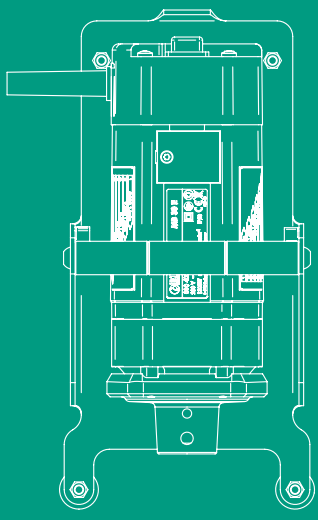
BIAX
Professional Power

THE POWER PACKS FOR EVERY APPLICATION: MACHINES WITH FLEXIBLE SHAFT



Tough • Consistent • Proven

Das Original

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Production hall, Maulbronn plant

For over 100 years, Schmid & Wezel has striven to provide the highest level of precision, quality and collaborative ethos.

The four divisions of the company include BIAX pneumatic and electric tools, BIAX flexible shafts, BIAX carbide tools and EFA meat processing machinery. These are all manufactured in three state-of-the-art production facilities situated in Germany and Switzerland.

And when it comes to product quality, Schmid & Wezel is the market leader, not least thanks to the high level of vertical integration (up to 90%).

Sustainable customer satisfaction is our goal and the most important driving force for continuous innovation and quality. The strengths of Schmid & Wezel are in providing tailored solutions in high product quality and personalised customer support.

Schmid & Wezel is ISO certified:

BIAX Maulbronn

BIAX Hilsbach

BIAX Thayngen (Switzerland)

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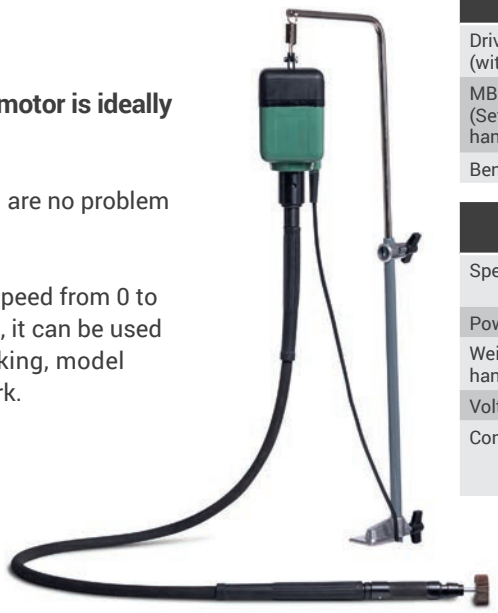
01 MB 10 G

The new small but dynamic hanging motor is ideally suited for delicate work.

Deburring, milling, drilling and polishing are no problem with this motor.

Thanks to its continuously adjustable speed from 0 to 20,000 RPM and its power of 400 watts, it can be used for a variety of applications: mold making, model building, dental technology, jewelry work.



	Order No.
Drive motor MB 10 G (without accessories)	010 404 011
MB 10 G – Set (Set includes motor + shaft NAS4 + handpiece FHS 4 + control unit)	010 404 010
Bench control unit	010 404 012

Technical Data MB 10 G	
Speed (RPM)	Infinitely variable from 0 to 20,000
Power (Watt)	400
Weight (kg) without shaft & handpiece	3.5
Voltage (Volt/Hz)	230 / 50-60
Connection	M10 x 30 threaded connection

Shaft NAS4
032 010 110
with connection on handpiece side „G16“

Shaft DV6
032 040 200
with connection handpiece side „square 5 mm“

Straight Handpiece
FHS 4 - 020 001 700
with connection „G16“

Straight Handpiece
KGS 27 - 020 017 620
with connection „square 5 mm“

45° Angle
W627-45 - 020 000 615
with connection „square 5 mm“

90° Angle
W627 - 020 000 615
with connection „square 5 mm“

Accessories

Bench Control Unit for MB 10 G	Item No. 010 404 012
Foot Pedal for MB 10 G	Item No. 010 404 013
Hanging Stand for MB 10 G	Item No. 010 404 014
Collet Ø 4mm for Handpiece FHS4	Item No. 001 999 703
Collet Ø 6mm for Handpiece FHS4	Item No. 001 999 704

02 MB 20/3 G

The proven universal motor is versatile and can be used almost anywhere due to its compact design.

The non-slip holder is ideal for safe working on the workbench, but if desired, the drive can also be used in a hanging position. Another variant is also available with a separate bench control unit.

Various quick-change handpieces for milling, grinding, and polishing make this drive an indispensable tool for mold making and precision engineering.

	Order No.
Drive motor MB 20/3 G (without accessories)	010 607 807
MB 20/3 G – Set (Set incl. motor + shaft DV6 + handpiece KGS 27)	010 405 005
MB 20/3 G with bench control unit (only motor + control unit, without shaft and handpiece)	010 607 809

Technical Data MB 20/3 G	
Speed (RPM)	infinitely variable from 13,000 to 34,000
Power input/output (Watt)	710 / 430
Weight (kg) without shaft & handpiece	3.0
Voltage (Volt/Hz)	230 / 50-60
Connection	M10 x 30 threaded connection

Shaft DV4
032 007 600

Shaft DV6
032 004 200

Shaft DV6 Flex
032 004 600

Welle DV7 Flex
032 190 801

Shaft with connection handpiece side „square small 5 mm“

Straight Handpiece
KGS27 - 020 017 620

45°-Angle
W627-45 - 020 000 615

90°-Angle
W627 - 020 000 610

Belt Sander
HB1527 - 020 014 810

Handpiece with connection „square small 5 mm“

Bench Control Unit
Item No. 010 607 809

With the bench control unit, you can operate your machine in a hanging position while conveniently turning it on and off from the workbench, as well as regulating the speed.

Bench control unit only available in combination with motor MB 20/3G (order no. 0010 607 809), not available separately.

03 MB 30 E

	Order No.
Drive motor MB 30 E (without accessories)	010 403 400
MB 30 E - Set (Set incl. motor + shaft DV8 + handpiece KGS 27)	010 403 410

Technical Data MB 30 E	
Speed (RPM)	infinitely variable from 5,000 to 15,000
Power input/output (Watt)	1,300 / 900
Weight (kg) without shaft & handpiece	5.2
Voltage (Volt/Hz)	230 / 50-60
Connection	M10 x 30 threaded connection

This multi-talent is suitable for use in almost all industrial sectors. Milling, grinding, brushing and polishing - all with just one device.

In addition to very low maintenance costs, this drive is characterized by a high level of comfort and work safety.

Under heavier load, the control system adjusts accordingly and mobilizes reserve power. An overload protection ensures automatic shutdown, thus protecting the motor from overheating.

In addition to the right accessories like a table stand or mobile stand, the drive can alternatively be mounted on a hanging bracket.

Shaft DV7 Flex
030 190 801

Shaft DV8
032 004 700

Shaft DV8 rigid
032 009 500
500 mm rigid extension

Shaft with connection handpiece side „square small 5 mm“

Straight Handpiece
KGS27 - 020 017 620

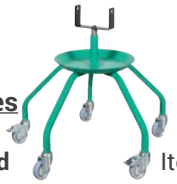
45°-Angle
W627-45 - 020 000 615

90°-Angle
W627 - 020 000 610

Belt Sander
HB1527 - 020 014 810

Handpiece with connection „square small 5 mm“

Accessories



Bench Stand Item No. 010 300 120
Portable Stand Item No. 007 014 140

The swiveling bench stand enhances work comfort.

The portable stand provides increased mobility for changing workstations and large components.

Friction Clutch RKG
Item No. 010 200 620

Our friction clutch engages at overload (from 2 Nm, factory preset, torque non-adjustable) and protects the shafts from breaking. This increases the lifetime of the shafts, saves costs and enhances work safety.

04 MB 40 G + MB 40 G PLUS (Shaft DV)

This newly developed universal machine is particularly suitable for polishing work in mold making or in stainless steel processing.

The powerful motor is available in two current strengths (230 V or 400 V) and can be steplessly regulated up to 20,000 RPM. The compact design and low noise level allow for mobile use in nearly any working condition.

The built-in frequency converter ensures disturbance-free operation at a constant speed.

The PLUS version can be equipped with a separate bench or foot controller upon request and is thus available both as a tabletop device, with a portable stand or as a hanging version.

	Order No.
Drive motor 230 V (without accessories)	010 404 020
Drive motor 400 V (without accessories)	010 404 021
Drive motor 230 V PLUS-version (without accessories)	010 404 022
Drive motor 400V PLUS-version (without accessories)	010 404 023

The PLUS version includes an additional second connection for the bench control unit, while the standard version has only one connection for the foot pedal.

Technical Data MB 40 G & MB 40 G PLUS	
Speed (RPM)	infinitely variable from 1,000 to 20,000
Power input/output (Watt)	1,000 / 800
Weight (kg) without shaft & handpiece	20.0
Voltage (Volt/Hz)	230 / 50-60 or 400 / 73
Motor-Type	Three-Phase motor with frequency converter
Dinensions (mm)	320 x 320 x 500
Connection	M10 x 30 threaded connection

Shaft DV7 Flex
030 190 801

Shaft DV8
032 004 700

Shaft DV8 rigid
032 009 500
500 mm rigid extension

Shaft with connection handpiece side „square small 5 mm“

Straight Handpiece
KGS27 - 020 017 620

45°-Angle
W627-45 - 020 000 615

90°-Angle
W627 - 020 000 610

Belt Sander
HB1527 - 020 014 810

Handpiece with connection „square small 5 mm“

Accessories

Bench Stand Item No. 010 404 026
Portable Stand Item No. 010 404 029
Hanging Device Item No. 010 404 015

The swiveling bench stand increases work comfort.

The portable stand ensures enhanced mobility at changing workstations and with large components.

The hanging device allows for space-saving overhead work.

only for PLUS-version!

Bench Control Unit Item No. 010 404 027
Footswitch Item No. 010 404 028

With the bench control unit you can operate your machine in a hanging position while conveniently turning it on and off from the workbench, as well as regulating the speed. An additional emergency stop switch increases work safety.

The footswitch serves as a safety measure against unintentional activation of the motor and as a safety function for the user (e.g. in case of shaft breakage).

05 MB 40 G + MB 40 G PLUS (Shaft NAS)

This newly developed universal machine is especially suitable for polishing work in mold making or in stainless steel processing.

The powerful motor is available in two current strengths (230 V or 400 V) and can be steplessly regulated up to 20,000 RPM. The compact design and low noise level enable mobile use in nearly any working condition.

The built-in frequency converter ensures disturbance-free operation at a constant speed.

The PLUS version can be equipped with a separate bench or foot controller upon request and is thus available both as a tabletop device, with a portable stand or as a hanging version.

	Order No.
Drive motor 230 V (without accessories)	010 404 020
Drive motor 400 V (without accessories)	010 404 021
Drive motor 230 V PLUS-version (without accessories)	010 404 022
Drive Motor 400V PLUS-version (without accessories)	010 404 023

The PLUS version includes an additional second connection for the bench control unit, while the standard version has only one connection for the foot pedal.

Technical Data MB 40 G & MB 40 G PLUS	
Speed (RPM)	infinitely variable from 1,000 to 20,000
Power input/output (Watt)	1,000 / 800
Weight (kg) without shaft & handpiece	20.0
Voltage (Volt/Hz)	230 / 50-60 or 400 / 73
Motor-Type	Three-Phase motor with frequency converter
Dinensions (mm)	320 x 320 x 500
Connection	M10 x 30 threaded connection

Shaft NAS 6
032 010 116
Connection G19

Shaft NAS 7
032 010 111
Connection G22

Shaft NAS 10 L=1,5m
032 010 112
Connection G28

Shaft with connection handpiece side „sliding connection“

Straight Handpiece
FHS 6 – 020 001 730
Connection G19

Straight Handpiece
FHS 7 – 020 001 720
Connection G22

Straight Handpiece
FHS 10 – 020 001 740
Connection G28

90°-Angle
WIS 10 – 020 001 750
Connection G28

Handpiece with connection „sliding connection“

Accessories

Bench Stand Item No. 010 404 026
Portable Stand Item No. 010 404 029
Hanging Device Item No. 010 404 015

The swiveling bench stand increases work comfort.

The portable stand ensures enhanced mobility at changing workstations and with large components.

The hanging device allows for space-saving overhead work.

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Bench Control Unit Item No. 010 404 027
Footswitch Item No. 010 404 028

With the bench control unit you can operate your machine in a hanging position while conveniently turning it on and off from the workbench, as well as regulating the speed. An additional emergency stop switch increases work safety.

The footswitch serves as a safety measure against unintentional activation of the motor and as a safety function for the user (e.g. in case of shaft breakage).

06 MB 45 G + MB 45 G PLUS (Shaft DV)

	Order No.
Drive motor 400 V (without accessories)	010 404 024
Drive motor 400 V PLUS-version (without accessories)	010 404 025
The PLUS version includes an additional second connection for the bench control unit, while the standard version has only one connection for the foot pedal.	

Technical Data MB 45 G & MB 45 G PLUS	
Speed (RPM)	infinitely variable from 1,500 to 15,000
Power input/output (Watt)	2.000 / 1.800
Weight (kg) without shaft & handpiece	31.0
Voltage (Volt/Hz)	400 / 73
Motor-Type	Three-Phase motor with frequency converter
Dinensions (mm)	380 x 350 x 500
Connection	M10 x 30 threaded connection

Designed for the use of flap grinding and polishing wheels up to Ø 160, thanks to the unbeatable power of 2.0 kW.
This model is particularly suitable for the following applications:
Tool and mold making, metal construction, stainless steel processing, power plants, automotive and engine manufacturing.

The built-in frequency converter ensures disturbance-free operation at a constant speed. Thanks to the continuous ventilation system, the motor allows continuous operation even under high workloads.

The PLUS version can be equipped with a separate bench or foot controller upon request and is thus available both as a tabletop device, with a portable stand or as a hanging version.

Shaft DV7 Flex
030 190 801

Shaft DV8
032 004 700

Shaft DV8 rigid
032 009 500
500 mm rigid extension

Shaft with connection handpiece side „square small 5 mm“

Straight Handpiece
KGS27 - 020 017 620

45°-Angle
W627-45 - 020 000 615

90°-Angle
W627 - 020 000 610

Belt Sander
HB1527 - 020 014 810

Handpiece with connection „square small 5 mm“

Accessories

Bench Stand Item No. 010 404 026
Portable Stand Item No. 010 404 029
Hanging Device Item No. 010 404 015

The swiveling bench stand increases work comfort.

The portable stand ensures enhanced mobility at changing workstations and with large components.

The hanging device allows for space-saving overhead work.

only for PLUS-version!

Bench Control Unit Item No. 010 404 027
Footswitch Item No. 010 404 028

With the bench control unit you can operate your machine in a hanging position while conveniently turning it on and off from the workbench, as well as regulating the speed. An additional emergency stop switch increases work safety.

The footswitch serves as a safety measure against unintentional activation of the motor and as a safety function for the user (e.g. in case of shaft breakage).

07 MB 45 G + MB 45 G PLUS (Shaft DV)

	Order No.
Drive motor 400 V (without accessories)	010 404 024
Drive motor 400 V PLUS-version (without accessories)	010 404 025
The PLUS version includes an additional second connection for the bench control unit, while the standard version has only one connection for the foot pedal.	

Designed for the use of flap grinding and polishing wheels up to Ø 160, thanks to the unbeatable power of 2.0 kW.
This model is particularly suitable for the following applications:
Tool and mold making, metal construction, stainless steel processing, power plants, automotive and engine manufacturing.

The built-in frequency converter ensures disturbance-free operation at a constant speed. Thanks to the continuous ventilation system, the motor allows continuous operation even under high workloads.

The PLUS version can be equipped with a separate bench or foot controller upon request and is thus available both as a tabletop device, with a portable stand or as a hanging version.

Technical Data MB 45 G & MB 45 G PLUS	
Speed (RPM)	infinitely variable from 1,500 to 15,000
Power input/output (Watt)	2.000 / 1.800
Weight (kg) without shaft & handpiece	31.0
Voltage (Volt/Hz)	400 / 73
Motor-Type	Three-Phase motor with frequency converter
Dinensions (mm)	380 x 350 x 500
Connection	M10 x 30 threaded connection

Shaft DV10 L=1,5m
032 004 800

Shaft DV10 L=2,0m
032 004 811

Shaft DV10 rigid
032 009 611
500 mm rigid extension

Shaft DV10 rigid
032 009 650
1.000 mm rigid extension

Shaft DV12
032 004 911

Shaft with connection handpiece side „square big 8,5mm“

Straight Handpiece
KGS 10-9 – 020 001 600

90°-Angle
W6-9 – 020 000 670

Handpiece with connection „square big 8,5mm“

Accessories

Bench Stand Item No. 010 404 026
Portable Stand Item No. 010 404 029
Hanging Device Item No. 010 404 015

The swiveling bench stand increases work comfort.

The portable stand ensures enhanced mobility at changing workstations and with large components.

The hanging device allows for space-saving overhead work.

only for PLUS-version!

Bench Control Unit Item No. 010 404 027
Footswitch Item No. 010 404 028

With the bench control unit you can operate your machine in a hanging position while conveniently turning it on and off from the workbench, as well as regulating the speed. An additional emergency stop switch increases work safety.

The footswitch serves as a safety measure against unintentional activation of the motor and as a safety function for the user (e.g. in case of shaft breakage).

08 MB 45 G + MB 45 G PLUS (Shaft NAS)

	Order No.
Drive motor 400 V (without accessories)	010 404 024
Drive motor 400 V PLUS-version (without accessories)	010 404 025
The PLUS version includes an additional second connection for the bench control unit, while the standard version has only one connection for the foot pedal.	

Designed for the use of flap grinding and polishing wheels up to Ø 160, thanks to the unbeatable power of 2.0 kW.
This model is particularly suitable for the following applications:
Tool and mold making, metal construction, stainless steel processing, power plants, automotive and engine manufacturing.

The built-in frequency converter ensures disturbance-free operation at a constant speed. Thanks to the continuous ventilation system, the motor allows continuous operation even under high workloads.

The PLUS version can be equipped with a separate bench or foot controller upon request and is thus available both as a tabletop device, with a portable stand or as a hanging version.

Technical Data MB 45 G & MB 45 G PLUS	
Speed (RPM)	infinitely variable from 1,500 to 15,000
Power input/output (Watt)	2.000 / 1.800
Weight (kg) without shaft & handpiece	31.0
Voltage (Volt/Hz)	400 / 73
Motor-Type	Three-Phase motor with frequency converter
Dinensions (mm)	380 x 350 x 500
Connection	M10 x 30 threaded connection

Shaft NAS 6
032 010 116
Connection G19

Shaft NAS 7
032 010 111
Connection G22

Shaft NAS 10 L=1,5m
032 010 112
Connection G28

Shaft NAS 10 L=2,0m
032 010 113
Connection G28

Shaft NAS 12
032 010 114
Connection G28

Shaft with connection handpiece side „sliding connection“

Straight Handpiece
FHS 6 – 020 001 730
Connection G19

Straight Handpiece
FHS 7 – 020 001 720
Connection G22

Straight Handpiece
FHS 10 – 020 001 740
Connection G28

Straight Handpiece
FHS 12 – 020 001 710
Connection G28

90°-Angle
WIS 10 – 020 001 750
Connection G28

Handpiece with connection „sliding connection“

Accessories

Bench Stand Item No. 010 404 026
Portable Stand Item No. 010 404 029
Hanging Device Item No. 010 404 015

The swiveling bench stand increases work comfort.

The portable stand ensures enhanced mobility at changing workstations and with large components.

The hanging device allows for space-saving overhead work.

only for PLUS-version!

Bench Control Unit Item No. 010 404 027
Footswitch Item No. 010 404 028

With the bench control unit you can operate your machine in a hanging position while conveniently turning it on and off from the workbench, as well as regulating the speed. An additional emergency stop switch increases work safety.

The footswitch serves as a safety measure against unintentional activation of the motor and as a safety function for the user (e.g. in case of shaft breakage).

09 MB 50 G

	Order No.
Drive motor MB 50 G (without accessories)	010 402 280
Drive motor MB 50 G with foot pedal (without accessories)	010 402 290

Technical Data MB 50 G	
Speed (RPM)	infinitely variable from 900 to 15.000
Power input/output (Watt)	3,100 / 2,800
Weight (kg) without shaft & handpiece	34.0
Voltage (Volt/Hz)	400/73
Motor-Type	Three-Phase motor with frequency converter
Dinensions (mm)	543 x 235 x 350
Connection	M10 x 30 threaded connection

The powerful drive for robust applications.
Designed for light to heavy grinding and milling work in tool and mold making.

Ideal for deburring, casting cleaning, and brushing tasks in foundries, mechanical workshops for stainless steel processing, as well as in container and steel construction.

Unbeatable power-to-weight ratio with 2.8 kW at 34.0 kg. Due to its small dimensions and weight, the motor is easy to transport and takes up little space during the production process.

Alternatively, it can be combined with bench control unit or foot pedal.

Shaft DV10 L=1,5m
032 004 800

Shaft DV10 L=2,0m
032 004 811

Shaft DV10 rigid
032 009 611
500 mm rigid extension

Shaft DV10 rigid
032 009 650
1.000 mm rigid extension

Shaft DV12
032 004 911

Shaft DV12 rigid
032 010 200
1.000 mm rigid extension

Shaft with connection handpiece side „square big 8,5mm“

Straight Handpiece
KGS 10-9 – 020 001 600

90°-Angle
W6-9 – 020 000 670

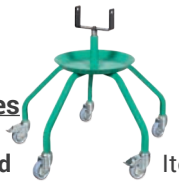
Straight Handpiece with Tool-Quick-Change
(Inserts not included)
KGS 10-9 SW - 020 001 610

Handpiece with connection „square big 8,5mm“

Quick Change Inserts for KGS 10-9 SW

For Collet SW ER11 Item No. 001 985 502
For Collet SW ER 16 Item No. 001 985 503
For Collet Type ZG7 Item No. 001 985 526
(Collets not included)

Accessories



Bench Stand Item No. 010 300 130
Portable Stand Item No. 010 300 320

The swiveling bench stand enhances work comfort.

The portable Stand provides increased mobility for changing workstations and large components.

Bench Control Unit Item No. 007 015 292
Footswitch incl. Bench Control Unit Item No. 007 015 294

10 MB 60 G

	Order No.
Drive motor 400 V (without accessories)	010 404 030

Technical Data MB 60 G	
Speed (RPM)	infinitely variable from 1,500 to 12,000
Power input/output (Watt)	3,700 / 2,600
Weight (kg) without shaft & handpiece	34.0
Voltage (Volt/Hz)	400 / 73
Motor-Type	Three-Phase motor with frequency converter
Dinensions (mm)	380 x 350 x 500
Connection	M14 x 40 threaded connection

This extremely powerful motor with a robust 3.7 kW output has ample reserves for processing large components.

Whether in shipbuilding, container construction, or for polishing stainless steel components – with the MB 60 G, every user achieves excellent surface results.

The large connection DIN M14 x 40 allows the use of 12 or 15 mm thick drive shafts for the toughest loads. Upon request, however, a reduction for more flexible shafts with a smaller diameter can be fitted.

Shaft NAS 12
032 010 114
Connection G28 (M10x30)

Shaft NAS 12
on request
Connection G28 (M14x40)

Shaft NAS 15
032 010 115
Connection G35 (M14x40)

! Shaft 032 010 114 can only be used with adapter!

Shaft with connection handpiece side „sliding connection“

Straight Handpiece
FHS 10 – 020 001 740
Connection G28

Straight Handpiece
FHS 12 – 020 001 710
Connection G28

90°-Angle
WIS 10 – 020 001 750
Connection G28

Straight Handpiece
FHS 15 – *on request*
Connection G35

Handpiece with connection „sliding connection“

Accessories

Bench Stand Item No. 010 404 026
Portable Stand Item No. 010 404 029
Hanging Device Item No. 010 404 015

The swiveling bench stand increases work comfort.

The portable stand ensures enhanced mobility at changing workstations and with large components.

The hanging device allows for space-saving overhead work.

only for PLUS-version!

Bench Control Unit Item No. 010 404 027
Footswitch Item No. 010 404 028

With the bench control unit you can operate your machine in a hanging position while conveniently turning it on and off from the workbench, as well as regulating the speed. An additional emergency stop switch increases work safety.

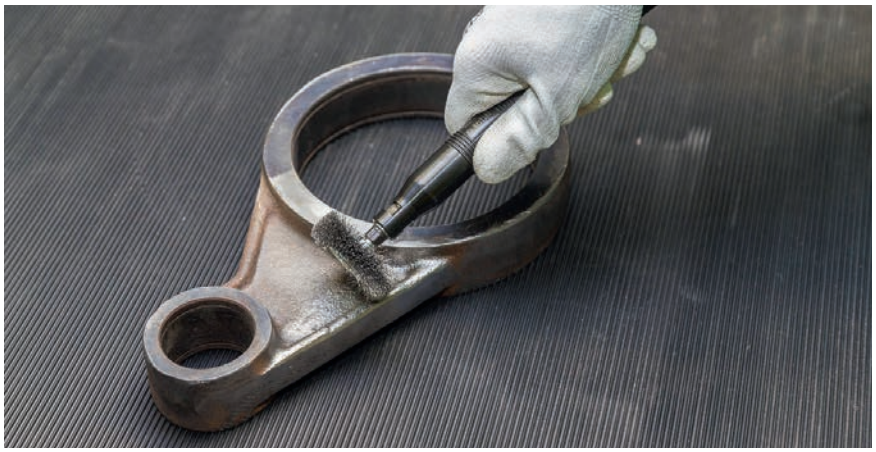
The footswitch serves as a safety measure against unintentional activation of the motor and as a safety function for the user (e.g. in case of shaft breakage).

11 Handpieces for Current Machines

Type	straight	angle 45°	angle 90°	belt sander
Designation	KGS 27	W 627-45	W 627	HB 1527*
Order No.	020 017 620	020 000 615	020 000 610	020 014 810
Max. permissible speed (min-1)	30,000	15,000	15,000	15,000
Max. tool holder size (mm)	6	6	6	sanding belt 8/15 x 330 mm
Built-In collet type	ZG 4/6mm	ZG 4/6mm	ZG 4/6mm	-
Dinensions Ø x length (mm)	24 x 140	26 x 160 (head height 54)	26 x 160 (head height 48)	38 x 141 (head height 70,5)
Weight (g)	0.16	0.38	0.38	0.86
Connection	square small (5mm)	square small (5mm)	square small (5mm)	square small (5mm)
Suitable for shaft type	DV 6, DV 6 Flex, DV 6 rigid, DV 7 Flex, DV 8, DV 8 rigid, HW 27, HTW 32	DV 6, DV 6 Flex, DV 6 rigid, DV 7 Flex, DV 8, DV 8 rigid, HW 27, HTW 32	DV 6, DV 6 Flex, DV 6 rigid, DV 7 Flex, DV 8, DV 8 rigid, HW 27, HTW 32	DV 6, DV 6 Flex, DV 6 rigid, DV 7 Flex, DV 8, DV 8 rigid, HW 27, HTW 32

*Grinding arm HB 15A-1 included in the scope of delivery.

Type	straight	straight	straight	straight
Designation	FHS 4	FHS 6	FHS 7	FHS 10
Order No.	020 001 700	020 001 730	020 001 720	020 001 740
Max. permissible speed (min-1)	20,000	20,000	20,000	15,000
Max. tool holder size (mm)	6	6	8	8
Built-In collet type				
Dinensions Ø x length (mm)	20 x 110	23.5 x 115	27 x 130	32.5 x 170
Weight (g)	0.15	0.3	0.3	0.6
Connection	sliding connection G16	sliding connection G19	sliding connection G22	sliding connection G28
Suitable for shaft type	NAS 4	NAS 6	NAS 7	NAS 10, NAS 12



file	straight	straight	angle 90°
FR 5-827	KGS 10-9	KGS 10-9 SW*	W 6-9
020 000 730	020 001 600	020 001 610	020 000 670
15,000	9,000	9,000	9,000
4	10	10	6
-	ZG 1a/6mm	quick-change insert	ZG 4/6mm
38 x 159 (head height 102,5)	34 x 154	34 x 154	37 x 175 (head height 67)
2,65	0.5	0.5	0.6
square small (5mm)	square big (8,5mm)	square big (8,5mm)	square big (8,5mm)
DV 6, DV 6 Flex, DV 6 rigid, DV 7 Flex, DV 8, DV 8 rigid, HW 27, HTW 32	DV 10, DV 10 rigid, DV 12, DV 12 rigid	DV 10, DV 10 rigid, DV 12, DV 12 rigid	DV 10, DV 10 rigid, DV 12, DV 12 rigid

*SW Inserts and ER collets not included.

angle 90°	straight	straight
WIS 10	FHS 12	FHS 15
020 001 750	020 001 710	on request
15,000	10,000	10,000
6	12	MK 1
		-
38 x 160 (head height 56)	33 x 155	45 x 190
0.6	0.6	1.3
sliding connection G28	sliding connection G28	sliding connection G35
NAS 10, NAS 12	NAS 10, NAS 12	NAS 15

Functionality of the quick-change system for KGS 10-9 SW
Order No. 020 001 610

The newly developed exchange system for handpieces allows the use of a variety of tools with a simple, tool-free click system.

Three exchange inserts for collets of type ER 11, ER16 and ZG7 are available.
The ER11 insert can accommodate collets up to 7mm shaft size, while the insert with ER16 collet up to 10mm.
Alternatively, our standard ZG7 collet up to shaft size 8mm can also be used.

Quick Change Inserts for KGS 10-9 SW

For Collet SW ER11 Item No. 001 985 502

For Collet SW ER 16 Item No. 001 985 503

For Collet Type ZG7 Item No. 001 985 526

(Collets not included)

12 Handpieces for Older Machines

Type	straight	straight	angle 90°	angle 90° - extension 300mm
Designation	KGE 18	KGE 18 L	W 618	W 618 L300
Order No.	020 000 200	020 000 300	020 000 600	020 012 200
Max. permissible speed (min-1)	20,000	20,000	15,000	15,000
Max. tool holder size (mm)	6	6	6	6
Built-In collet type	ZG 1/6mm	ZG 4/6mm	ZG 4/6mm	ZG 4/6mm
Dinensions Ø x length (mm)	23 x 100	30 x 233	23 x 169.5 (head height 48)	25.6 x 369.5 (head height 48.5)
Weight (g)	0.2	0.57	0.4	0.85
Connection	claw 18	claw 18	claw 18	claw 18
Suitable for shaft type	HW 30, ZK 7, HTW 20, DK 7	HW 30, ZK 7, HTW 20, DK 7	HW 30, ZK 7, HTW 20, DK 7	HW 30, ZK 7, HTW 20, DK 7

Type	straight	straight	straight	straight
Designation	KGEH	KGE 25 H	MKE 1-31	SKE 1*
Order No.	020 004 700	020 004 800	020 001 400	020 003 400
Max. permissible speed (min-1)	45,000	27,000	9,000	9,000
Max. tool holder size (mm)	6	10	MK 1	spindle Ø14 x 32 mm
Built-In collet type	ZG 1/6mm	ZG 1a/6mm	-	-
Dinensions Ø x length (mm)	23 x 100	34 x 134	40 x 156	40 x 250
Weight (g)	0.2	0.5	0.65	0.65
Connection	thread M5	thread M8	claw 31	morse cone MK 1
Suitable for shaft type	HTW 45	HTW 27	ZK 12, ZK 15, DK 12	*Accessories for MKE 1-31

Handpiece MKE 1-31 in connection with insert SKE 1

angle 45°	straight	straight
W 618-45	KGE 25	KGE 31
020 000 605	020 001 200	020 001 300
15,000	9,000	9,000
6	10	10
ZG 4/6mm	ZG 1a/6mm	ZG 1a/6mm
23 x 188 (head height 49)	34 x 135	34 x 140
0.5	0.5	0.5
claw 18	claw 25	claw 31
HW 30, ZK 7, HTW 20, DK 7	ZK 10, DK 10	ZK 12, ZK 15, DK 12

straight	straight
ST 1*	SHE 31
020 003 600	020 001 500
9,000	9,000
spindle Ø10 x 25 mm	spindle Ø20 x 25 mm
-	-
30 x 133	40 x 188
0.2	1.0
morse cone MK 1	claw 31
*Accessories for MKE 1-31	ZK 12, ZK 15, DK 12

Handpiece MKE 1-31 in connection with insert ST 1

13 Shafts for Current Machines

For handpiece with connection „square small (5 mm)“				
Designation	DV 4	DV 6	DV 6 Flex	DV 6 Rigid (extension 500mm)
Complete shaft order no.	032 007 600	032 004 200	032 004 600	032 009 400
Length (mm)	1,500	1,500	1,500	2,000 (of which 500 mm rigid)
Ø Shaft core (mm)	Ø 4	Ø 6	Ø 6	Ø 6
Max. permissible speed (min-1)	30,000	30,000	30,000	30,000
Shaft core order no.	007 707 600	007 704 200	007 704 200	007 709 400
Protective sleeve order no.	007 807 600	007 804 200	007 804 600	007 809 400
Material protective sleeve	rubber	rubber	rubber	rubber
Connection machine side	D = DIN (M10 x 30 thread)	D = DIN (M10 x 30 thread)	D = DIN (M10 x 30 thread)	D = DIN (M10 x 30 thread)
Connection handpiece side	V = square small (5 mm)	V = square small (5 mm)	V = square small (5 mm)	V = square small (5 mm)

For handpiece with connection „square big (8,5 mm)“				
Designation	DV 10 (1.5m)	DV 10 (2.0m)	DV 10 (3.0m)	DV 10 Rigid (extension 500mm)
Complete shaft order no.	032 004 800	032 004 811	032 004 812	032 009 611
Length (mm)	1,500	2,000	3,000	2,500 (of which 500 mm rigid)
Ø Shaft core (mm)	Ø 10	Ø 10	Ø 10	Ø 10
Max. permissible speed (min-1)	9,000	9,000	9,000	9,000
Shaft core order no.	007 704 800	007 704 811	007 704 812	007 709 611
Protective sleeve order no.	007 804 800	007 804 811	007 804 812	007 809 611
Material protective sleeve	rubber	rubber	rubber	rubber
Connection machine side	D = DIN (M10 x 30 thread)	D = DIN (M10 x 30 thread)	D = DIN (M10 x 30 thread)	D = DIN (M10 x 30 thread)
Connection handpiece side	V = square big (8,5 mm)	V = square big (8,5 mm)	V = square big (8,5 mm)	V = square big (8,5 mm)

For handpiece with connection „sliding connection“				
Designation	NAS 4	NAS 6	NAS 7 (1.5m)	NAS 7 (2.0m)
Complete shaft order no.	032 010 110	032 010 116	032 010 111	032 010 117
Length (mm)	1,300	1,400	1,500	2,000
Ø Shaft core (mm)	Ø 4	Ø 6	Ø 7	Ø 7
Max. permissible speed (min-1)	20,000	20,000	20,000	20,000
Shaft core order no.	007 704 110	007 704 116	007 704 111	007 704 117
Protective sleeve order no.	007 804 110	007 804 116	007 804 111	007 804 117
Material protective sleeve	rubber	rubber	rubber	rubber
Connection machine side	D = DIN (M10 x 30 thread)	D = DIN (M10 x 30 thread)	D = DIN (M10 x 30 thread)	D = DIN (M10 x 30 thread)
Connection handpiece side	sliding connection G-16	sliding connection G-19	sliding connection G-22	sliding connection G-22

Designation	Special grease for flexible shaft (1kg can)	
Order no.	001 365 629	

DV 7 Flex	DV 8	DV 8 Rigid (extension 500mm)
030 190 801	032 004 700	032 009 500
1,800	1,500	2,000 (of which 500 mm rigid)
Ø 7	Ø 8	Ø 8
20,000	15,000	15,000
007 700 021	007 704 700	007 709 500
007 800 021	007 804 700	007 809 500
metal	rubber	rubber
D = DIN (M10 x 30 thread)	D = DIN (M10 x 30 thread)	D = DIN (M10 x 30 thread)
V = square small (5 mm)	V = square small (5 mm)	V = square small (5 mm)

Connection machine side

Connection handpiece side

DV 10 Rigid (Extension 1,000mm)	DV 12	DV 12 Rigid (extension 1,000mm)
032 009 650	032 004 911	032 010 200
2,000 (of which 1,000 mm rigid)	2,000	2,500 (of which 1,000 mm rigid)
Ø 10	Ø 12	Ø 12
9,000	9,000	9,000
007 709 600	007 704 911	007 710 200
007 809 650	007 804 911	007 810 200
rubber	rubber	rubber
D = DIN (M10 x 30 thread)	D = DIN (M10 x 30 thread)	D = DIN (M10 x 30 thread)
V = square big (8,5 mm)	V = square big (8,5 mm)	V = square big (8,5 mm)

Connection machine side

Connection handpiece side

NAS 10 (1.5m)	NAS 10 (2.0m)	NAS 12	NAS 12	NAS 15
032 010 112	032 010 113	032 010 114	on Request	032 010 115
1,500	2,000	2,000	2,000	2,500
Ø 10	Ø 10	Ø 12	Ø 12	Ø 15
15,000	15,000	10,000	10,000	8,000
007 704 112	007 704 113	007 704 114	on request	007 704 115
007 804 112	007 804 113	007 804 114	on request	007 804 115
rubber	rubber	rubber	rubber	Rubber
D = DIN (M10 x 30 thread)	D = DIN (M10 x 30 thread)	D = DIN (M10 x 30 thread)	D = DIN (M14 x 40 thread)	D = DIN (M14 x 40 thread)
sliding connection G-28	sliding connection G-28	sliding connection G-28	sliding connection G-28	sliding connection G-35

Connection machine side

Connection handpiece side

14 Shafts for Older Machines

For machines MB 20/2 and MB 20/3	
Designation	HW 27
Complete shaft order no.	030 097 100
Length (mm)	1,500
Ø Shaft core (mm)	6
Max. permissible speed (min-1)	25,000
Shaft core order no.	007 900 976
Protective sleeve order no.	007 900 977
Material protective sleeve	rubber
Connection machine side	squ. small (5mm)
Connection handpiece side	squ. small (5mm)

For machines SN 12, MBF 15 G			
Designation	DK 7	DK 10	DK 12
Complete shaft order no.	030 046 001	030 002 201	030 002 401
Length (mm)	1,500	1,500	2,000
Ø Shaft core (mm)	7	10	12
Max. permissible speed (min-1)	9,000	9,000	9,000
Shaft core order no.	007 900 517	008 900 041	008 900 45
Protective sleeve order no.	007 900 703	007 900 906	007 900 909
Material protective sleeve	rubber	rubber	rubber
Connection machine side	thread M10 x 30	thread M10 x 30	thread M10 x 30
Connection handpiece side	claw 18	claw 25	claw 31

For maschinen MB 3 Z, MB 5 Z, MBF 5 Z, MBF 15 Z, MB 50 Z							
Designation	ZK 7	ZK 10 (1.5m)	ZK 10 (2.0m)	ZK 10 rigid (ext. 500mm)	ZK 10 rigid (Ext. 1.000mm)	ZK 12	ZK 15
Complete shaft order no.	030 001 001	030 001 201	030 001 211	032 009 800	030 002 401	030 001 401	030 001 601
Length (mm)	1,500	1,500	2,000	2,000 of which 500mm rigid	2,000 of wich 1,000mm rigid	2,000	2,000
Ø Shaft core (mm)	7	10	10	10	10	12	15
Max. permissible speed (min-1)	9,000	9,000	9,000	9,000	9,000	9,000	9,000
Shaft core order no.	008 900 017	008 900 021	008 901 021	007 709 800	007 709 900	008 900 025	008 900 29
Protective sleeve order no.	007 900 905	007 900 908	007 901 908	007 809 800	007 809 900	007 900 911	007 900 914
Material protective sleeve	rubber	rubber	rubber	rubber	rubber	rubber	rubber
Connection machine side	Z-connection	Z-connection	Z-connection	Z-connection	Z-connection	Z-connection	Z-connection
Connection handpiece side	claw 18	claw 25	claw 25	claw 25	claw 25	claw 31	claw 31

For machines MB 3 Z, MB 5 Z, MBF 5 Z, MBF 15 Z, MB 50 Z with high-speed gearbox HTZ 27 or HTZ 45			
Designation	HTW 20	HTW 27	HTW 45
Complete shaft order no.	030 077 000	030 005 502	030 005 400
Length (mm)	1,500	1,500	1,500
Ø Shaft core (mm)	6	8	6
Max. permissible speed (min-1)	20,000	27.000	45,000
Shaft core order no.	007 900 648	008 900 090	008 900 440
Protective sleeve order no.	007 900 649	008 900 350	008 900 349
Material protective sleeve	rubber	rubber	rubber
Connection machine side	cyl. 6mm	cyl. 8mm	cyl. 6mm
Connection handpiece side	claw 18	M8	M5
Matching high-speed gearbox	for HTZ 27	for HTZ 27	for HTZ 45

For machine MB 30		
Designation	HW 30	HTW 32*
Complete shaft order no.	030 097 000	030 144 500
Length (mm)	1,500	1,500
Ø Shaft core (mm)	7	6
Max. permissible speed (min-1)	15,000	30,000
Shaft core order no.	007 900 770	008 900 569
Protective sleeve order no.	007 900 771	008 900 570
Material protective sleeve	rubber	rubber
Connection machine side	plug connection	plug connection
Connection handpiece side	claw 18	squ. small (5mm)

* Only in combination with high-speed gearbox HTG 30.

15 Types of Connections

DIN Thread Connection Type D
In the DIN thread connection, the core of the shaft is attached directly to the drive shaft of the motor using a thread (standard M10 x 30).

Square Connection Type V
The “pressed square” connection is a quick-change connection and allows rapid changing of handpieces by simply pressing down the locking spring button. The connection is available in two sizes, depending on the diameter of the shaft core, in small = 5mm or large 8.5 mm.

Z-Connection (centered sliding connection)
The Z-connection with automatic length compensation avoids any axial load on the shaft core. Together with the additional centering, it ensures smooth operation.

Claw Connection Type K
The ball-bearing claw connection quickly and securely connects the flexible shaft to the handpiece using a union nut. Available in claw sizes 18, 25, and 31.

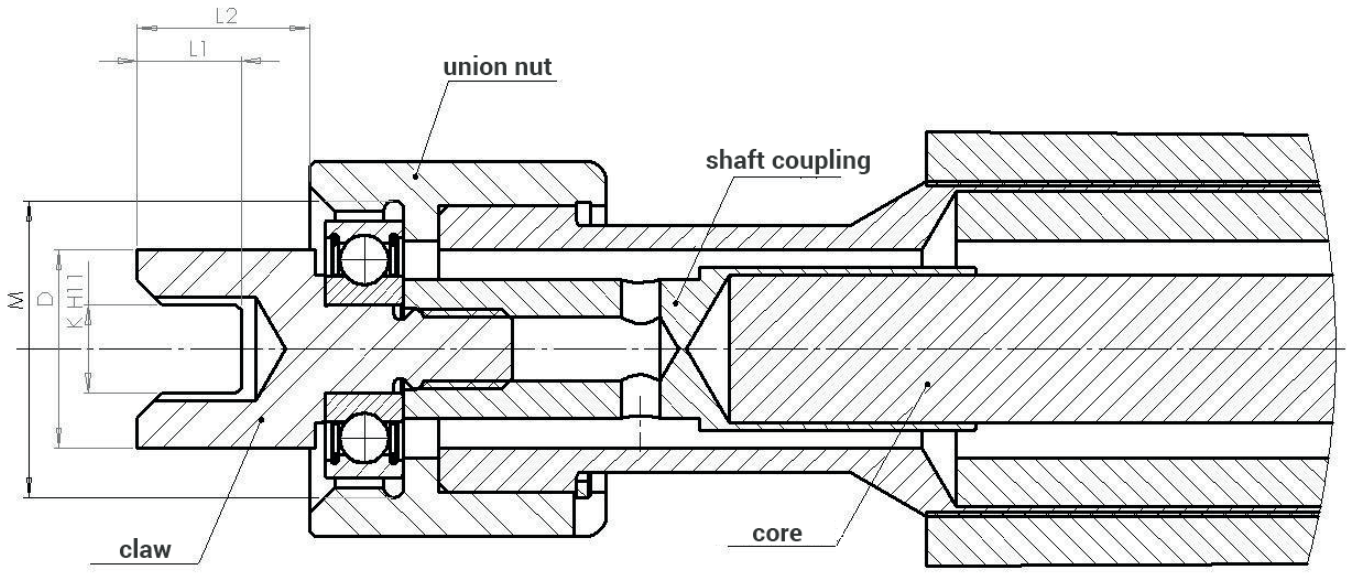
Sliding Connection Type G
The sliding connection, like the “pressed square,” is a quick-change connection and allows rapid changing of handpieces by simply pressing down the locking spring button. It also allows for automatic length compensation, thus avoiding any axial load on the shaft.
Available in connection sizes G16, G19, G22, G28, and G35.

Plug Connection
The plug connection is connected to the drive motor via a plug coupling and secured with a grub screw (set screw) and retaining spring.

16 Maintenance of the Flexible Shaft

The required maintenance consists of regular cleaning and greasing of the shaft core after approximately 300 hours of operation. Use acid-free grease or our BIAX special grease (order no. 001 365 629).

Example illustration of the claw connection type K



17 Collets & Accessories

only for Handpiecee

for Pneumatic Machines and Handpiecee

Typ	ZG 1	ZG 1 A	ZG 4	ZG 5	ZG 7	ZG 8
	Order no.	Order no.	Order no.	Order no.	Order no.	Order no.
Bore 0.5 mm	-	-	-	001 999 871	-	-
Bore 1.0 mm	-	-	001 999 957	001 999 989	001 999 868	-
Bore 1.5 mm	-	-	001 999 960	001 999 988	-	-
Bore 2.0 mm	001 999 932	-	001 999 959	001 999 987	001 999 867	-
Bore 2.5 mm	-	-	001 999 952	001 999 986	-	-
Bore 3.0 mm	001 999 999	001 999 995	001 999 991	001 999 985	001 999 982	-
Bore 3.5 mm	-	-	001 999 951	-	001 999 924	-
Bore 4.0 mm	001 999 998	001 999 949	001 999 961	-	001 999 973	-
Bore 5.0 mm	001 999 997	-	001 999 958	-	001 999 972	-
Bore 6.0 mm	001 999 996	001 999 994	001 999 990	-	001 999 981	001 999 977
Bore 7.0 mm	-	-	-	-	001 999 971	-
Bore 8.0 mm	-	001 999 993	-	-	001 999 980	001 999 976
Bore 10.0 mm	-	001 999 992	-	-	-	001 999 975
Bore 1/8“	-	-	001 999 964	001 999 983	001 999 979	-
Bore 1/4“	-	-	001 999 965	-	001 999 978	-
Bore 3/32“	-	-	001 999 970	001 999 984	-	-
Collet Wrench	001 365 806 + holding Pin 002 000 069	001 365 811 + holding Pin 002 000 070	007 899 874 (size 9+11 in set)	007 899 751 (size 6+8 in set)	007 899 747 (size 11+14 in set)	007 899 721 (size 14+17 in set)

Accessories for Working

Extensive accessories can be found in our accessories catalogue (order no. 001 580 317) as well as the rotary burrs (order no. 001 580 320) or online on our website www.biax.de

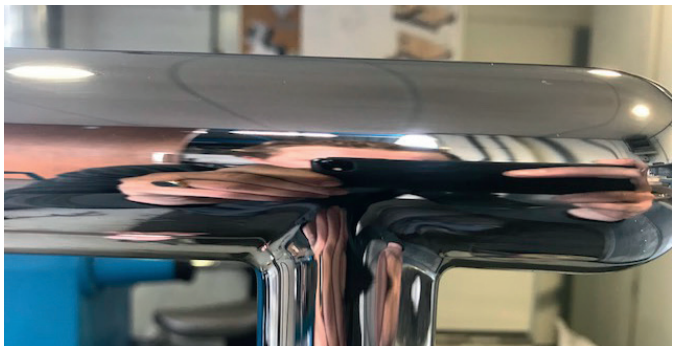
Here is a small excerpt from our product range:

- Tungsten carbide rotary burrs
- Grinding sleeves and caps
- Flap and non-woven grinding wheels
- Felt Polishers
- Brushes and cup brushes

Rotary burrs catalogue:

Accessories catalogue:

18 Application Images



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