BIAX
Professional Power

Das Original
seit 1919

MADE IN GERMANY

THE NEW MICRO GRINDERS FROM BIAX: SILENT GRINDER SE 1 AND SE 3

Control unit
SE 1 SILENT GRINDER

Order no. 001 611 730

With one connection for handpieces.

Control unit
SE 3 SILENT GRINDER

Order no. 001 611 725

With three connections for handpieces and handpiece tray.

ESS 3-50

ESW 3-50

ESB 6-50

ESL 3-100 air-cooled

www.biax.de | 001 580 714

Handpiece ESL 3-100 air-cooled

ESL 3-100 – the first air-cooled hand piece from BIAX

Its integrated air-cooling allows continuous operation without overheating – a unique feature on the market.
With up to 100,000 rpm, a slim 21 mm design and adjustable speed, it is perfect for fine deburring.

⚠ Do not operate continuously above 80,000 RPM.
For dust-intensive work, clean the filter (001 611 742) regularly!

NEW

Technical Data	ESL 3-100 air-cooled
Order no.	160 100 090
Speed range [min^{-1}]	up to 100,000
Diameter [mm]	max. 21
Length [mm]	139
Weight without cable [g]	100
Weight with cable [g]	233
Concentricity [mm]	<0.03
Collet [Ø mm]	Ø 3.0 (Standard) Ø 2.35 (Optional) Ø 3.175 (Optional)
Tool and collet change	Two collet wrenches
Cooling	Active air cooling with integrated fan
Drive system	Brushless DC motor

Other handpieces

Other models in the range:

ESS 3-50 (Slim): Ultra-thin design, can be held like a pen – perfect for maximum precision.

ESW 3-50 (Angle): Angle hand piece for fine surface finishing in hard-to-reach areas.

ESB 6-50 (Robust): For heavier work with larger tools up to Ø 6 mm shank.

Technical Data	ESS 3-50 (Slim)	ESW 3-50 (Angle 90°)	ESB 6-50
Order no.	160 100 010	160 100 020	160 100 060
Speed range [RPM]	200 - 50,000	200 - 20,000	200 - 40,000
Diameter [mm]	max. 29	max. 29	max. 28
Length [mm]	162	158	142
Weight without cable [g]	240	180	230
Concentricity [mm]	< 0.02	< 0.02	< 0.03
Collets [Ø mm]	3.0 (Standard - 001 611 708) 2.35 (3/32“) (Optional - 001 611 707)	3.0 (Standard - 001 611 741) 2.35 (3/32“) (Optional - 001 611 740)	6.0 (Standard - 001 611 731) 3.0 (Optional - 001 611 732) 2.35 (3/32“) (Optional – 001 611 734) 3.715 (1/8“) (Optional – 001 611 733)
Tool change	Quick clamping	Special tools (001 611 717 and 718)	Special tools (001 611 723 and 001 365 804)
Collet change	Special tools (001 611 711 and 712)	Special tools (001 611 717 and 718)	Special tools (001 611 723 and 001 365 804)
Cooling	Closed-loop cooling		
Drive system	Brushless DC motor		

Control units

Lightweight · Low vibration · Extremely quiet · Speed range 200 - 100,000 RPM

The SE 1 and SE 3 are new powerful, compact control units for all BIAX handpieces and spindles. Equipped with one (SE 1) or three (SE 3) motor connections, the control units support infinitely variable speed control and save set maximum speeds for each connection individually. The intelligent control electronics permanently monitor the motor connections, immediately detecting any reconnection of the motors (handpieces). The power parameters are automatically adjusted to the connected motor (handpiece).

Other product features:

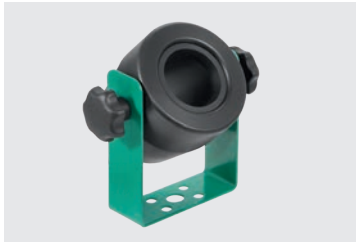
- Connection possibility for foot switch on/off and dynamic foot starter.
- Low starting speed of 200 RPM.
- Clockwise and counterclockwise rotation, switching acknowledged by a short vibration of the handpiece.
- Bright OLED display.

Technical Data	SE 1	SE 3
Order no.	001 611 730	001 611 725
Speed range [min^{-1}]	200 - 50,000 resp. 1,000 - 100,000	200 - 60,000 resp. 1,000 - 100,000
Weight [g]	1,875	1,875
Dimensions [mm]	W 105 x H 205 x D 215	W 135 x H 250 x D 215
Operating Voltage [Volt]	100 - 240	100 - 240
Nominal frequency [Hz]	50 / 60	50 / 60
Input power [Watt]	220	300
Ports for Handpiece	One handpiece port	Three handpiece ports
Drive system	Brushless DC motor	

Optional accessories

SEFD 50 dynamic foot-operated start switch
Order no. 001 611 705

SEFT 50 foot-operated ON/OFF switch
Order no. 001 611 706



Vario-holder
Order no. 007 012 848

Handpiece holder for grinder
Order no. 001 611 710

Different collets available for all handpieces. See „Technical Data“.

Special tools for tool and collet changes: see „Technical Data“.

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Druckluftwerkzeuge
Pneumatic Tools
Outils pneumatiques

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