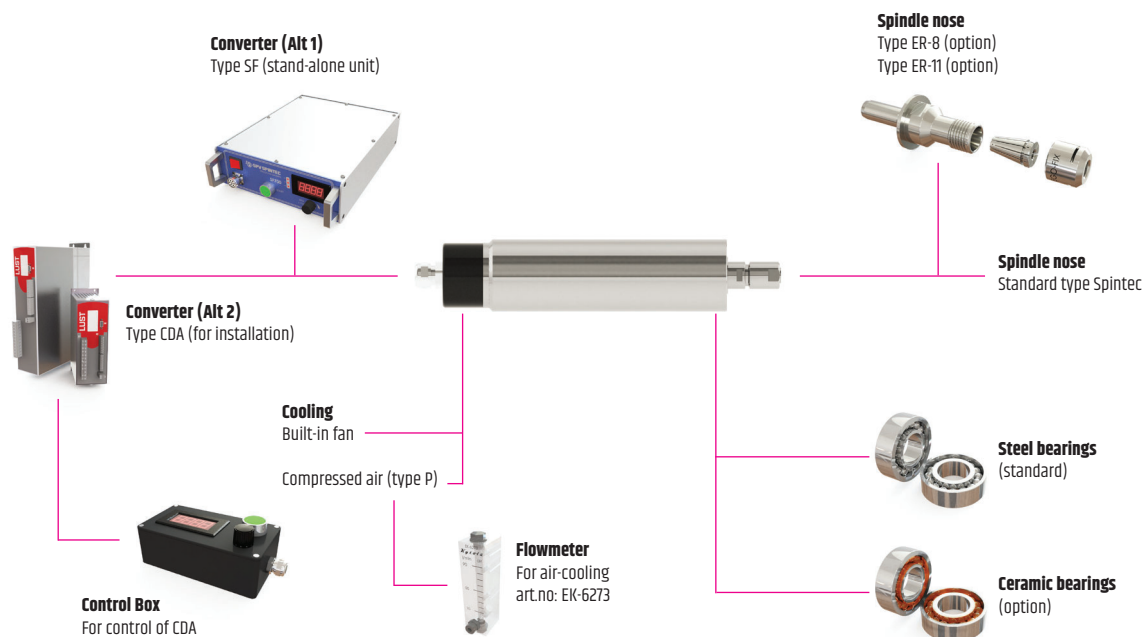
▲ S 16 - 60



▲ S 18 - 60

HIGH SPEED SPINDLES

Air-cooled spindles



Standard accessories included

- ▲ 3 m cable
- ▲ 2 chuck keys
- ▲ 1 collet in any dimension (specify on order)

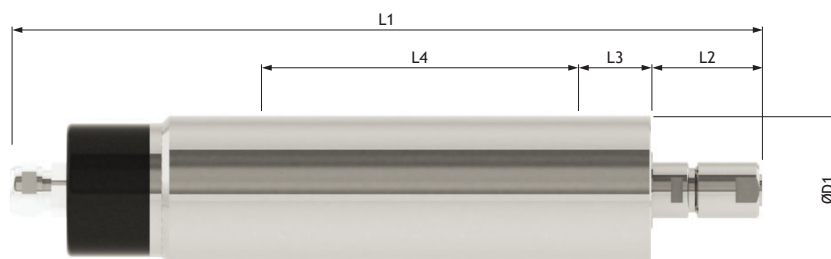
Drive unit

- ▲ Frequency converter, stand-alone unit: SF700
- ▲ Frequency converter for installation: CDA-0.75
- ▲ Control Box for control of CDA: CONTROL BOX

Spindle model	ØD1 mm	L1 mm	L2 mm	L3 mm	L4 mm	Weight kg	Spindle nose type	Collet max Ø mm
S 16 - 60	50	251 **	37	20	102	2,0	Spintec 17	8,0
S 18 - 60	45	251 **	37	20	102	2,0	Spintec 17	8,0
	Effect max kW	Voltage V	Speed max RPM	Speed min RPM	Run-out max mm	Coaxiality max mm	Air consumption l / min (type p)	Noise level dB
S 16 - 60	0,4	210	60 000	15 000	0,005	0,05	90 *	80
S 18 - 60	0,4	210	60 000	15 000	0,005	0,05	90 *	80

* The air flow between the spindle and the flowmeter may vary depending on various conditions

** Type P = +10 mm



HIGH SPEED SPINDLES

Air-cooled spindles

S 19



Air-cooled spindle designed for high speed, precision and reliability. It is intended for building into machines or automated cells for such operations as grinding, drilling, milling and deburring etc. Compressed air-cooling (type P) is advisable when operating in either dirty or hostile environments or if more effective cooling is requested. The noise level will also be lower.



▲ S 19-60
Fan-cooled



▲ S 19-60
Compressed
air-cooled

S 19 - 60

Housing:

Steel

Cooling:

Built-in fan
Compressed air (type P)

Ball bearings:

Permanently lubricated, spring pre-loaded,
high performance angular contact ball
bearings.

Electrical connection:

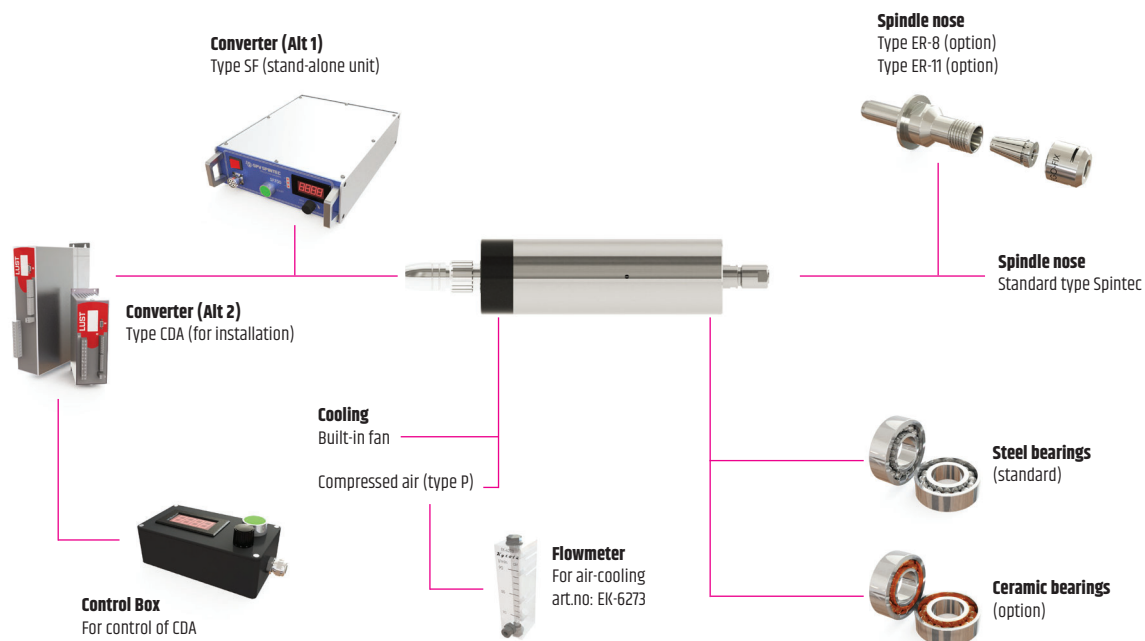
6-pin contact with PTC via frequency converter.

Rotation direction:

Right rotating
Left rotating (option)

HIGH SPEED SPINDLES

Air-cooled spindles



Standard accessories included

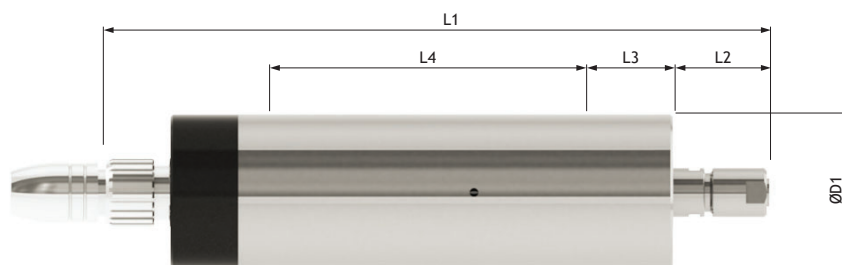
- ▲ 3 m cable
- ▲ 2 chuck keys
- ▲ 1 collet in any dimension (specify on order)

Drive unit

- ▲ Frequency converter, stand-alone unit: SF700
- ▲ Frequency converter for installation: CDA-0.75
- ▲ Control Box for control of CDA: CONTROL BOX

Spindle model	ØD1 mm	L1 mm	L2 mm	L3 mm	L4 mm	Weight kg	Spindle nose type	Collet max Ø mm
S 19 - 60	60	289	37	20	145	3,6	Spintec 17	8,0
	Effect max kW	Voltage V	Speed max RPM	Speed min RPM	Run-out max mm	Coaxiality max mm	Air consumption l / min (type p)	Noise level dB
S 19 - 60	0,4	210	60 000	15 000	0,005	0,05	90 *	80

* The air flow between the spindle and the flowmeter may vary depending on various conditions



HIGH SPEED SPINDLES

Air-cooled spindles

S 27



Air-cooled spindle designed for high speed, precision and reliability. It is intended for building in to machines or automation cells for such operations as grinding, milling and deburring etc. Compressed air-cooling (type P) is advisable when operating in either dirty or hostile environments or if more effective cooling is required. The noise level is also lower.



▲ S 27-30



▲ S 27-40



▲ S 27-54



▲ Type AC
angular
connection

Technical specifications

S 27

Housing:

Steel

Cooling:

Built-in fan
Compressed air (type P)

Ball bearings:

Permanently lubricated, spring pre-loaded, high performance angular contact ball bearings. S 27-30 is provided with dual front ball bearings.

Electrical connection:

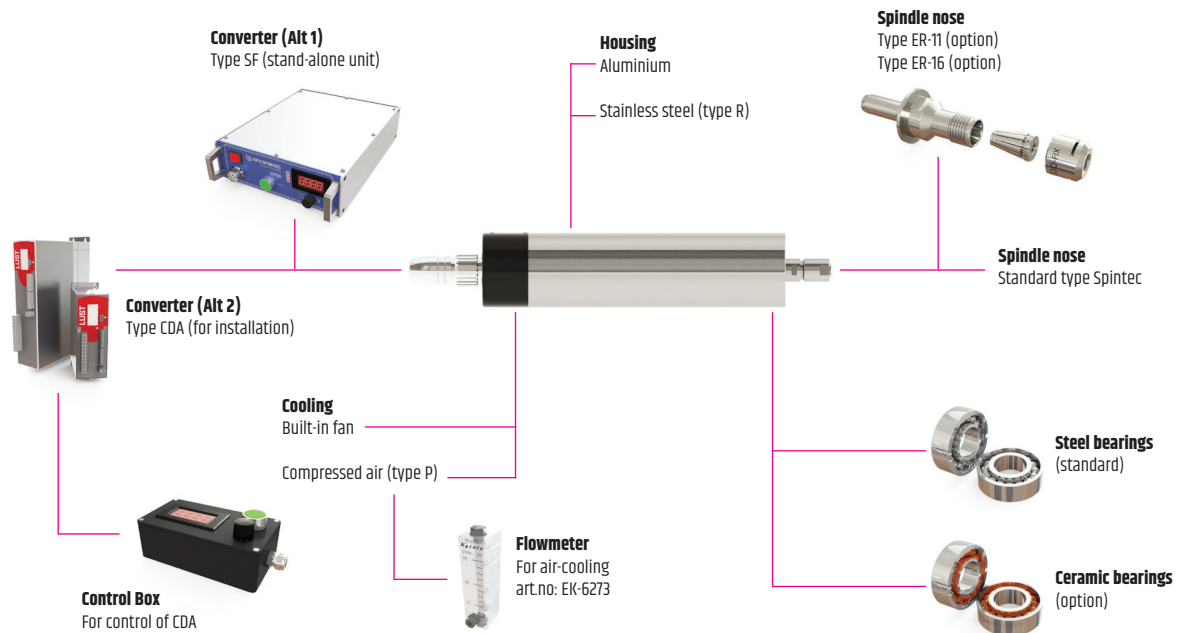
6-pin contact with included PTC via frequency converter.

Rotation direction:

Right rotating
Left rotating (option)

HIGH SPEED SPINDLES

Air-cooled spindles



Standard accessories included

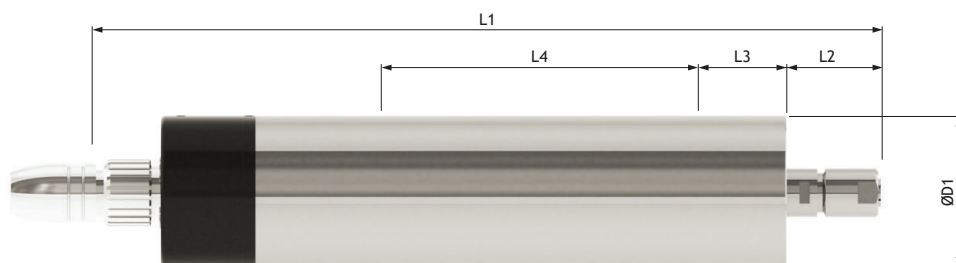
- ▲ 3 m cable
- ▲ 2 chuck keys
- ▲ 1 collet in any dimension (specify on order)

Drive unit

- ▲ Frequency converter, stand-alone unit: SF1500
- ▲ Frequency converter for installation: CDA-1.5
- ▲ Control Box for control of CDA: CONTROL BOX

Spindle model	ØD1 mm	L1 mm	L2 mm	L3 mm	L4 mm	Weight kg	Spindle nose type	Collet max Ø mm
S 27 - 30	60	347	37	25	102	3,3	Spintec 17	8,0
S 27 - 40	60	337	37	20	102	3,2	Spintec 17	8,0
S 27 - 54	60	318	37	20	82	3,0	Spintec 17	8,0
	Effect max kW	Voltage V	Speed max RPM	Speed min RPM	Run-out max mm	Coaxiality max mm	Air consumption l / min (type p)	Noise level dB
S 27 - 30	0,56	200	30 000	9 000	0,005	0,05	100 *	80
S 27 - 40	0,8	204	40 000	9 000	0,005	0,05	80 *	80
S 27 - 54	0,75	189	54 000	9 000	0,005	0,05	80 *	80

* The air flow between the spindle and the flowmeter may vary depending on various conditions



HIGH SPEED SPINDLES

Water-cooled spindles

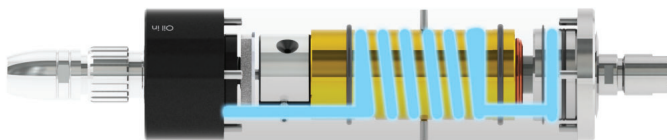
S 20



Water-cooled spindle intended for building into machine or automation cells, where power, wide speed range and low noise level are essential. S20 is designed and manufactured with highest precision and accuracy which makes it optimal for internal grinding or other precision high speed machining.

Technical specifications

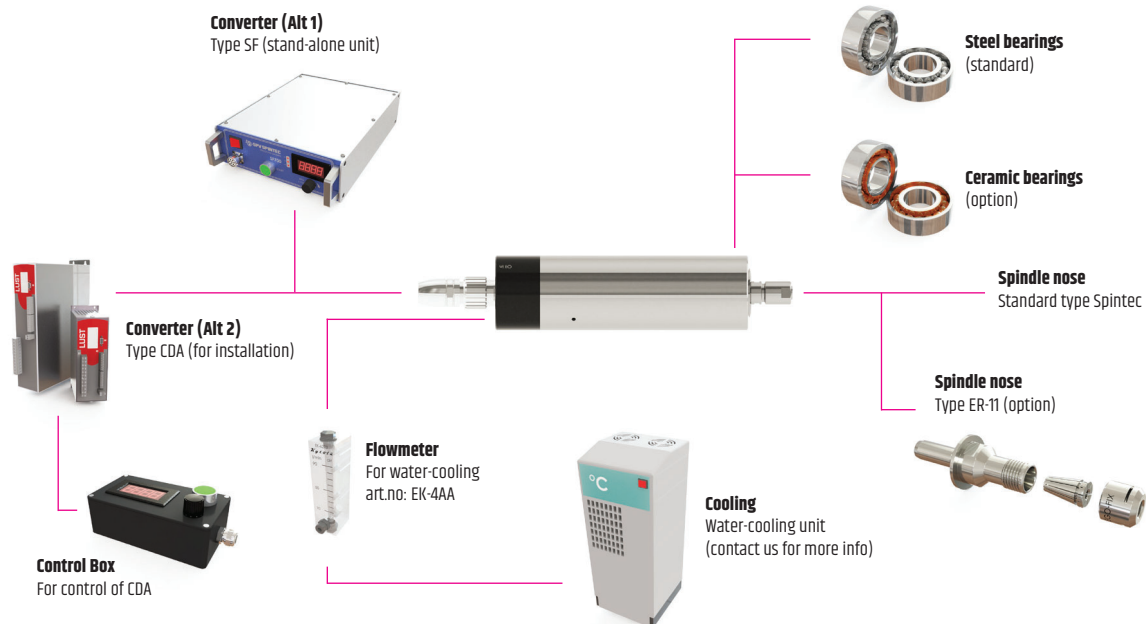
S 20 - 60
Housing:
Stainless steel
Cooling:
Water-cooling
Ball bearings:
Permanently lubricated, spring pre-loaded, high performance angular contact ball bearings.
Electrical connection:
6-pin contact with included PTC via frequency converter.
Rotation direction:
Both directions are available
Water connection:
In- and outlet (R 1/8")



▲ Efficient water-cooling over the stator and the front ball bearings

HIGH SPEED SPINDLES

Water-cooled spindles



Standard accessories included

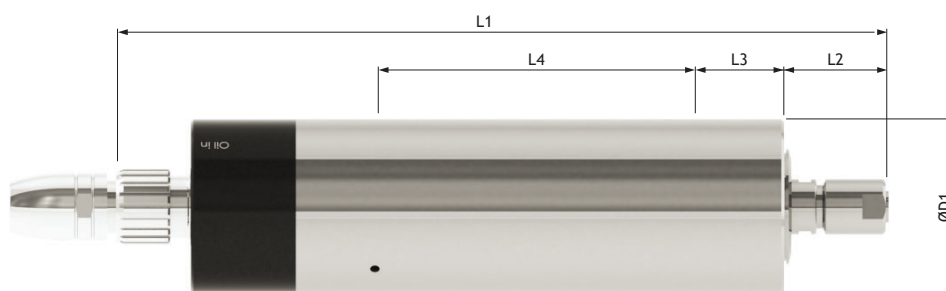
- ▲ 3 m cable
- ▲ 2 chuck keys
- ▲ 1 collet in any dimension (specify on order)

Drive unit

- ▲ Frequency converter, stand-alone unit: SF700
- ▲ Frequency converter for installation: CDA-0.75
- ▲ Control Box for control of CDA: CONTROL BOX

Spindle model	ØD1 mm	L1 mm	L2 mm	L3 mm	L4 mm	Weight kg	Spindle nose type	Collet max Ø mm
S 20 - 60	60	259	36	25	168	3,6	Spintec 17	8,0
	Effect max kW	Voltage V	Speed max RPM	Speed min RPM	Run-out max mm	Coaxiality max mm	Water flow l / min	Noise level dB
S 20 - 60	0,8	210	60 000	15 000	0,005	0,05	0,6 *	64

* The coolant flow between the spindle and the flowmeter may vary depending on various conditions



HIGH SPEED SPINDLES

Water-cooled spindles

S 21



Water-cooled and oil mist lubricated spindle intended for building into machine or automation cells, where power, wide speed range and low noise level are essential. S21 is designed and manufactured with highest precision and accuracy which makes it optimal for internal grinding or other precision high speed machining.

Technical specifications

S 21

Housing:

Stainless steel

Cooling:

Water-cooling

Ball bearings:

Oil-mist lubricated, spring pre-loaded, high performance angular contact ball bearings.

Electrical connection:

6-pin contact with included PTC via frequency converter.

Rotation direction:

Both directions are available

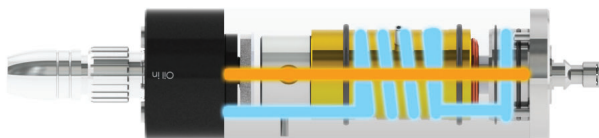
Water connection:

In- and outlet (R 1/8")

Oil mist connection:

Inlet (R 1/8")

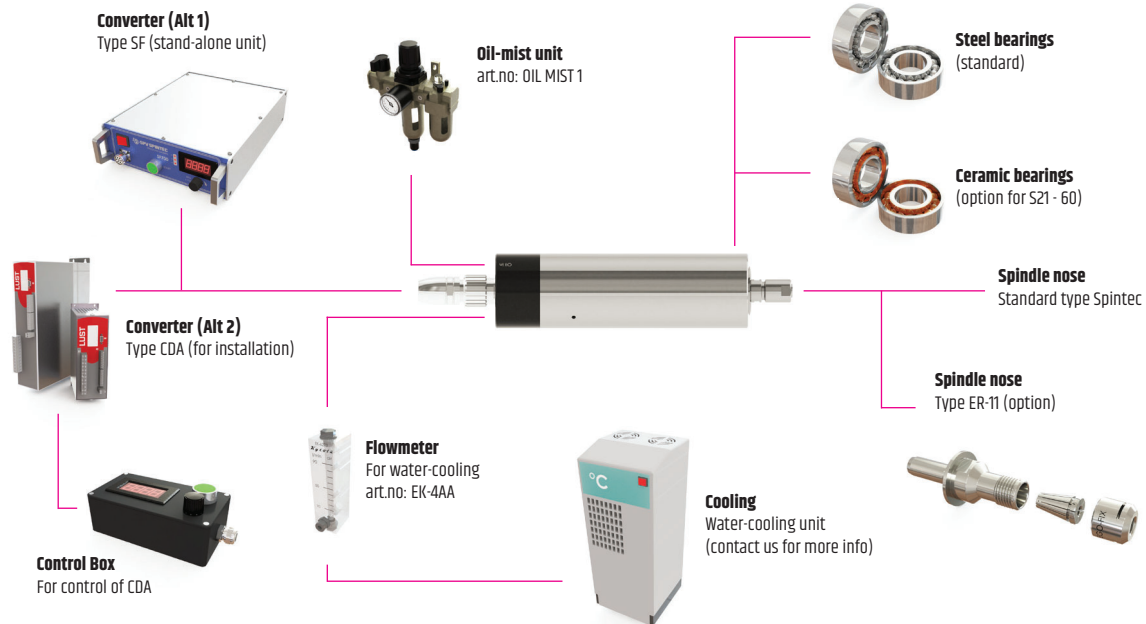
▲ Oil-mist lubrication of both front and rear ball bearing



▲ Efficient water-cooling over the stator and the front ball bearings

HIGH SPEED SPINDLES

Water-cooled spindles



Standard accessories included

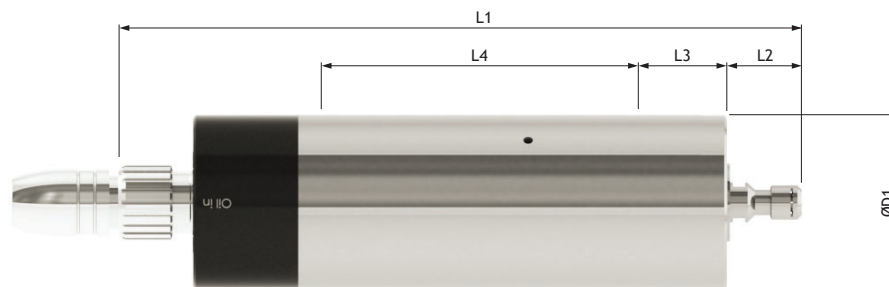
- ▲ 3 m cable
- ▲ 2 chuck keys
- ▲ 1 collet in any dimension (specify on order)

Drive unit

- ▲ Frequency converter, stand-alone unit: SF700
- ▲ Frequency converter for installation: CDA-0.75
- ▲ Control Box for control of CDA: CONTROL BOX

Spindle model	ØD1 mm	L1 mm	L2 mm	L3 mm	L4 mm	Weight kg	Spindle nose type	Collet max Ø mm
S 21 - 60	60	259	36	25	168	3,6	Spintec 17	8,0
S 21 - 90	60	229	33	20	125	2,9	Regofix ER-8	5,0
	Effect max kW	Voltage V	Speed max RPM	Speed min RPM	Run-out max mm	Coaxiality max mm	Air consumption l / min	Noise level dB
S 21 - 60	0,7	210	60 000	15 000	0,005	0,05	0,6 *	60
S 21 - 90	0,4	230	90 000	30 000	0,005	0,05	0,6 *	60

* The water flow between the spindle and the flowmeter may vary depending on various conditions



HIGH SPEED SPINDLES

Water-cooled spindles

S 28

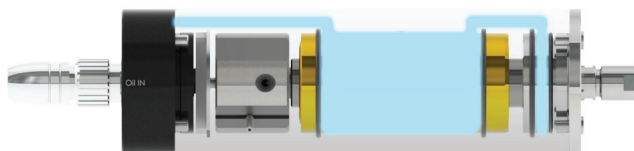


Water-cooled spindle intended for building into machine or automation cells, where power, wide speed range and low noise level are essential. S28 is designed and manufactured with highest precision and accuracy which makes it optimal for internal grinding or other precision high speed machining.

Technical specifications

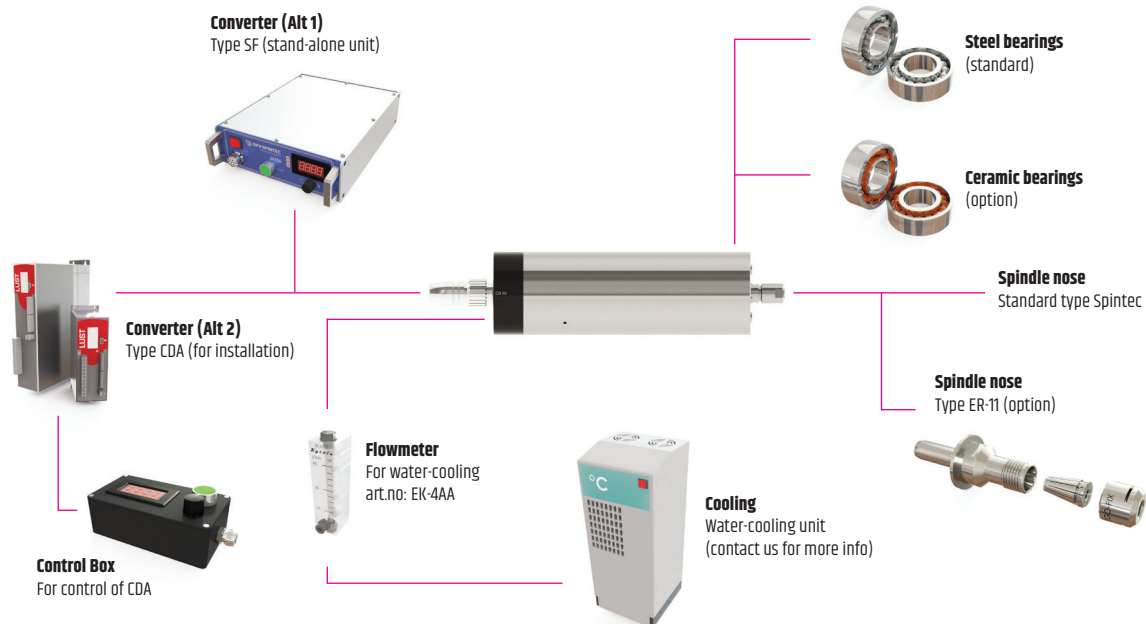
S 28 - 40
Housing:
Stainless steel
Cooling:
Water-cooling
Ball bearings:
Permanently lubricated, spring pre-loaded, high performance angular contact ball bearings.
Electrical connection:
6-pin contact with included PTC via frequency converter.
Rotation direction:
Both directions are available
Water connection:
In- and outlet (R 1/8")

▲ Oil-mist lubrication of both front and rear ball bearing



HIGH SPEED SPINDLES

Water-cooled spindles



Standard accessories included

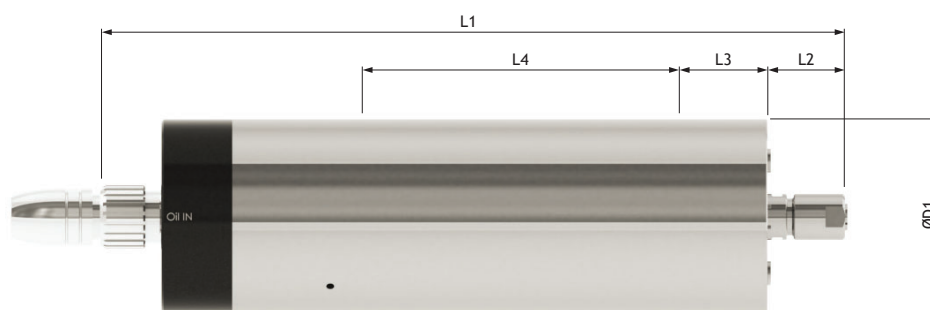
- 3 m cable
- 2 chuck keys
- 1 collet in any dimension (specify on order)

Drive unit

- Frequency converter, stand-alone unit: SF1500
- Frequency converter for installation: CDA-1.5
- Control Box for control of CDA: CONTROL BOX

Spindle model	ØD1 mm	L1 mm	L2 mm	L3 mm	L4 mm	Weight kg	Spindle nose type	Collet max Ø mm
S 28 - 40	80	340	34	35	177	6,8	Spintec 17	8,0
	Effect max kW	Voltage V	Speed max RPM	Speed min RPM	Run-out max mm	Coaxiality max mm	Water flow l / min	Noise level dB
S 28 - 40	1,1	204	40 000	9 000	0,005	0,05	1,2 *	60

* The coolant flow between the spindle and the flowmeter may vary depending on various conditions



HIGH SPEED SPINDLES

Water-cooled spindles

S 30



Water-cooled and oil mist lubricated spindle intended for building into machine or automation cells, where power, wide speed range and low noise level are essential. S30 is designed and manufactured with highest precision and accuracy which makes it optimal for internal grinding or other precision high speed machining.

Technical specifications

S 30

Housing:

Stainless steel

Cooling:

Water-cooling

Ball bearings:

Oil-mist lubricated, spring pre-loaded, high performance angular contact ball bearings.

Electrical connection:

6-pin contact with included PTC via frequency converter.

Rotation direction:

Both directions are available

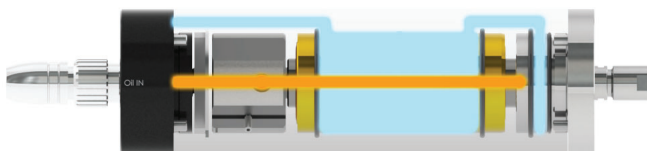
Water connection:

In- and outlet (R 1/8")

Oil mist connection:

Inlet (R 1/8")

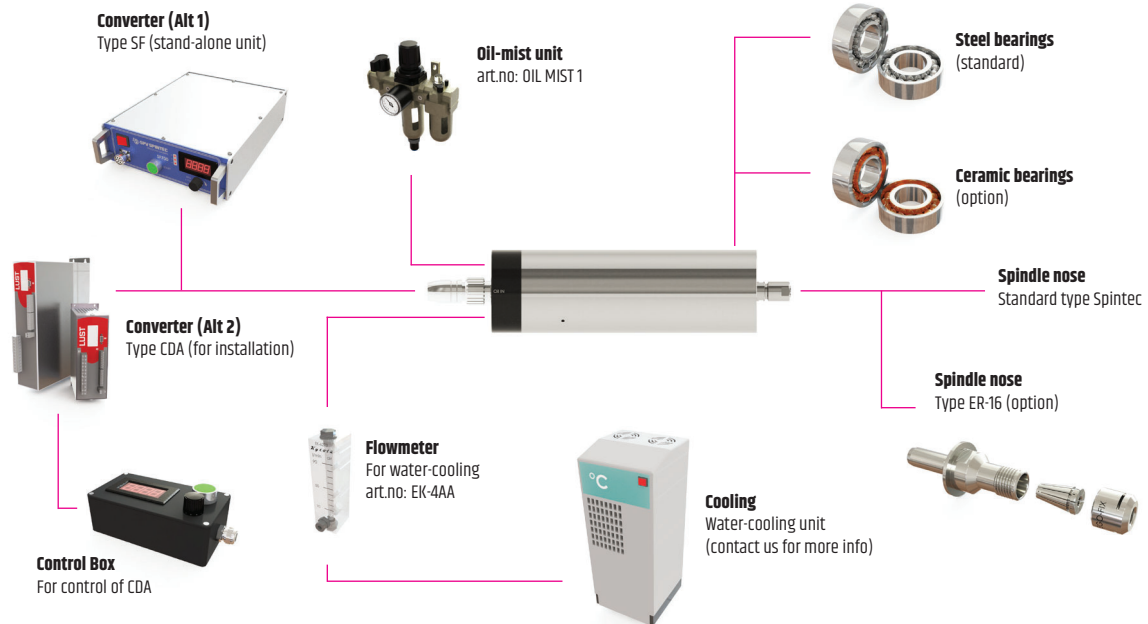
▲ Oil-mist lubrication of both front and rear ball bearings



▲ Efficient water-cooling over the stator and the front ball bearings

HIGH SPEED SPINDLES

Water-cooled spindles



Standard accessories included

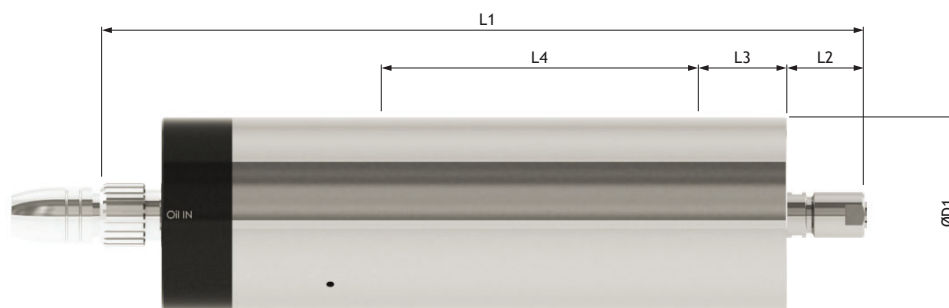
- ▲ 3 m cable
- ▲ 2 chuck keys
- ▲ 1 collet in any dimension (specify on order)

Drive unit

- ▲ Frequency converter, stand-alone unit: SF3000
- ▲ Frequency converter for installation: CDA-3,0
- ▲ Control Box for control of CDA: CONTROL BOX

Spindle model	ØD1 mm	L1 mm	L2 mm	L3 mm	L4 mm	Weight kg	Spindle nose type	Collet max Ø mm
S 30 - 60	80	303	34	43	169	7,0	Spintec 17	8,0
	Effect max kW	Voltage V	Speed max RPM	Speed min RPM	Run-out max mm	Coaxiality max mm	Water flow l / min	Noise level dB
S 30 - 60	2,0	210	60 000	15 000	0,005	0,05	1,2 *	63

* The coolant flow between the spindle and the flowmeter may vary depending on various conditions



HIGH SPEED SPINDLES

Water-cooled spindles

S 33



Water-cooled and oil mist lubricated spindle intended for building into machine or automation cells, where power, wide speed range and low noise level are essential. S33 is designed and manufactured with highest precision and accuracy which makes it optimal for internal grinding or other precision high speed machining.

Technical specifications

S 33

Housing:

Stainless steel

Cooling:

Water-cooling

Ball bearings:

Oil-mist lubricated, spring pre-loaded, high performance angular contact ball bearings.

Electrical connection:

6-pin contact with included PTC via frequency converter.

Rotation direction:

Both directions are available

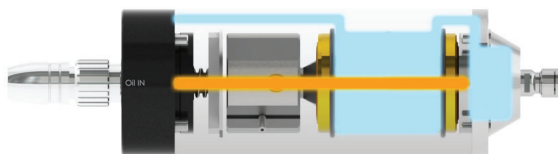
Water connection:

In- and outlet (R 1/8")

Oil mist connection:

Inlet (R 1/8")

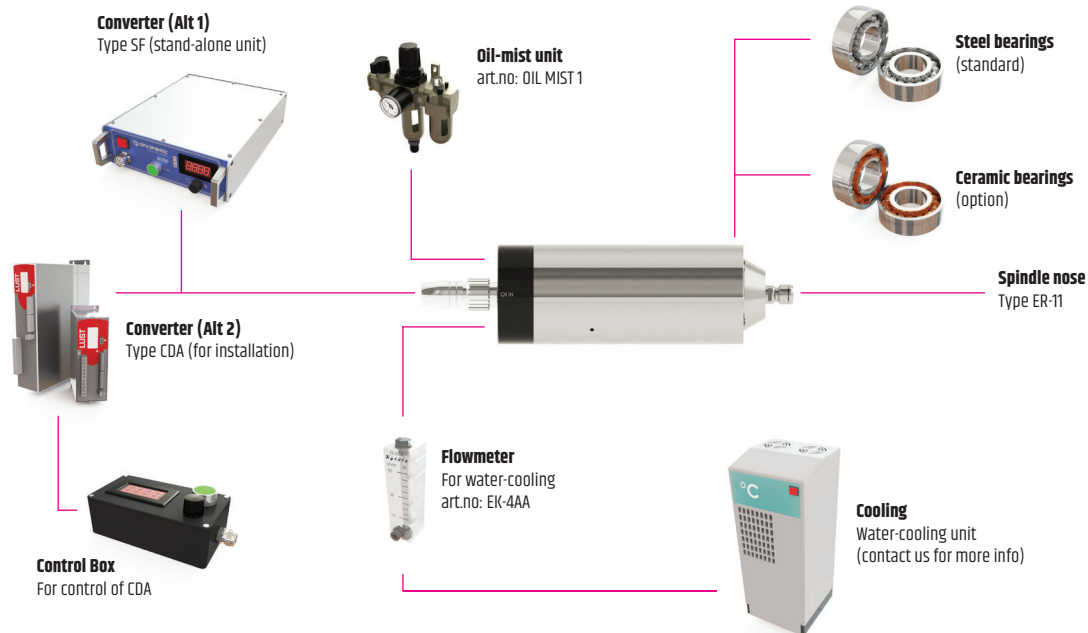
▲ Oil-mist lubrication of both front and rear ball bearings



▲ Efficient water-cooling over the stator and the front ball bearings

HIGH SPEED SPINDLES

Water-cooled spindles



Standard accessories included

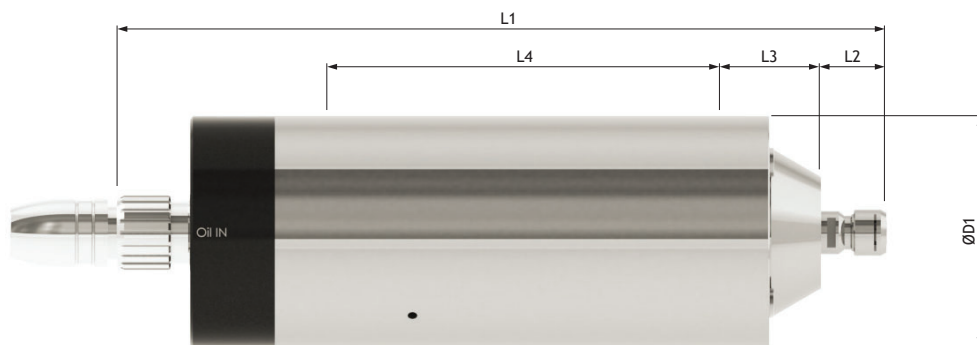
- ▲ 3 m cable
- ▲ 2 chuck keys
- ▲ 1 collet in any dimension (specify on order)

Drive unit

- ▲ Frequency converter, stand-alone unit: SF1500
- ▲ Frequency converter for installation: CDA-1.5
- ▲ Control Box for control of CDA: CONTROL BOX

Spindle model	ØD1 mm	L1 mm	L2 mm	L3 mm	L4 mm	Weight kg	Spindle nose type	Collet max Ø mm
S 33 - 75	80	257	24	35	151	7,0	Regofix ER-11	7,0
	Effect max kW	Voltage V	Speed max RPM	Speed min RPM	Run-out max mm	Coaxiality max mm	Water flow l / min	Noise level dB
S 33 - 75	1,2	192	75 000	25 000	0,005	0,05	1,2 *	64

* The coolant flow between the spindle and the flowmeter may vary depending on various conditions



HIGH SPEED SPINDLES

Water-cooled spindles

S 50



Water-cooled and oil mist lubricated spindle intended for building into machine or automation cells, where power, wide speed range and low noise level are essential. S50 is designed and manufactured with highest precision and accuracy which makes it optimal for internal grinding or other precision high speed machining.

Technical specifications

S 50

Housing:

Stainless steel

Cooling:

Water-cooling

Ball bearings:

Oil-mist lubricated, spring pre-loaded, high performance angular contact ball bearings.

Electrical connection:

6-pin contact with included PTC via frequency converter.

Rotation direction:

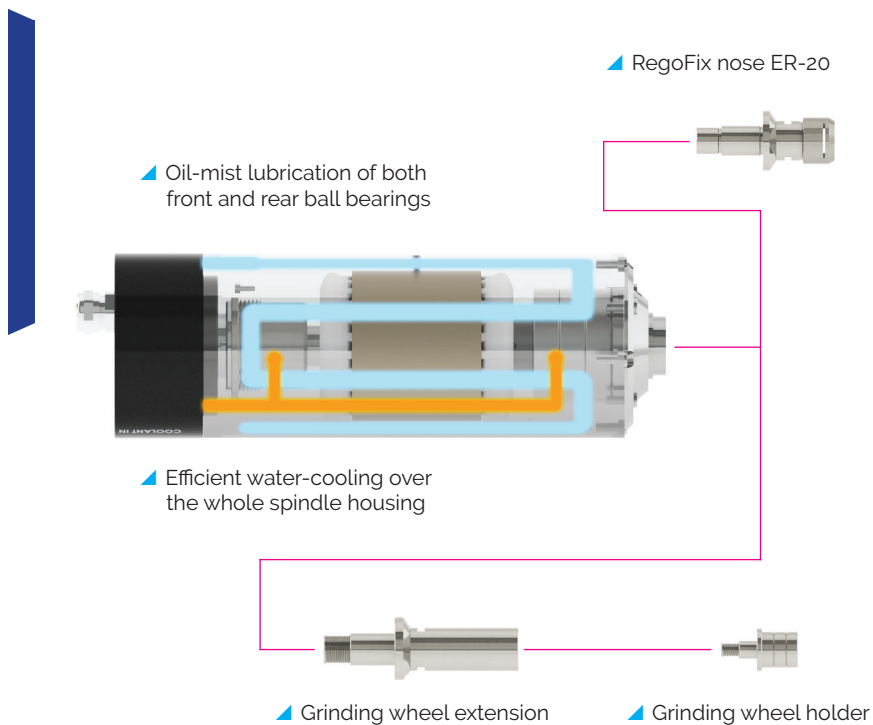
Both directions are available

Water connection:

In- and outlet (R 1/8")

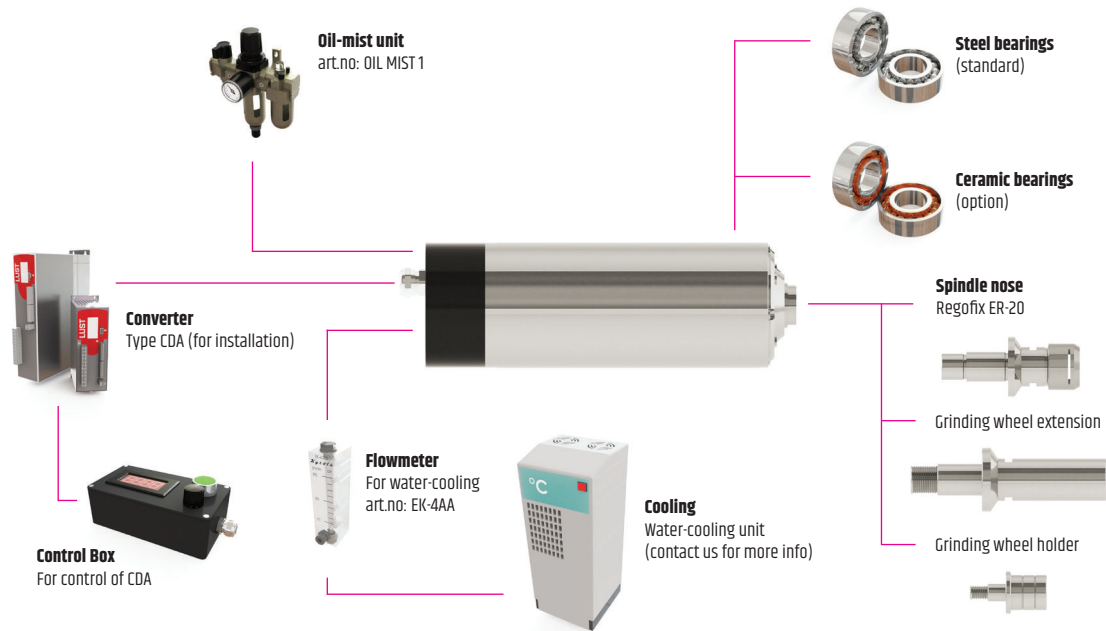
Oil mist connection:

Inlet (R 1/8")



HIGH SPEED SPINDLES

Water-cooled spindles



Standard accessories included

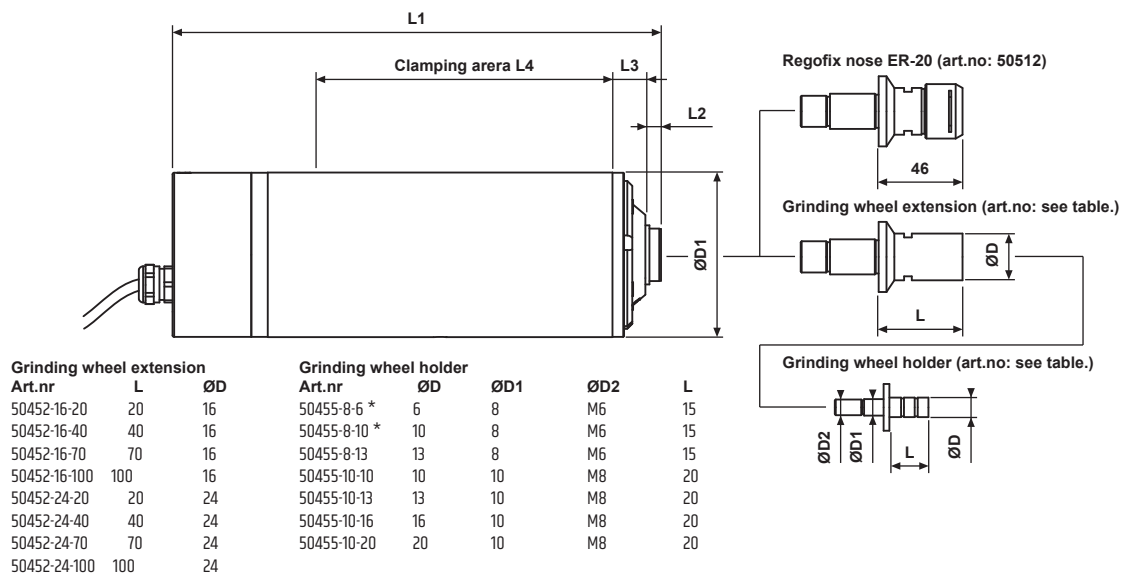
- 3 m cable

Drive unit

- Frequency converter for installation: CDA-5.5
- Control Box for control of CDA: CONTROL BOX

Spindle model	ØD1 mm	L1 mm	L2 mm	L3 mm	L4 mm	Weight kg	Spindle nose type	
S 50 - 30	100	298	9	21	150	12,0	See below	
	Effect max kW	Voltage V	Speed max RPM	Speed min RPM	Run-out max mm	Coaxiality max mm	Water flow l / min	Noise level dB
S 50 - 30	5,0	350	30 000	5 000	0,005	0,05	1,2 *	60

* The coolant flow between the spindle and the flowmeter may vary depending on various conditions



* Passar till 50452-16-...

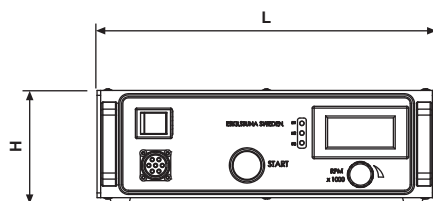
HIGH SPEED SPINDLES

Frequency converters

Model type SF (stand alone unit)



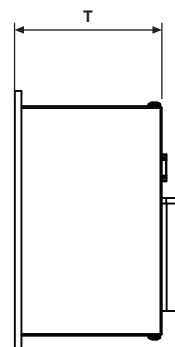
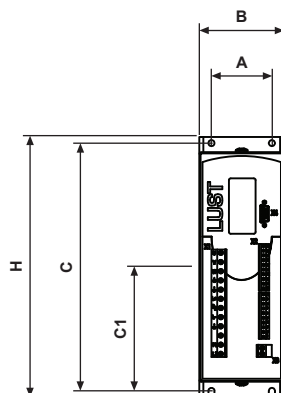
Converter model	SF 700	SF 1500	SF 3000
Voltage input	1-phase 50/60 Hz 230 V	1-phase 50/60 Hz 230 V	3-phase 50/60 Hz 400 V
Fuse	10 Ampere	10 Ampere	----
Output effect, max	750 W	1500 W	3 000 W
Frequency range	0 - 1 500 Hz	0 - 1 500 Hz	0 - 1 500 Hz
Voltage output	3-phase 0 - 220 V	3-phase 0 - 220 V	3-phase 0 - 380 V
Dimensions L	280 mm	280 mm	435 mm
W	385 mm	385 mm	345 mm
H	95 mm	95 mm	95 mm
Weight	4,5 kg	5,0 kg	8,5 kg



HIGH SPEED SPINDLES

Frequency converters

Model type CDA (for instalation)



Converter model	CDA-0,75-1	CDA-1,5-1	CDA-3,0-3	CDA-5,5-3
Voltage input	1-phase 50/60 Hz 230 V	1-phase 50/60 Hz 230 V	3-phase 50/60 Hz 400 V	3-phase 50/60 Hz 400 V
Output effect, max	750 W	1 500 W	3 000 W	5 500 W
Frequency range	0 - 1500 Hz	0 - 1500 Hz	0 - 1500 Hz	0 - 1500 Hz
Voltage output	3-phase 0 - 220 V	3-phase 0 - 220 V	3-phase 0 - 380 V	3-phase 0 - 380 V
Dimensions A	50 mm	50 mm	40 mm	135 mm
B	70 mm	70 mm	70 mm	150 mm
C	205 mm	230 mm	320 mm	200 mm
C1	----	----	----	100 mm
H	215 mm	240 mm	330 mm	300 mm
T	120 mm	145 mm	150 mm	150 mm
Mounting screws	4 x M4	4 x M4	6 x M5	6 x M5
Weight	1,6 kg	2,3 kg	3,2 kg	5,2 kg

Control Box

By using our Control Box you get the chance for easy handling of start / stop, continuous control of speed and a display which shows the set RPM. There is also a possibility to purchase the components contained for operation



Key Pad

By using a Key Pad KP 300 you can easily change program and adjust the parameter settings for the CDA converters. All data can be saved and downloaded to a SmartCard. (Not included).

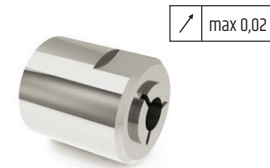


HIGH SPEED SPINDLES

Accessories

Collets type Spintec 10 and 17 (for VM 10 / VM 17)

Collet Ø mm	Standard collet Spintec 10 - Art.no	Standard collet Spintec 17 - Art.no
3,0	10570 3,0	17570 3,0
4,0	10570 4,0	17570 4,0
6,0	----	17570 6,0
8,0	----	17570 8,0



High precision collets type Spintec 10 and 17 (for spindles)

Collet Ø mm	High precision collet Spintec 10 - Art.no	High precision collet Spintec 17 - Art.no
3,0	10571 3,0	17571 3,0
4,0	10571 4,0	17571 4,0
6,0	----	17571 6,0
8,0	----	17571 8,0



Collets type RegoFix® ER

RegoFix model	Width Ø mm	Length mm	Capacity Ø mm	Collet clamping capacity mm
ER-8	8,5	15,0	0,5 - 5,0	0,5
ER-11	11,5	18,0	0,5 - 7,0	0,5
ER-16	17,0	27,5	0,5 - 10,0	1,0
ER-20	21,0	31,5	0,5 - 13,0	1,0



High speed clamping nut RegoFix®

Nut Art.no	Width Ø mm	Length mm	Thread type
ER-8 MS	12,0	10,8	M10 x 0,75
ER-11 MS	16,0	11,3	M13 x 0,75
ER-16 MS	22,0	17,0	M19 x 1,0
ER-20 MS	28,0	19,0	M24 x 1,0



Wrench for high speed clamping nut RegoFix®

Wrench Art.no	Width mm	Length mm
ER-8 EMS	19,0	76
ER-11 EMS	22,0	100
ER-16 EMS	33,0	130
ER-20 EMS	42,0	140



Other accessories



- Flowmeter for regulation of cooling flow to units with compressed air-cooling. Capacity: 10 - 100 l / min

Art.no: EK-6273



- Flowmeter for regulation of cooling flow to units with water-cooling. Capacity: 0.1 - 1.25 l / min

Art.no: EK-4AA



- Oil-mist lubrication unit for spindles with oil-mist lubricated bearings.

Art.no: OIL MIST1



- Special oil for oil-mist lubrication units, 1 litre

Art.no: P-036997



- System cleaner for cleaning of water-cooled spindle systems, 1 litre. 3% is mixed with water.

Art.no: MOTOREX 02



- Corrosion protection concentrate for water-cooled spindles, 1 litre. 5% is mixed with water.

Art.no: COOLANT-F



- Water-cooling units for spindles: S20, S21, S28, S30, S33 and S50.

Depending on the type of processing and other conductions such as surrounding temperature, we recommend different types of water coolers.

Contact us for more information.

HIGH SPEED SPINDLES

Deburring machine

DB-Matic - For automatic deburring on rotation symmetrical parts.

Deburring spindle

DB-Matic is equipped with a spindle type VM 17 RP, with a stainless steel housing and efficient cooling with compressed air.

High flexibility

To fit your specific type of process the DB-Matic have an amount of different settings for application of the workpiece. Length, turn and angular settings enables deburring on many different types of gear wheels etc. All settings are infinite and very easy to access.

Integration and automation

For quick and easy integration in a robotic cell or automation process the DB-Matic is prepared to be able to communicate with a superior control system.

Uncomplicated operation

The control panel is designed for easy operation, but even so it has many different settings. For example a choice between right or left rotating table, the amount of machining cycles and infinite adjustable speed for both the spindle and the workpiece.

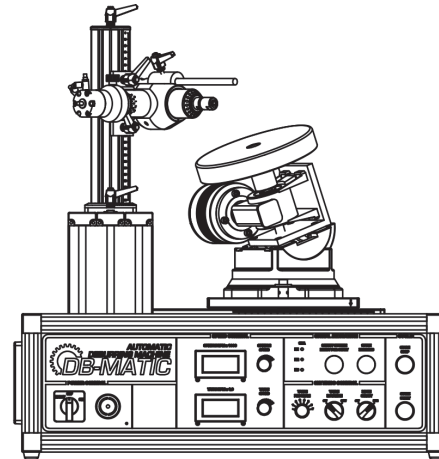
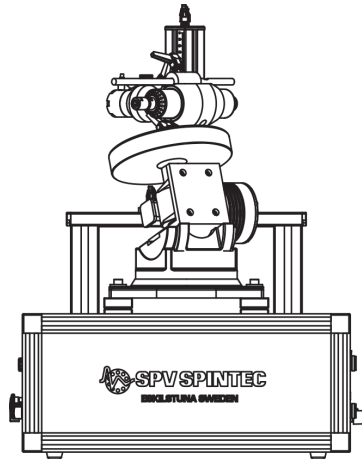
Properties

- For deburring of gear wheels, splines and other rotation symmetrical parts.
- Infinite adjustable length, height and processing angle makes it easy to adapt the process for many different parts.
- Deburring spindle type VM 17 RP with an effect of 0,4 kW and a maximum speed of 54 000 RPM.
- Easy setting of the machining cycle. Infinite adjustment of speed for both the spindle and the workpiece.

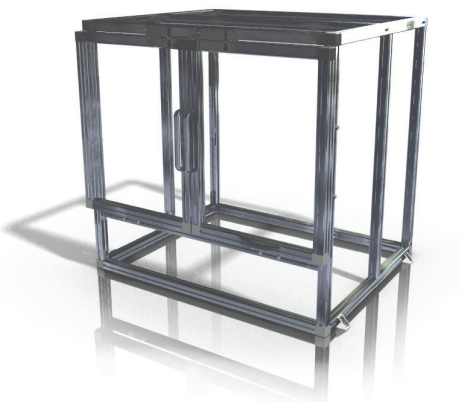
HIGH SPEED SPINDLES

Deburring machine

Technical specifications

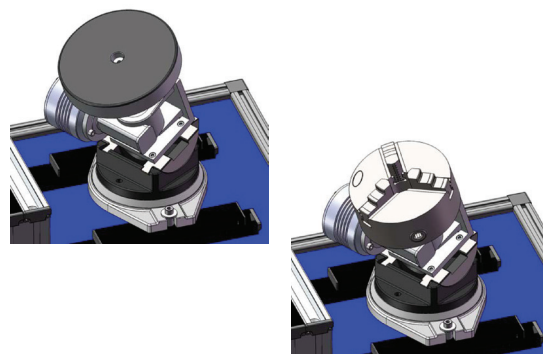


Dimensions	Weight	Working temperature	Input voltage	Frequency	Fuse
L 700 mm	45 kg	+5°C to +45°C	230 VAC	50/60 Hz	6 A (slow)
W 700 mm					
H 600 mm					
Compressed air input	Air consumption	Air hose input	Noise level	Max spindle effect	Max spindle speed
5 - 8 Bar	75 - 100 l / min	Ø6,0 mm	85 db	0,4 kW	54 000 RPM



Options for increased safety

For better personal safety the DB-Matic can be supplied with an enclosed cover which is equipped with magnetic contacts that stops the process if the doors are opened. The safety function can also be adapted to an automation cell etc.



Customized options

As options for the workpiece we offer a blank disc for adapting to fixtures etc. There is also the possibility to get a manual 3-jaw chuck. Choose what fits your type of process in the best way. On request we can also design special fixtures for different products.