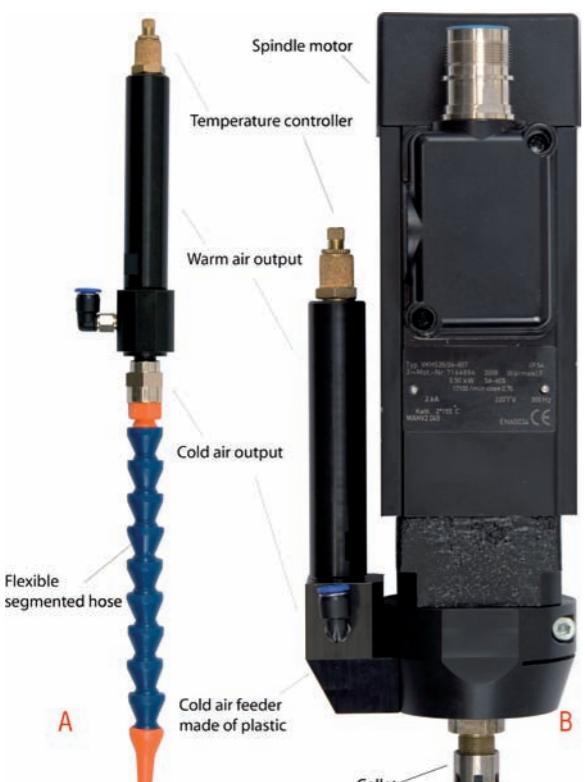


Accessoires

Tool cooling system CoolMin®



Function principle CoolMin®

Dry machining is nowadays for many milling tasks the selection of choice. Up to now, material, tool wear and tear and finish quality offer forced cooling with respective coolants/ lubricants. This always means more humidity. Even spray cooling with minimum amounts leads to unintended side effects such as fouling, adhering of the shavings to the tool or surface and depending on material also effect on the material structure. With the patented cooling method introduced here, the very good cooling of tools and surfaces make side effects a problem of the past. The shavings are dry and depending on the material, easy to extract or blow off. The surface is preserved and through the direct tool cooling (also appropriate for tools with inside cooling) long periods of tool use is obtained. Basis of the cooling method is a cold air nozzle that operates on the whirlpool principle and separates the air flow in warm and cold air. To operate the system only pressurized air (6 to 10 bar) is required.

Technical Data:

- Pressurized inlet: 6-10 bar
- Cool air outlet: of up to -25 °C
- Warm air outlet: up to max. 70 °C
- Air use approx. 150 l/min
- Special maintenance unit with 1µm filter
- Maintenance free cold air nozzle

CoolMin external
with hose
Item.-No.: 239011 0119

CoolMin internal
(Item-No. see to
seperate spindles)

Tool changing stations

5-time changer SK 11
8-time changer SK 11

4-time changer SK 20
8-time changer SK 20

(Other variations on request!)

Contact person

Mr Steffan Gärth
Technical sales

phone: +49 (0) 66 59 / 981- 773

steffan.gaerth@isel.com
www.milling-spindles.isel.com

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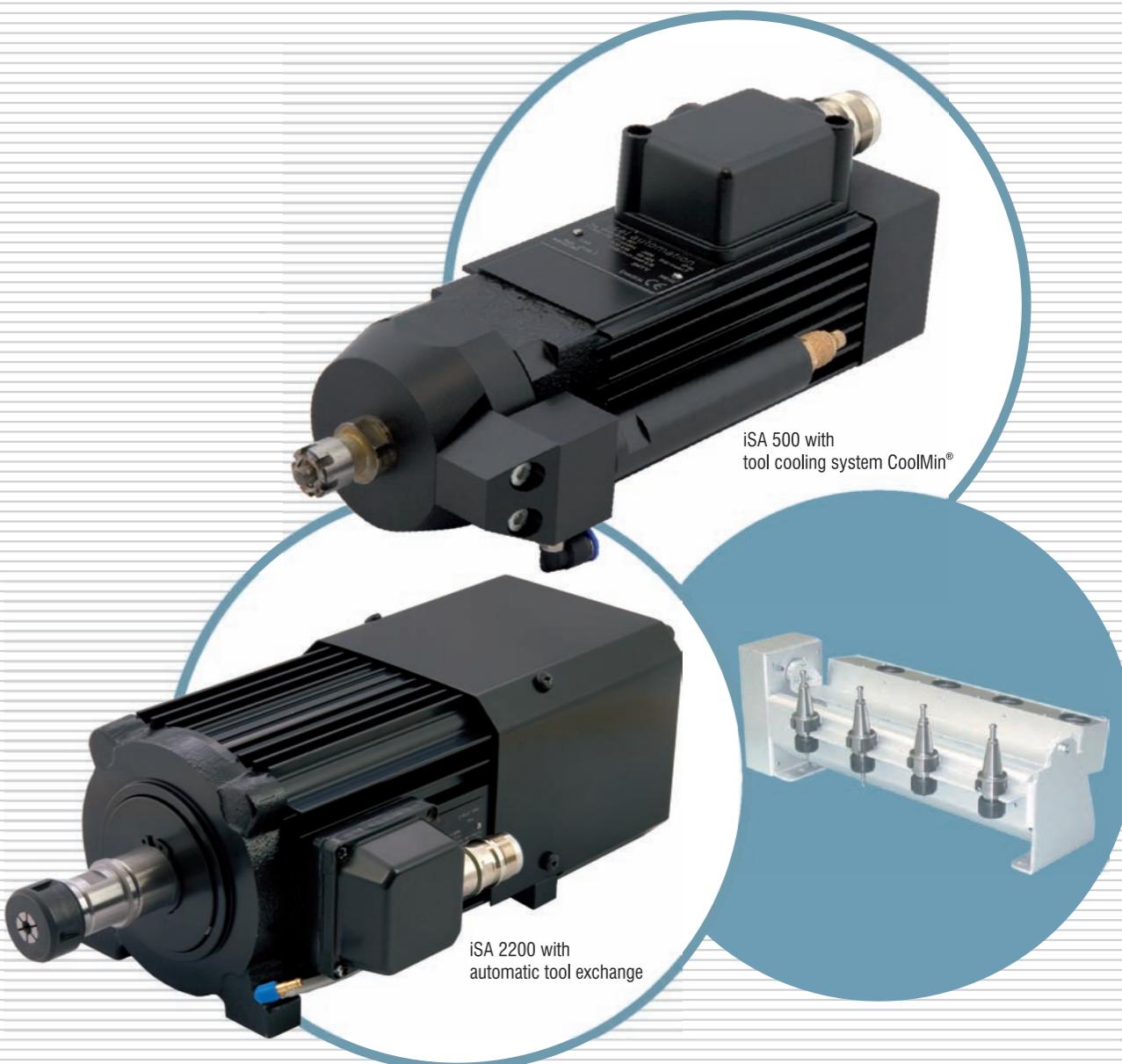
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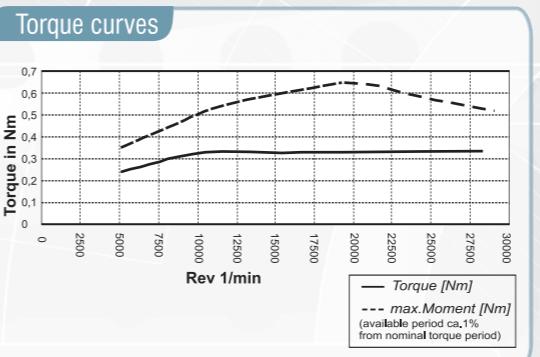
isel

- Sturdy 2-pole three-phase motor
- Protection type IP 54, insulation class F
- Motor- shaft for collets type ER 11
- Cast sign A side, aluminium cast B side
- Nominal output 0.5 kW (S6-40% operation)
- Revolutions range 5,000 U/min. - 30,000 U/min.
- Torque at 18,000 U/min.: 0.28Nm
- Nominal voltage: 3 x 220 V
- Manual tool exchange
- Clamping range Ø 3 mm – Ø 6.35 mm = 1/8"

- Self-ventilating B side
 - Revolution control
 - Spindle bearing
 - 2 spindle ball bearing A-side (milling side)
 - 1 bearing B-side (vent side)
 - Rotation: 0.01 mm
 - Weight: 2.8 kg
 - Options: CoolMin® (internal und external) Frequency converter, different clamping tools
- Item.-No: 477004 3130 (without frequency converter and CoolMin)



iSA 500



- Sturdy 2-pole three-phase motor
- Protection type IP 54, insulation class F
- Motor- shaft for collets type ER 16
- Aluminium cast A and B side
- Nominal output 0.75 kW (S6-40% operation)
- Revolutions range 3,000 U/min. - 24,000 U/min.
- Torque at 22,000 U/min.: 0.34Nm
- Nominal voltage: 3 x 220 V
- Manual tool exchange
- Clamping range Ø 3 mm – Ø 8 mm

- Self-ventilating B side
- Revolution control
- Double precision position
- Rotation: 0.01 mm
- Weight: 2.6 kg
- Options: CoolMin® (internal und external) Frequency converter Different clamping tools



iSA 750

- Sturdy 2-pole three-phase motor
- Protection type IP 55, insulation class F
- Cast sign A and B side
- Nominal output 0.9 kW (S6-40% operation)
- Revolutions range 6,000 U/min. - 24,000 U/min.
- Torque at 24,000 U/min.: 0.37Nm
- Nominal voltage: 220 V
- Automatic tool exchange
- Clamping range Ø 3 mm – Ø 6.35 mm = 1/8"

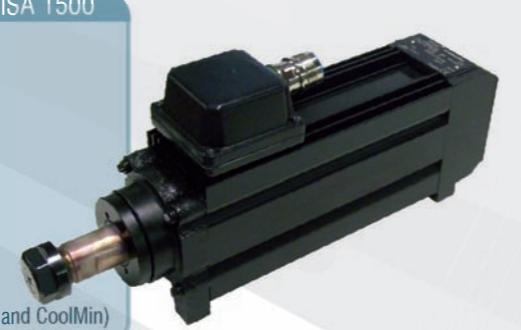
- Separately driven fan B side
- Revolution control
- Double precision position
- Tool exchange SK 11 pneumatic (7,5bar)
- Rotation: 0.01 mm
- Weight: 5,8 kg
- Options: CoolMin® (internal und external) Frequency converter, Tool exchange different clamping tools



automatic
tool exchange !

- Sturdy 2-pole three-phase motor
- Protection type IP 54, insulation class F
- Motor- shaft for collets type ER 20
- Cast sign A and B side
- Nominal output 1.5 kW (S6-40% operation)
- Revolutions range 5,000 U/min. - 20,000 U/min.
- Torque at 20,000 U/min.: 0.72 Nm
- Nominal voltage: 3 x 200 V
- Manual tool exchange
- Clamping range Ø 3 mm – Ø 13 mm

- Self-ventilating B side
- Revolution control
- Spindle bearing
- 2 spindle ball bearing A-side (milling side)
- 1 bearing B-side (vent side)
- Rotation: 0.01 mm
- Weight: 6,4 kg
- Options: CoolMin® (internal und external) Tool exchange, different clamping tools



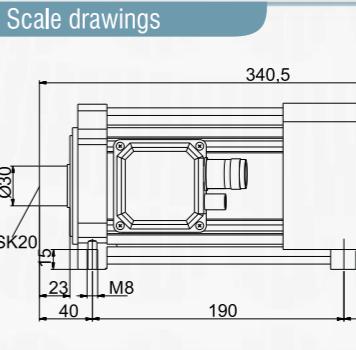
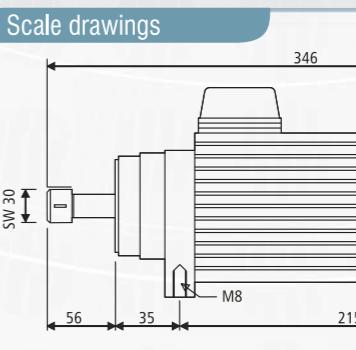
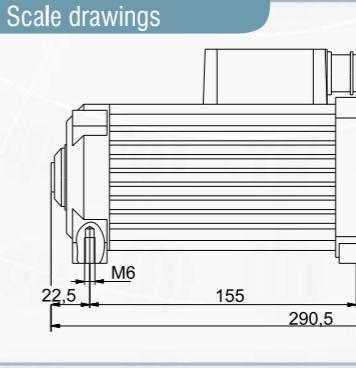
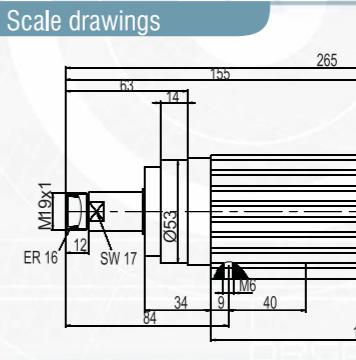
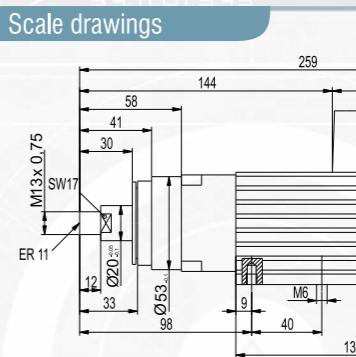
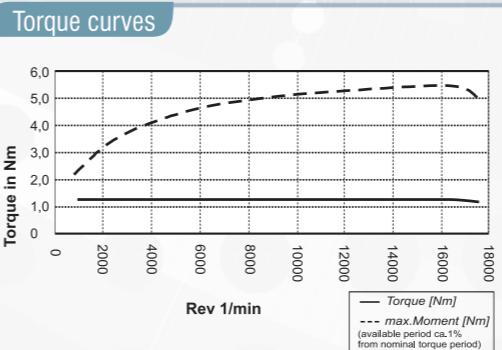
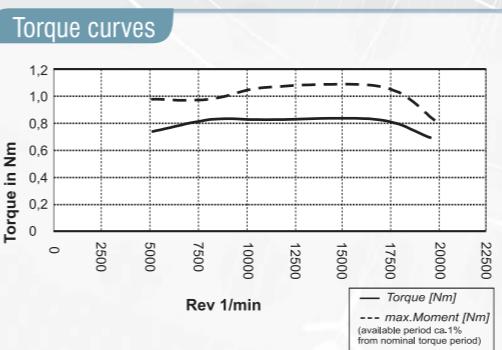
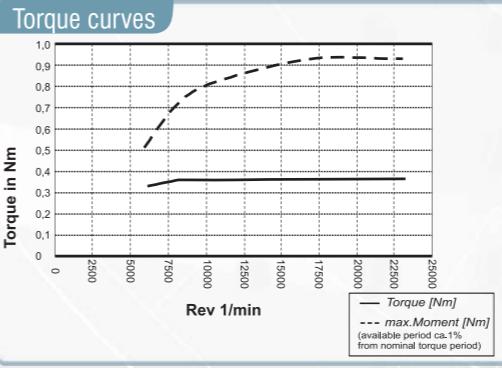
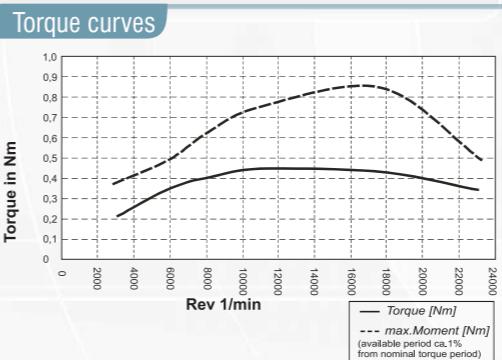
iSA 1500

- Sturdy 2-pole three-phase motor
- Protection type IP 55, insulation class F
- Cast sign A and B side
- Nominal output 2.2 kW (S6-40% operation)
- Revolutions range 5,000 U/min. - 20,000 U/min.
- Torque at 18,000 U/min.: 1.26 Nm
- Nominal voltage: 220 V
- Automatic tool exchange
- Clamping range Ø 3 mm – Ø 13 mm

- Separately driven fan B side
- Revolution control
- Double precision position
- Tool exchange SK 20 pneumatic (7,5bar)
- Rotation: 0.01 mm
- Weight: 14,6 kg
- Options: CoolMin® (external) Frequency converter, Tool exchange different clamping tools



automatic
tool exchange !



Technical specifications subject to change.