

# GF 4, GF 6 (AVM/MVM)

## Pipe cutting and beveling machines

The pipe saw for precise cutting in seconds. For more than 50 years installation manufacturers have been relying on the standard set by Orbitalum in industrial pipe end preparation:

From the chemical industry, biotechnology industry, pharmaceutical industry, food processing and beverage industry to energy plant engineering and shipbuilding.

The GF series sets standards in orbital pipe processing! Numerous innovative functions combined with an ergonomic design give you considerable advantages in industrial preproduction of pipeline systems



Right-angled, burr-free and cold processing process	✓
Deformation-free clamping system for thin-walled and thick-walled pipes	✓
Optimum preparation for the automated welding process	✓
Robust design with powerful drive	✓
Unique, automatically guided immersion process	✓
Beveling of pipe ends during the cutting process or separately	✓
High cost effectiveness, increased productivity	✓
Long tool service lives	✓
Anthracite, coated parts offer better slide characteristics and corrosion protection	✓

**Prerequisite for productive and high quality welding of pipes with automated orbital joining technology is a precise, right-angled and burr-free cut as well as perfect beveling of the pipe end. Easy to handle and precise cutting in seconds, the GF series machines pipe materials made of high-alloyed steel (stainless steel), low-alloyed and unalloyed steel, cast materials, plastics and non-ferrous metals according to the procedure of "planetary cutting". In the process the powerful clamping is carried out without any deformation of the workpiece.**

Optionally the user, apart from pure manual actuation, has the choice between a manual (MVM) and an automatic (AVM) feeding module. The latter optimizes the cutting result, increases the service life of the tools, and reduces physical strain for the operator. The result: maximum reliability and productivity.

### ADDITIONAL ADVANTAGES:

- Set of stainless steel caps to avoid contact corrosion included
- Optionally with feeding module AVM or MVM for automatic or mechanized separation cut, thus lower physical strain for the operator.
- Locking of the rotary movement protects against unauthorized use and theft
- Ergonomically optimized motor handle allows improved operator position as well as cutting of tube elbows without conversion
- Integrated line laser to mark the cut-off point
- Clamping jaws for changing to cut short hose pieces and for vibration-free cutting of smaller pipe dimensions (only for GF 4)
- Multifunctional keys for all settings at the machine
- Optimized speed control (40-215 rpm), ideal for cutting high-performance materials (Hastelloy®, P91, etc.)
- Plug connection with a quick-disconnect coupler: easy and quick replacement of the power cable

- Optimized chips guard protects against chips flying off; chips guard for GF 4 with opening for folding rule to measure the pipe length

### FEED VARIANTS:

Pipe cutting and beveling machine with **automated feeding module AVM\***: The intelligent control of the AVM continuously monitors the feed force as a function of the required output. After completion of the cutting process the AVM switches off automatically. An inadvertent startup is prevented by a restart inhibitor. Pipe cutting and beveling machines **with manual feeding module MVM\***: An add-on module at the machine makes it easier to process pipes through a manually operated handwheel. This ensures that the machine head rotates easily around the pipe user-friendly with little effort and constant feed.



APPLICATION AREA		GF 4	GF 4 AVM*	GF 4 MVM*	GF 6	GF 6 AVM*	GF 6 MVM*
Code	[230 V] [120 V]	790 142 001 790 142 002	790 142 011 790 142 012	790 142 021 790 142 022	790 143 001 790 143 002	790 143 011 790 143 012	790 143 021 790 143 022
Pipe OD	[mm] [inch]	12 - 120 0.472 - 4.724	12 - 120 0.472 - 4.724	12 - 120 0.472 - 4.724	21.3 - 168.3 0.839 - 6.626	21.3 - 168.3 0.839 - 6.626	21.3 - 168.3 0.839 - 6.626
Wall-thickness depending on material	[mm] [inch]	1 - 9 0.039 - 0.354	1 - 9 0.039 - 0.354	1 - 9 0.039 - 0.354	1.5 - 15 0.059 - 0.591	1.5 - 15 0.059 - 0.591	1.5 - 15 0.059 - 0.591
Pipe ID min. (saw blade Ø 63 mm)	[mm]	21	21	21	30	30	30
Pipe ID min. (saw blade Ø 2.480")	[inch]	0.827	0.827	0.827	1.181	1.181	1.181
Pipe ID min. (saw blade Ø 68 mm)	[mm]	16	16	16	25	25	25
Pipe ID min. (saw blade Ø 2.677")	[inch]	0.630	0.630	0.630	0.984	0.984	0.984
Pipe ID min. (saw blade Ø 80 mm)	[mm]	4	4	4	13	13	13
Pipe ID min. (saw blade Ø 3.150")	[inch]	0.157	0.157	0.157	0.512	0.512	0.512
Pipe ID min. (saw blade Ø 100 mm)	[mm]	-	-	-	0	0	0
Pipe ID min. (saw blade Ø 3.937")	[inch]	-	-	-	0	0	0
Materials		Special steel (any Cr- and Mo-content); special steel stainless (any Cr- and Mo-content); special steel (Cr < 12% and Mo < 2.5%; Cr < 20% and Mo = 0%); Case hardening steels, high-speed steels, heat-treated steels, rolling bearing steels, tool steels; black and galvanized steel pipe; general structural steel; annealed cast pipe (GGG); aluminum; brass; copper; plastic (PE, PP, PVDE, PVC)					
TECHNICAL SPECIFICATIONS		GF 4	GF 4 AVM*	GF 4 MVM*	GF 6	GF 6 AVM*	GF 6 MVM*
Power	[kW] [hp]	1.8 2.41	1.9 2.54	1.8 2.41	1.8 2.41	1.9 2.54	1.8 2.41
Power AVM	[kW] [hp]	-	0.05 0.07	-	-	0.05 0.07	-
Built-in electronic speed regulation with speed stabilization	[rpm]	40 - 215	40 - 215	40 - 215	40 - 215	40 - 215	40 - 215
Rotary speed machine head with AVM	[rpm]	-	0.1 - 3.9	-	-	0.3 - 3.5	-
Torque machine head max. with AVM	[Nm]	-	101	-	-	353	-
Protection class	[Class]	II (DIN EN 60745-1)	I (DIN EN 60204-1)	II (DIN EN 60745-1)	II (DIN EN 60745-1)	I (DIN EN 60204-1)	II (DIN EN 60745-1)
Sound pressure level at the workplace approx.	[dB (A)]	79	79	79	79	79	79
Vibration level (according to DIN EN 28662, Part 1)	[m/s <sup>2</sup> ]	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5	< 2.5
Mains fuse on site	[A]	16	16	16	16	16	16
Dimensions (LxWxH)	[mm] [inch]	480 x 325 x 680 18.9 x 12.8 x 26.8	480 x 325 x 810 18.9 x 12.8 x 31.9	480 x 325 x 780 18.9 x 12.8 x 30.7	574 x 352.7 x 920 22.6 x 13.9 x 36.2	574 x 352.7 x 972 22.6 x 13.9 x 38.3	574 x 352.7 x 920 22.6 x 13.9 x 36.2
Machine weight approx.**	[kg] [lbs]	55.0 121.2	64.5 142.2	60.0 132.2	92.7 204.4	101.7 224.2	97.8 215.6
Versions (single-phase alternating current)	[V, Hz]	230 V, 50/60 Hz 120 V, 50/60 Hz	230 V, 50/60 Hz 120 V, 50/60 Hz	230 V, 50/60 Hz 120 V, 50/60 Hz	230 V, 50/60 Hz 120 V, 50/60 Hz	230 V, 50/60 Hz 120 V, 50/60 Hz	230 V, 50/60 Hz 120 V, 50/60 Hz
SCOPE OF DELIVERY		GF 4	GF 4 AVM*	GF 4 MVM*	GF 6	GF 6 AVM*	GF 6 MVM*
Pipe cutting and beveling machine	PCS	1	1	1	1	1	1
Transportation case	PCS	1	1	1	1	1	1
Set of stainless steel caps	PCS	1	1	1	1	1	1
Saw blade (Code 790 ...)	PCS	1 (...042 064)	1 (...042 064)	1 (...042 064)	1 (...043 018)	1 (...043 018)	1 (...043 018)
Mounting plate	PCS	1	1	1	1	1	1
Line laser with fastening screws and 10 button cells 1.5 V (Code 790 142 124)***	PCS	1	1	1	1	1	1
Tool key set with accessories	set	1	1	1	1	1	1
Special gear oil (Code 790 041 030)	Bottle	1	1	1	1	1	1
Saw blade lubricant GF TOP (Code 790 060 228)	Tube	1	1	1	1	1	1
Operating instructions and spare part list	set	1	1	1	1	1	1

Technical specifications are non-binding. They do not constitute any assurance of properties. We reserve the right to make changes.

\* The automatic or manual feeding module AVM/MVM is already mounted on the pipe saw on delivery.

\*\* Weight without packaging and accessories.

\*\*\* With the GF 4 and the GF 6 (AVM/MVM) the line laser is delivered separately and has to be mounted on the machine before commissioning.

