

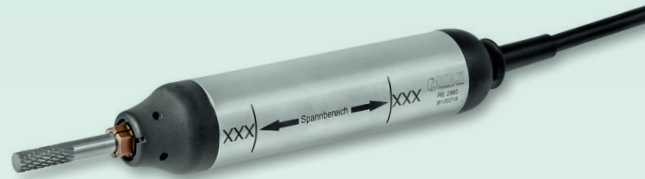


**BIAX**  
Professional Power

1919 - 2022  
**103 JAHRE**  
Das Original

# BIAX RE 2860 ELECTRIC SPINDLE

## FOR FINE DEBURRING, GRINDING AND FINISHING



### RE 2860 electric spindle

The new BIAX RE 2860 electric spindle has outstanding properties in the fine mechanical machining sector. It is especially suitable for use in space-saving and energy-efficient systems. The spindle, which only weighs 240 g, delivers up to 300 W of power. The RE 2860 also gives the user:

- almost noiseless operation
- linearly variable speeds up to 60,000 rpm (clockwise or anti-clockwise rotation)
- concentricity of less than 0.02 mm

The spindle is driven by a brushless, low-maintenance motor without any additional cooling!

### RE 2860 used in conjunction with a CUR 10-50 deflection unit

The spindle can be incorporated in a radial deflection unit to compensate for positioning inaccuracies and component tolerances. It is assembled by simply inserting the spindle in the deflection unit's clamping sleeve and then using the clamping screws to clamp it in place. The deflection force (approx. 10 - 50 Nm) can be adjusted using pneumatic pressure between 0 - 6-bar.

The deflection unit can be ordered separately!



Technical data	RE 2860 electric spindle
Order-No.	160 110 010
Drive system	Brushless DC motor
Max. torque [Ncm]	11
Run-out accuracy [mm]	< 0.02
Diameter [mm]	28
Length [mm]	142
Weight without cable [g]	360
Collets [Ø mm]	6 (standard) 3 (optional)
Protection class	IP43

Technical data	CUR 10-50 deflection unit
Order-No.	001 611 722
Displacement force [N]	10 - 50
Max. displacement angle [°]	5
Max. displacement distance [mm]	>10
Displacement air supply [bar]	0 - 6
Pressure hose connection [mm]	Outer Ø 6
Height [mm]	104
Width [mm]	100
Depth [mm]	65
Weight [g]	1172

## Controller

The spindle can be optionally operated using 2 different controllers.

### SEB 50 controller

The SEB 50 has a controller that can be manually operated by the user for partial automation. Settings such as the speed or starting and stopping the spindle are set up using rotary controls and toggle switches. The plug cable supplied with it is used to connect the spindle to the controller and it can be used immediately afterwards.



### SER 60 controller

The spindle can be operated fully automatically using this controller. All of the spindle's functions can be controlled, monitored or reset via the corresponding input and output signals. The controller's simple design makes it easy to integrate in a larger overall system.



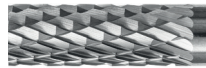
Technical data	SEB 50
Order-No.	001 611 704
Operating voltage [V]	100 - 240
Rated frequency [Hz]	50/60
Speed [rpm]	1,000 - 50,000 via a speed control
Power [W]	150
Rotational direction	Ability to switch between clockwise and counter-clockwise operation
Overload protection	Yes
Protection class	IP 20
Width [mm]	155
Height [mm]	55
Depth [mm]	155
Weight [g]	600

Technical data	SER 60
Order-No.	001 611 721
Operating voltage [V]	48V DC
Speed [rpm]	1,000 - 60,000
Speed selection via input voltage [V]	0.25 – 4.75
Power [W]	300
Max. current [A]	6
Rotational direction	Ability to switch between clockwise and counter-clockwise operation
Overload protection	Yes
Function monitoring	Yes
Protection class	IP 20
Width [mm]	155
Height [mm]	55
Depth [mm]	155
Weight [g]	600

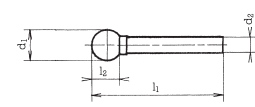
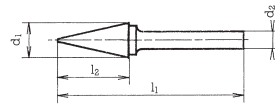
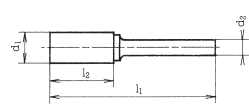
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## Carbide rotary burrs

### Cross 63 toothting

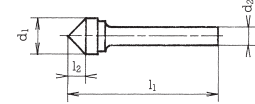
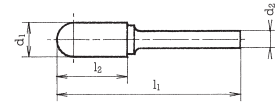
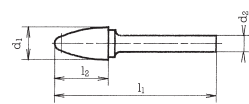


#### Shaft: Ø 6 X 40 mm



Head Ø (d1) x head length (l2) [mm]	6 x 16	10 x 20	6 x 20	10 x 20	6 x 5	10 x 9
Recommended speed [rpm]	30,000 – 50,000	18,000 – 30,000	30,000 – 50,000	18,000 – 30,000	30,000 – 50,000	18,000 – 30,000
Max. speed [rpm]	50,000	30,000	50,000	30,000	50,000	30,000
Order-No.	001 952 122	001 952 275	001 952 188	001 952 254	001 952 137	001 952 238

#### Shaft: Ø 6 X 40 mm

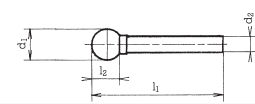
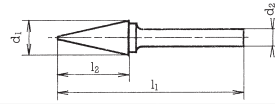
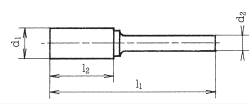


Head Ø (d1) x head length (l2) [mm]	6 x 16	10 x 20	6 x 16	10 x 20	12 x 14	16 x 13
Recommended speed [rpm]	30,000 – 50,000	18,000 – 30,000	30,000 – 50,000	18,000 – 30,000	10,000 – 20,000	10,000 – 16,000
Max. speed [rpm]	50,000	30,000	50,000	30,000	20,000	16,000
Order-No.	001 952 149	001 952 246	001 952 133	001 952 232	001 952 347	001 952 432

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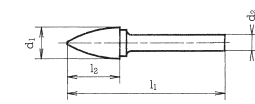
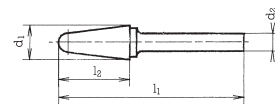
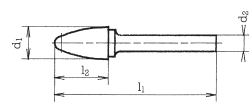


#### Shaft: Ø 6 X 40 mm



Head Ø (d1) x head length (l2) [mm]	6 x 16	10 x 20	6 x 20	10 x 20	6 x 5	10 x 9
Recommended speed [rpm]	30,000 – 50,000	18,000 – 30,000	30,000 – 50,000	18,000 – 30,000	30,000 – 50,000	18,000 – 30,000
Max. speed [rpm]	50,000	30,000	50,000	30,000	50,000	30,000
Order-No.	001 952 504	001 952 507	001 952 727	001 952 729	001 952 594	001 952 597

#### Shaft: Ø 6 X 40 mm



Head Ø (d1) x head length (l2) [mm]	6 x 16	10 x 20	6 x 16	10 x 20	6 x 16	10 x 20
Recommended speed [rpm]	30,000 – 50,000	18,000 – 30,000	30,000 – 50,000	18,000 – 30,000	30,000 – 50,000	18,000 – 30,000
Max. speed [rpm]	50,000	30,000	50,000	30,000	50,000	30,000
Order-No.	001 952 662	001 952 663	001 952 167	001 952 258	001 952 167	001 952 693

### Diamond mounted points with electroplated bond

#### Shaft: Ø 3 x 30 mm



Head Ø x head length [mm]	3 x 5	6 x 7	3 x 13	Ø 3	Ø 6
Recommended speed [rpm]	50,000 – 100,000	40,000 – 65,000	50,000 – 100,000	50,000 – 100,000	40,000 – 65,000
Max. speed [rpm]	100,000	65,000	100,000	100,000	65,000
Order-No. grit D91	001 622 256	001 622 257	001 622 259	Upon request	001 622 258

### CBN mounted points with electroplated bond

#### Shaft: Ø 3 x 30 mm









Head Ø x head length [mm]	3 x 5	6 x 7	3 x 13	Ø 3	Ø 6
Recommended speed [rpm]	50,000 – 100,000	40,000 – 65,000	50,000 – 100,000	50,000 – 100,000	40,000 – 65,000
Max. speed [rpm]	100,000	65,000	100,000	100,000	65,000
Order-No. grit B91	001 622 260	001 622 261	001 622 262	Upon request	001 622 263

## End brushes and cup brushes

### Version with crimped wire

Shaft: Ø 6 mm

						
Brush Ø [mm]	12 point	16	22	40	50	60
Wire Ø x wire length [mm]	0.3 x 20	0.2 x 25	0.2 x 25	0.3 x 20	0.3 x 20	0.3 x 25
Shaft length / total length [mm]	25 / 60	20 / 70	20 / 70	30 / 70	30 / 72	25 / 78
Recommended speed [rpm]	10,000 – 15,000	7,000 – 13,000	6,000 – 11,000	5,000 – 9,500	4,000 – 9,000	3,000 – 7,000
Max. speed [rpm]	20,000	15,000	12,500	10,500	10,500	8,000
Order-No. steel wire	001 625 229	001 625 230	001 625 231	001 625 232	001 625 233	001 625 234
Order-No. stainless steel wire	001 622 210	Upon request	001 622 255	Upon request	001 622 211	Upon request

### Version with silicon carbide bristles



Shaft: Ø 3 mm



Shaft: Ø 6 mm

	Shaft: Ø 3 mm		Shaft: Ø 6 mm	
Brush Ø [mm]	5	18	28	75
Bristle Ø x bristle length [mm]	0.25 x 8	0.25 x 5	1 x 25	1.2 x 22
Shaft length / total length [mm]	25 / 45	35 / 49	15 / 68	30 / 69
Recommended speed [rpm]	5,000 – 15,000	5,000 – 15,000	2,500 – 5,000	2,000 – 4,500
Max. speed [rpm]	15,000	15,000	5,000	4,500
Grit	800	800	180	80
Order-No.	001 622 209	001 622 206	001 622 170	001 622 173

## Wheel brushes

### Version with crimped wire

Shaft: Ø 3 X 40 mm

Shaft: Ø 6 X 40 mm

	Shaft: Ø 3 X 40 mm		Shaft: Ø 6 X 40 mm	
Brush Ø x width [mm]	22 x 2	30 x 7	50 x 10	70 x 16
Wire Ø x wire length [mm]	0.1 x 6	0.2 x 6	0.2 x 12	0.3 x 19
Recommended speed [rpm]	5,000 – 10,000	8,000 – 15,000	5,000 – 12,000	5,000 – 12,000
Max. speed [rpm]	10,000	20,000	15,000	15,000
Order-No. steel	001 622 201	001 622 702	001 622 704	001 622 701
Order-No. stainless steel	001 622 203	Upon request	001 622 212	Upon request



### Version with silicon carbide bristles

Shaft: Ø 3 X 40 mm

Shaft: Ø 6 X 40 mm

	Shaft: Ø 3 X 40 mm		Shaft: Ø 6 X 40 mm	
Brush Ø x width [mm]	22 x 2	38 x 10	50 x 10	63 x 13
Bristle Ø x bristle length [mm]	0.25 x 6	1.0 x 6	1.0 x 11	1.0 x 17
Recommended speed [rpm]	5,000 – 10,000	10,000 – 15,000	8,000 – 12,000	8,000 – 12,000
Max. speed [rpm]	10,000	20,000	15,000	15,000
Grit	800	180	180	180
Order-No.	001 622 202	001 625 212	001 625 210	001 625 215



### Rubber brush version with corundum grit

Shaft: Ø 3 x 40 mm

Shaft: Ø 6 x 40 mm

	Shaft: Ø 3 x 40 mm		Shaft: Ø 6 x 40 mm	
Brush Ø x brush width [mm]	19 x 5	25 x 5	50 x 10	75 x 10
Bristle Ø / bristle length [mm]	1 x 6	1 x 9	1 x 10	1 x 15
Recommended speed [rpm]	5,000 – 10,000	5,000 – 10,000	5,000 – 10,000	5,000 – 10,000
Max. speed [rpm]	10,000	10,000	10,000	10,000
Order-No. grit 80	001 622 268	001 622 269	001 622 265	001 622 267



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