

HIGH SPEED SPINDLES



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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 of all spindles.

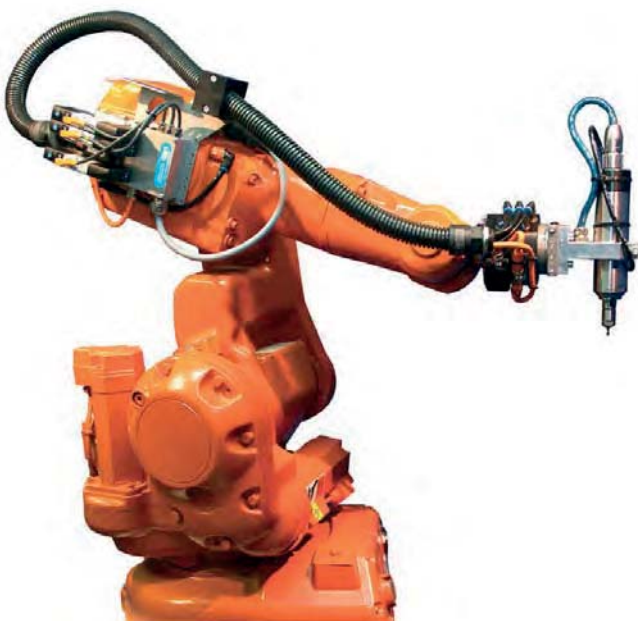
SPV Spintec's wide range of high frequency spindles helps you to renew and adapt your machinery to modern tools that require higher working speeds. The spindles can easily be clamped into existing machines.

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 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 100.000 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 & S27. The slim dimensions of these spindles makes them suitable for building into multispindle 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 a requirement. Suitable for grinding, jig grinding, milling, deburring and drilling.

Water-cooled and 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 motor and spindle series

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

Technical specifications

Spindle type	Effect KW	Speed max RPM	Speed min RPM	Outer diameter Ø mm	Cooling type	Lubrication type
VM 10	0,1	72 000	36 000	33	Comp. air / Fan	Permanently lubricated
VM 17	0,4	54 000	15 000	45	Comp. air / Fan	Permanently lubricated
S 11	0,1	72 000	36 000	33	Comp. air / Fan	Permanently lubricated
S 16	0,4	60 000	15 000	45	Comp. air / Fan	Permanently lubricated
S 18	0,4	60 000	15 000	50	Comp. air / Fan	Permanently lubricated
S 19	0,4	60 000	15 000	60	Comp. air / Fan	Permanently lubricated
S 20	0,65	60 000	15 000	60	Water	Permanently lubricated
S 21	0,7	90 000	15 000	60	Water	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	Comp. air / Fan	Permanently lubricated
S 28	1,1	40 000	9 000	80	Water	Permanently lubricated
S 30	2,0	60 000	15 000	80	Water	Oil-mist lubricated
S 33	1,2	75 000	25 000	80	Water	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	Permanently lubricated
S 50	5,0	30 000	15 000	100	Water	Oil-mist lubricated

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 more 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 10

Appearance

Up to 72 000 RPM and 0,1 KW

Housing:

Anodized aluminum
Stainless steel (type R)

Cooling:

Built-in fan
Compressed air (type P)

Ball bearings:

Permanently lubricated,
preloaded, high
performance groove ball
bearings.

Electrical connection:

6-pole contact via
frequency converter.

Rotation direction:

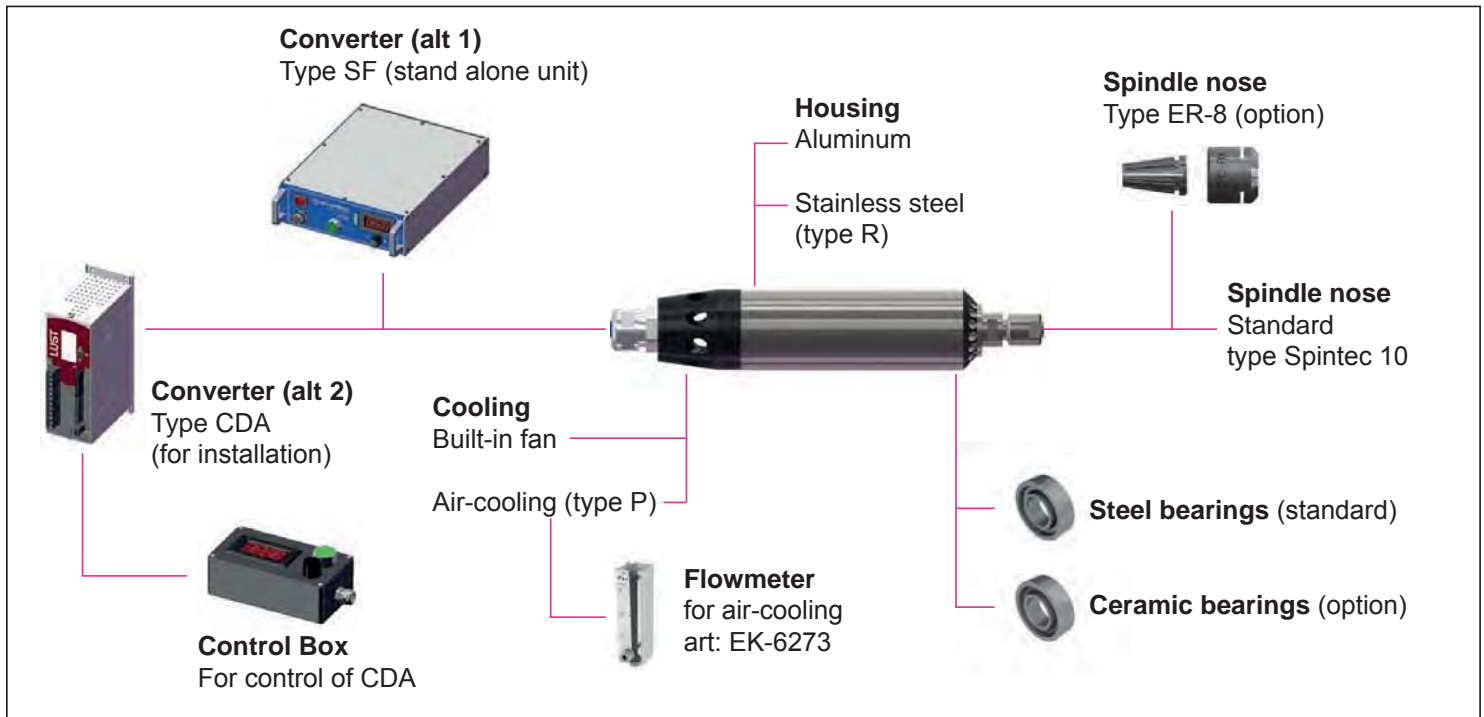
Right rotating
Left rotating (option)



VM 10
Fan-cooled



VM 10 P
Air-cooled



Standard accessories

3 m cable

2 chuck keys

1 collet in any dimension (specify Ø on order)

Drive unit

Frequency converter, stand alone unit : **SF 700**

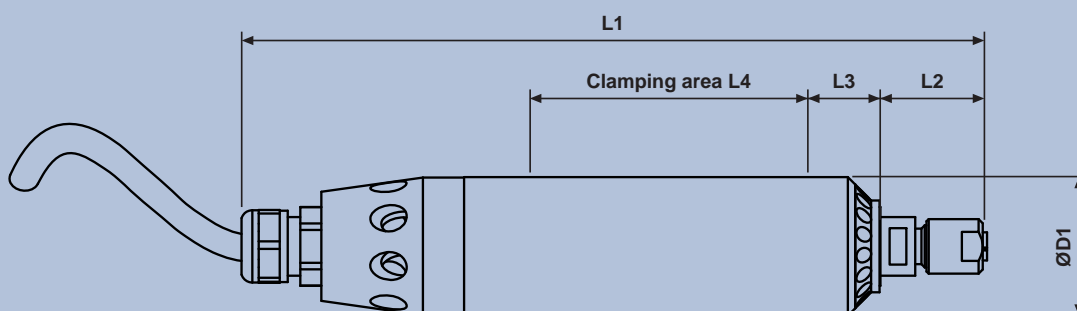
Frequency converter for installation : **CDA-0,75**

Control Box for control of CDA : **CONTROL BOX**

Technical specifications

Spindle type	ØD1 mm (h7)	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	Ø4,0

Spindle type	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.

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 more 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

Appearance

Up to 54 000 RPM and 0,4 KW

Housing:

Anodized aluminum
Stainless steel (type R)

Cooling:

Built-in fan
Compressed air (type P)

Ball bearings:

Permanently lubricated,
preloaded, high
performance groove ball
bearings.

Electrical connection:

6-pole contact via
frequency converter.

Rotation direction:

Right rotating
Left rotating (option)



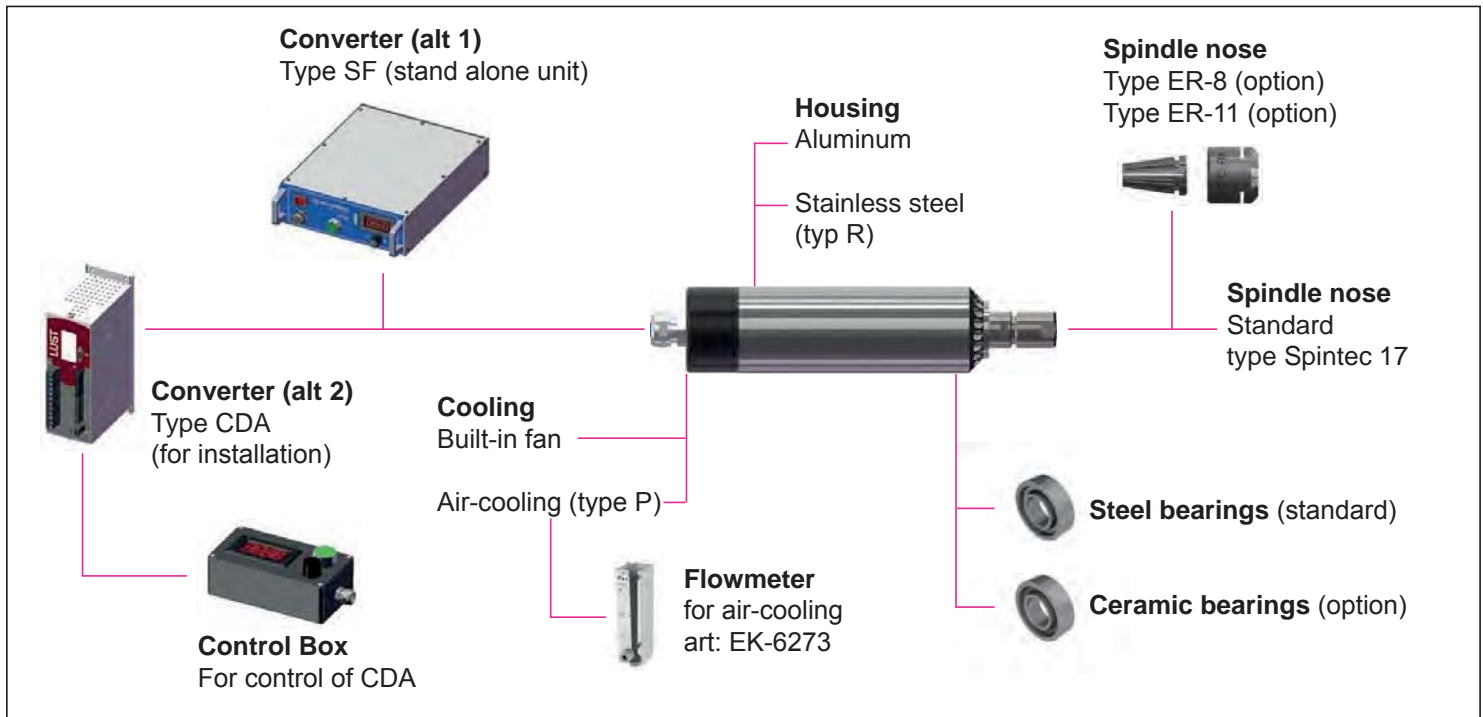
VM 17
Fan-cooled



VM 17 P
Air-cooled



VM 17 AC
Angular connections



Standard accessories

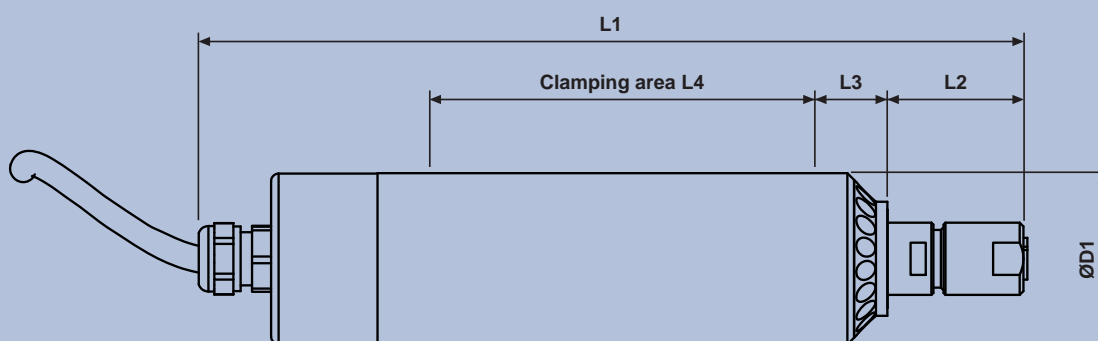
3 m cable
2 chuck keys
1 collet in any dimension (specify Ø on order)

Drive unit

Frequency converter, stand alone unit : **SF 700**
Frequency converter for installation : **CDA-0,75**
Control Box for control of CDA : **CONTROL BOX**

Technical specifications

Spindle type	ØD1 mm (h7)	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	Ø8,0
Spindle type	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.

** Type AC = -21mm, type P = +28 mm

S 11

Air-cooled spindle designed for high speed, precision and reliability. It is intended for building into machines 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 required. The noise level will also be lower.



S 11

Appearance

Up to 72 000 RPM and 0,1 KW

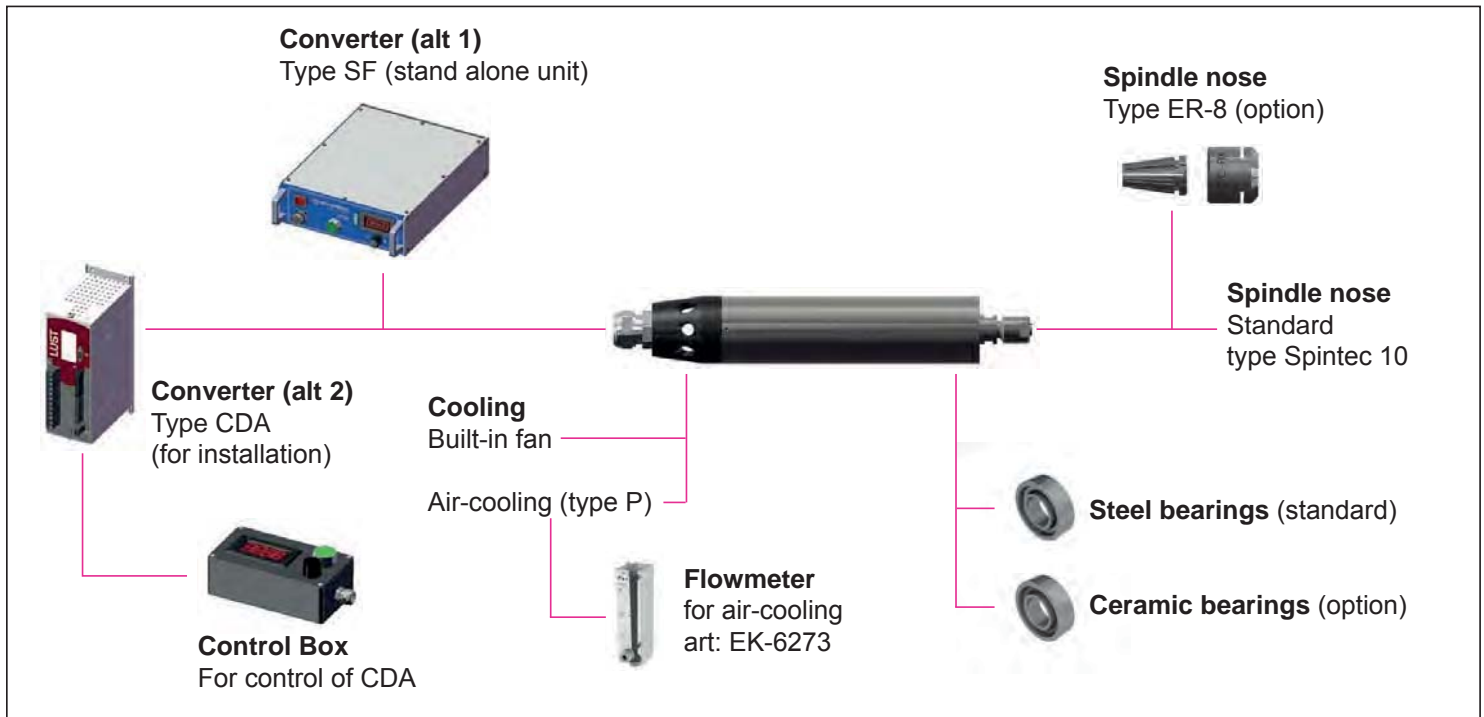
- Housing:
 - Steel
- Cooling:
 - Built-in fan
 - Compressed air (type P)
- Ball bearings:
 - Permanently lubricated, spring preloaded, high precision angular contact ball bearings.
- Electrical connection:
 - 6-pole contact with PTC via frequency converter
- Rotation direction:
 - Right rotating
 - Left rotating (option)



S 11-72
Fan-cooled



S 11-72 P
Air-cooled



Standard accessories

3 m cable

2 chuck keys

1 collet in any dimension (specify Ø on order)

Drive unit

Frequency converter, stand alone unit : **SF 700**

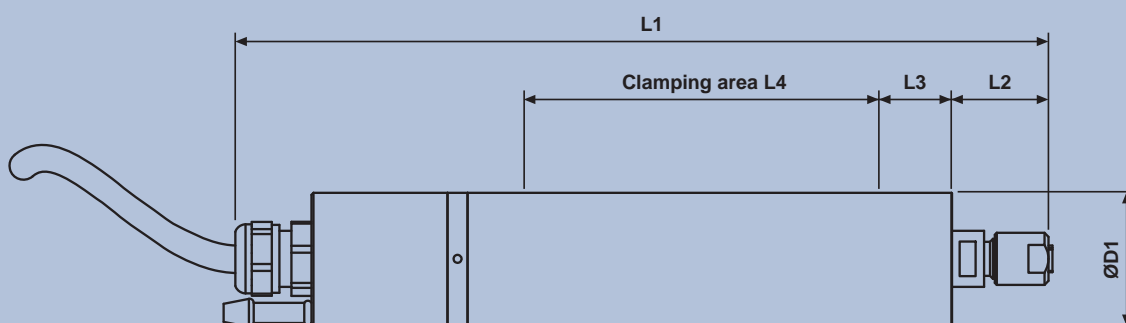
Frequency converter for installation : **CDA-0,75**

Control Box for control of CDA : **CONTROL BOX**

Technical specifications

Spindle type	ØD1 mm (h7)	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	Ø4,0

Spindle type	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 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 required. The noise level will also be lower.



S 16 & S 18

Appearance

Up to 60 000 RPM and 0,4 KW

Housing:

Steel

Cooling:

Built-in fan

Compressed air (type P)

Ball bearings:

Permanently lubricated,
spring preloaded, high
precision angular
contact ball bearings.

Electrical connection:

6-pole contact with PTC
via frequency converter

Rotation direction:

Right rotating

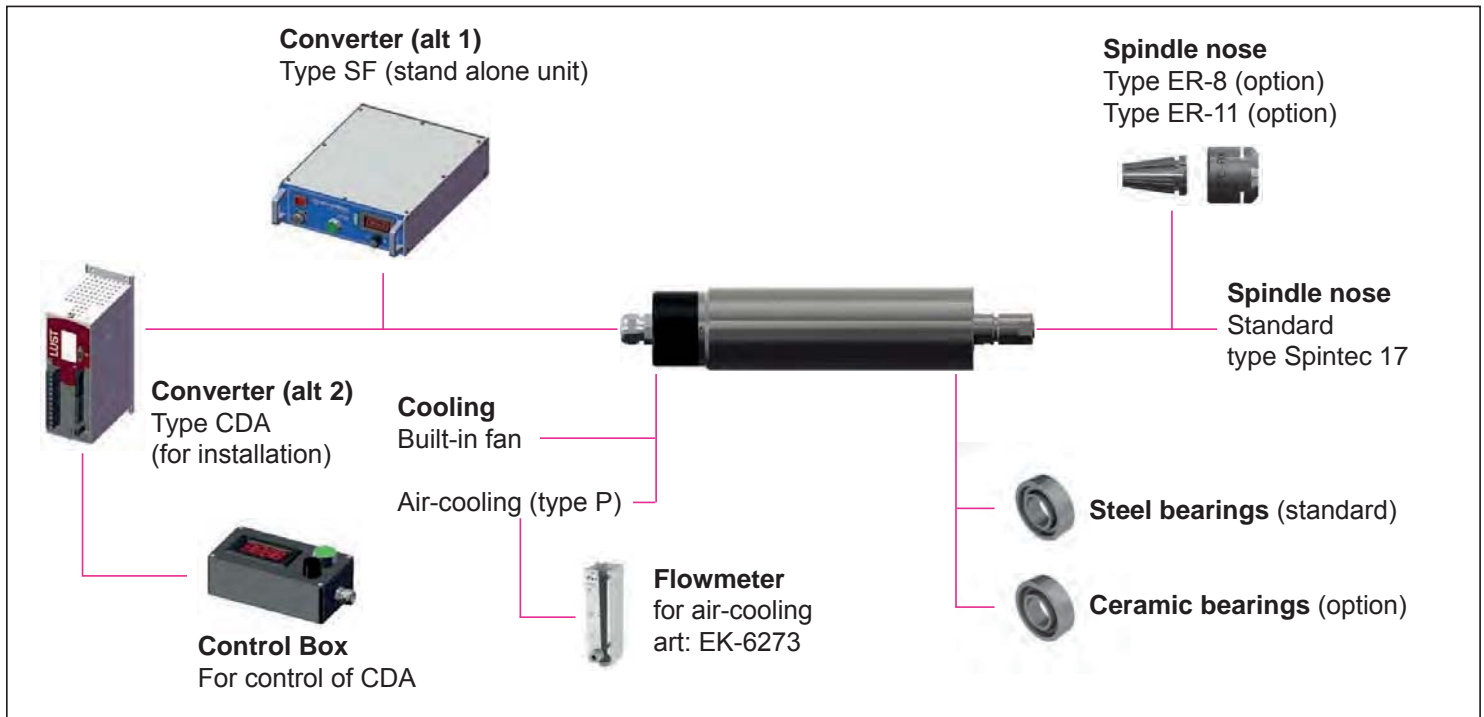
Left rotating (option)



Standard
Fan-cooled



Type P
Air-cooled



Standard accessories

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

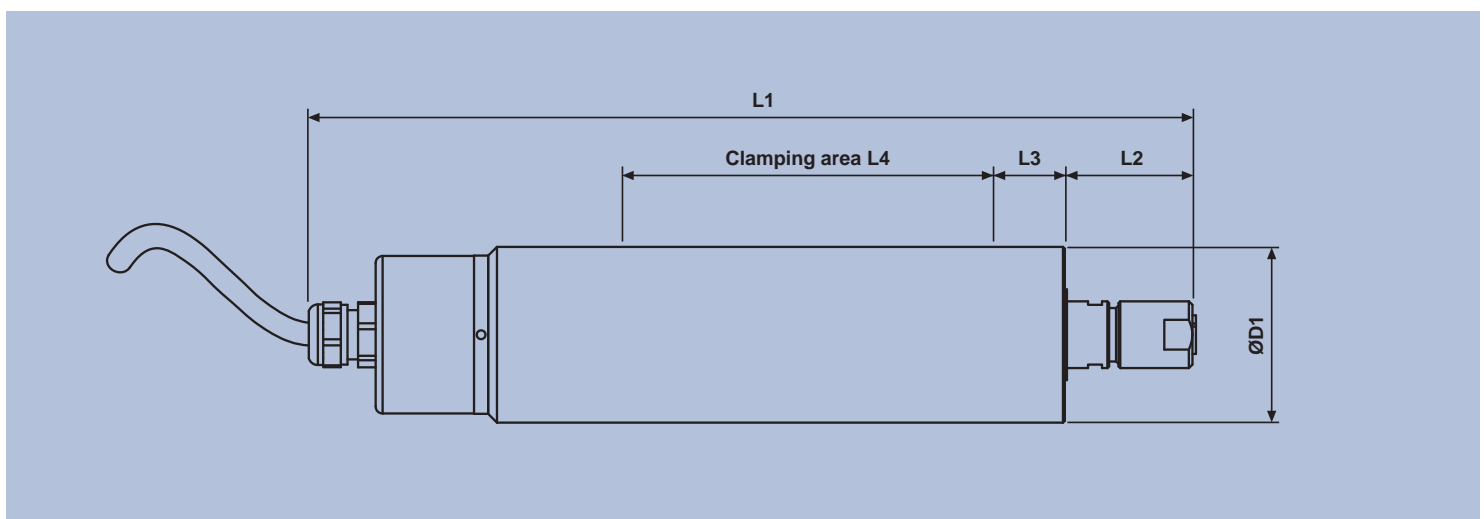
Drive unit

Frequency converter, stand alone unit : **SF 700**
Frequency converter for installation : **CDA-0,75**
Control Box for control of CDA : **CONTROL BOX**

Technical specifications

Spindle type	ØD1 mm (h7)	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	Ø8,0
S 18-60	45	251 **	37	20	102	2,0	Spintec 17	Ø8,0

Spindle type	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

Air-cooled spindles

S 19

Air-cooled spindle designed for high speed, precision and reliability. It is intended for building into machines 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 required. The noise level will also be lower.



Appearance

S 19

Up to 60 000 RPM and 0,4 KW

Housing:

Steel

Cooling:

Built-in fan

Compressed air (type P)

Ball bearings:

Permanently lubricated, spring preloaded, high precision angular contact ball bearings.

Electrical connection:

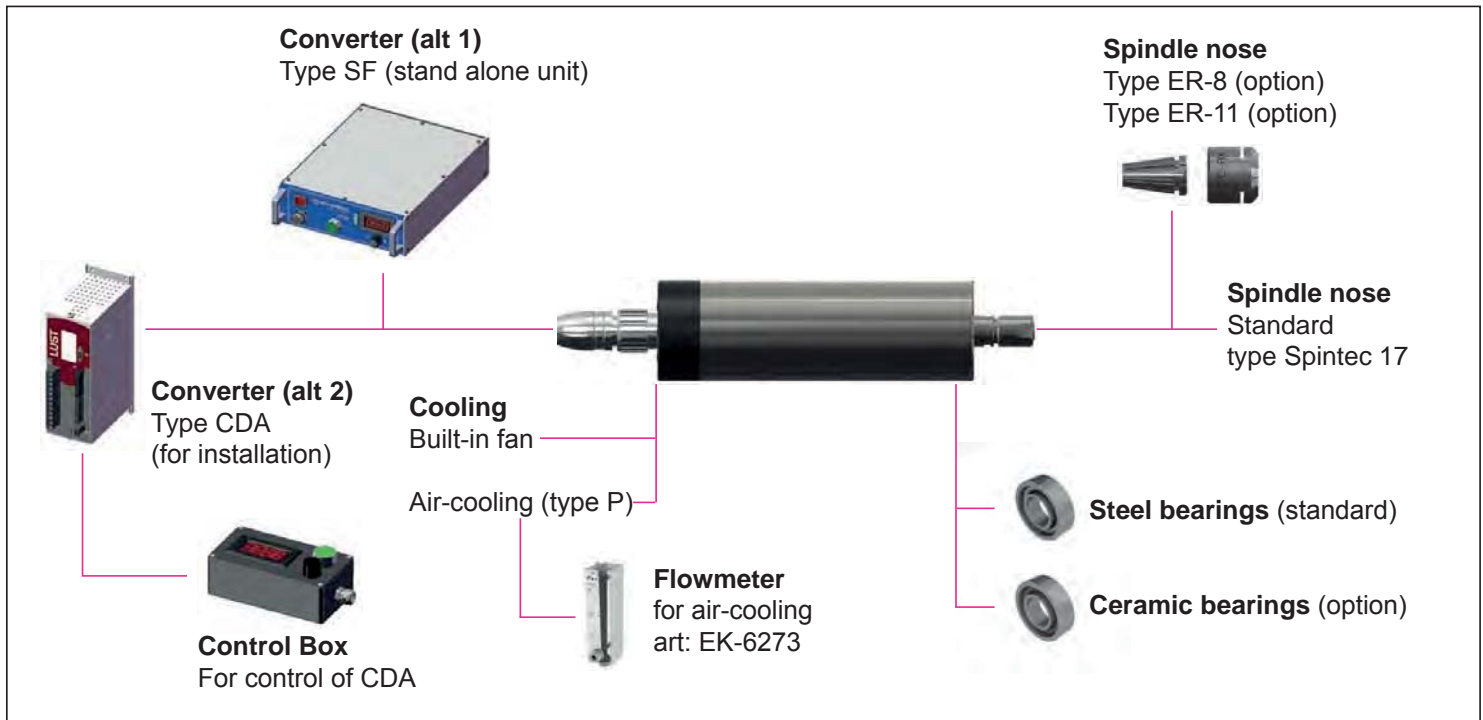
6-pole contact with PTC via frequency converter

Rotation direction:

Right rotating

Left rotating (option)





Standard accessories

3 m cable

2 chuck keys

1 collet in any dimension (specify Ø on order)

Drive unit

Frequency converter, stand alone unit : **SF 700**

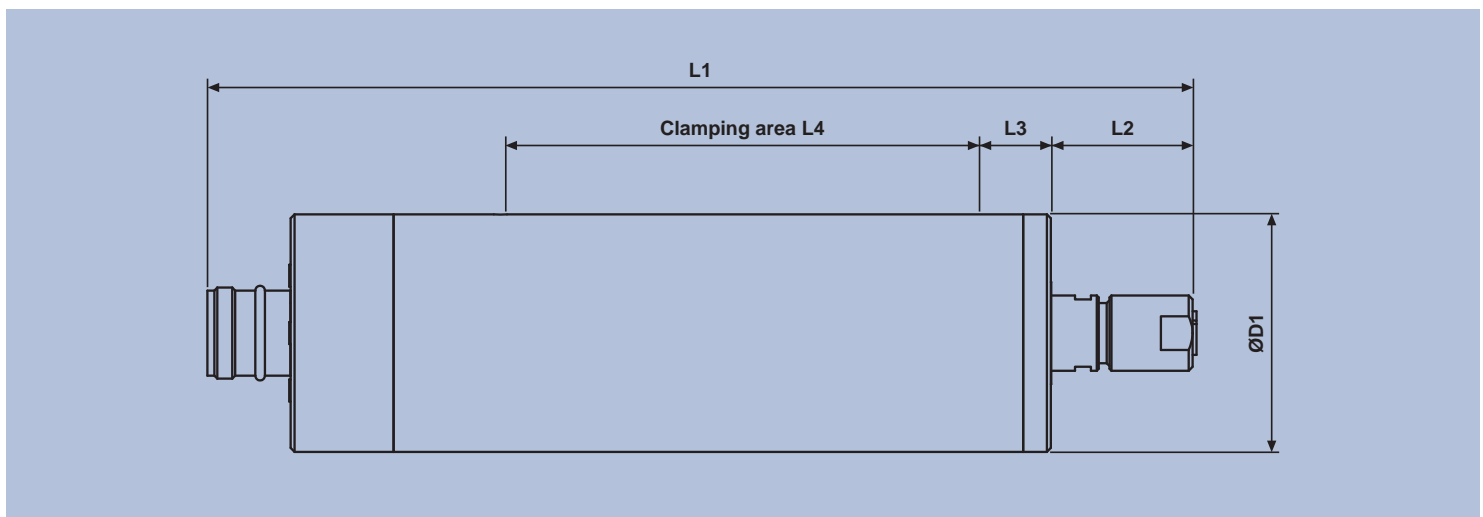
Frequency converter for installation : **CDA-0,75**

Control Box for control of CDA : **CONTROL BOX**

Technical specifications

Spindle type	ØD1 mm (h7)	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	Ø8,0

Spindle type	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.

S 27

Air-cooled spindle designed for high speed, precision and reliability. It is intended for building into machines 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 required. The noise level will also be lower.



S 27

Appearance

Up to 54 000 RPM and 0,8 KW

Housing:
Steel
Cooling:
Built-in fan
Compressed air (type P)
Ball bearings:
Permanently lubricated, spring preloaded, high precision angular contact ball bearings. S27-30 is provided with dual front bearings.
Electrical connection:
6-pole contact with PTC via frequency converter
Rotation direction:
Right rotating
Left rotating (option)



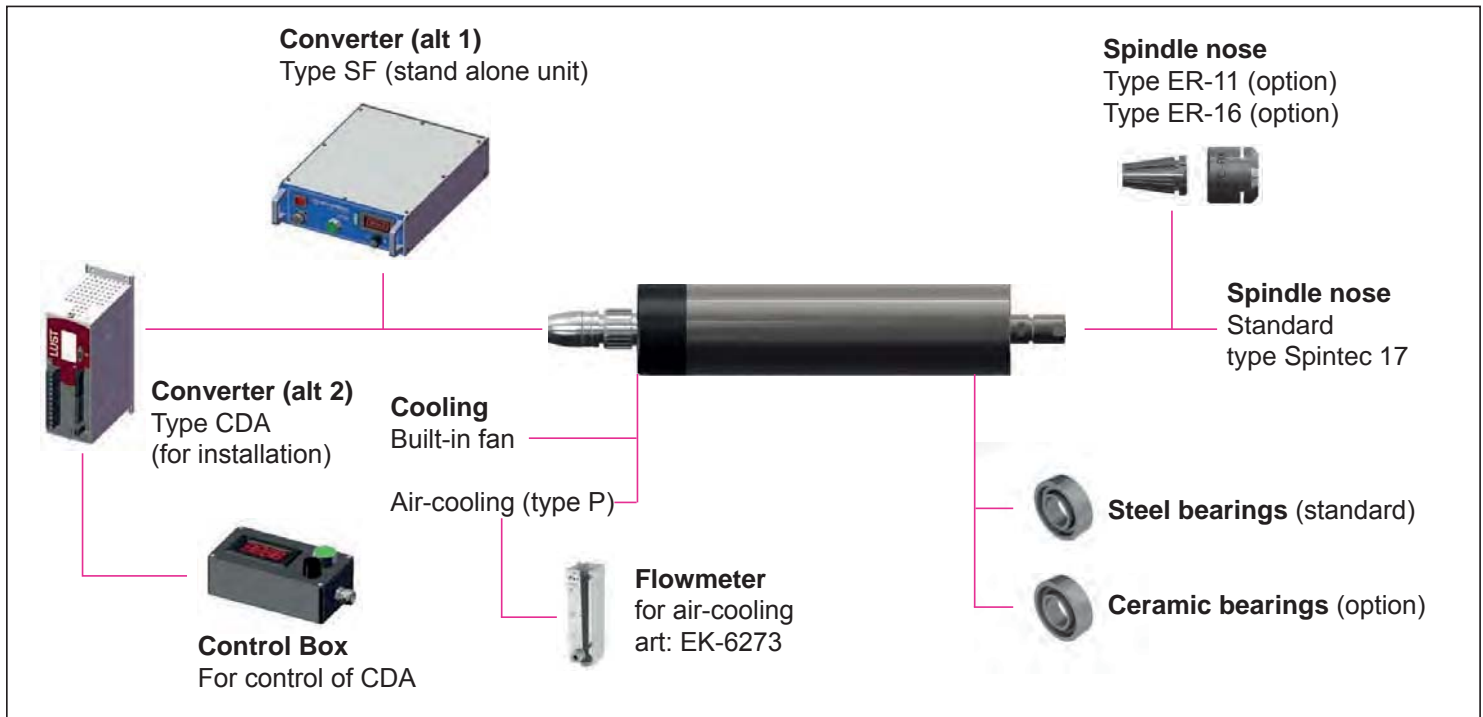
S 27-30

S 27-38

S 27-40

S 27-54

type AC
angular
connections



Standard accessories

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

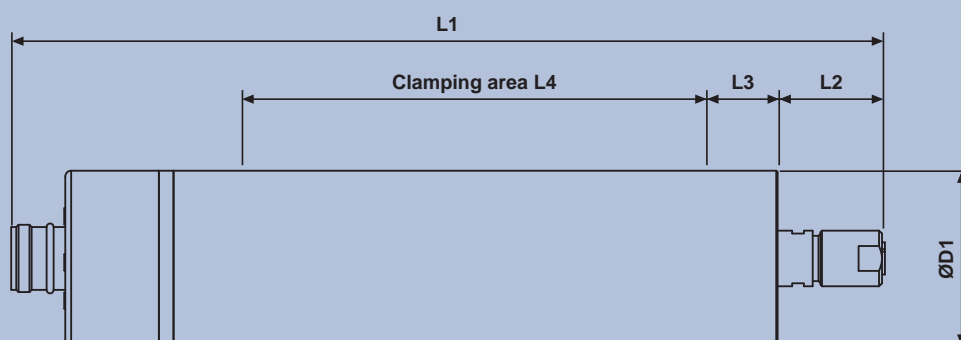
Drive unit

Frequency converter, stand alone unit : **SF 1500**
Frequency converter for installation : **CDA-1,5**
Control Box for control of CDA : **CONTROL BOX**

Technical specifications

Spindle type	ØD1 mm (h7)	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	Ø8,0
S 27-40	60	337	37	20	102	3,2	Spintec 17	Ø8,0
S 27-38	60	330	37	25	82	3,3	Spintec 17	Ø8,0
S 27-54	60	318	37	20	82	3,0	Spintec 17	Ø8,0

Spindle type	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 27-38	0,55	133	38 000	9 000	0,005	0,05	100 *	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.

S 24

Air-cooled spindle with compact dimensions, intended as an RPM raiser for light milling, grinding, drilling, deburring and engraving with small tools that require high speeds. Suitable for robot applications and multioperation machines. S 24 is manufactured with highest precision and accuracy and is designed to give you the ability to adapt your machines to modern tools.



S 24

Appearance

Up to 75 000 RPM and 0,3 KW

Housing:

Anodized aluminum

Cooling:

Compressed air

Ball bearings:

Permanently lubricated, encapsulated, spring preloaded, high precision groove ball bearings.

Electrical connection:

6-pole contact with PTC via frequency converter

Rotation direction:

Right rotating

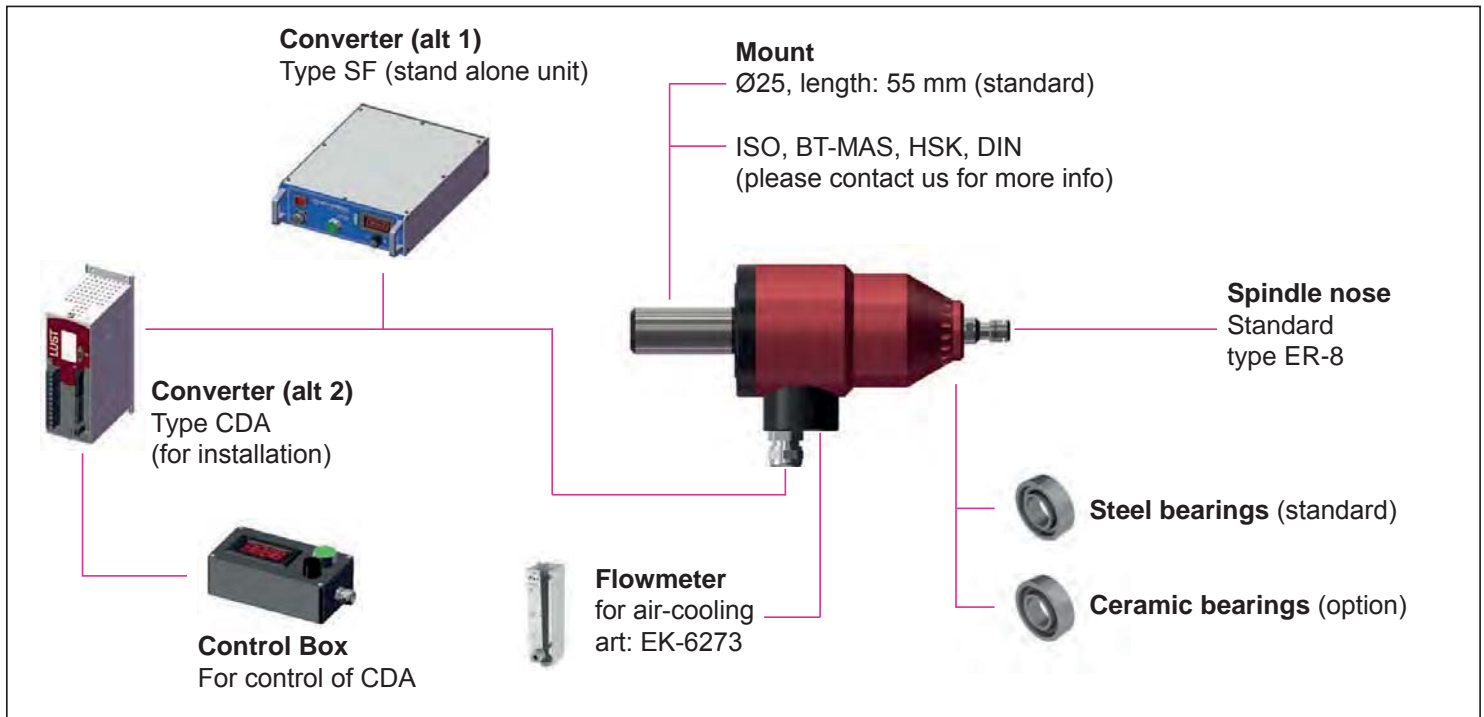
Left rotating (option)



Standard shaft
cylindrical Ø25



Alternative mounts
(BT-MAS, HSK, DIN etc)



Standard accessories

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

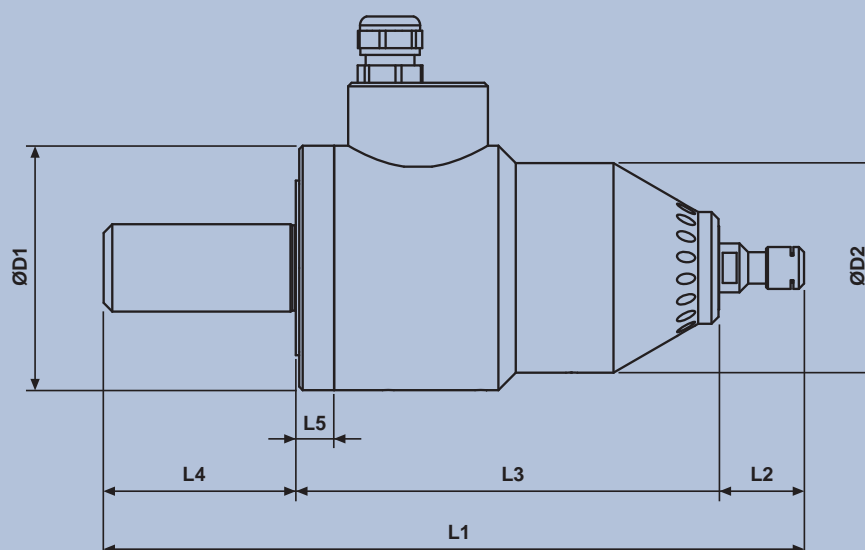
Drive unit

Frequency converter, stand alone unit : **SF 700**
Frequency converter for installation : **CDA-0,75**
Control Box for control of CDA : **CONTROL BOX**

Technical specifications

Spindle type	ØD1 mm	ØD2 mm	L1 mm	L2 mm	L3 mm	L4 mm	L5 mm	Weight kg	Spindle nose type	Collet max Ø mm
S 24-75P	70	60	202 **	26	121	55 **	10	1,6	Regofix ER-8	Ø5,0

Spindle type	Effect max KW	Voltage V	Speed max RPM	Speed min RPM	Run-out max mm	Coaxiality max mm	Air consumption l / min (typ P)	Noise level dB
S 24-75P	0,3	192	75 000	30 000	0,01	0,05	50 *	65



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

** Applies to Ø25, see application overview for other varieties.

S 34

Air-cooled spindle with compact dimensions, intended as an RPM raiser for light milling, grinding, drilling, deburring and engraving with small tools that require high speeds. Suitable for robot applications and multioperation machines. S 34 is manufactured with highest precision and accuracy and is designed to give you the ability to adapt your machines to modern tools.



S 34

Appearance

Up to 45 000 RPM and 0,5 KW

Housing:

Anodized aluminum

Cooling:

Compressed air

Ball bearings:

Permanently lubricated, encapsulated, spring preloaded, high precision groove ball bearings.

Electrical connection:

6-pole contact with PTC via frequency converter

Rotation direction:

Right rotating

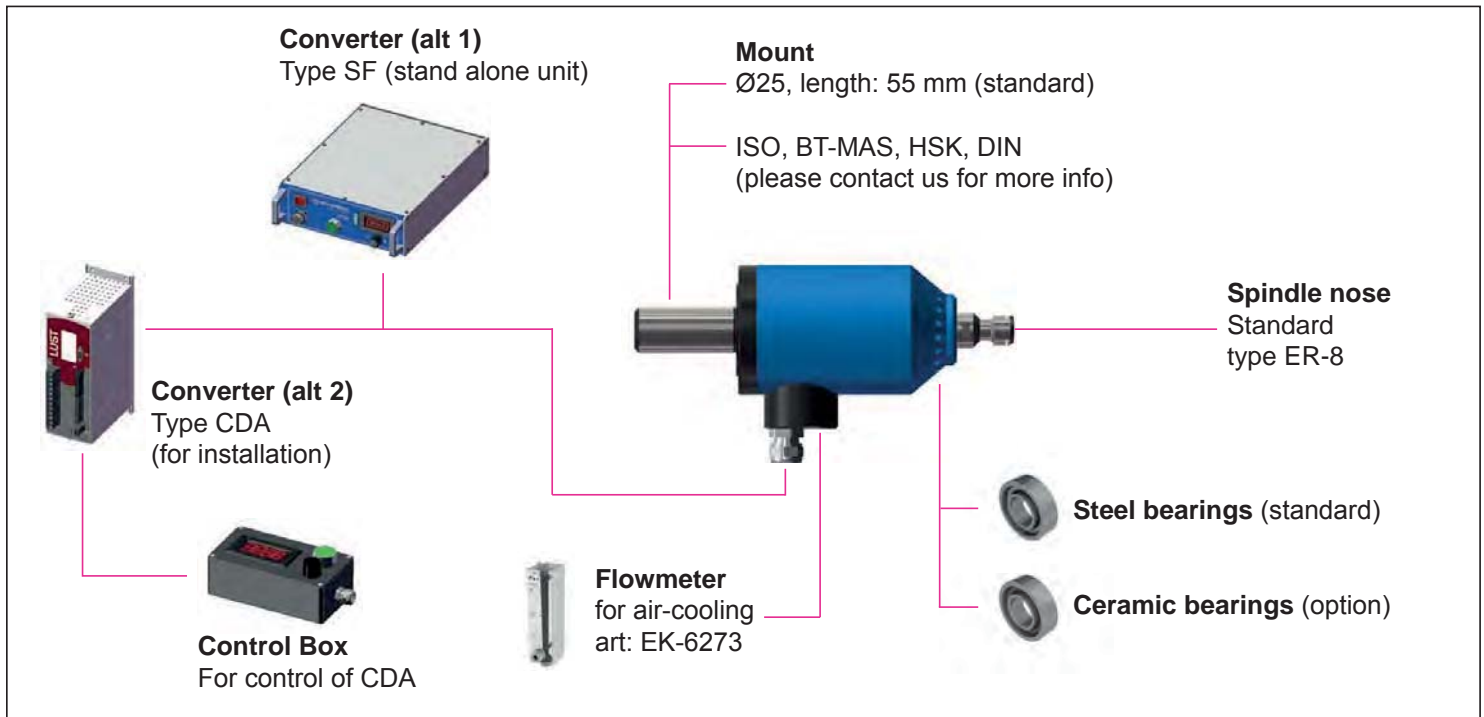
Left rotating (option)



Standard shaft
cylindrical Ø25



Alternative mounts
(BT-MAS, HSK, DIN etc)



Standard accessories

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

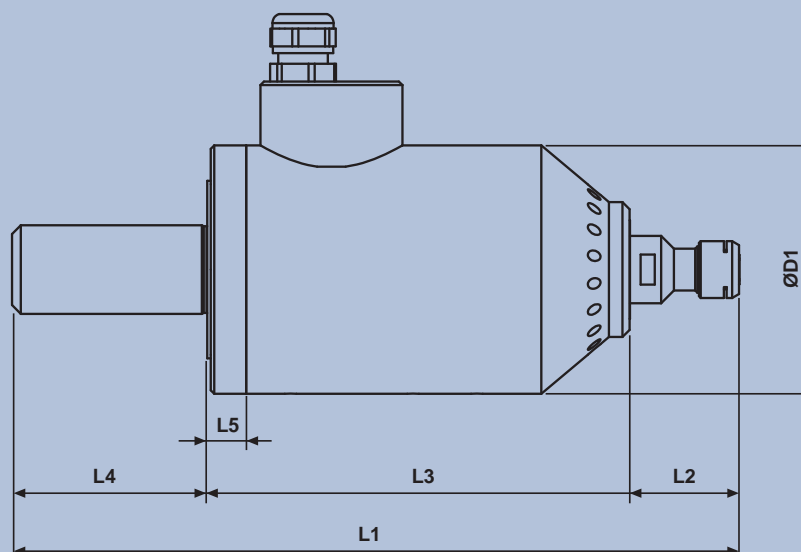
Drive unit

Frequency converter, stand alone unit : **SF 700**
Frequency converter for installation : **CDA-0,75**
Control Box for control of CDA : **CONTROL BOX**

Technical specifications

Spindle type	ØD1 mm	L1 mm	L2 mm	L3 mm	L4 mm	L5 mm	Weight kg	Spindle nose type	Collet max Ø mm
S 34-45P	70	207 **	33	119	55 **	10	2,0	Regofix ER-11	Ø7,0

Spindle type	Effect max KW	Voltage V	Speed max RPM	Speed min RPM	Run-out max mm	Coaxiality max mm	Air consumption l / min (typ P)	Noise level dB
S 34-45P	0,5	230	45 000	15 000	0,01	0,05	50 *	65



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

** Applies to Ø25, see application overview for other varieties.

S 44

Water-cooled spindle with compact dimensions, intended as an RPM raiser for milling, grinding, drilling and deburring with small tools that require high speeds. Suitable for robot applications and multi-operation machines. S 44 is manufactured with highest precision and accuracy and is designed to give you the ability to adapt your machines to modern tools.



S 44

Appearance

Up to 50 000 RPM and 2,5 KW

Housing:

Stainless steel

Cooling:

Water

Ball bearings:

Spring preloaded,
permanently lubricated,
high precision angular
contact ball bearings.

Electrical connection:

6-pole contact with PTC
via frequency converter

Rotation direction:

Right rotating
Left rotating (option)

Water connection:

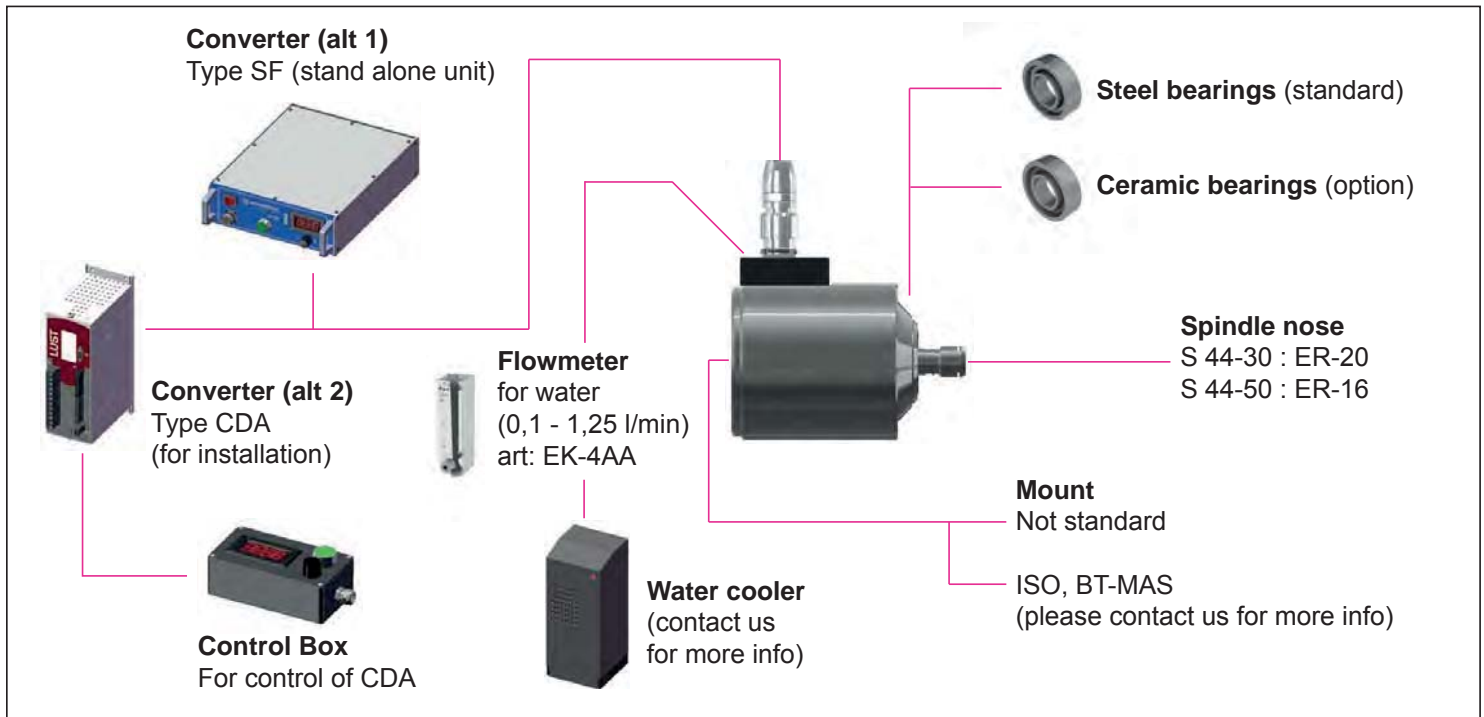
In- and outlet (R1/8")



Standard appearance



With mount



Standard accessories

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

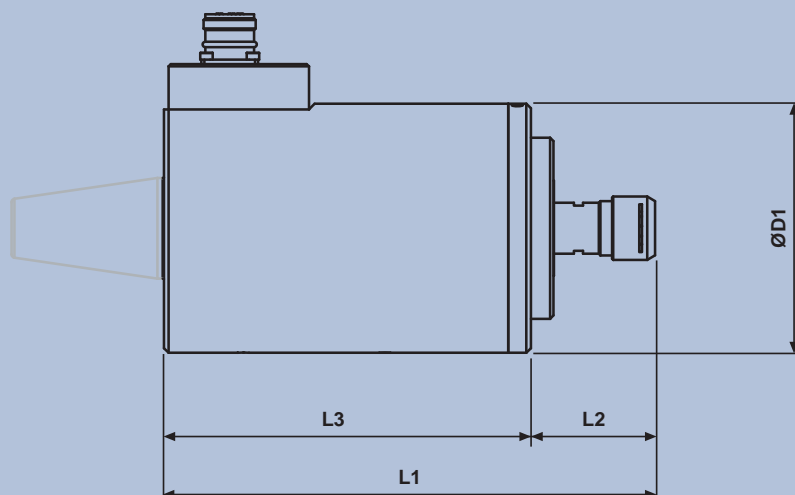
Drive unit

Frequency converter, stand alone unit : **SF 3000**
Frequency converter for installation : **CDA-3,0**
Control Box for control of CDA : **CONTROL BOX**

Technical specifications

Spindle type	ØD1 mm	L1 mm	L2 mm	L3 mm	Weight kg	Spindle nose type	Collet max Ø mm
S 44-30	110	218	56	162	8,5	Regofix ER-20	Ø13,0
S 44-50	110	158	33	125	6,5	Regofix ER-16	Ø10,0

Spindle type	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 44-30	2,5	300	30 000	5 000	0,005	0,05	1,2 *	65
S 44-50	2,2	300	50 000	10 000	0,005	0,05	1,2 *	65



* The cooling-flow between the spindle and the flowmeter may vary depending on various conditions.

S 20

Water-cooled spindle intended for building into machines, where power, wide speed range and low noise levels are essential. S 20 is designed and manufactured with highest precision and accuracy which makes it optimal for internal grinding etc.



S 20

Appearance

Up to 60 000 RPM and 0,65 KW

Housing:

Stainless steel

Cooling:

Water

Ball bearings:

Spring preloaded, permanently lubricated, high precision angular contact ball bearings.

Electrical connection:

6-pole contact with PTC via frequency converter

Rotation direction:

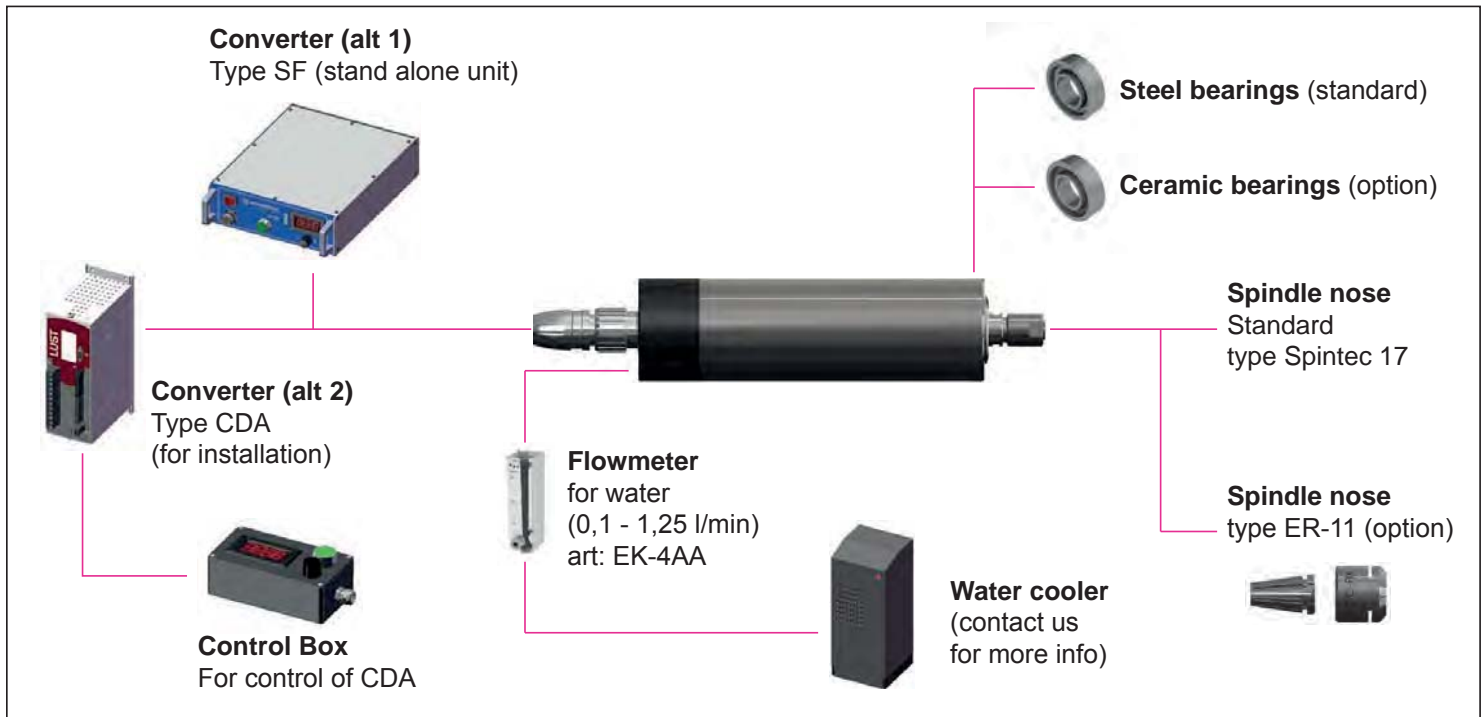
Both directions available

Water connection:

In- and outlet (R1/8")



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



Standard accessories

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

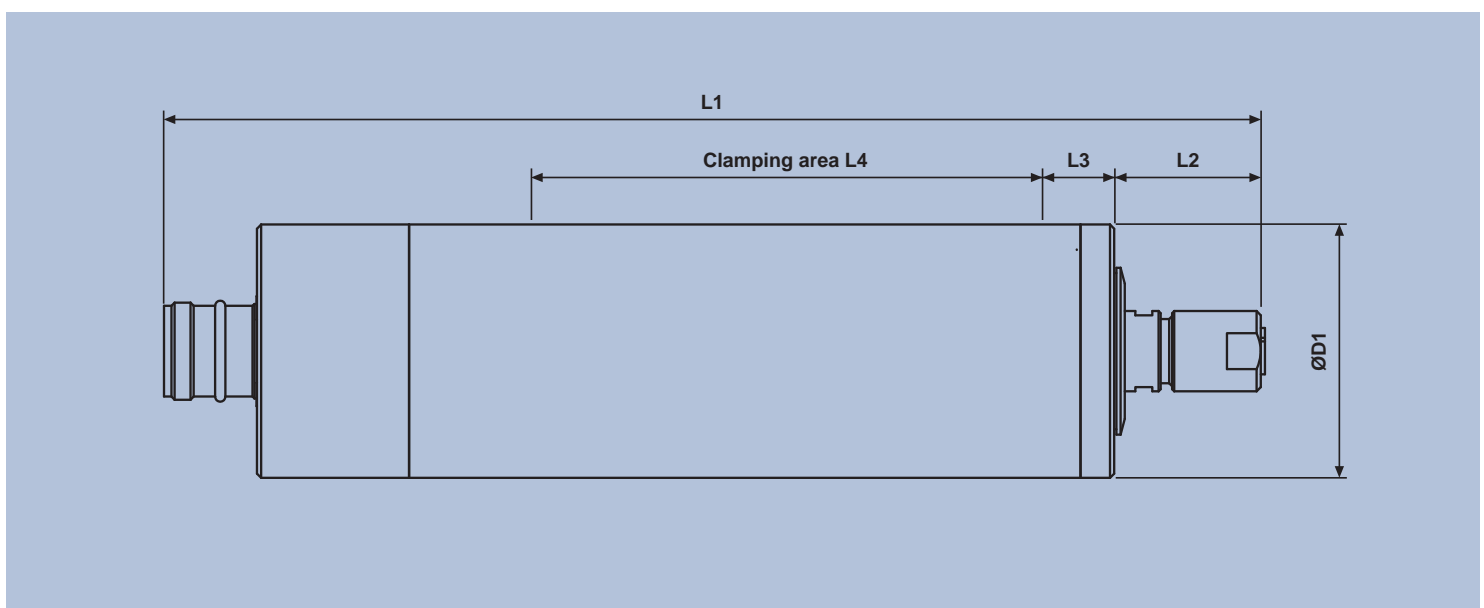
Drive unit

Frequency converter, stand alone unit : **SF 700**
Frequency converter for installation : **CDA-0,75**
Control Box for control of CDA : **CONTROL BOX**

Technical specifications

Spindle type	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	Ø8,0

Spindle type	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 cooling-flow between the spindle and the flowmeter may vary depending on various conditions.

S 21

Water-cooled, oil mist lubricated spindle intended for building into machines, where power, wide speed range and low noise are essential. S 21 is designed and manufactured with highest precision and accuracy which makes it optimal for internal grinding etc.



S 21

Appearance

Up to 90 000 RPM and 0,7 KW

Housing:

Stainless steel

Cooling:

Water

Ball bearings:

Spring preloaded, Oil-mist lubricated, high precision angular contact bearings.

Electrical connection:

6-pole contact with PTC via frequency converter

Rotation direction:

Both directions available

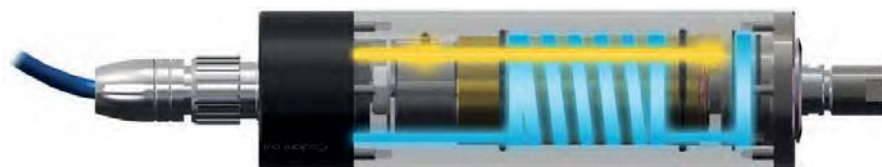
Water connection:

In- and outlet (R1/8")

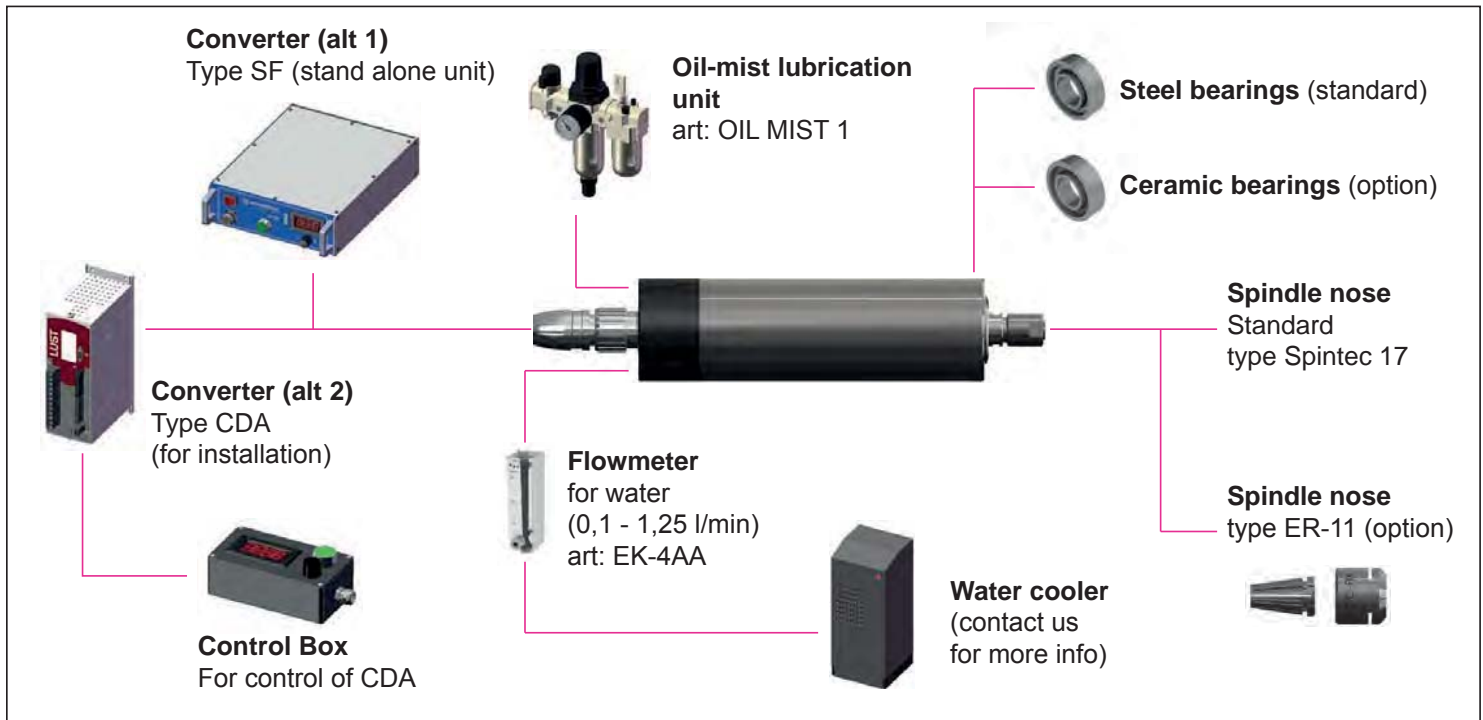
Oil-mist connection:

Inlet (R1/8")

Oil-mist lubrication of the ball bearings



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



Standard accessories

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

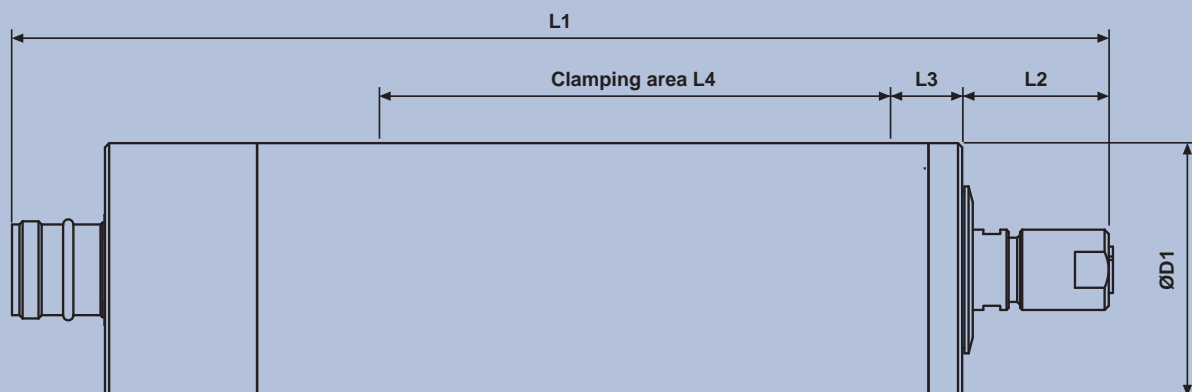
Drive unit

Frequency converter, stand alone unit : **SF 700**
Frequency converter for installation : **CDA-0,75**
Control Box for control of CDA : **CONTROL BOX**

Technical specifications

Spindle type	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	Ø8,0
S 21-90	60	229	33	20	125	2,9	Regofix ER-8	Ø5,0

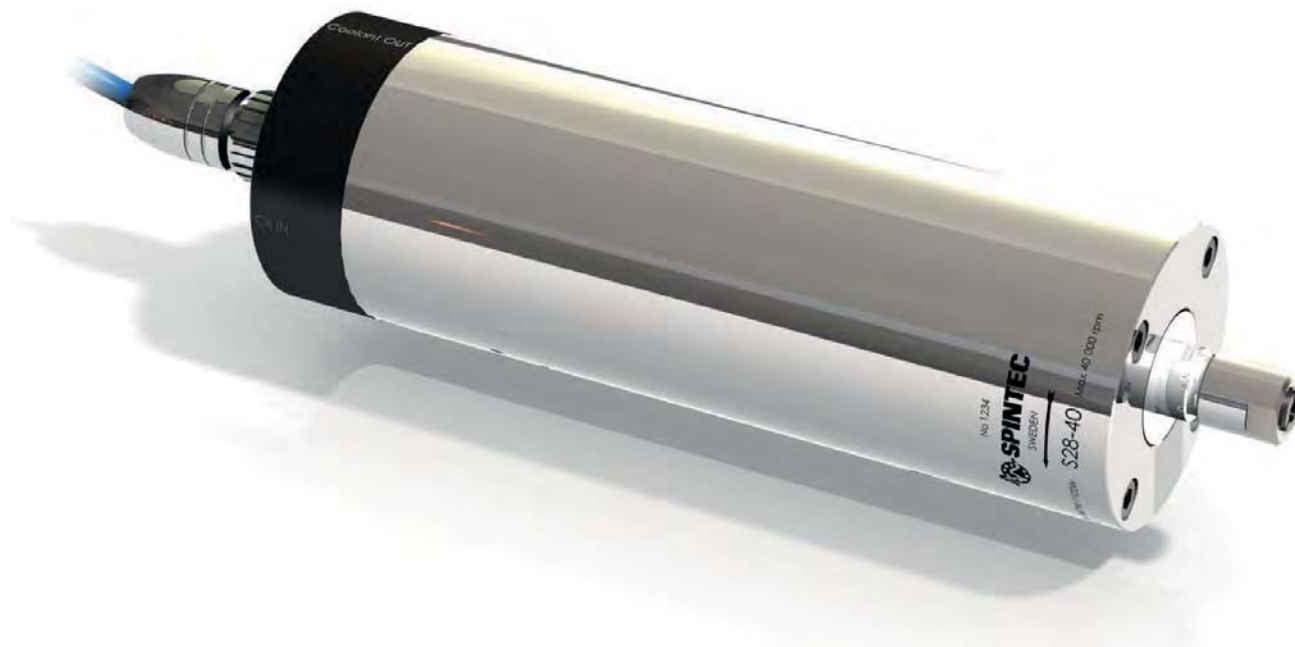
Spindle type	Effect max KW	Voltage V	Speed max RPM	Speed min RPM	Run-out max mm	Coaxiality max mm	Water flow l / min	Noise level dB
S 21-60	0,7	210	60 000	15 000	0,005	0,05	0,6 *	60
S 21-90	0,4	230	90 000	30 000	0,005	0,05	0,6 *	60



* The cooling-flow between the spindle and the flowmeter may vary depending on various conditions.

S 28

Water-cooled spindle intended for building into machines, where power, wide speed range and low noise levels are essential. S 28 is designed and manufactured with highest precision and accuracy which makes it optimal for internal grinding etc.



S 28

Appearance

Up to 40 000 RPM and 1,1 KW

Housing:

Stainless steel

Cooling:

Water

Ball bearings:

Spring preloaded, permanently lubricated, high precision angular contact ball bearings.

Electrical connection:

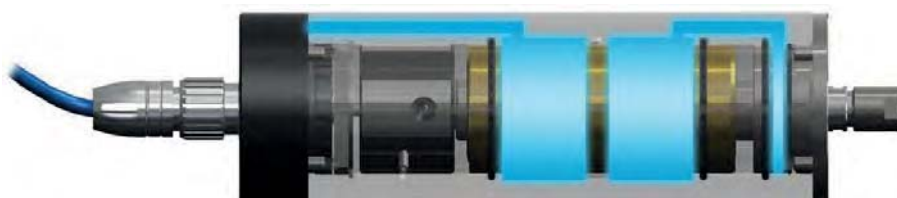
6-pole contact with PTC via frequency converter

Rotation direction:

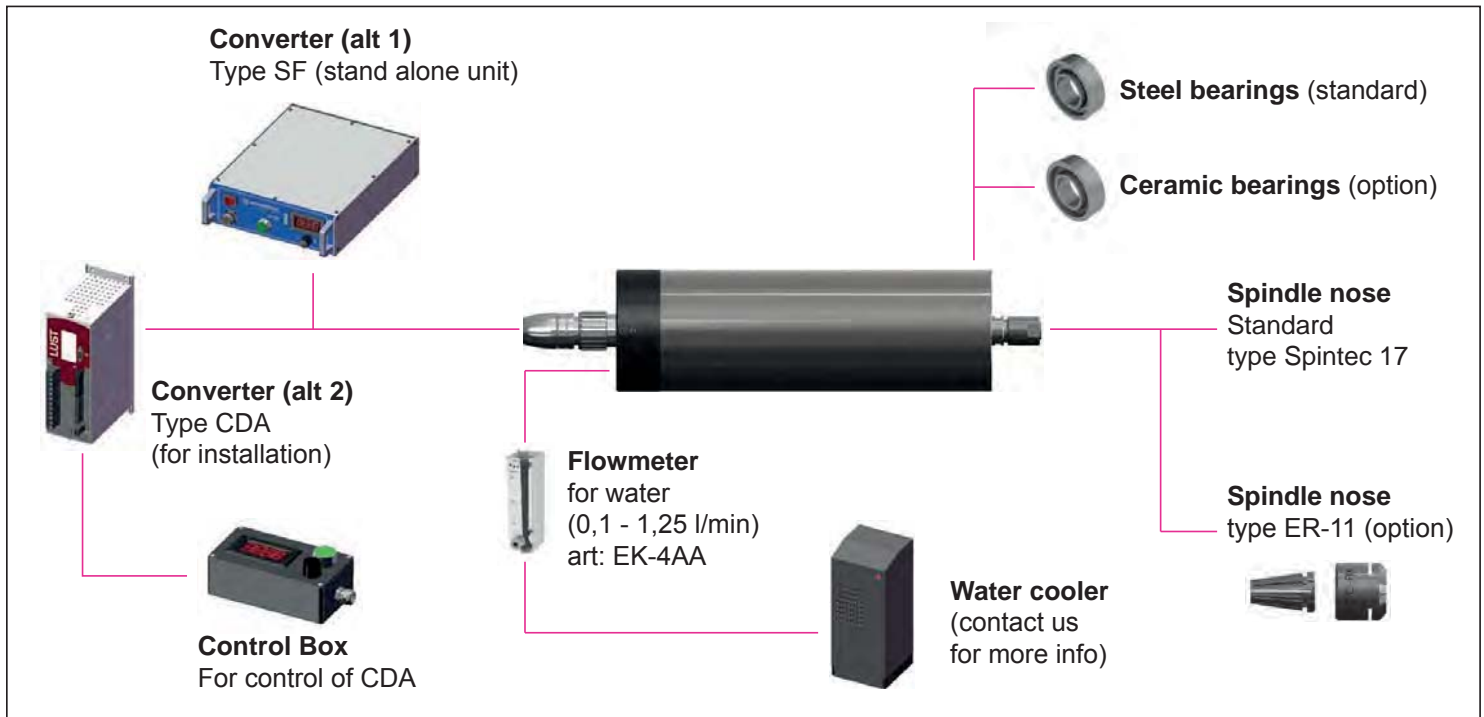
Both directions available

Water connection:

In- and outlet (R1/8")



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



Standard accessories

3 m cable

2 chuck keys

1 collet in any dimension (specify Ø on order)

Drive unit

Frequency converter, stand alone unit : **SF 1500**

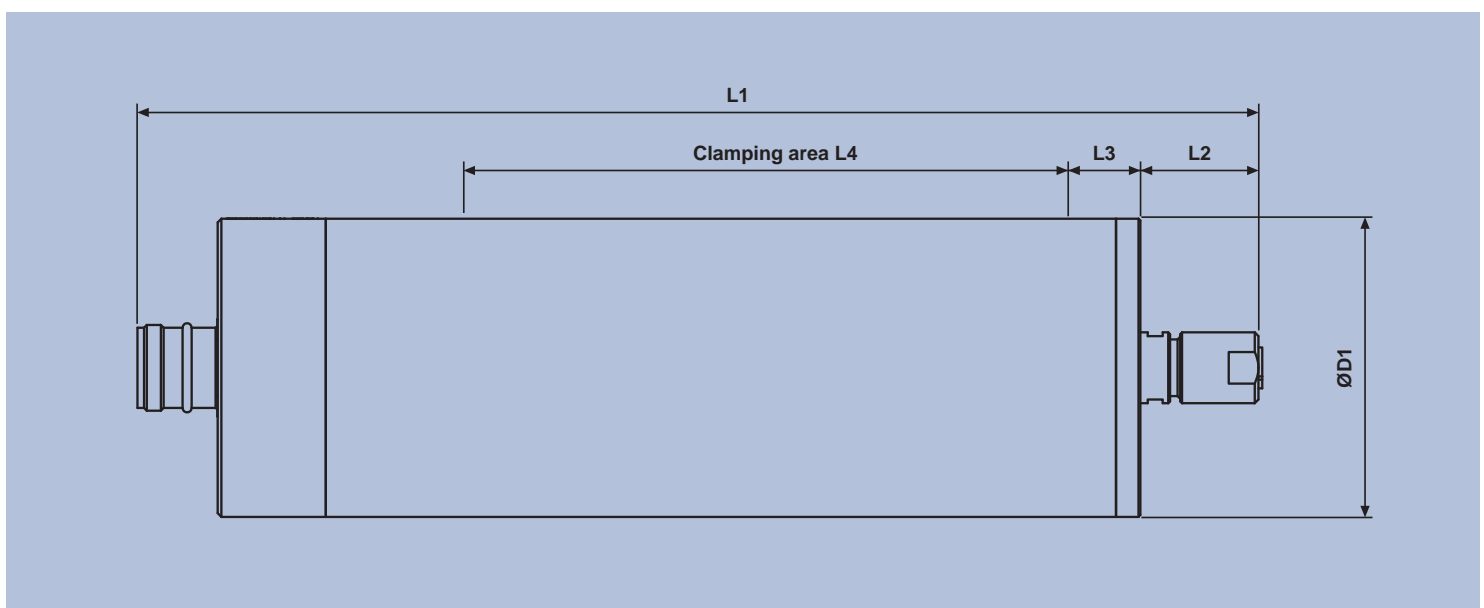
Frequency converter for installation : **CDA-1,5**

Control Box for control of CDA : **CONTROL BOX**

Technical specifications

Spindle type	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	Ø8,0

Spindle type	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 cooling-flow between the spindle and the flowmeter may vary depending on various conditions.

Water-cooled spindles

S 30

Water-cooled, oil mist lubricated spindle intended for building into machines, where power, wide speed range and low noise levels are essential. S 30 is designed and manufactured with highest precision and accuracy which makes it optimal for internal grinding etc.



S 30

Appearance

Up to 60 000 RPM and 2,0 KW

Housing:

Stainless steel

Cooling:

Water

Ball bearings:

Spring preloaded, Oil-mist lubricated, high precision angular contact bearings.

Electrical connection:

6-pole contact with PTC via frequency converter

Rotation direction:

Both directions available

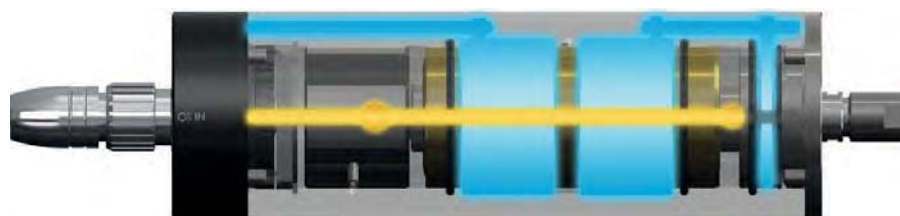
Water connection:

In- and outlet (R1/8")

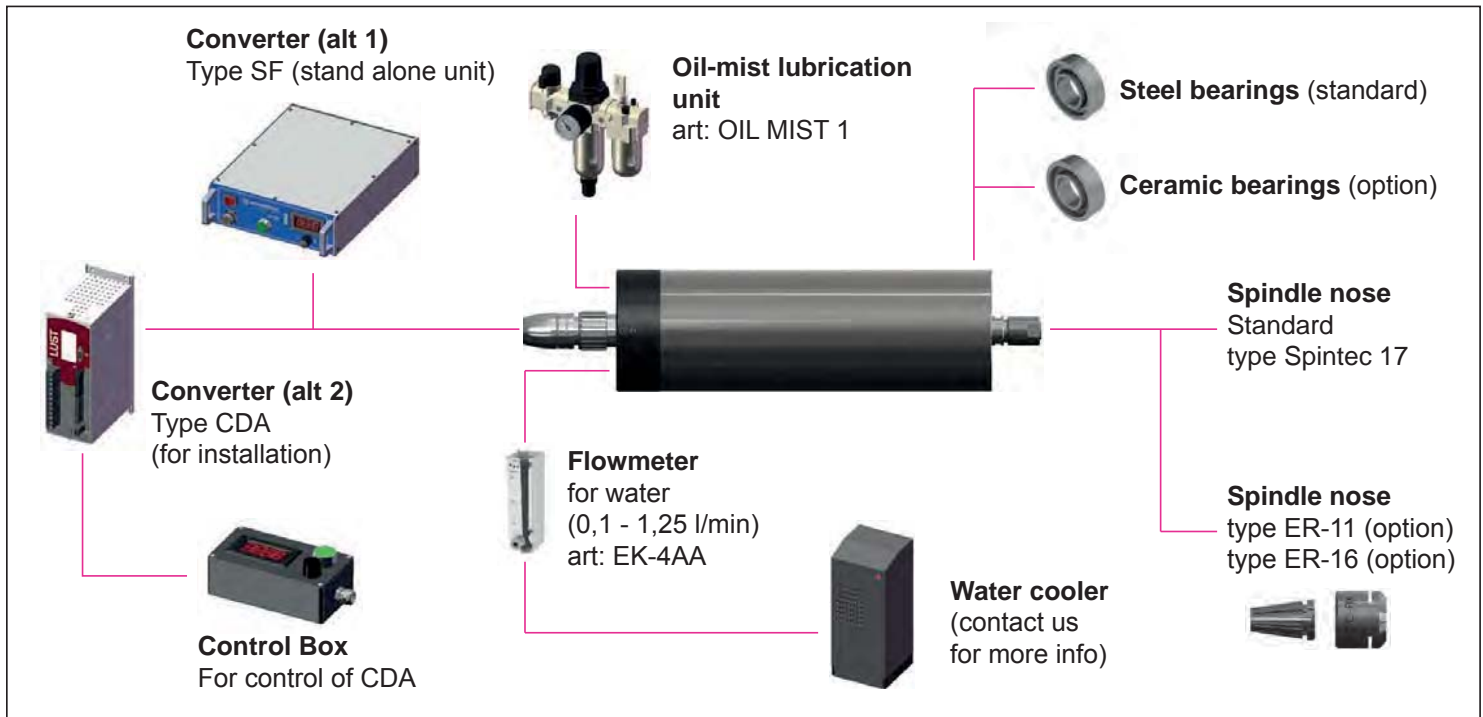
Oil-mist connection:

Inlet (R1/8")

Oil-mist lubrication of the ball bearings



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



Standard accessories

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

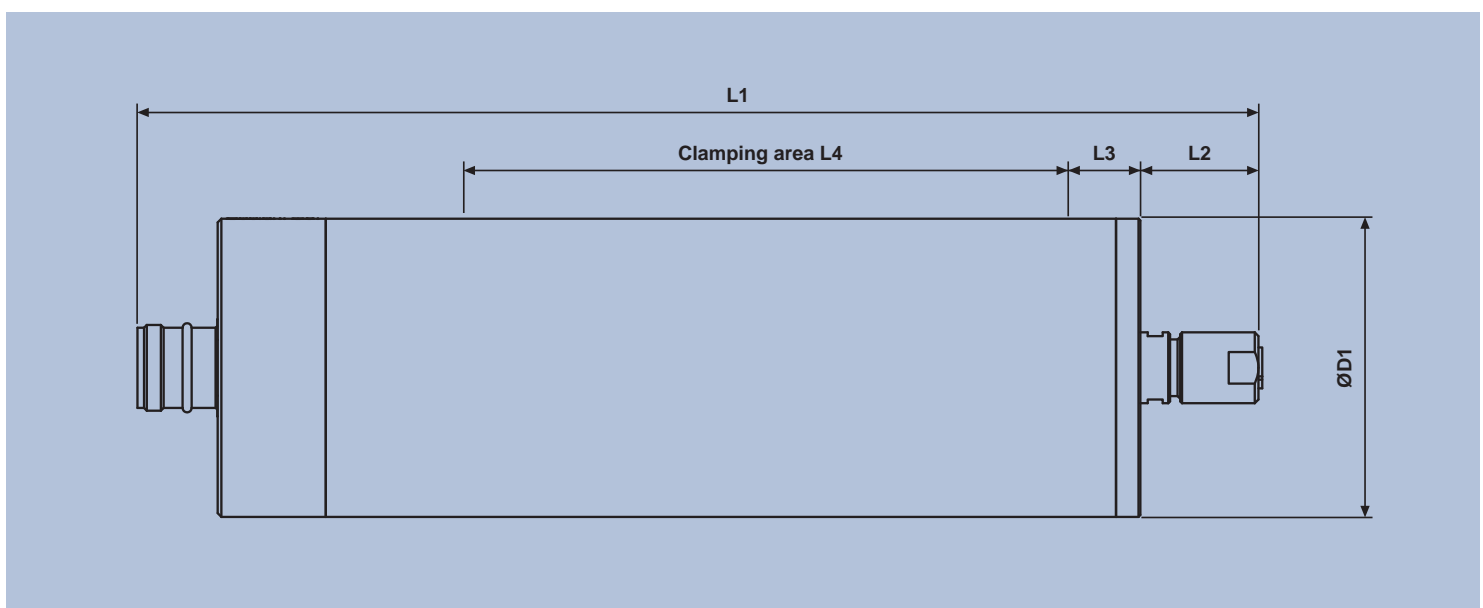
Drive unit

Frequency converter, stand alone unit : **SF 3000**
Frequency converter for installation : **CDA-3,0**
Control Box for control of CDA : **CONTROL BOX**

Technical specifications

Spindle type	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	Ø8,0

Spindle type	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 cooling-flow between the spindle and the flowmeter may vary depending on various conditions.

S 33

Water-cooled, oil mist lubricated spindle intended for building into machines, where power, wide speed range and low noise levels are essential. S 33 is designed and manufactured with highest precision and accuracy which makes it optimal for internal grinding etc.



S 33

Appearance

Up to 75 000 RPM and 1,2 KW

Housing:

Stainless steel

Cooling:

Water

Ball bearings:

Spring preloaded, Oil-mist lubricated, high precision angular contact bearings.

Electrical connection:

6-pole contact with PTC via frequency converter

Rotation direction:

Both directions available

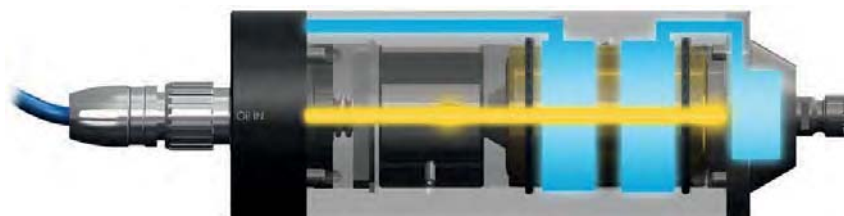
Water connection:

In- and outlet (R1/8")

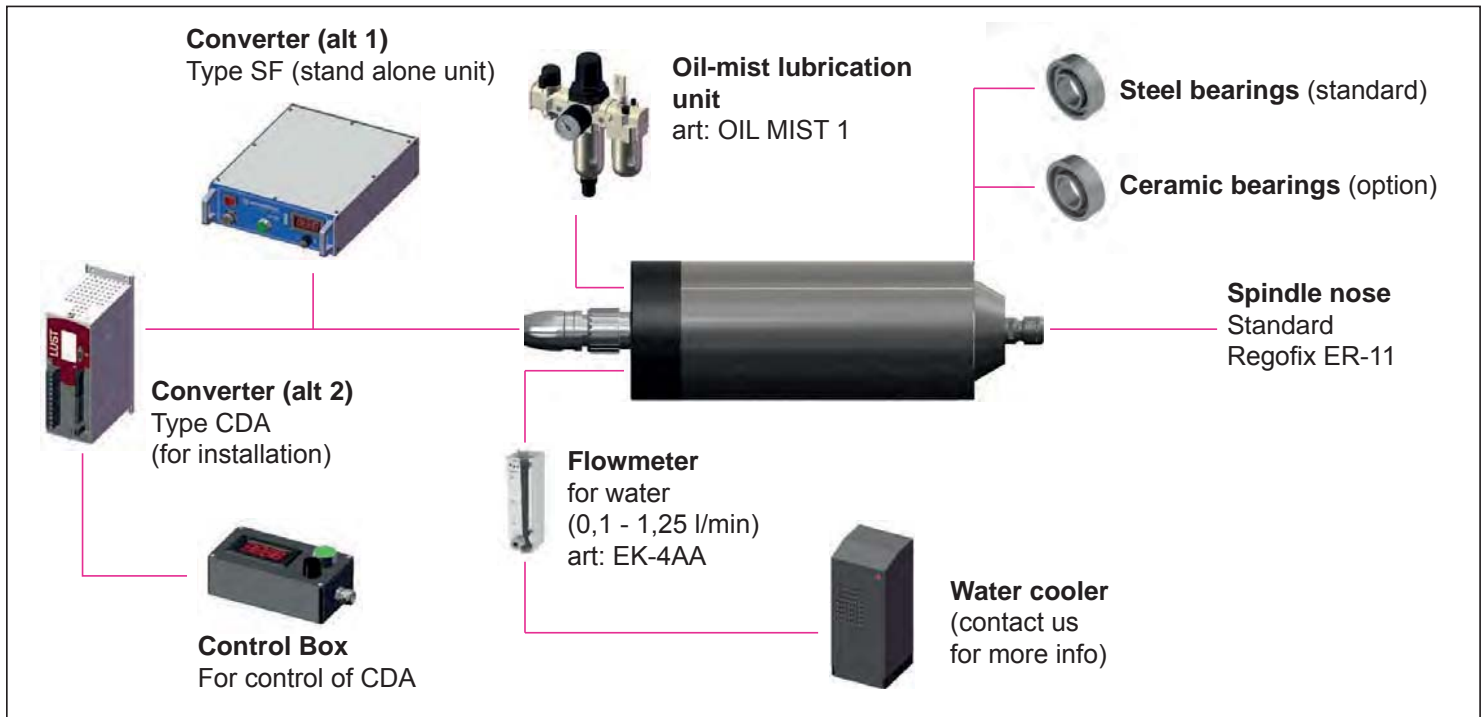
Oil-mist connection:

Inlet (R1/8")

Oil-mist lubrication of the ball bearings



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



Standard accessories

3 m cable

2 chuck keys

1 collet in any dimension (specify Ø on order)

Drive unit

Frequency converter, stand alone unit : **SF 1500**

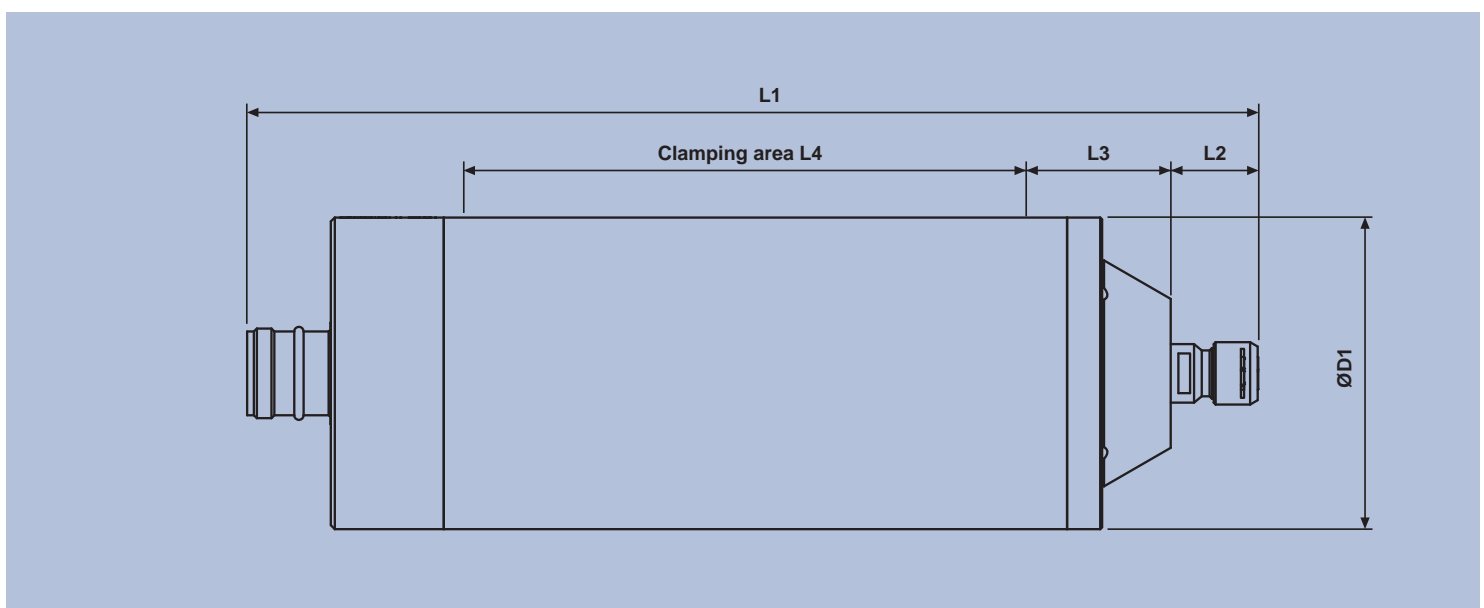
Frequency converter for installation : **CDA-1,5**

Control Box for control of CDA : **CONTROL BOX**

Technical specifications

Spindle type	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	Ø7,0

Spindle type	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 cooling-flow between the spindle and the flowmeter may vary depending on various conditions.

S 50

Water-cooled, oil mist lubricated spindle intended for building into machines, where high power, wide speed range and low noise levels are essential. S 50 is designed and manufactured with highest precision and accuracy which makes it optimal for internal grinding etc.



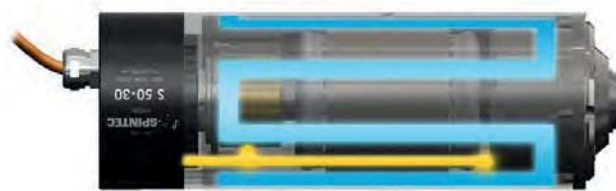
S 50

Appearance

Up to 30 000 RPM and 5,0 KW

Housing:
Stainless steel
Cooling:
Water
Ball bearings:
Spring preloaded, Oil-mist lubricated, high precision angular contact bearings.
Electrical connection:
6-pole contact with PTC via frequency converter
Rotation direction:
Both directions available
Water connection:
In- and outlet (R1/8")
Oil-mist connection:
Inlet (R1/8")

Oil-mist lubrication of the ball bearings



Efficient water-cooling over the the whole spindle housing

Regofix nose ER-20

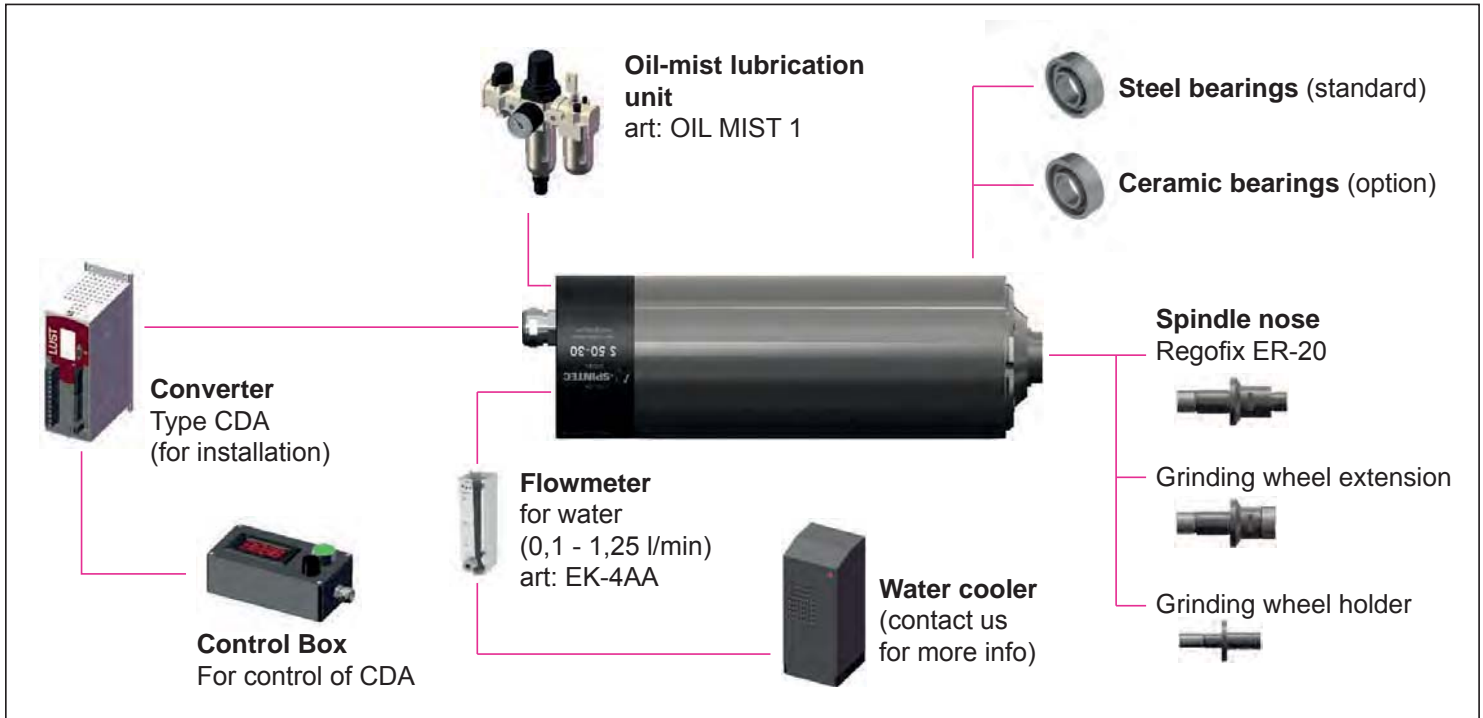


Grinding wheel extension



Grinding wheel holder





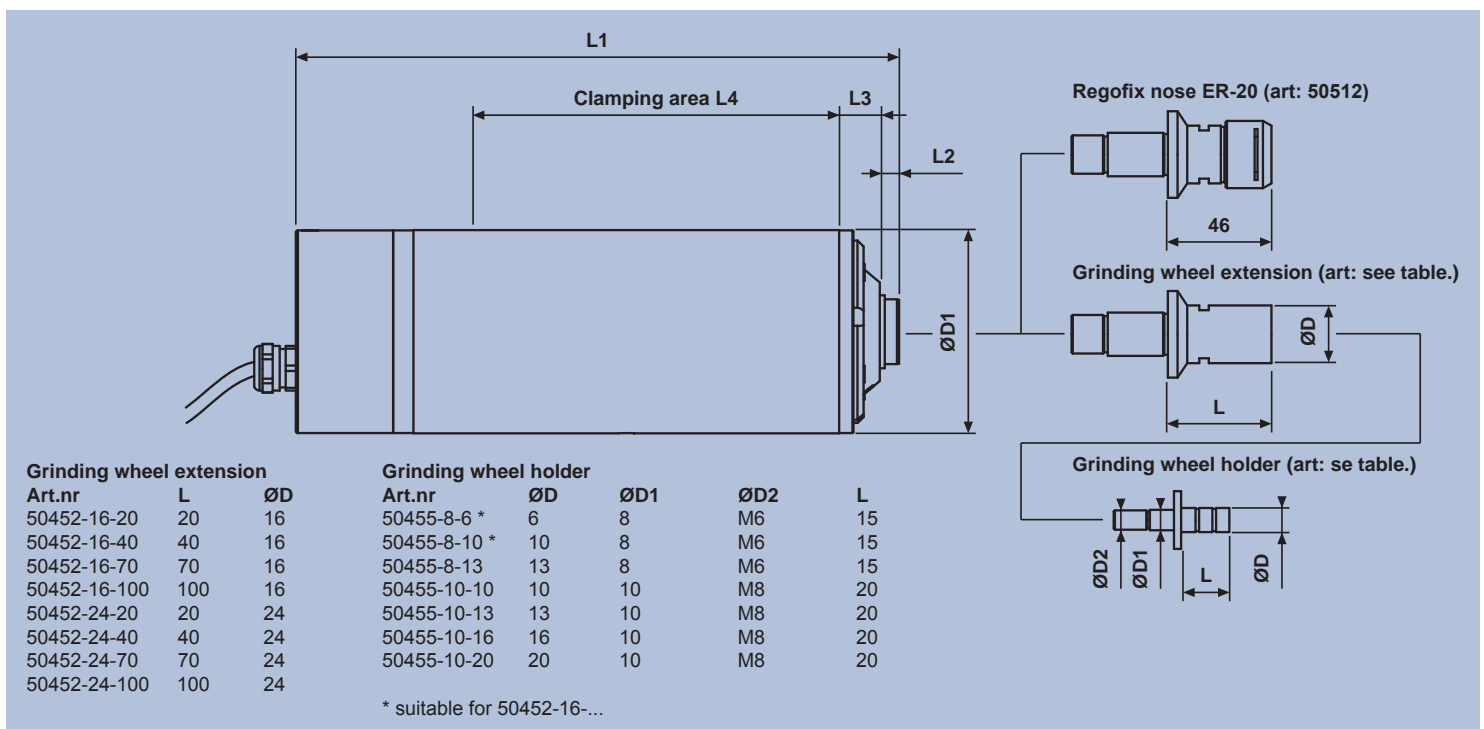
Standard accessories
3 m cable

Drive unit
Frequency converter for installation : **CDA-5,5**
Control Box for control of CDA : **CONTROL BOX**

Technical specifications

Spindle type	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 **

Spindle type	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 cooling-flow between the spindle and the flowmeter may vary depending on various conditions.

** Selectable option, not included with the spindle.

Frequency converters

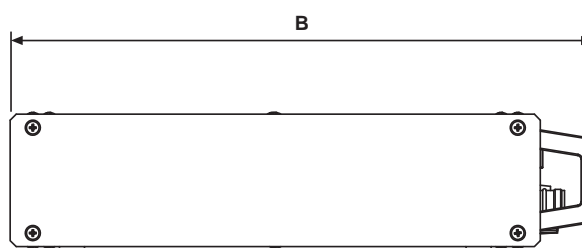
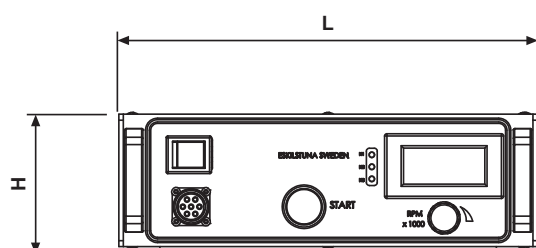
Type SF (stand alone unit)

Static frequency converter for variable speed control of SPV Spintec's spindle- and motor series. These converters are built using the latest developments and technology regarding circuit design for optimal use of the spindles at different speed ranges. The frequency converters has various built in functions such as electronic over current protection and excess temperature control circuits for the spindles / motors. Acceleration- and deceleration time are regulated. Remote start / stop functions and speed regulation is built in. There is also a possibility to connect a PC through an RS-232 interface. The display on the front panel shows the set RPM.

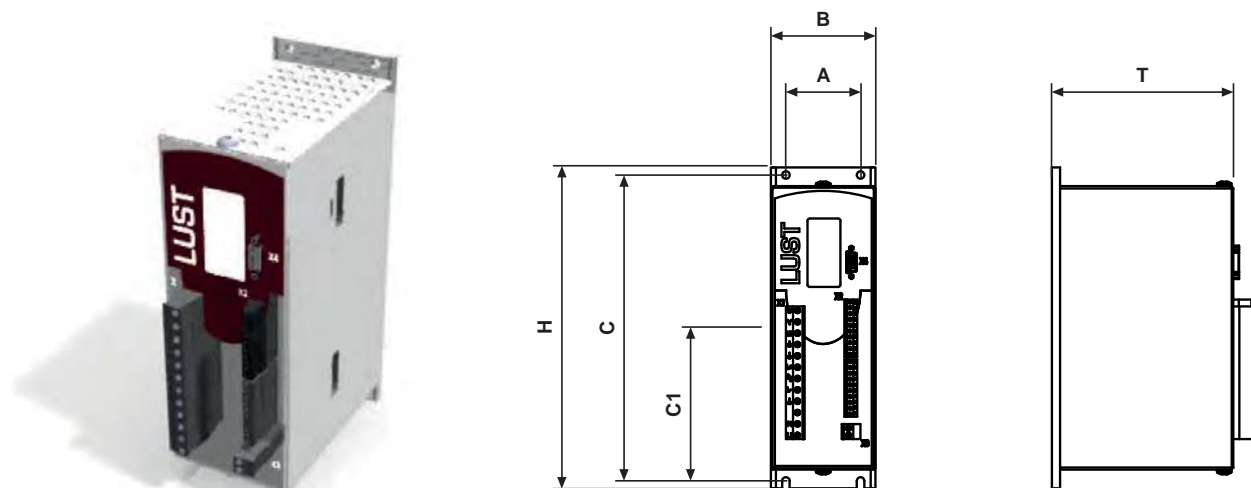


Technical specifications

Frequency converter, model		SF 700	SF 1500	SF 3000
Voltage input		1-ph 50/60 Hz 230 V	1-ph 50/60 Hz 230 V	3-ph 50/60 Hz 400 V
Fuse		10 Ampere	10 Ampere	----
Output effect, max		750 W	1500 W	3000 W
Frequency range		0 - 1500 Hz	0 - 1500 Hz	0 - 1500 Hz
Voltage output		3-ph, 0 - 220 V	3-ph, 0 - 220 V	3-ph, 0 - 380 V
RPM range		0 - 90 000 RPM	0 - 54 000 RPM	0 - 75 000 RPM
Dimensions	L	280 mm	280 mm	435 mm
	B	385 mm	385 mm	345 mm
	H	95 mm	95 mm	95 mm
Weight		4,5 kg	5,0 kg	8,5 kg



Static frequency converters for variable speed control of the SPV Spintec spindle and motor series. These converters are designed and developed with modern components and according to recent findings regarding circuit solutions for optimum utilization of the spindles at different speeds. The converters have a number of features such as overload protection, thermal control of the motor and acceleration / deceleration control. In addition, there are built-in capabilities for remote start / stop, speed control and possibility of PC-connection via the RS 232 interface. The CONTROL-BOX (option) manages the simple operations such as start / stop and speed control while the display shows, shows the set speed.



Technical specifications

Frequency converter, model		CDA-0,75-1	CDA-1,5-1	CDA-3,0-3	CDA-5,5-3
Voltage input		1-ph 50/60 Hz 230 V	1-ph 50/60 Hz 230 V	3-ph 50/60 Hz 400 V	3-ph 50/60 Hz 400 V
Output effect, max		750 W	1500 W	3000 W	5500 W
Frequency range		0 - 1500 Hz	0 - 1500 Hz	0 - 1500 Hz	0 - 1500 Hz
Voltage output		3-ph, 0 - 220 V	3-ph, 0-220 V	3-ph, 0 - 380 V	3-ph, 0 - 380 V
RPM range		0 - 90 000 RPM	0 - 54 000 RPM	0 - 75 000 RPM	0 - 30 000 RPM
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 ControlBox 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 Keypad you can easily change program and adjust the parameters in the frequency converter. All data is saved then easily downloaded on a SmartCard.



Collets type Spintec 10 and 17

Collet Ø mm	Spintec typ 10	Spintec typ 17
3,0	■	■
4,0	■	■
6,0		■
8,0		■



Grinding wheel extension for Spintec 17 nose

Spindle nose / extension mm	Screw M4	Screw M5	Screw M6	Screw M8
17 / 20	■	■	■	■
17 / 40	■	■	■	■
17 / 70	■	■	■	■



Collets type Regofix ER

Regofix size type	Width Ø mm	Length mm	Capacity Ø mm	Clamping width 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 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

Suitable for spindles equipped with spindle nose type ER



Key for high speed nut Regofix

Key art.no	Width Ø mm	Length mm
ER-8 EMS	19,0	76
ER-11 EMS	22,0	10
ER-16 EMS	33,0	130
ER-20 EMS	42,0	140





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

Art: EK-6273



*Flowmeter for regulation of cooling flow to units with water-cooling
Capacity: 0,1 - 1,25 l / min*

Art: EK-4AA



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

Art: OIL MIST1



Special oil for oil-mist lubrication, 1 liter

Art: P-036997



*System cleaner for cleaning of water-cooled spindles, 1 liter.
3 % is mixed with water.*

Art: SWISSCARE SC



*Corrosion protection concentrate, for watercooled spindles, 1 liter.
5% is mixed with water.*

Art: COOLANT-F



Water-cooling units for spindles: S 20, S 21, S 28, S 30, S 33, S 44 and S 50

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

Contact us for more information.

Deburring machine DB-Matic

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 of many different types of gear wheels etc. All settings are infinite and very easy to access.

Integration and automation

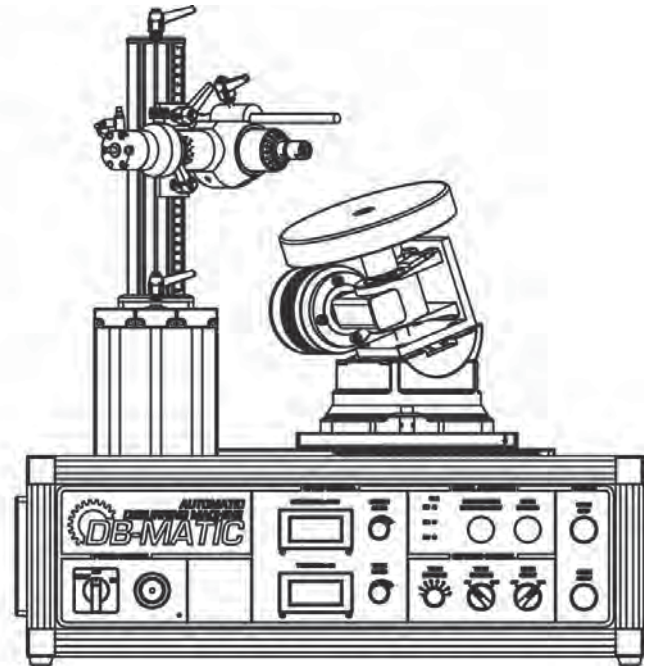
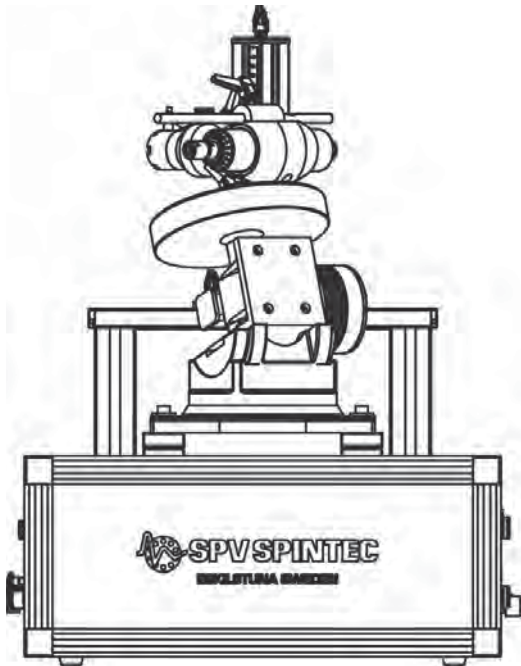
For quick and easy integration in a robotic cell or automation process the DB-Matic is prepared to be able to communicate with a superior control system.

Uncomplicated operation

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

- For deburring of gear wheels, splines and other symmetrical parts.
- **Infinite adjustable in length, height and processing angle makes it** easy to adapt the process for many different parts.
- Deburring spindle VM-17 RP with a maximum speed of 54.000 RPM.
- **Easy setting of the machining cycle. Infinite adjustment of the speed** for both the spindle and the workpiece.

Technical specifications



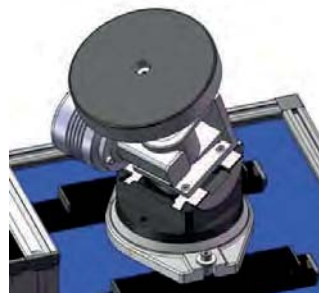
Data					
Dimensions	Weight	Temperature range	Input voltage	Frequency	Fuse
L 700 mm	45 kg	+5°C till +45°C	230 V AC	50 / 60 Hz	6 A (T)
B 700 mm					
H 600 mm					

Data					
Compr. air input	Air consumption	Air hose input	Noise level	Max effect spindle	Max speed spindle
5 - 8 Bar	75 - 100 l / min	Ø6,0 mm	ca 85 db (in process)	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 automatic 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.

