

Pipe Cutting and Beveling Machines

GF 4 (AVM/MVM)

Training



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Basics

Pipe Cutting and Beveling Machines GF 4, GF 4 AVM, GF 4 MVM

New era – even higher standards!

Having set the benchmark for pipe cutting and beveling machines for over 40 years, our new range of machines takes us even further forward. The new GF 4, GF 4 AVM and GF 4 MVM are now available!

Your benefits:

- Square, burr-free and deformation-free pipe end.
- Cold machining process, cutting in seconds.
- Simultaneous or separate cutting and beveling.
- Cost-effective, increasing productivity.
- Even longer tool life.



Basics

Pipe Cutting and Beveling Machines GF 4, GF 4 AVM, GF 4 MVM

Features

- Enhanced safety due to fixed pipe – rotating tool.
- A restart inhibit function prevents the machine from starting in an uncontrolled way after it has been re-connected to the electric mains or after the voltage supply has been re-established following a power failure.
- Self-centering vice.
- Low-maintenance gearbox with oil lubrication.
- Speed-controlled pipe cutter motor.
- The ability to produce “V” and “Y” weld preps using a bevel cutter with the option of cutting and beveling simultaneously.
- Cutting of elbows possible.
- Quick tool change.
- Reducing the amount of physical effort for the operator.

Basics

Pipe Cutting and Beveling Machines GF 4, GF 4 AVM, GF 4 MVM

Features GF 4 AVM

- The intelligent control system of the AVM monitors the feed force continuously, depending on the torque and the parameter settings.
- The operator position guarantees utmost protection against hot chips flying around.
- Manual operation is still possible.

Basics

What is new:

- Optional feed module AVM or MVM for an automated or manual cutting process.



AVM



MVM

Basics

What is new:

- 1 multifunctional tool for all adjustments on the machine.
1 tool = 5 functions: vice handle, clamping jaws, saw blades and bevel cutters, quick mounting plate, anti-theft protection.



Basics

What is new:

- Weight reduction of 20 kg for ease of movement.
- A new ergonomically-designed motor handle for a safer and more comfortable operating position, which also enables easier cutting of elbows.
- Extended speed range (65 - 215 rpm), ideal for the cutting of high-performance materials (Hastelloy, P91, etc.).



Basics

What is new:

- Integrated laser pointer to determine the cut off point.
- 2 position aluminum clamping jaws to reduce chatter and enable smaller length of pipe to be machined.



Basics

What is new:

- Swivel cable with a quick-disconnect coupler for easy and quick replacement of power cables.
- The new saw blade guard protects against flying chips and comes with a measuring port.



Range of application

Working range

Machine type	GF 4 (AVM / MVM)
OD Pipes [mm]	12 - 120
OD Pipes [inch]	0.472 - 4.724
Wall thickness [mm] (depends on material)	1 - 9
Wall thickness [inch] (depends on material)	0.039 - 0.354
Pipe ID min. [mm] (saw blade Ø 63 mm)	21
Pipe ID min. [inch] (saw blade Ø 2.480 inch)	0.827
Rohr-ID min. [mm] (saw blade Ø 68 mm)	16
Pipe ID min. [inch] (saw blade Ø 2.677 inch)	0.630
Rohr-ID min. [mm] (saw blade Ø 80 mm)	4
Pipe ID min. [inch] (saw blade Ø 3.150 inch)	0.157

Range of application

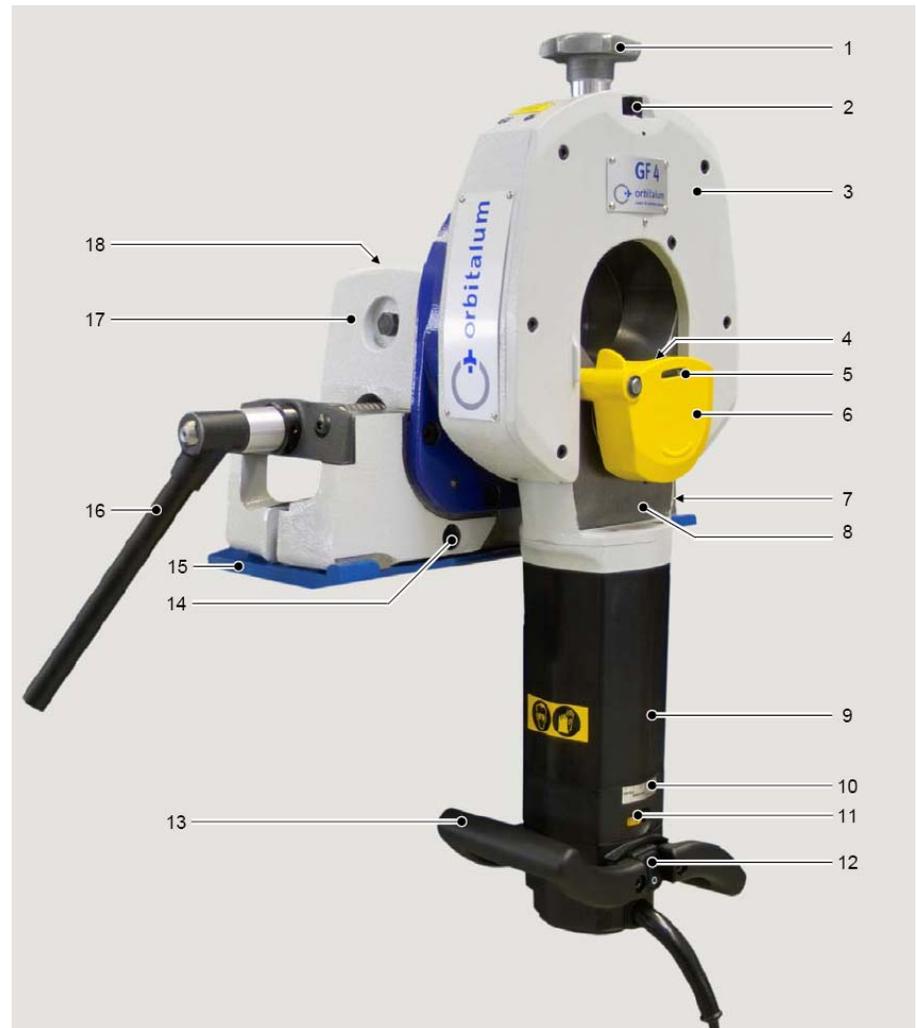
Pipe materials

- High-quality steel (any Cr and Mo content)
- High-quality stainless steel (any Cr and Mo content)
- High-quality steel (Cr < 12% and Mo < 2.5%; Cr < 20% and Mo = 0%):
 - Case hardened steels
 - High-speed steels
 - Heat-treated steels
 - Bearing steels
 - Tool steels
- Black and galvanized steel pipe
- General structural steel
- Annealed cast iron pipe (GGG)
- Aluminum
- Brass
- Copper
- Plastics (PE, PP, PVDE, PVC)

Product introduction

GF 4 Standard

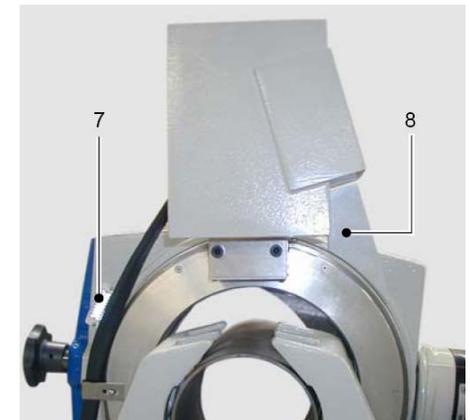
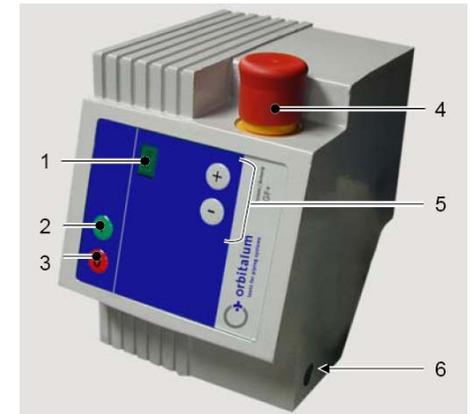
- 1 Hand wheel
- 2 Line laser
- 3 Slide housing with cover plate
- 4 Saw blade/bevel cutter
- 5 Opening for meter rule
- 6 Saw blade guard
- 7 Identification plate
- 8 Slide
- 9 Motor
- 10 Rotating-speed indicator
- 11 Rotating-speed regulator
- 12 ON-OFF switch
- 13 Ergonomic handle
- 14 Retainer for vice handle
Anti-theft protection
Holding fixture for pipe length gauge bar
- 15 Quick mounting plate
- 16 Multifunctional wrench/vice handle
- 17 Vice
- 18 Turnable clamping jaws



Product introduction

Automatic Feed Module AVM

- 1 *Display*
- 2 *START button*
- 3 *STOP button*
- 4 *EMERGENCY OFF button*
- 5 *Buttons for presetting the feed force level*
- 6 *Light barrier*
- 7 *Reflector*
- 8 *Protective web*



Product introduction

Description of the AVM buttons

Display



If the control system is connected to the mains, the number of the current software version will first appear on the display for approx. 1 second. If the module is ready for operation, the currently preset feed force level will be displayed. In case of a malfunction, this display will flash at 1-second intervals showing **F** and a figure from **1** to **6**.

PRESET buttons



By actuating these buttons, it is possible to preset the desired feed force in 9 levels. If the device is ready for operation, these buttons may be pressed at any time to set the feed force level or to vary it during processing. If one of the buttons remains pressed by the user, the display will run to the respective direction selected by the user.

Product introduction

Description of the AVM buttons

START button



The machining process is initiated by actuating this button. After start-up, this button serves no further function. It remains also without function during a fault or while the software version is being displayed.

STOP button



During the machining process, a stop cycle is initiated by actuating this button, and a new start is waited for.

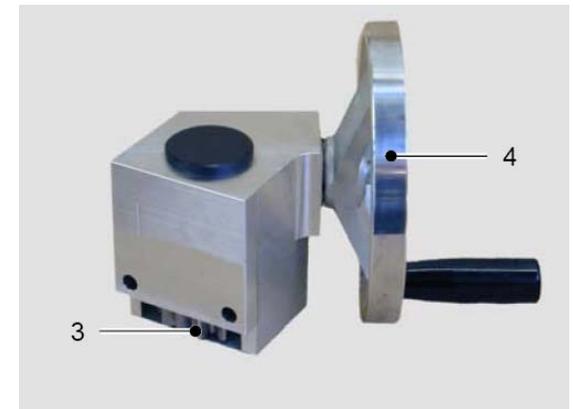
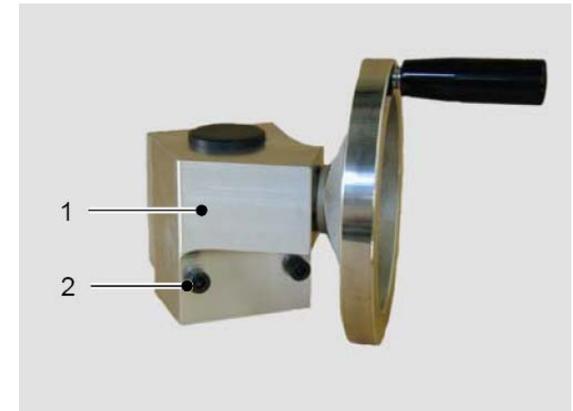
Before and after the machining process, the feed will run backwards as long as the button is pressed, regardless whether the cutter motor is running or not.

During a fault, the button remains without function.

Product introduction

Manual Feed Module MVM

- 1 *Gear*
- 2 *Fastening screws*
- 3 *Gear drive with freewheel*
- 4 *Hand wheel*



Product introduction

Technical data

Dimensions (l x b x h) (GF 4)	680 x 325 x 480 mm / 26.8 x 12.8 x 18.9 inch
Dimensions (l x b x h) (GF 4 AVM)	810 x 325 x 480 mm / 31.9 x 12.8 x 18.9 inch
Dimensions (l x b x h) (GF 4 MVM)	780 x 325 x 480 mm / 30.7 x 12.8 x 18.9 inch
Weight GF 4, approx.	55.0 kg / 121.2 lbs
Weight GF 4 AVM, approx.	64.5 kg / 142.2 lbs
Weight GF 4 MVM, approx.	60.0 kg / 132.2 lbs
Versions	One-phase alternating current 220 - 240 V, 50/60 Hz 110 - 120 V, 50/60 Hz
Power GF 4	1800 W / 2.45 HP
Power AVM	50 W / 0.068 HP
Protection class GF 4, GF 4 MVM	Double insulated acc. to class II, DIN VDE 0740
Protection class GF 4 AVM	Double insulated acc. to class I, DIN VDE 0113
Speed of the tool	65 - 215 rpm
Speed of the slide housing	0.1 - 1.8 rpm
Torque of the slide housing	100 - 200 Nm
Sound pressure level at the workplace*	79 dB (A)
Vibration level in accordance with DIN EN 28662, Part 1	< 2.5 m/s ²
Mains fuse by customer	16 A

* The sound pressure level was measured under normal operating conditions in accordance with EN 23741.

Product introduction

Technical data line laser

Dimensions (l x b)	68 x 15 mm / 2.7 x 0.59 inch
Weight	30 g / / 0.066 lbs
Power	5 mW / 0.007 HP
Beam range	1 m / 39.37 inch
Wave length	650 nm
Operating voltage	2.8 to 4.5 V DC
Operating current	20 mA
Operating temperature	-10 to 40 °C
Storage temperature	-40 to 80 °C
Laser class	2M
Battery type	2 x LR44 / AG13



Product introduction

Accessories

Saw blades and bevel cutters

All saw blades and bevel cutters are specially developed for Orbitalum Tools pipe cutters to endure maximum strain and have a maximum tool life. A selection of 4 different saw blades and bevel cutters are available for various uses:



Economy series for low and non-alloy steels and cast iron/casting alloys

Performance series for high-alloy steels (high-quality steel)

High-Performance series for high-performance materials and high-alloy steels

Premium series especially for high-quality steel use with extremely long service life

Processable pipe materials	Al	Non-alloy steel, Cu, CuNi, CuZn, CuSn	High-quality steel, V2A, V4A, 304, 316 (L)	Ti, Duplex, Inconel
Economy	*	*		
Performance		*	*	
High-Performance		*	*	*
Premium			*	

Product introduction

Accessories

Aluminum clamping shells

Suitable for the Pipe Cutting and Beveling Machines GF 4 and RA 41 Plus. For deformation-free clamping of thin-walled pipes. Further clamping shells are available for various outer diameters.



Pipe OD [mm]	Pipe OD [inch]	Code
25.40	1.000	790 046 316
38.10	1.500	790 046 331
50.80	2.000	790 046 345
76.10	2.996	790 046 358
88.90	3.500	790 046 363
108.00	4.252	790 046 367
114.30	4.500	790 046 368

Product introduction

Accessories

Special high-quality steel clamping jaws

For GF 4 and RA 4. In pairs.



Article	Code
Special high-quality steel clamping jaws for GF 4 and RA 4	790 042 201

Length gauge

For all GF 4, RA 2, RA 4, RA 6 and RA 8 versions.

Measuring range up to 680 mm (26.77 inch).



Article	Code
Length gauge	790 041 011

Product introduction

Accessories

Quick-mounting plate with screw clamps

With integrated screw clamps for quick mounting of the machine on workbenches. Ideal if changing location often.



Article	Code
Quick-mounting plate for GF 4, RA 4, RA 6, RA 8, RA 41 (Plus)	790 042 027

Gear oil

For all Orbitalum Tools pipe cutters.



Article	Code
Gear oil, bottle, 250 ml	790 041 030

Product introduction

Accessories

Saw blade lubricant GF TOP

Synthetic high-performance lubricant for cutting and beveling machines. Increases the tool life of the saw blade. Compliant with the former food approval USDA H2. The screwable brush guarantees an easy and uniform application of lubricant on the saw blade.



Article	Code
Saw blade lubricant GF TOP	790 060 228

Saw blade lubricant ROCOL

High-performance lubricant for cutting and beveling. Increases the tool life of the saw blade.



Article	Code
Saw blade lubricant ROCOL, Tube, 150 ml	790 041 016
Saw blade lubricant ROCOL, Can, 0.5 kg	790 041 013
Saw blade lubricant ROCOL, Container, 5.0 kg	790 041 019

Product introduction

Scope of delivery (Subject to change)

- 1 Pipe Cutting and Beveling Machine GF 4 (AVM / MVM)*
- 1 Transportation case
- 1 Saw blade
- 1 Set of clamping jaws made from cast aluminum
- 1 Quick-mounting plate
- 1 Tool set
- 1 Tube of saw blade lubricant GF TOP (Code 790 060 228)
- 1 Tube of special gear oil (Code 790 041 030)
- 1 Set of operating instructions and spare parts list

* *The automatic and manual feed module AVM/MVM is already fitted to the pipe cutter upon delivery.*

Operation



Danger of death caused by electric shock

- ▶ Disconnect from the mains plug before transporting, mounting or dismantling and allow the machine to run to a stop.
- GF 4 AVM: The cable **must not** contact rotating (moving) parts of the pipe cutter.
- ▶ GF 4 AVM must only be operated with the supplied protective web.
- ▶ Ensure that the cables of the AVM are fastened in the cable clamps.



Danger of being injured during transportation

- **Never** carry and fit the pipe cutter alone.
- ▶ Transport and fit the pipe cutter with the aid of a second person, or a crane or a similar lifting device.
- ▶ Wear safety gloves.

Operation



Danger of being injured by sharp cutting edges

- Keep hands away from the tools when inserting or changing the tool.
- ▶ Wear safety gloves.



Damage to material

- ▶ The saw blade or bevel cutter must be free from chips and dirt.
- ▶ Only use Orbitalum Tools saw blades and bevel cutters.
- ▶ Using combination saw blade / bevel cutters, only use the special Orbitalum Tools clamp washer, not the normal clamp washer.
- ▶ Press the saw blade guard down by max. 90°.
- ▶ Mount the saw blade/bevel cutter or combination cutters with the inscription facing you. The teeth will then be pointing in the correct direction.

Operation: Transport and assembly

Transporting the pipe cutter



Position of the machine in the transportation case upon delivery.



Transport and fit the machine with the aid of a second person or a crane or similar device.

Operation: Transport and assembly

Fitting the pipe cutter to the workbench

Fit the pipe cutter together with the vice, either

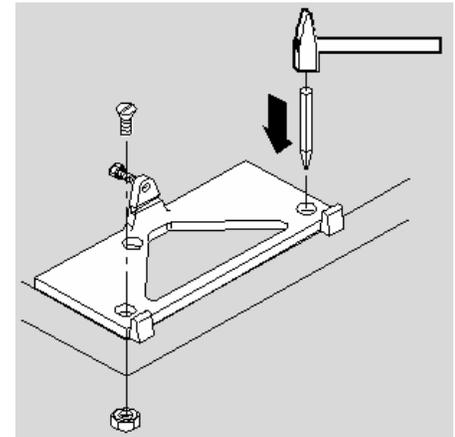
- to the quick-mounting plate
- to the quick-mounting plate with screw clamps (special accessories, plate is clamped directly to the workbench without predrilling).



Operation: Transport and assembly

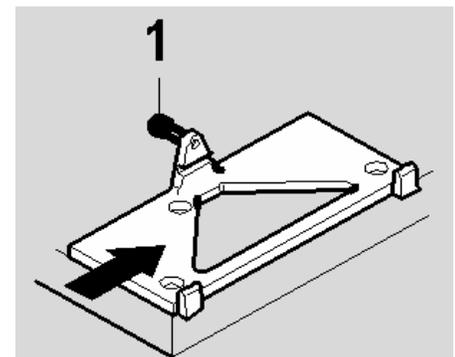
Fitting the quick-mounting plate to the workbench

1. Mark and punch the bolt holes on the workbench. Use the quick-mounting plate as a template.
2. Drill \varnothing 13 mm (0.51 inch) holes.
3. Fasten the quick-mounting plate with screws.



Fitting the pipe cutter to the quick-mounting plate

1. Guide the pipe cutter sideways onto the fitted quick-mounting plate.
2. Bolt the pipe cutter securely in place with the hexagon bolt.



Operation: Transport and assembly

Pipe feeder base unit

When using the Orbitalum Tools pipe feeder base unit, the pipe cutter is directly fitted to the mounting plate of the base unit without special accessories (special accessories, code-no. 790 068 051). It is recommended to support pipes with a length of more than 1 m using the pipe feeder base unit or the pipe feeder optional unit (code-no. 790 068 061, both special accessories).



Operation: Fitting the clamping jaws

The turntable clamping jaws made from coated aluminum cast are a standard feature of the GF 4 (AVM/MVM). Both thin-walled pipes (OD 12-56 mm) and thick-walled pipes (OD 20-120 mm) can be processed by turning the clamping jaws.

Fitting the clamping jaws

1. Unscrew the hexagon bolts (1) on the sides of the vice using the multifunctional wrench (2).
2. Fit the clamping jaws.
3. Tighten hexagon bolts (1) using the multifunctional wrench (2).



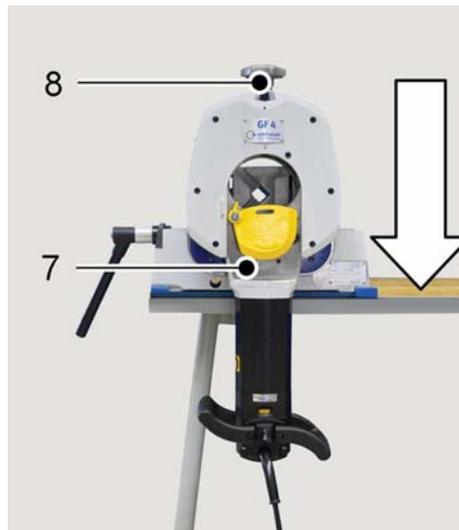
Operation: Fitting saw blade/bevel cutter



Important

Before fitting the saw blade or bevel cutter:

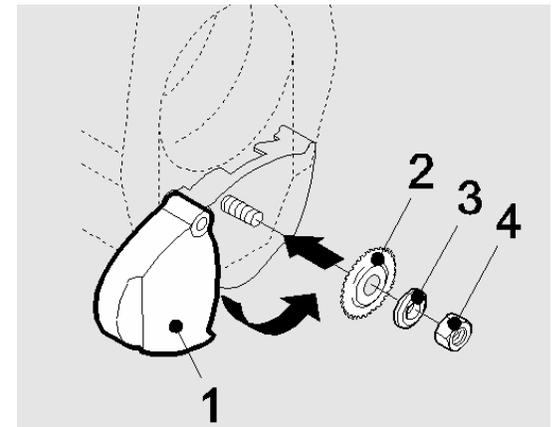
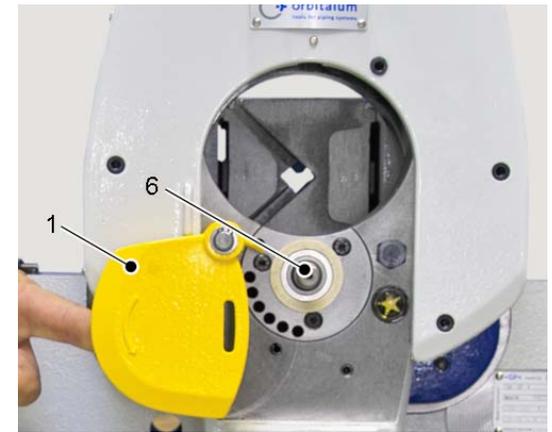
Move the slide (7) all the way down using the hand wheel (8).



Operation: Fitting saw blade/bevel cutter

Inserting the saw blade or bevel cutter

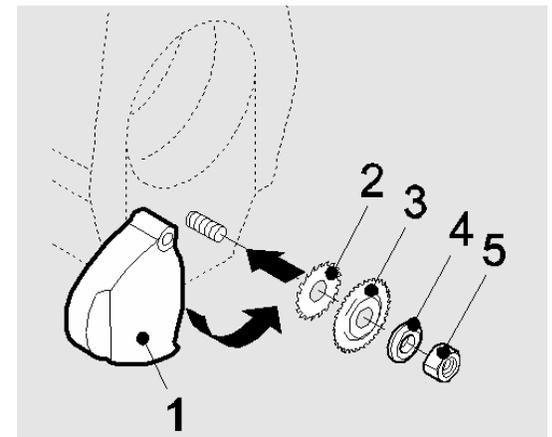
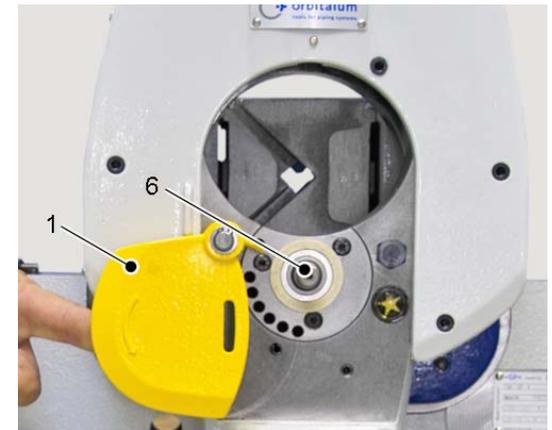
1. Turn the saw blade guard (1) down by approx. 90°.
2. Loosen the hexagon nut (4). Remove the clamping washer (3) and saw blade (2).
3. Clean the saw blade shaft (6) and vicinity.
4. Fit the saw blade (2) or bevel cutter and the clamping plate (3).
5. Tighten the hexagon nut (4).
6. Move the saw blade guard (1) back to its original position.



Operation: Fitting saw blade/bevel cutter

Inserting additional cutters

1. Turn the saw blade guard (1) down for approx. 90°.
2. Loosen the hexagon nut (5). Remove the clamping washer and the saw blade.
3. Clean the saw blade shaft and surrounding area.
4. Fit the additional cutter (2), the saw blade (3) and special clamping plate (4).
5. Tighten the hexagon nut (5).
6. Move the saw blade guard (1) back to its original position.



Operation: Adjusting the pipe diameter

Note

The working steps described in the following are the same for all GF 4 versions.



Danger of being injured by rotating slide housing

When switching the motor on, the pipe cutter may revolve around the pipe automatically.

- In their home position, the saw blade or bevel cutter must **not** touch the pipe!
- ▶ Before switching the motor on, make sure that the gap between the saw blade/bevel cutter and the pipe is sufficient and that the pipe is securely clamped in the vice.

Operation: Adjusting the pipe diameter

Note

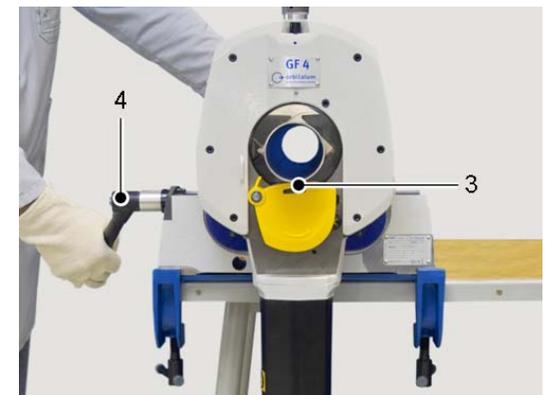
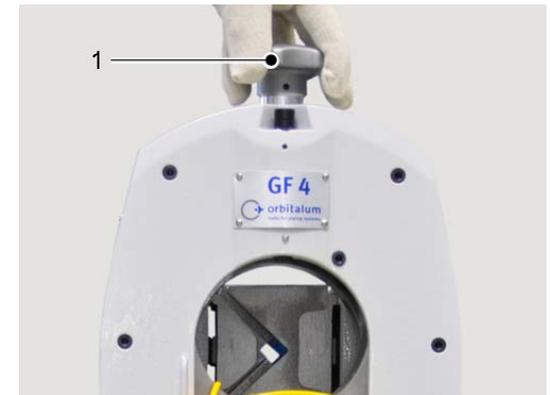
It is recommended to support pipes with a length of more than 1 m (39.37 inch) using the pipe feeder base unit or the optional unit (code-no. 790 068 061, both special accessories).



Operation: Adjusting the pipe diameter

Saw blade without additional cutter

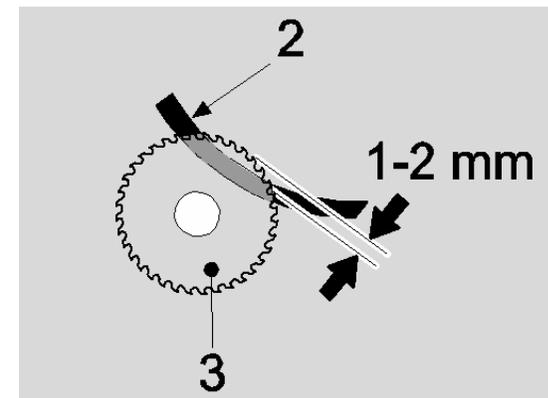
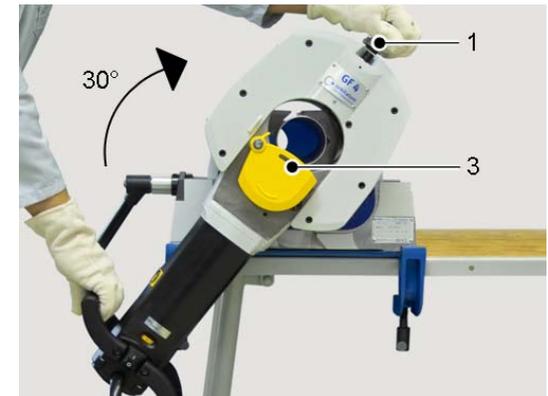
1. Turn the slide with saw blade all the way down using the hand wheel (1) or the ratchet.
2. Insert the pipe so that it almost reaches the saw blade (3) and tighten using the multifunctional wrench.



Operation: Adjusting the pipe diameter

3. Use the handle to turn the motor upwards for about 30° (clockwise) until the saw blade is in cutting position.
4. Turn the hand wheel (1) until the teeth of the saw blade (3) protrude about 1 to 2 mm (0.039-0.079 inch) inside the pipe (2).
5. If desired, perform a test cut, check the cut result and readjust the hand wheel (1) if necessary.
6. Turn the motor back to its home position.

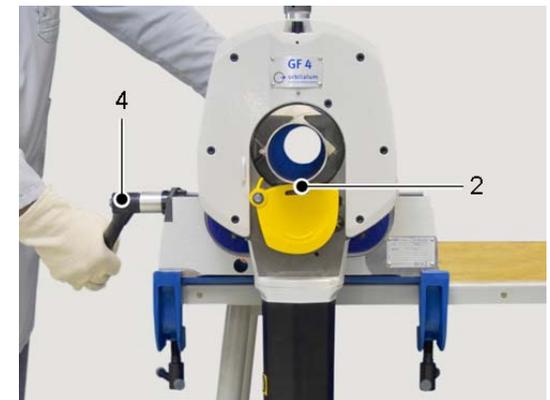
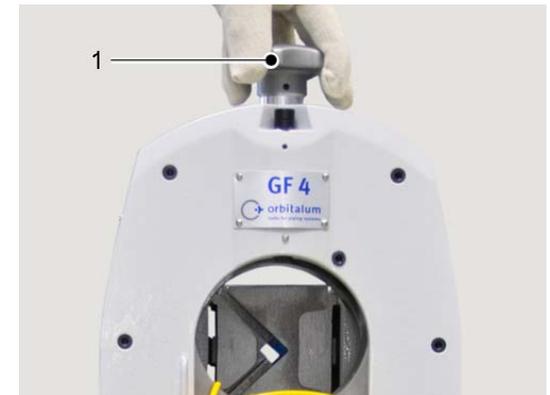
Scale of the hand wheel: a readjustment by one graduation mark will result in a radial feed or bevel alteration of 0.1 mm (0.0039 inch).



Operation: Adjusting the pipe diameter

Saw blade with additional cutter

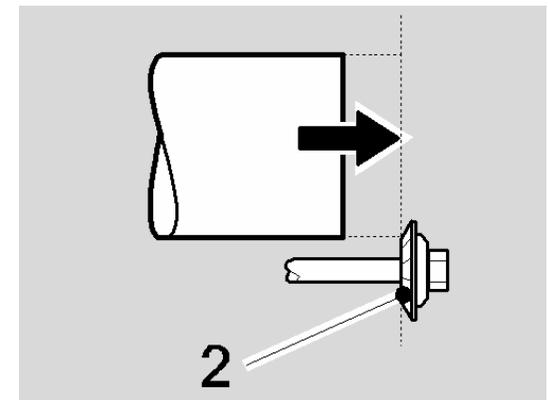
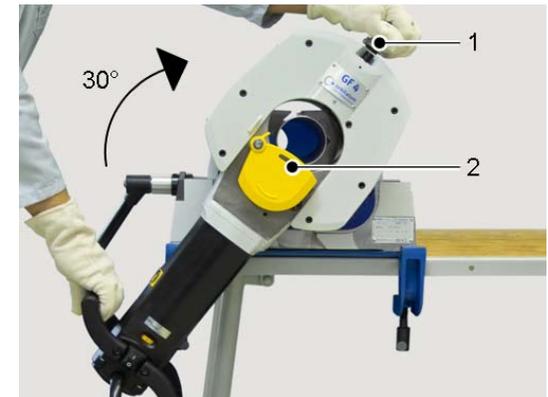
1. Turn the slide with the saw blade and additional cutter (2) all the way down using the hand wheel (1) or the ratchet.
2. Insert the pipe so that it almost reaches the additional cutter (2) and tighten using the multifunctional wrench (4).



Operation: Adjusting the pipe diameter

3. Use the handle to turn the motor upwards for about 30° until the saw blade is in cutting position.
4. Turn the hand wheel (1) until the teeth of the additional cutter (2) cover the wall thickness of the pipe.
5. Perform a test cut, check the cut and bevel result and readjust the hand wheel (1) if necessary.
6. Turn the motor back to its home position.

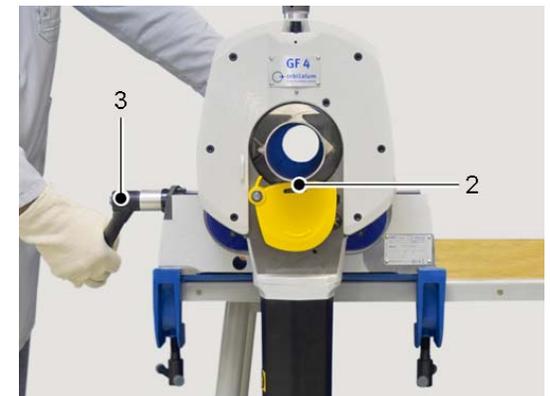
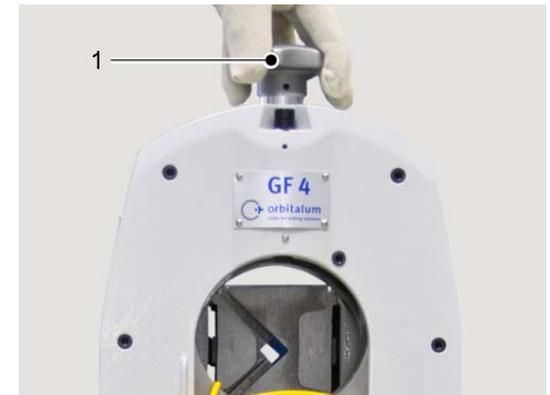
Scale of the hand wheel: a readjustment by one graduation mark will result in a radial feed or bevel alteration of 0.1 mm (0.0039 inch).



Operation: Adjusting the pipe diameter

Adjusting the bevel cutter

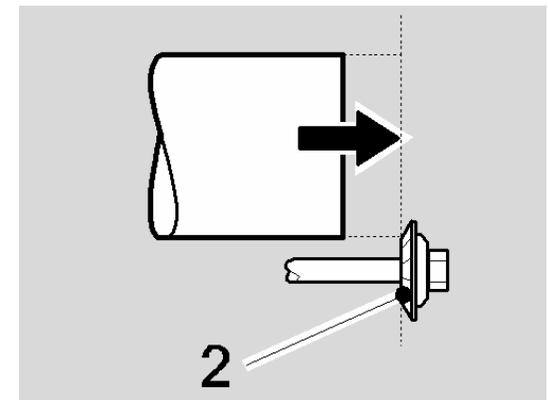
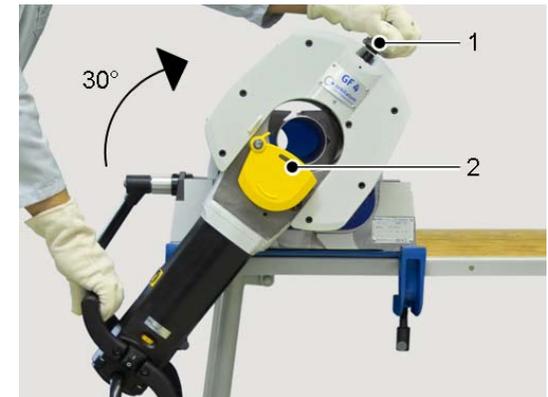
1. Turn the slide with the bevel cutter (2) all the way down using the hand wheel (1) or the ratchet.
2. Insert the pipe so that it almost reaches the bevel cutter (2). The pipe must not project over the cutter. Tighten using the multifunctional wrench (3).



Operation: Adjusting the pipe diameter

3. Use the handle to turn the motor upwards for about 30° until the bevel cutter is in beveling position.
4. Turn the hand wheel (1) until the teeth of the bevel cutter (2) cover the wall thickness of the pipe and the desired beveling position is reached.
5. If desired, perform a test bevel, check the bevel result and readjust the hand wheel (1) if necessary.
6. Turn the motor back to its home position.

Scale of the hand wheel: a readjustment by one graduation mark will result in a radial feed or bevel alteration of 0.1 mm (0.0039 inch).



Operation: Adjusting the length gauge

Length gauge

For all GF 4, RA 2, RA 4, RA 6 and RA 8 versions.

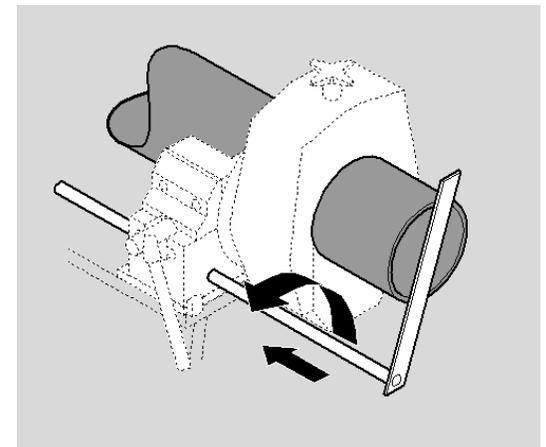
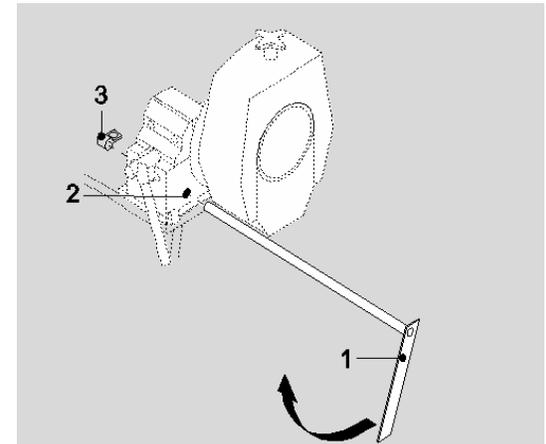
Measuring range up to 680 mm (26.77 inch).

A length gauge is available as an optional accessory for producing pipe sections of equal length (code no. 790 041 011)



Operation: Adjusting the length gauge

1. Place the length gauge (1) in the holding fixture (2).
2. Swivel the cut-off stop to the middle of the pipe.
3. Use a meter rule to extend the gauge to the desired length (slot for meter rule).
4. Position the clamp (3) flush with the housing and turn it so that it rests on the workbench.
5. Tighten the clamp (3).
6. Move the pipe forward up to the cut-off stop and clamp it into place.
7. Swivel the cut-off stop outward and push it all the way back.
8. Cut the pipe.
9. For the next cut, extend the cut-off stop and swing it into place clockwise.



Operation: Selecting the motor speed

Select low power speed for tough and high-strength materials and for large wall thickness.

Standard values for spindle speed and feed force level (AVM)

Pipe material	Motor speed controller setting	Spindle speed (rpm)	Feed force level AVM*	
High-alloy high-quality steels	1 - 2	65	1 - 2	
Low-alloy high-quality steels	2 - 4	150	1 - 4	
Structural steel	4 - 6	215	5 - 9	

* The feed force level may be varied depending on the thickness and diameter of the pipe wall.

Operation: Selecting the motor speed

Important notes regarding AVM

When first starting to process the pipe with the AVM, a low feed force level is recommended which may be increased later. Higher levels result in a higher chip production and possibly also in a higher wear of tools. The intelligent control system of the AVM monitors the feed force continuously, depending on the torque and the parameter settings.

Select the feed force level (L - 9) on the AVM display via the -buttons (for standard values, see the table).

Operation: Cutting with GF 4 AVM

Important

The AVM may only be operated in conjunction with the Orbitalum Tools pipe cutter GF 4.

- Do **not** connect any other devices to the socket of the AVM.

Commissioning

1. Connect the pipe cutter to the socket (1) of the AVM.
2. Connect the main cable of the AVM to the main power supply.



After unlocking the EMERGENCY OFF button, the number of the current software version will appear on the display for approx. 1 second. After this second has passed, the control system will supply the cutter motor with power and is thus ready to operate (the currently selected feed force level is indicated).

Operation: Cutting with GF 4 AVM



Danger of being injured by chips flying around

- **Never** work without the saw blade guard mounted.
- ▶ Wear protective goggles.

Important: If the pipe cutter was out of operation for a longer time:

- Turn the cutter motor by 180.
- Switch on the AVM and the pipe cutter, let the cutter motor run for about 10 seconds.

This will lubricate all gear components.

Operation: Cutting with GF 4 AVM

1. Set the pipe diameter.
2. Adjust the length gauge.
3. Adjust the saw blade to the pipe diameter.
4. Tighten the hexagon nut of the saw blade fixture, if necessary.
5. Adjust the spindle speed and the feed force level.
6. Push the pipe through the vice up to the desired length and clamp it.
Support pipes with a length of more than 1 m using a pipe feeder.

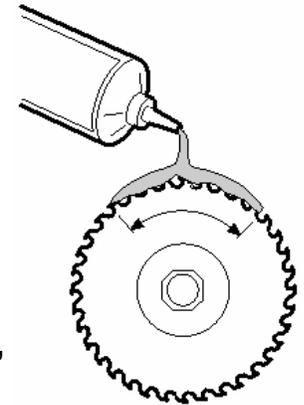
Important:

Pull off the vice handle from the spindle before the slide housing starts rotating.

Operation: Cutting with GF 4 AVM

7. Apply saw blade lubricant to the saw blade:

- up to 2": every 3 cuts,
- over 2" and with chrome and high-quality steel pipes: after every cut.



Important:

If the pipe comes into contact with drinking water or foodstuffs, only use Orbitalum Tools lubricating gel for saw blades.

Note:

For non-stop operation: after cutting, loosen the hexagon nut on the bevel cutter to avoid damage caused by tension.

8. Switch the pipe cutter on.

9. Press the START button.

Processing will now be started and will be stopped automatically after a correct cutting process.

Operation: Beveling with GF 4 AVM



Danger of being injured by chips flying around

- **Never** work without the saw blade guard mounted.
- ▶ Wear protective goggles.

Important: If the pipe cutter was out of operation for a longer time:

- Turn the cutter motor by 180.
- Switch on the AVM and the pipe cutter, let the cutter motor run for about 10 seconds.

This will lubricate all gear components.

Operation: Beveling with GF 4 AVM

1. Set the pipe diameter.
2. Adjust the bevel cutter to the pipe diameter.
3. Tighten the hexagon nut of the bevel cutter fixture, if necessary.
4. Adjust the spindle speed and the feed force level.
5. Push the pipe through the vice up to the desired length and clamp it.
Support pipes with a length of more than 1 m using a pipe feeder.

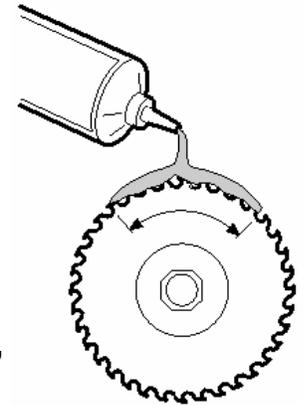
Important:

Pull off the vice handle from the spindle before the slide housing starts rotating.

Operation: Beveling with GF 4 AVM

6. Apply saw blade lubricant to the bevel cutter:

- up to 2": every 3 cuts,
- over 2" and with chrome and high-quality steel pipes: after every cut.



Important:

If the pipe comes into contact with drinking water or foodstuffs, only use Orbitalum Tools lubricating gel for saw blades.

Note:

For non-stop operation: after operation, loosen the hexagon nut on the bevel cutter to avoid damage caused by tension.

7. Switch the pipe cutter on.

8. Press the START button.

Processing will now be started and will be stopped automatically after a correct beveling process.

Operation: Cutting and beveling simultaneously

Pipes with a wall thickness of up to 4.5 mm (0.177 inch) can be simultaneously cut and beveled.

If using a combination cutter, the cutter motor has to be turned around the pipe more slowly than during normal cutting, as two tools are being used at the same time. The working procedure is the same as described on the pages before.

Note:

If necessary, lubricate the saw blade and the additional cutter again during work. For non-stop operation: after cutting, loosen the hexagon nut on the saw blade to avoid damage caused by tension.

Operation: Cutting with GF 4 MVM



Danger of being injured by chips flying around

- **Never** work without the saw blade guard mounted.
- ▶ Wear protective goggles.

Important: If the pipe cutter was out of operation for a longer time:

- Turn the cutter motor by 180.
- Switch on pipe cutter, let the cutter motor run for about 10 seconds.

This will lubricate all gear components.

Operation: Cutting with GF 4 MVM

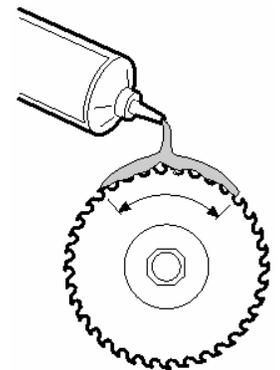
1. Set the pipe diameter.
2. Adjust the length gauge.
3. Adjust the saw blade to the pipe diameter.
4. Tighten the hexagon nut of the saw blade fixture, if necessary.
5. Adjust the spindle speed.
6. Push the pipe through the vice up to the desired length and clamp it.
Support pipes with a length of more than 1 m using a pipe feeder.

Important:

Pull off the vice handle from the spindle before the slide housing starts rotating.

7. Apply saw blade lubricant to the saw blade:
 - up to 2": every 3 cuts,
 - over 2" and with chrome and high-quality steel pipes:
after every cut.

Important: If the pipe comes into contact with drinking water or foodstuffs, only use Orbitalum Tools lubricating gel for saw blades.

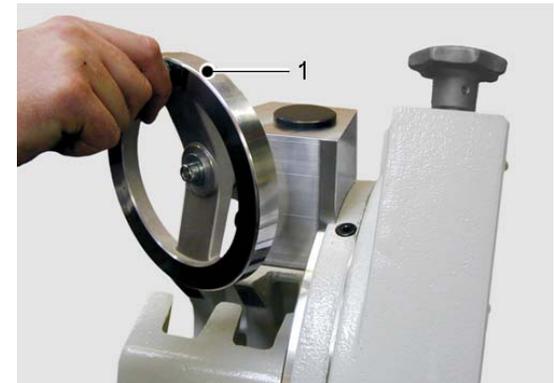


Operation: Cutting with GF 4 MVM

Note:

For non-stop operation: after operation, loosen the hexagon nut on the bevel cutter to avoid damage caused by tension.

8. Switch the motor on.
9. Carefully turn the hand wheel (1) of the MVM clockwise until the pipe wall has been pierced through.
10. Continue turning rapidly until the pipe has been cut off.
11. Switch the motor off and allow the machine to run to a stop.



Operation: Beveling with GF 4 MVM



Danger of being injured by chips flying around

- **Never** work without the saw blade guard mounted.
- ▶ Wear protective goggles.

Important: If the pipe cutter was out of operation for a longer time:

- Turn the cutter motor by 180.
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Operation: Beveling with GF 4 MVM

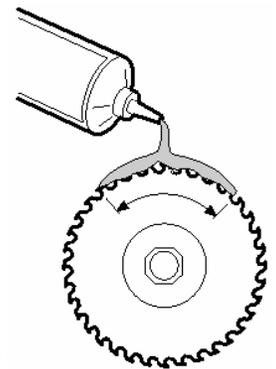
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2. Adjust the bevel cutter to the pipe diameter.
3. Tighten the hexagon nut of the bevel cutter fixture, if necessary.
4. Adjust the spindle speed.
5. Push the pipe through the vice up to the desired length and clamp it.
Support pipes with a length of more than 1 m using a pipe feeder.

Important:

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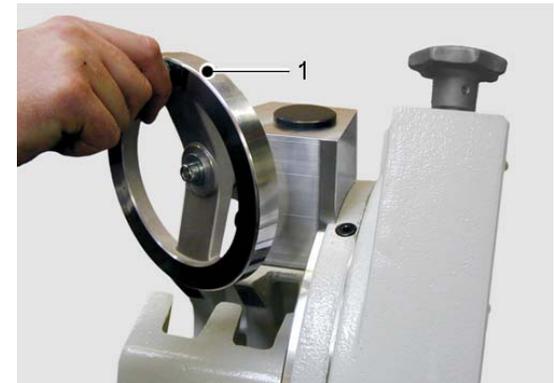


Operation: Beveling with GF 4 MVM

Note:

For non-stop operation: after operation, loosen the hexagon nut on the bevel cutter to avoid damage caused by tension.

7. Switch the motor on.
8. Carefully turn the hand wheel (1) of the MVM clockwise until the pipe wall has been pierced through.
9. Continue turning rapidly until the pipe has been beveled completely.
10. Switch the motor off and allow the machine to run to a stop



Operation: Cutting and beveling simultaneously

Pipes with a wall thickness of up to 4.5 mm (0.177 inch) can be simultaneously cut and beveled.

If using a combination cutter, the cutter motor has to be turned around the pipe more slowly than during normal cutting, as two tools are being used at the same time. The working procedure is the same as described on the pages before.

Note:

If necessary, lubricate the saw blade and the additional cutter again during work. For non-stop operation: after cutting, loosen the hexagon nut on the saw blade to avoid damage caused by tension.

Operation: Cutting manually



Danger of being injured by chips flying around

- **Never** work without the saw blade guard mounted.
- ▶ Wear protective goggles.

Important: If the pipe cutter was out of operation for a longer time:

- Turn the cutter motor by 180.
- Switch on pipe cutter, let the cutter motor run for about 10 seconds.

This will lubricate all gear components.

Operation: Cutting manually

1. Set the pipe diameter.
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Support pipes with a length of more than 1 m using a pipe feeder.

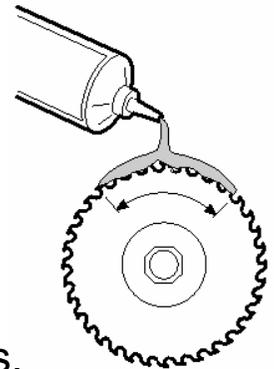
Important:

Pull off the vice handle from the spindle before the slide housing starts rotating.

7. Apply saw blade lubricant to the saw blade:

- up to 2": every 3 cuts,
- over 2" and with chrome and high-quality steel pipes:
after every cut.

Important: If the pipe comes into contact with drinking water or foodstuffs, only use Orbitalum Tools lubricating gel for saw blades.

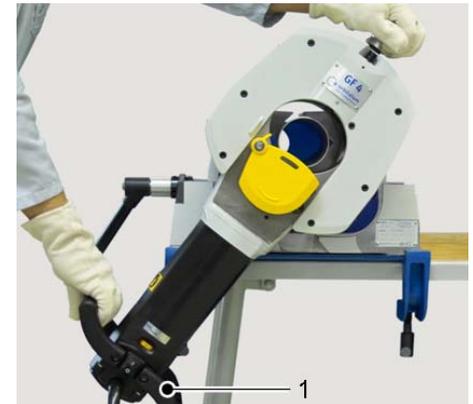


Operation: Cutting manually

Note:

For non-stop operation: after operation, loosen the hexagon nut on the bevel cutter to avoid damage caused by tension.

8. Switch the motor on.
9. Carefully turn the motor clockwise using the handle (1) until the pipe wall has been pierced through.
10. Continue turning rapidly until the pipe has been cut off.
11. Switch the motor off and allow the machine to run to a stop.



Operation: Beveling manually



Danger of being injured by chips flying around

- **Never** work without the saw blade guard mounted.
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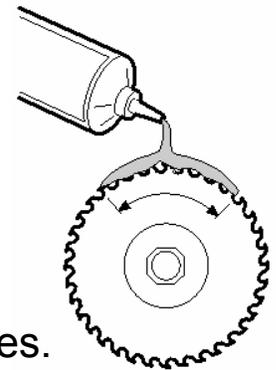
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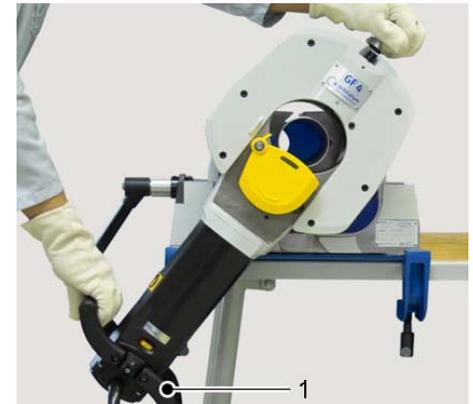
Important: If the pipe comes into contact with drinking water or foodstuffs, only use Orbitalum Tools lubricating gel for saw blades.



Operation: Beveling manually

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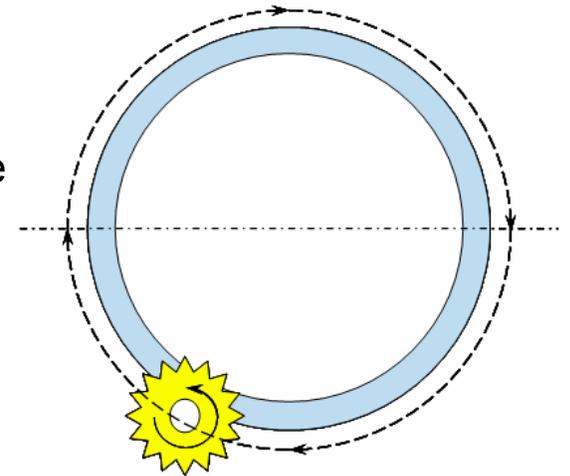
Unique selling propositions USP's

Method of „planetary cutting“

The saw blade automatically steps into the cut and turns planetary around the pipe (clockwise).

Your benefits:

- Possibility of working high pipe dimensions with small saw blade
- Multiple point clamping of the pipe
- Quick adjustment of the pipe dimensions
- Optimized tool operation in one point of the pipe
- Increased productivity
- Improved cut quality
- Long tool life



Unique selling propositions USP's

Cold machining process

Your benefit:

- No overheating, no austenitizing of the pipe material, thereby preventing intercrystalline corrosion and predetermined breaking points.



Unique selling propositions USP's

Cold machining process

Your benefits:

- Square, burr-free and deformation-free pipe end
- Cold machining process, cutting in seconds
- Simultaneous or separate cutting and beveling
- Cost-effective, increasing productivity
- Even longer tool life





precision.
power.
simplicity.