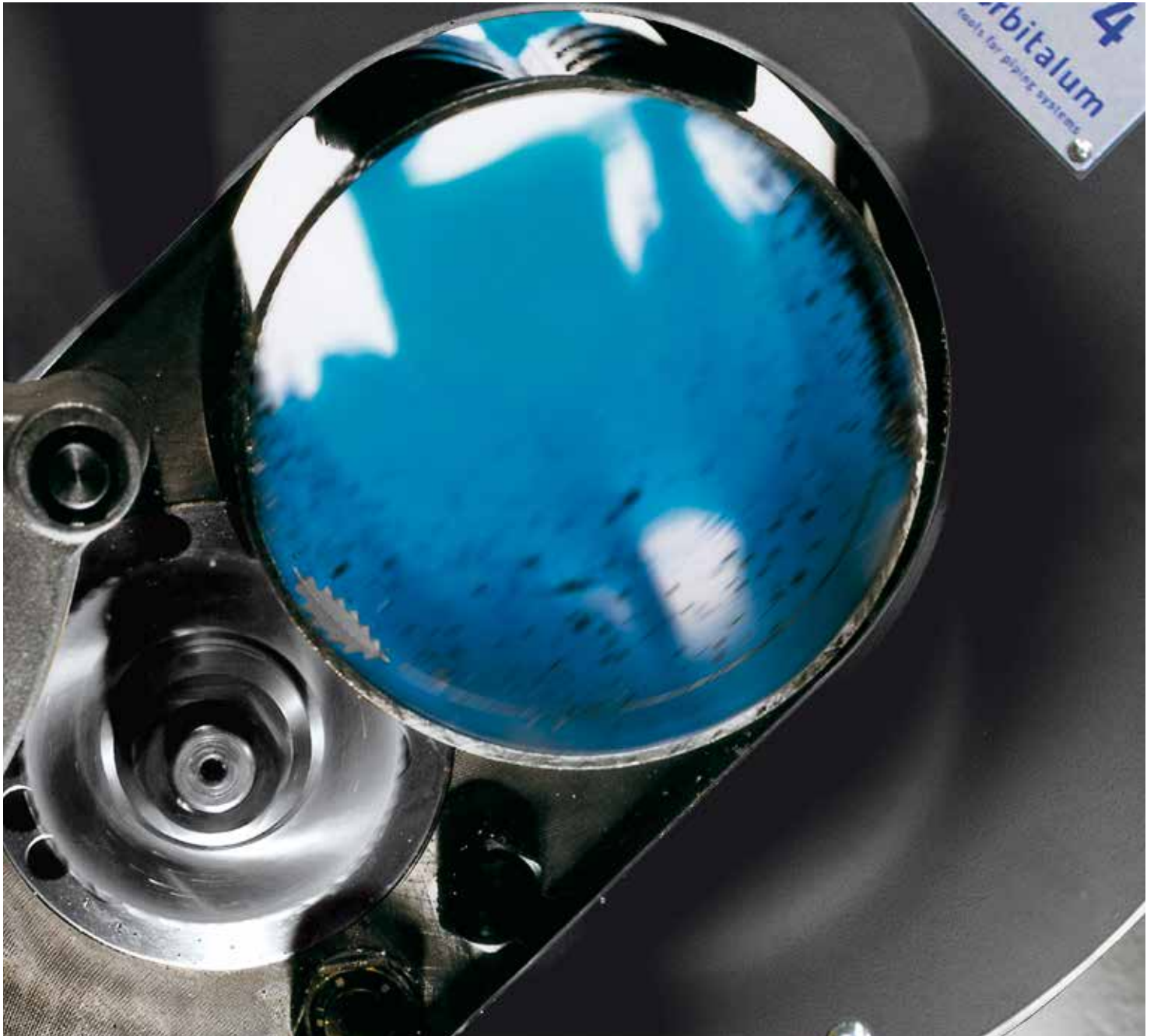


ORBITAL CUTTING & BEVELING

Orbital cutting & beveling machines for high-purity process piping





Highlights



GF 4, GF 6 (AVM/MVM) | Pipe cutting and beveling machines

This saw has been designed for precise cutting of tubes and pipes in just seconds. For more than 40 years construction companies rely on the standard set by Orbitalum in the industrial prefabrication of pipeline systems: From the chemical, biotechnology, pharmaceutical, food and beverage industry to the energy plant construction and shipbuilding.

The most important advantages:

- Square, burr-free and cold machining process
- Deformation-free clamping system for tubes and pipes
- Optimum preparation for the automated welding process
- Sturdy design with powerful drive
- Unique and automated orbital cutting process
- Simultaneous or separate cutting and beveling
- Cost-effective, increasing productivity
- Long tool life

...more on page 9



PS 4.5 Plus | Portable tube saw

The "Plus" in its name says it: With the PS 4.5 Plus Orbitalum Tools presents the redesign of our existing conceptually flexible light tube saw for burr-free cutting of tubes and elbows and is focusing on even higher quality and increased service life through even more rugged sliding elements. At the same time its problem-free and simple usage as well as its unbeatable price remain the prime factors among its users.

The most important advantages:

- Refined technology with new design
- The lightest machine in this field of application on the market
- Integrated line laser to determine the cut off point
- Feeding and sawing in a single pass
- Tripod made of aluminum (optional) - now space-saving storage in the PS transport case possible
- Deformation-free clamping of thin-walled tubes
- For cutting of thin-walled tubes and elbows
- No rework necessary because of a burr-free and square cut
- Cold cutting process prevents corrosion

...more on page 31



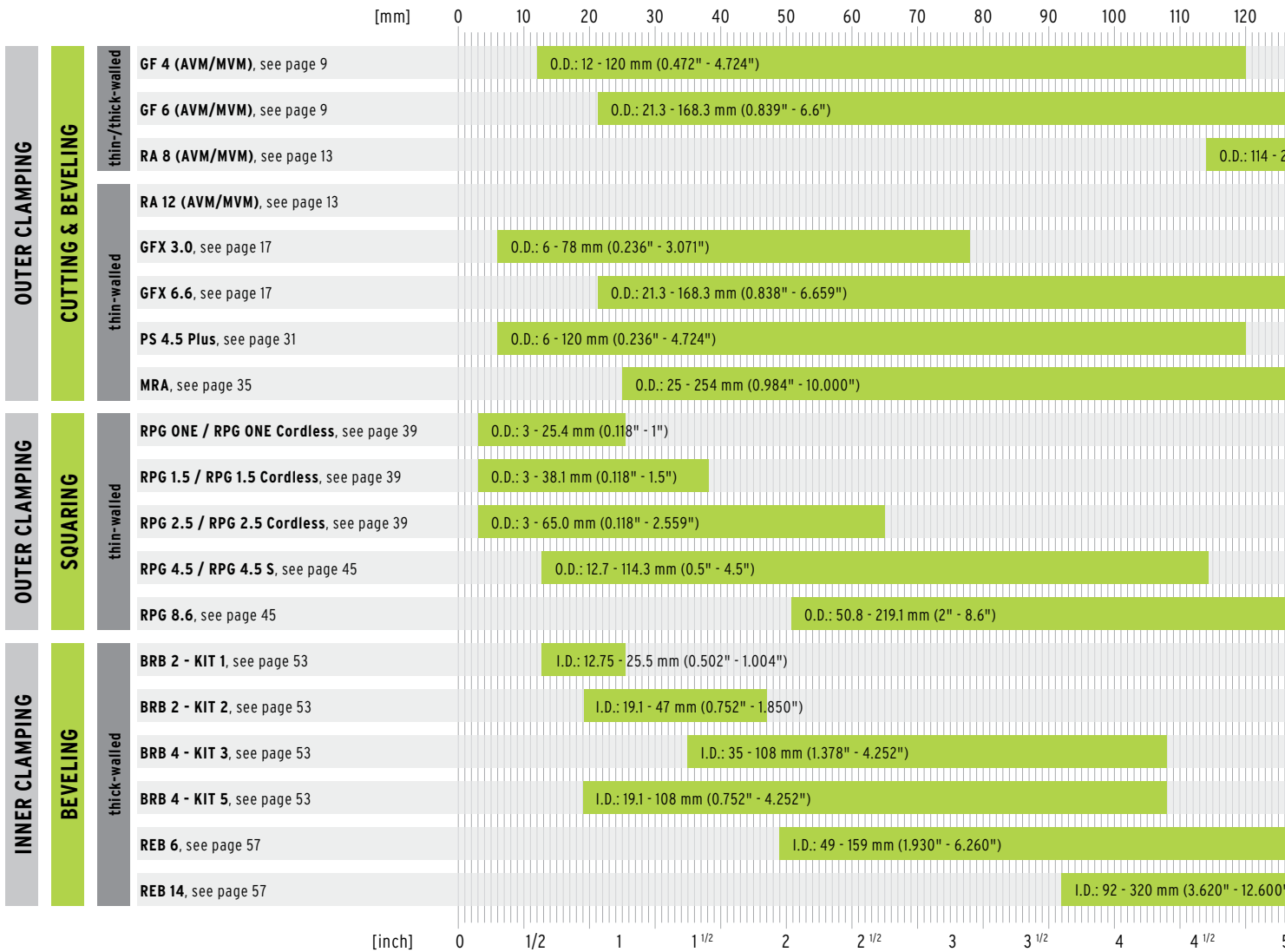
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Our solutions

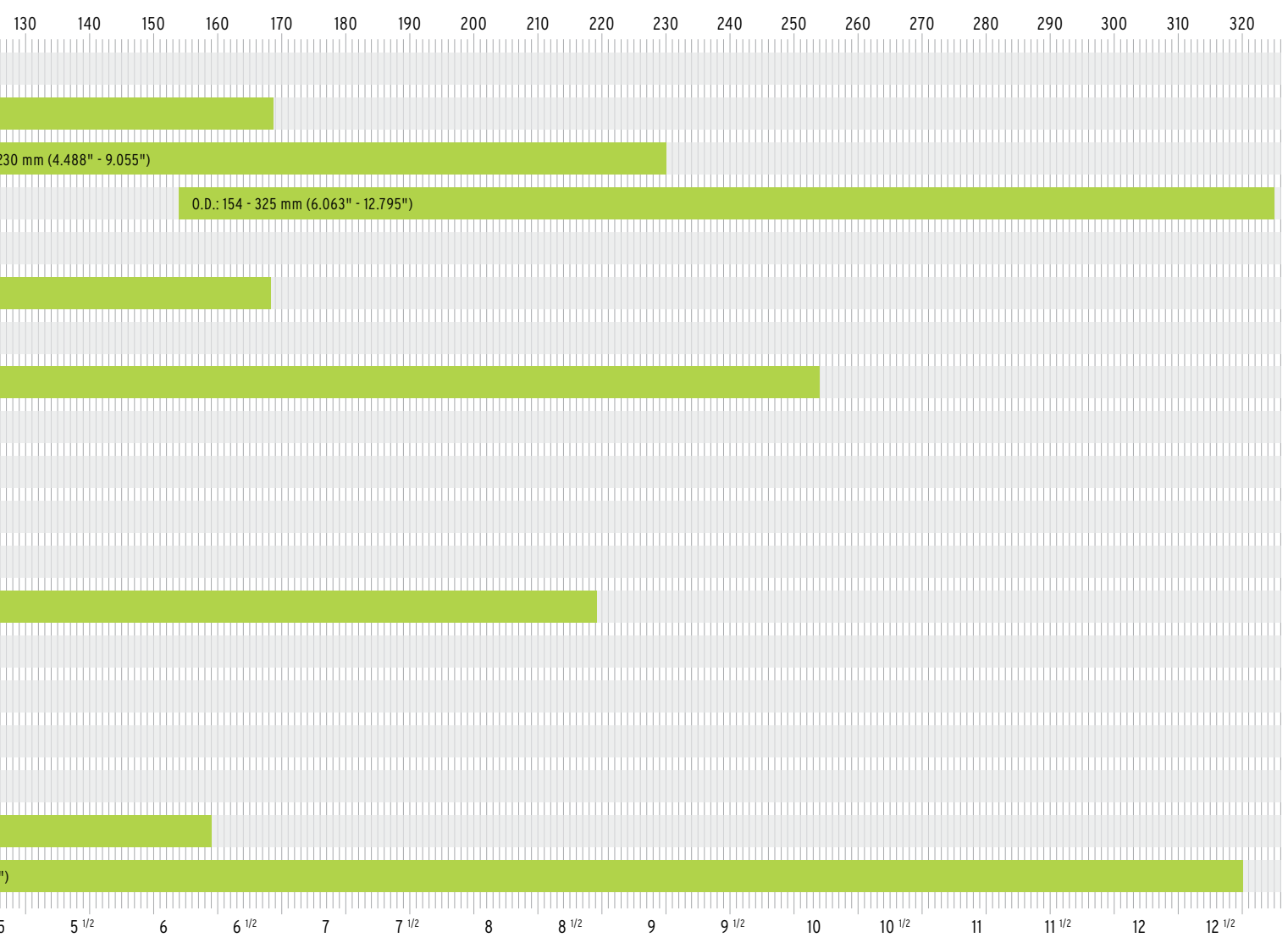
Our products offer a wide range of applications. Regardless of whether you want to prepare large, small, thin-walled or thick-walled, high-alloyed or low-alloyed tubes and pipes, we can certainly offer you a suitable solution. This quick reference shows the various application possibilities of our machines.





At a glance

Would you like a personal consultation?
 Then simply contact us by phone +49 (0) 77 31 792-0 or by e-mail to tools@orbitalum.com.
 Our team will gladly help you finding the suitable solution for your individual application.



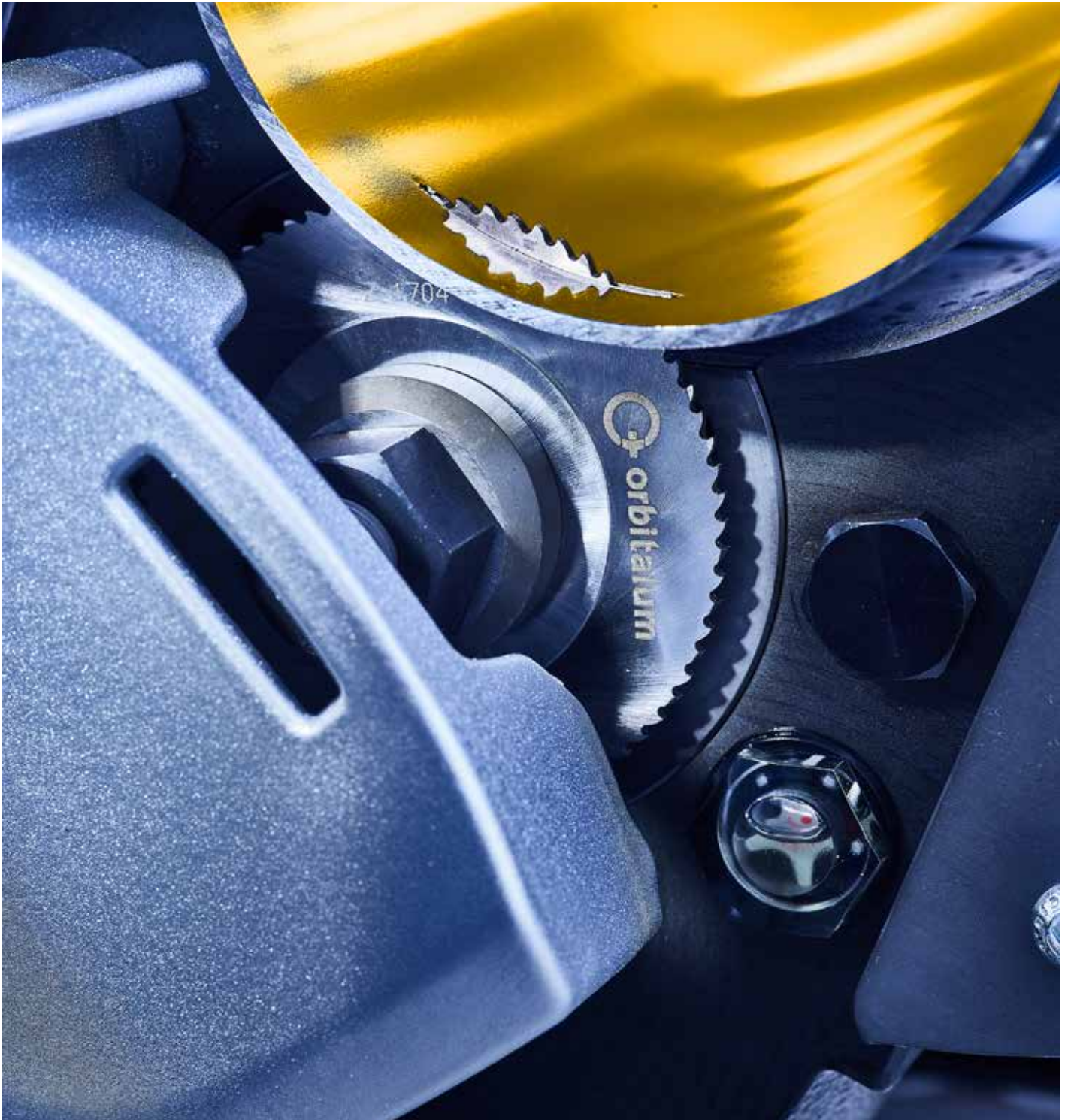


Markets and Applications

Orbitalum manufactures the world's most complete line of portable, powered tube and pipe cutting, facing and beveling weld preparation machine tools. In addition we build a complete line of advanced orbital welding systems used in high purity, process piping and specialized heat exchanger applications. Orbitalum products are widely used in the following industries:

| APPLICATIONS | E.G. | PRODUCTS |
|------------------------|--|---|
| Heat Exchanger | <ul style="list-style-type: none"> • Shell & tube • Box header • HVAC • Seal weld (autogenous) • Strength weld (wire) • Gas cabinets • Component manufacturing | <ul style="list-style-type: none"> • RPG Tube squaring machines • BRB Boiler pipe preparation machines • ORBIMAT Orbital welding power supplies • ORBIWELD Orbital weld heads • P16, P20 Tube-to-tube-sheet orbital weld heads • HX Orbital weld heads • TX Orbital weld heads • ORBmax Residual oxygen meter |
| Pharmacy and Chemistry | <ul style="list-style-type: none"> • UHP water lines • Process lines • Mixing valves • CIP clean in place lines | <ul style="list-style-type: none"> • GF, PS, RA & GFX Pipe cutting & beveling machines • RPG Tube squaring machines • ORBIMAT Orbital welding power supplies • ORBIWELD Orbital weld heads • ORBmax Residual oxygen meter |
| Semicon | <ul style="list-style-type: none"> • UHP water lines • Vacuum lines • Wafer processing lines • CFOS lines • Jacketed product • Gas cabinets • Component manufacturing | <ul style="list-style-type: none"> • RPG Tube squaring machines • ORBIMAT Orbital welding power supplies • ORBIWELD Orbital weld heads • ORBmax Residual oxygen meter |
| Aerospace | <ul style="list-style-type: none"> • Airframe hydraulic lines • Engine fuel lines • Engine specific components • Onboard HVAC | <ul style="list-style-type: none"> • GF, PS, RA & GFX Pipe cutting & beveling machines • RPG Tube squaring machines • ORBIMAT Orbital welding power supplies • ORBIWELD Orbital weld heads • ORBmax Residual oxygen meter |
| Food & Dairy | <ul style="list-style-type: none"> • Product water lines • Jacketed product • Mixing valves • CIP clean in place lines | <ul style="list-style-type: none"> • GF, PS, RA & GFX Pipe cutting & beveling machines • RPG Tube squaring machines • ORBIMAT Orbital welding power supplies • ORBIWELD Orbital weld heads • ORBmax Residual oxygen meter |

Pipe Cutting and Beveling Technology



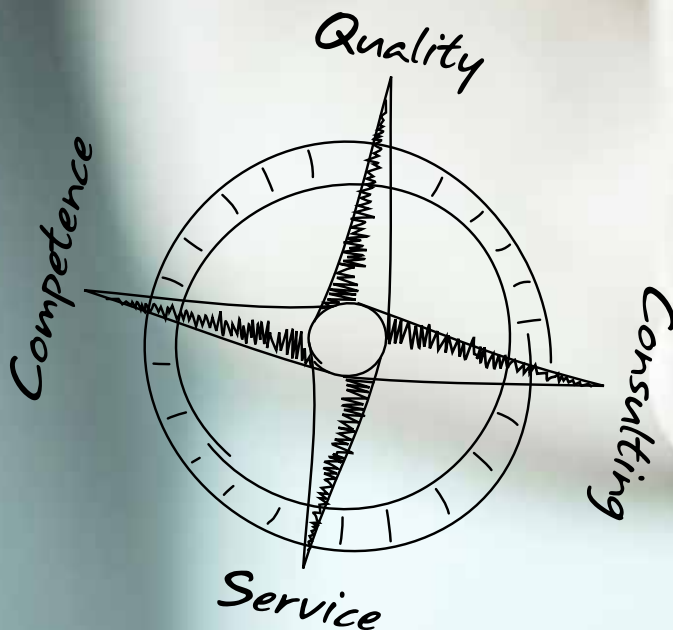
Quality products from Orbitalum Tools - always a good decision!

 Quality
made in
Germany

For our products we choose only the best materials and suitable manufacturing methods and attach great importance during the development phase to ensure a high level of product quality and durability.

Our machines and tools are assembled, configured, tested and packed by hand, with the highest care by our qualified and motivated employees in Singen (Germany).

Our staff are standing for this aim with their expertise and experience.



GF 4, GF 6 (AVM/MVM)

Pipe cutting and beveling machines

This saw has been designed for precise cutting of tubes and pipes in just seconds.

For more than 40 years construction companies rely on the standard set by Orbitalum in the industrial prefabrication of pipeline systems: From the chemical, biotechnology, pharmaceutical, food and beverage industry to the energy plant construction and shipbuilding.

The GF series sets new standards in orbital pipe machining. Numerous innovative functions combined with an ergonomic design create significant advantages for you in the industrial prefabrication of pipeline systems



| | |
|---|---|
| Square, burr-free and cold machining process | ✓ |
| Deformation-free clamping system for tubes and pipes | ✓ |
| Optimum preparation for the automated welding process | ✓ |
| Sturdy design with powerful drive | ✓ |
| Unique and automated orbital cutting process | ✓ |
| Simultaneous or separate cutting and beveling | ✓ |
| Cost-effective, increasing productivity | ✓ |
| Long tool life | ✓ |
| Anthracite-colored coated components for improved sliding properties and protection against corrosion | ✓ |

The basic requirement for the productive and high-quality welding of pipes with automated welding technology is a precise, right-angled and burr-free cut as well as a perfectly beveled pipe end. The GF series cuts and bevels high-alloy steel (stainless steel), low- and unalloyed steel, plastics, casting materials and non-ferrous metals easily and in just seconds, using the "Planetary Cutting" method. The powerful clamping is effected without any deformation of the workpiece.

Besides the completely manual operation, users also have the possibility to choose between manual operation with manual feed module (MVM) or automatic feed module (AVM) - both optional. The latter option optimizes the cutting result, increases the tool life and reduces the operator impact. The result: Maximum safety and productivity.

FURTHER ADVANTAGES:

- Stainless steel clamping attachments for protection against contact corrosion included
- Reduced operator impact by optional feed module AVM or MVM for an automated or manual cutting process
- Locking mechanism prevents unauthorized usage and theft
- An ergonomically-designed motor handle for a safe and comfortable operating position, which also enables easy cutting of elbows
- Integrated line laser to determine the cut off point
- 2 position clamping jaws to reduce chatter and enable smaller length of pipe to be machined (GF 4 only)
- Multifunctional tool for all adjustments on the machine
- Optimized speed range (40-215 rpm), ideal for cutting high-performance materials (Hastelloy®, P91, etc.)

- Swivel cable with a quick-disconnect coupler: for easy and comfortable replacement of the power cable
- Optimized saw blade guard protects the user against flying chips and comes with a measuring port (for GF 4 only)

FEED VERSIONS:

Pipe cutting and beveling machine with **automatic feed module AVM***: This intelligent solution continuously controls the cutting speed depending on the torque and the parameter settings. The AVM improves the handling of the GF and RA machine and stops automatically after the cutting process. Pipe cutting and beveling machines **with manual feed module MVM***: This manually operated feed module facilitates the cutting and beveling of pipes. With the help of a hand wheel, the machine head rotates easily and with little effort around the pipe with a constant speed.



| APPLICATION RANGE | | 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 |
| Tube 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 (depends 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 |
| Tube ID min. (saw blade Ø 63 mm) | [mm] | 21 | 21 | 21 | 30 | 30 | 30 |
| Tube ID min. (saw blade Ø 2.480") | [inch] | 0.827 | 0.827 | 0.827 | 1.181 | 1.181 | 1.181 |
| Tube ID min. (saw blade Ø 68 mm) | [mm] | 16 | 16 | 16 | 25 | 25 | 25 |
| Tube ID min. (saw blade Ø 2.677") | [inch] | 0.630 | 0.630 | 0.630 | 0.984 | 0.984 | 0.984 |
| Tube ID min. (saw blade Ø 80 mm) | [mm] | 4 | 4 | 4 | 13 | 13 | 13 |
| Tube ID min. (saw blade Ø 3.150") | [inch] | 0.157 | 0.157 | 0.157 | 0.512 | 0.512 | 0.512 |
| Tube ID min. (saw blade Ø 100 mm) | [mm] | - | - | - | 0 | 0 | 0 |
| Tube ID min. (saw blade Ø 3.937") | [inch] | - | - | - | 0 | 0 | 0 |
| Tube 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, tempering 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) | | | | | |
| TECHNICAL DATA | | 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 variable cutting speed with restart inhibitor | [rpm] | 40 - 215 | 40 - 215 | 40 - 215 | 40 - 215 | 40 - 215 | 40 - 215 |
| Slide housing speed with AVM | [rpm] | - | 0.1 - 3.9 | - | - | 0.3 - 3.5 | - |
| Slide housing torque 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) |
| Noise level at the workplace approx. | [dB (A)] | 79 | 79 | 79 | 79 | 79 | 79 |
| Vibration level (according to DIN EN 28662, part 1) | [m/s ²] | < 2.5 | < 2.5 | < 2.5 | < 2.5 | < 2.5 | < 2.5 |
| Mains fuse by customer | [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 |
| Weight of machine 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 AC) | [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 | Pc. | 1 | 1 | 1 | 1 | 1 | 1 |
| Transportation case | Pc. | 1 | 1 | 1 | 1 | 1 | 1 |
| Set of stainless steel clamping attachments | Pc. | 1 | 1 | 1 | 1 | 1 | 1 |
| Saw blade (Code 790 ...) | Pc. | 1 (...042 064) | 1 (...042 064) | 1 (...042 064) | 1 (...043 018) | 1 (...043 018) | 1 (...043 018) |
| Mounting plate | Pc. | 1 | 1 | 1 | 1 | 1 | 1 |
| Line laser with fastening screw**** | Pc. | 1 | 1 | 1 | 1 | 1 | 1 |
| Tool set | Set | 1 | 1 | 1 | 1 | 1 | 1 |
| Saw blade lubricant GF TOP (Code 790 060 228) | Tube | 1 | 1 | 1 | 1 | 1 | 1 |
| Special gear oil (Code 790 041 030) | Bottle | 1 | 1 | 1 | 1 | 1 | 1 |
| Operating instructions and spare parts list | Set | 1 | 1 | 1 | 1 | 1 | 1 |

The technical data are not binding. They are not warranted characteristics and are subject to change. Please consult our general conditions of supply.

- * The automatic/manual feed module AVM/MVM is already fitted to the pipe cutter upon delivery.
- ** With automatic cutting process. Increased wall thickness possible with manual feed or by adding an additional cut (depending on the saw blade diameter).
- *** Weight without packaging and accessories.
- **** The line laser is already mounted at the GF 4 (AVM/MVM) on delivery. At the GF 6 (AVM/MVM) the line laser is supplied separately and has to be mounted on the machine before commissioning



Pipe cutting and beveling machines

GF 4, GF 6 (AVM/MVM)

Features, application range, technical data and scope of delivery, see from page 9.

| ARTICLE | VERSION | CODE | WEIGHT OF MACHINE KG | DISPATCH WEIGHT KG |
|----------|-----------------------|-------------|----------------------|--------------------|
| GF 4 | 230 V, 50/60 Hz EU | 790 142 001 | 61.300 | 88.000 |
| GF 4 | 120 V, 50/60 Hz EU/US | 790 142 002 | 61.300 | 88.000 |
| GF 4 AVM | 230 V, 50/60 Hz EU | 790 142 011 | 70.500 | 98.000 |
| GF 4 AVM | 120 V, 50/60 Hz EU/US | 790 142 012 | 70.500 | 98.000 |
| GF 4 MVM | 230 V, 50/60 Hz EU | 790 142 021 | 66.600 | 98.000 |
| GF 4 MVM | 120 V, 50/60 Hz EU/US | 790 142 022 | 66.600 | 98.000 |
| GF 6 | 230 V, 50/60 Hz EU | 790 143 001 | 92.700 | 140.000 |
| GF 6 | 120 V, 50/60 Hz EU/US | 790 143 002 | 92.700 | 140.000 |
| GF 6 AVM | 230 V, 50/60 Hz EU | 790 143 011 | 101.700 | 153.000 |
| GF 6 AVM | 120 V, 50/60 Hz EU/US | 790 143 012 | 101.700 | 153.000 |
| GF 6 MVM | 230 V, 50/60 Hz EU | 790 143 021 | 97.800 | 147.000 |
| GF 6 MVM | 120 V, 50/60 Hz EU/US | 790 143 022 | 97.800 | 147.000 |

Suitable accessories

- Saw blades and bevel cutters, see from page 27
- High-performance lubricants for cutting and beveling, see page 22
- Special gear oil, see page 22
- Swivel cable, see page 23
- Quick-mounting base plates with integrated screw clamps, see page 23
- Mobile workstation, see page 23
- Pipe feeder base unit and extension unit, see from page 24
- Collapsible work bench, see page 82



GF 4, GF 6



GF 4 AVM, GF 6 AVM



GF 4 MVM, GF 6 MVM

Simply rent and stay flexible.

We supply equipment over a short and long term rental condition - a cost effective alternative to purchasing. We take care of our rental equipment so it is in top condition for you and we can help you to match the right rental equipment to your specific projects.

Renting from Orbitalum is the ideal opportunity to try out a model you're thinking of purchasing.

Your benefits of renting:

- Reducing need for storage
- Eliminating repair costs
- Conserving your capital
- Having the most up-to-date technology
- Minimizing down-time

Our rental and used machine service includes:

- Weekly rental charges
- Hire purchase
- Long-term rental

Please ask us for our favorable rental and rent-to-buy conditions:

Tel. +49 (0) 77 31 792-0
or per e-mail to
tools@orbitalum.com

RA 8, RA 12 (AVM/MVM)

Pipe cutting and beveling machines

Perform economical cutting and beveling with technology made by Orbitalum Tools!
 Cutting and beveling high-alloy steel (stainless steel), low- and unalloyed steel, plastics, casting materials and non-ferrous metals in just seconds, using the "Planetary Cutting" method.



The perfect preparation for orbital welding

| | |
|---|---|
| Square, burr-free and cold machining process | ✓ |
| Deformation-free clamping system for tubes and pipes | ✓ |
| Optimum preparation for the automated welding process | ✓ |
| Sturdy design with powerful drive | ✓ |
| Unique and automated orbital cutting process | ✓ |
| Multiple point clamping | ✓ |
| Fast adjustment of dimensions | ✓ |
| Regulated cutting speed | ✓ |
| Fast tool replacement | ✓ |

"Enhanced safety due to stationary tube - rotating tool". The tested process of planetary cutting is another important feature, which characterizes all ORBITALUM pipe cutting machines. The saw blade rises into the cutting area and is driven orbitally around the tube. The advantage is that a small saw blade can cut a large tube diameter, without heating the tube.

An innovative clamping principle which clamps the tube at several points: Thanks to the deformation-free clamping system, pipes with a wall-thickness of 2 up to 10 mm (0.079" - 0.394") can be prepared easily and quickly. It is possible to cut all high-alloyed, un- and low-alloyed steels, black and galvanized steel pipes, general structural steels, annealed cast iron pipes (GGG), aluminum, brass, copper and plastics.

Besides the completely manual operation, users also have the possibility to choose between

manual operation with manual feed module (MVM) or automatic feed module (AVM) = both optional. The latter option optimizes the cutting result, increases the tool life and reduces the operator impact. The result: Maximum safety and productivity.

FURTHER ADVANTAGES:

- Reduced operator impact by optional feed module AVM or MVM for an automated or manual cutting process
- Optimal tool contact
- Optimized speed range (40-215 rpm), ideal for cutting high-performance materials (Hastelloy®, P91, etc.)
- An ergonomically-designed motor handle for a safe and comfortable operating position
- Cutting in seconds
- Simultaneous or separate cutting and beveling
- Increased productivity

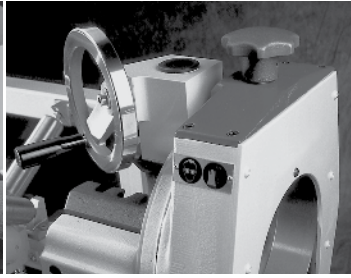
- Increased service life of tools
- More corrosion protection through clamping jaw attachments (included)
- All RA's are fitted with the swivel cable with a quick-disconnect coupler

FEED VERSIONS:

Pipe cutting and beveling machine with **automatic feed module AVM***: This intelligent solution continuously controls the cutting speed depending on the torque and the parameter settings. The AVM improves the handling of the GF and RA machine and stops automatically after the cutting process. Pipe cutting and beveling machines **with manual feed module MVM***: This manually operated feed module facilitates the cutting and beveling of pipes. With the help of a hand wheel, the machine head rotates easily and with little effort around the pipe with a constant speed.



Available with automatic or manual feed modules (AVM/MVM)



Manual feed module MVM



Optimized speed range

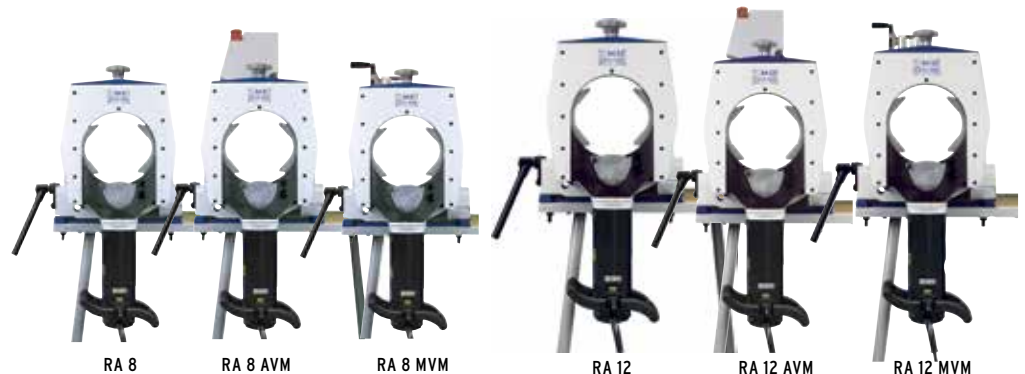


Planetary cutting technology

| APPLICATION RANGE | | RA 8 | RA 8 AVM* | RA 8 MVM* | RA 12 | RA 12 AVM* | RA 12 MVM* |
|---|---------------------|--|------------------------------------|------------------------------------|------------------------------------|------------------------------------|------------------------------------|
| Code | [230 V] | 790 045 095 | 790 045 001 | 790 045 069 | 790 047 095 | 790 047 001 | 790 047 069 |
| | [120 V] | 790 045 096 | 790 045 007 | 790 045 082 | 790 047 096 | 790 047 007 | 790 047 082 |
| Tube OD | [mm] | 114 - 230 | 114 - 230 | 114 - 230 | 157 - 325 | 157 - 325 | 157 - 325 |
| | [inch] | 4.488 - 9.055 | 4.488 - 9.055 | 4.488 - 9.055 | 6.181 - 12.795 | 6.181 - 12.795 | 6.181 - 12.795 |
| Wall thickness (depends on material)** | [mm] | 2 - 10 | 2 - 10 | 2 - 10 | 2 - 10 | 2 - 10 | 2 - 10 |
| | [inch] | 0.079 - 0.394 | 0.079 - 0.394 | 0.079 - 0.394 | 0.079 - 0.394 | 0.079 - 0.394 | 0.079 - 0.394 |
| Tube ID min. (saw blade Ø 63 mm) | [mm] | 137 | 137 | 137 | 190 | 190 | 190 |
| Tube ID min. (saw blade Ø 2.480") | [inch] | 5.394 | 5.394 | 5.394 | 7.480 | 7.480 | 7.480 |
| Tube ID min. (saw blade Ø 68 mm) | [mm] | 132 | 132 | 132 | 185 | 185 | 185 |
| Tube ID min. (saw blade Ø 2.677") | [inch] | 5.197 | 5.197 | 5.197 | 7.283 | 7.283 | 7.283 |
| Tube ID min. (saw blade Ø 80 mm) | [mm] | 120 | 120 | 120 | 173 | 173 | 173 |
| Tube ID min. (saw blade Ø 3.150") | [inch] | 4.724 | 4.724 | 4.724 | 6.811 | 6.811 | 6.811 |
| Tube ID min. (saw blade Ø 100 mm) | [mm] | 100 | 100 | 100 | 153 | 153 | 153 |
| Tube ID min. (saw blade Ø 3.937") | [inch] | 3.937 | 3.937 | 3.937 | 6.024 | 6.024 | 6.024 |
| Tube 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, tempering 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) | | | | | |
| TECHNICAL DATA | | RA 8 | RA 8 AVM* | RA 8 MVM* | RA 12 | RA 12 AVM* | RA 12 MVM* |
| Power | [kW] | 1.8 | 1.9 | 1.8 | 1.8 | 1.9 | 1.8 |
| | [hp] | 2.41 | 2.54 | 2.41 | 2.41 | 2.54 | 2.41 |
| Power AVM | [kW] | - | 0.05 | - | - | 0.05 | - |
| | [hp] | - | 0.07 | - | - | 0.07 | - |
| Built-in electronic variable cutting speed with restart inhibitor | [rpm] | 40 - 215 | 40 - 215 | 40 - 215 | 40 - 215 | 40 - 215 | 40 - 215 |
| Slide housing speed with AVM | [rpm] | - | 0.1 - 2.3 | - | - | 0.1 - 1.8 | - |
| Slide housing torque max. with AVM | [Nm] | - | 165 | - | - | 210 | - |
| 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) |
| Noise level at the workplace approx. | [dB (A)] | 79 | 79 | 79 | 79 | 79 | 79 |
| Vibration level (according to DIN EN 28662, part 1) | [m/s ²] | < 2.5 | < 2.5 | < 2.5 | < 2.5 | < 2.5 | < 2.5 |
| Mains fuse by customer | [A] | 16 | 16 | 16 | 16 | 16 | 16 |
| Dimensions (lxwxh) | [mm] | 778 x 430 x 485 | 918 x 430 x 485 | 788 x 430 x 485 | 940 x 374 x 592 | 1,070 x 374 x 592 | 1,090 x 374 x 592 |
| | [inch] | 30.6 x 16.9 x 19.1 | 36.1 x 16.9 x 19.1 | 31.0 x 16.1 x 19.1 | 37.0 x 14.7 x 23.3 | 42.1 x 14.7 x 23.3 | 42.9 x 14.7 x 23.3 |
| Weight of machine approx.*** | [kg] | 102.5 | 110.0 | 104.6 | 138.6 | 146.1 | 140.7 |
| | [lbs] | 225.9 | 242.5 | 230.6 | 305.6 | 322.1 | 310.2 |
| Versions (single-phase AC) | [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 | | RA 8 | RA 8 AVM* | RA 8 MVM* | RA 12 | RA 12 AVM* | RA 12 MVM* |
| Pipe cutting and beveling machine | Pc. | 1 | 1 | 1 | 1 | 1 | 1 |
| Transportation case | Pc. | 1 | 1 | 1 | 1 | 1 | 1 |
| Saw blade (Code 790 043 018) | Pc. | 1 | 1 | 1 | 1 | 1 | 1 |
| Mounting plate | Pc. | 1 | 1 | 1 | 1 | 1 | 1 |
| Tool set | Set | 1 | 1 | 1 | 1 | 1 | 1 |
| Saw blade lubricant GF TOP (Code 790 060 228) | Tube | 1 | 1 | 1 | 1 | 1 | 1 |
| Special gear oil (Code 790 041 030) | Bottle | 1 | 1 | 1 | 1 | 1 | 1 |
| Operating instructions and spare parts list | Set | 1 | 1 | 1 | 1 | 1 | 1 |

The technical data are not binding. They are not warranted characteristics and are subject to change. Please consult our general conditions of supply.

- * The automatic/manual feed module AVM/MVM is already fitted to the pipe cutter upon delivery.
- ** With automatic cutting process. Increased wall thickness possible with manual feed or by adding an additional cut (depending on the saw blade diameter).
- *** Weight without packaging and accessories.



Pipe cutting and beveling machines

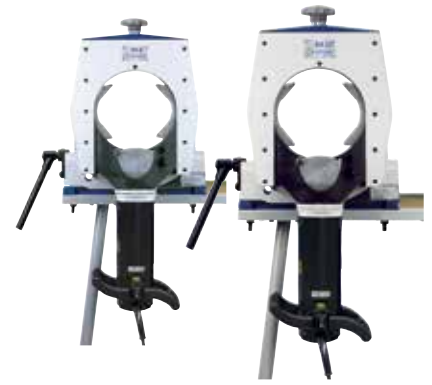
RA 8, RA 12 (AVM/MVM)

Features, application range, technical data and scope of delivery, see from page 13.

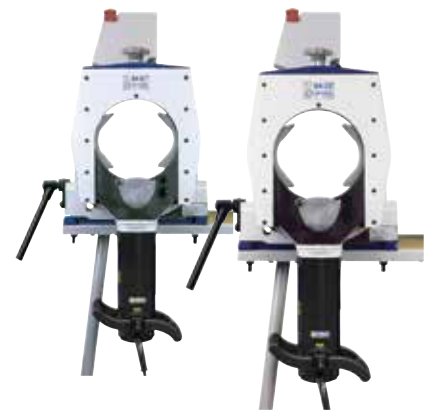
| ARTICLE | VERSION | CODE | | WEIGHT OF MACHINE KG | DISPATCH WEIGHT KG |
|-----------|-----------------------|-------------|--|----------------------|--------------------|
| RA 8 | 230 V, 50/60 Hz EU | 790 045 095 | | 102.500 | 149.000 |
| RA 8 | 120 V, 50/60 Hz EU/US | 790 045 096 | | 102.500 | 149.000 |
| RA 8 AVM | 230 V, 50/60 Hz EU | 790 045 001 | | 110.000 | 165.000 |
| RA 8 AVM | 120 V, 50/60 Hz EU/US | 790 045 007 | | 110.000 | 165.000 |
| RA 8 MVM | 230 V, 50/60 Hz EU | 790 045 069 | | 103.000 | 153.000 |
| RA 8 MVM | 120 V, 50/60 Hz EU/US | 790 045 082 | | 103.000 | 153.000 |
| RA 12 | 230 V, 50/60 Hz EU | 790 047 095 | | 138.600 | 177.000 |
| RA 12 | 120 V, 50/60 Hz EU/US | 790 047 096 | | 138.600 | 177.000 |
| RA 12 AVM | 230 V, 50/60 Hz EU | 790 047 001 | | 146.000 | 205.000 |
| RA 12 AVM | 120 V, 50/60 Hz EU/US | 790 047 007 | | 146.000 | 205.000 |
| RA 12 MVM | 230 V, 50/60 Hz EU | 790 047 069 | | 140.700 | 200.000 |
| RA 12 MVM | 120 V, 50/60 Hz EU/US | 790 047 082 | | 140.700 | 200.000 |

Suitable accessories

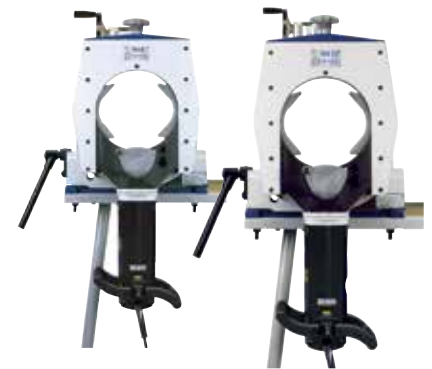
- Saw blades and bevel cutters, see from page 27
- High-performance lubricants for cutting and beveling, see page 22
- Special gear oil, see page 22
- Swivel cable, see page 23
- Quick-mounting base plates with integrated screw clamps, see page 23
- Mobile workstation, see page 23
- Pipe feeder base unit and extension unit, see from page 24



RA 8, RA 12



RA 8 AVM, RA 12 AVM



RA 8 MVM, RA 12 MVM



Comprehensive service and maintenance offer

We care not only about your concerns prior to purchase. Even after the sale has been made you can fully rely on us.

Our products are extremely robust and reliable.

In order to maintain their performance in the long term, you should have the servicing and maintenance work carried out regularly at the recommended intervals.

All servicing and maintenance work is carried out by qualified and motivated employees with the utmost care. They analyze the situation in order to find the optimal solution for the long term.

Competent service is provided through our subsidiaries as well as our worldwide network of authorized partners. These have been selected with great care and trained at regular intervals by our experts so that they always remain up-to-date with regard to our products and technologies.

Why maintenance?

"Prevention is better than cure"

Don't wait until your machine breaks down sooner or later due to a lack of servicing or maintenance work!

Small causes can often engender large effects - and downtimes or malfunctions could have been avoided through timely checking and maintenance.

When did you last have your machinery maintained?
Arrange an appointment with us straight away:



+49 (0) 77 31 792-786



customerservice@itw-ocw.com

Don't forget to fill out the **Service Form** which can be downloaded at: www.orbitalum.de/en/service.html

Our services:

- Repairs, replacements
- Cost estimates
- Proactive maintenance
- Service training for customers
- Rental machines for bridging repair periods at special terms
- Collection service for machines
- Visual and functional inspection
- Determination and measuring of technical parameters
- Information to customer about maintenance result
- Functional test of the system components
- Cleaning and care work
- Replacement of defined wear parts as well as of defective components
- Implementation of modifications in as far as these serve to technically improve the equipment
- Required adjustment and setting work including calibration and re-acceptance

Your advantages:

- Service directly from the manufacturer or authorized partner
- Reduction of downtimes
- Long-term functioning of your machinery and plants
- Ensuring the availability
- Early recognition of wear avoids unnecessary and costly repairs
- Reduction of the susceptibility to failure
- Value retention of your machinery and plants
- Regular maintenance work ensures reliable and safe machine operation - even after many years
- Higher availability of own service employees

GFX 3.0, GFX 6.6

Pipe cutting and beveling machines

Innovative saws from Orbitalum Tools for cutting and beveling of tubes and for cutting off elbows (also for thin-walled stainless steel) in just seconds. The perfect preparation for orbital welding! Easy to use, powerful and compact saw with low weight - our new GFX provides even more outstanding features.



The GFX series: Easy to handle, powerful and compact

| | |
|--|---|
| Square, burr-free and cold machining process | ✓ |
| Deformation-free clamping system especially applicable for thin-walled tubes | ✓ |
| Easy handling through light weight | ✓ |
| Simultaneous or separate cutting and beveling | ✓ |
| Increased productivity | ✓ |
| Low-maintenance and service friendly | ✓ |
| Environmental friendly; long tool life | ✓ |
| Second saw blade position to cut off elbows | ✓ |
| Ideal for pressfitting applications | ✓ |

Our GFX series is the ideal solution for cutting of thin-walled tubes. The rugged design for a long product life makes the saws especially economical. Furthermore, the long tool lives thereby increase the productivity.

The GFX series is extremely low-maintenance and service-friendly and offers a large range of applications. Materials which can be processed are unalloyed, low-alloy and high-alloy steels, stainless steels, non-ferrous metals, aluminum alloys, titanium alloys, composite materials and plastics.

As is characteristic for the ORBITALUM pipe saws, the saw allows convenient marking of the cut-off point on the tube with the help of a line laser.

A second saw blade clamping point enables tube elbows to be cut off.

The powerful motor is equipped with overload protection and ergonomic handles and is available for the voltages 230 V, 50/60 Hz or 120 V, 50/60 Hz.

The cable connection with a quick-release screw coupler enables simple, convenient replacement of the flexible swivel cable.

The applications lie mainly in the food processing, beverage, pharmaceutical and chemical industries.

FURTHER ADVANTAGES:

- Optimized chip flow due to a new vice design
- Cast iron clamping jaws
- Integrated line laser to determine the cut off point
- Ergonomically designed motor handle
- Powerful drive with 1.2 kW and adjustable speed control for cutting several materials and extended tool life
- Electronic overload protection with integrated temperature monitor and electronic speed regulation
- Increased durability of tools due to the new drive GF10
- Ergonomically positioned speed control adjusting wheel
- Swivel cable with a quick-disconnect coupler: For easy and quick replacement of power cables
- Direct mounting on workbench possible with GFX 3.0



Second saw blade position to cut off elbows



Cast iron clamping jaws with stainless steel caps



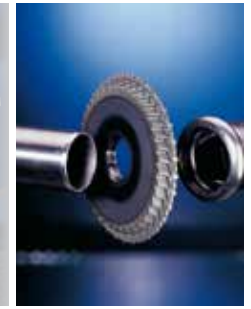
Integrated line laser to determine the cut off point



Powerful drive with electronic overload protection and ergonomically designed motor handle



Saw blade lubricant GF TOP included



Square, burr-free and deformation-free pipe end - ideal for pressfitting applications

| APPLICATION RANGE | | GFX 3.0 | GFX 6.6 |
|--------------------------------------|---------|---|---------------|
| Code | [230 V] | 790 144 001 | 790 146 001 |
| | [120 V] | 790 144 002 | 790 146 002 |
| Tube OD | [mm] | 6.0 - 78.0 | 21.3 - 168.3 |
| | [inch] | 0.236 - 3.071 | 0.838 - 6.659 |
| Wall thickness | [mm] | 0.8 - 7.0 | 0.8 - 7.0 |
| | [inch] | 0.031 - 0.275 | 0.031 - 0.275 |
| Tube ID min. (saw blade Ø 63/2.248") | [mm] | 0 | 23.0 |
| | [inch] | 0 | 0.905 |
| OD range (saw blade Ø 63/2.248") | [mm] | 6.0 - 78.0 | 24.6 - 168.3 |
| | [inch] | 0.236 - 3.071 | 1.008 - 6.659 |
| Tube ID min. (saw blade Ø 68/2.677") | [mm] | 0 | 18 |
| | [inch] | 0 | 0.708 |
| OD range (saw blade Ø 68/2.677") | [mm] | 6.0 - 73.0 | 21.3 - 168.3 |
| | [inch] | 0.236 - 2.874 | 0.838 - 6.659 |
| Tube ID min. (saw blade Ø 80/3.149") | [mm] | - | 6.0 |
| | [inch] | - | 0.236 |
| OD range (saw blade Ø 80/3.149") | [mm] | - | 21.3 - 156.0 |
| | [inch] | - | 0.838 - 2.205 |
| Tube materials | | Unalloyed, low-alloy and high-alloy steel, stainless steel, non-ferrous metal, aluminum alloy, titanium alloy, composite material and plastic | |



GFX 3.0, GFX 6.6

| TECHNICAL DATA | | GFX 3.0 | GFX 6.6 |
|---|---------------------|-----------------------|-----------------------|
| Dimensions (lxwxh) | [mm] | 570 x 330 x 280 | 575 x 350 x 671 |
| | [inch] | 22.44 x 12.99 x 11.02 | 22.64 x 13.78 x 26.42 |
| Weight incl. vice, without clamping shells | [kg] | 28.5 | 74.4 |
| | [lbs] | 62.83 | 164.02 |
| Power | [W] | 1200 | 1200 |
| Protection class | [class] | II | II |
| Built-in electronic variable cutting speed with restart inhibitor | [rpm] | 30 - 200 | 30 - 200 |
| Versions (single-phase AC) | [V, Hz] | 230 V, 50/60 Hz EU | 230 V, 50/60 Hz EU |
| | [V, Hz] | 120 V, 50/60 Hz US | 120 V, 50/60 Hz US |
| Vibration level (EN 50144) | [m/s ²] | < 2.5 | < 2.5 |
| Noise level at the workplace (EN 23741) | [dB (A)] | 79.7 | 79.7 |

| SCOPE OF DELIVERY | | GFX 3.0 | GFX 6.6 |
|--|------|----------------|----------------|
| Pipe cutting and beveling machine | Pc. | 1 | 1 |
| Wooden transportation case | Pc. | 1 | 1 |
| Saw blade (Code 790 ...) | Pc. | 1 (...041 035) | 1 (...042 064) |
| Quick-mounting plate without screw clamps* | Pc. | - | 1 |
| Stainless steel caps** | Set | 1 | 1 |
| Line laser with holder and fastening screws*** | Pc. | 1 | 1 |
| Tool set | Set | 1 | 1 |
| Saw blade lubricant GF TOP (Code 790 060 228) | Tube | 1 | 1 |
| Operating instructions and spare parts list | Set | 1 | 1 |

The technical data are not binding. They are not warranted characteristics and are subject to change. Please consult our general conditions of supply.

* The GFX 3.0 can be mounted directly on the workbench without a quick-mounting plate. Quick-mounting plates with screw clamps for GFX 3.0 and GFX 6.6 are available optionally.

** Already mounted on the sliding clamping jaws of the GFX at delivery.

*** The line laser has to be mounted on the GFX before commissioning.

Pipe cutting and beveling machines

GFX 3.0, GFX 6.6

Features, application range, technical data and scope of delivery, see page 17.

| ARTICLE | VERSION | CODE | WEIGHT OF MACHINE KG | DISPATCH WEIGHT KG |
|---------|--------------------|-------------|----------------------|--------------------|
| GFX 3.0 | 230 V, 50/60 Hz EU | 790 144 001 | 28.000 | 44.000 |
| GFX 3.0 | 120 V, 50/60 Hz US | 790 144 002 | 28.000 | 44.000 |
| GFX 6.6 | 230 V, 50/60 Hz EU | 790 146 001 | 74.400 | 104.000 |
| GFX 6.6 | 120 V, 50/60 Hz US | 790 146 002 | 74.400 | 104.000 |



GFX 3.0, GFX 6.6

Durable storage and shipping case

High-quality padded blue shipping case. Particularly sturdy design.

| ARTICLE | CODE | KG |
|---|-------------|--------|
| Durable storage and shipping case for GFX 3.0 | 790 144 019 | 12.500 |

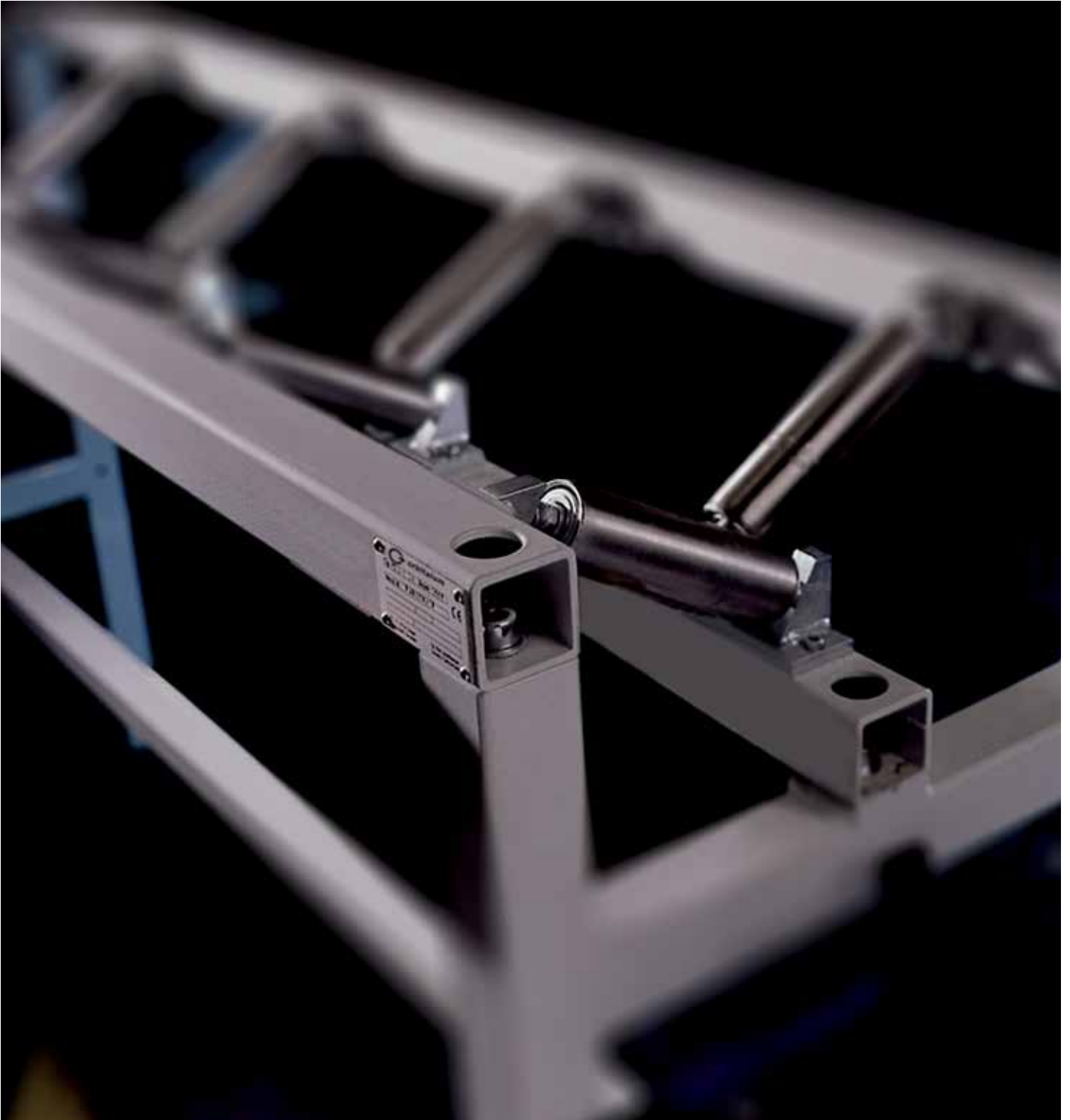


Durable storage and shipping case

Other accessories

- Saw blades and bevel cutters, see from page 27
- High-performance lubricants for cutting and beveling, see page 22
- Special gear oil, see page 22
- Swivel cable, see page 23
- Quick-mounting base plates with integrated screw clamps, see page 23
- Mobile workstation, see page 23
- Pipe feeder base unit and extension unit, see from page 24
- Tripod, see page 33
- Collapsible work bench, see page 82

Accessories for GF and RA machines





GF TOP



GF LUB



Special gear oil

Accessories for GF and RA machines

Saw blade lubricant GF TOP

Synthetic high-performance lubricant for cutting and beveling machines.

Increases the tool life of the saw blade.

Meets the requirements for H2 lubricants.

The screwable brush guarantees an easy and uniform application of lubricant on the saw blade.

| ARTICLE | VERSION | CODE | KG |
|----------------------------|-------------|--------------------|-------|
| Saw blade lubricant GF TOP | Tube, 180 g | 790 060 228 | 0.205 |

Saw blade lubricant GF LUB

Chlorine-free high-performance lubricant for cutting and beveling.

Increases the tool life of the saw blade.

This ecologically cutting compound is the environmentally friendly replacement for ROCOL: just with a new name and improved quality.

GF LUB meets the latest environmental directives and ecological standards.

| ARTICLE | VERSION | CODE | KG |
|----------------------------|--------------|--------------------|-------|
| Saw blade lubricant GF LUB | Tube, 160 ml | 790 041 016 | 0.160 |

Special gear oil

For all GF and RA machines.

| ARTICLE | VERSION | CODE | KG |
|------------------|----------------|--------------------|-------|
| Special gear oil | Bottle, 250 ml | 790 041 030 | 0.235 |

Swivel cable

To prevent twisting of the cable.
 For all GF, RA and PS machines with protection class II (double insulated).

| ARTICLE | VERSION | CABLE LENGTH | | CODE | KG |
|-----------------------|-----------------------|--------------|-------|--------------------|-------|
| | | [M] | [FT] | | |
| Swivel cable complete | 230 V, 50/60 Hz EU | 4 | 13.12 | 790 142 081 | 0.680 |
| Swivel cable complete | 120 V, 50/60 Hz US/CA | 4 | 13.12 | 790 142 082 | 0.654 |
| Swivel cable complete | 230 V, 50/60 Hz CH | 4 | 13.12 | 790 142 083 | 0.595 |
| Swivel cable complete | 230 V, 50/60 Hz AU | 4 | 13.12 | 790 142 084 | 0.655 |
| Swivel cable complete | 120 V, 50/60 Hz GB | 4 | 13.12 | 790 142 087 | 0.740 |
| Swivel cable | 230 V, 50/60 Hz EU | 4 | 13.12 | 790 142 076 | 0.560 |
| Swivel cable | 120 V, 50/60 Hz US/CA | 4 | 13.12 | 790 142 077 | 0.740 |
| Swivel cable | 230 V, 50/60 Hz CH | 4 | 13.12 | 790 142 078 | 0.520 |
| Swivel cable | 120 V, 50/60 Hz GB | 4 | 13.12 | 790 142 079 | 0.630 |
| Swivel cable | 230 V, 50/60 Hz AU | 4 | 13.12 | 790 142 080 | 0.560 |



Swivel cable complete



Swivel cable

Quick-mounting base plates with integrated screw clamps

For quick mounting of the machine on work benches.
 Ideal for frequent changes of location.

| ARTICLE | CODE | KG |
|---|--------------------|-------|
| Quick-mounting base plate for GFX 3.0, RA 2, RA 21 S | 790 041 027 | 4.230 |
| Quick-mounting base plate for GF 4, GF 6, GFX 6.6, RA 4, RA 6, RA 8, RA 41 Plus | 790 042 027 | 6.165 |
| Quick-mounting base plate for PS 4.5, PS 4.5 Plus and PS 6.6 | 790 048 334 | 2.600 |



Quick-mounting base plates with integrated screw clamps

Mobile workstation

For the mobile site and/or workshop. The ideal addition for all Orbitalum pipe cutters (with exception of GF 20 AVM. RA 2, PS 4.5, PS 4.5 Plus, PS 6.6 on request).

Advantages:

- Safe and easy transportation of machines and equipment on site
- Flexible operation at each working station
- Elimination of material handling and setting up of the machines e.g. no requirement to mount the machines to benches
- Height-adjustable pipe support with stainless steel roller
- The tool box comes with 4 drawers for tools and equipment and is lockable
- Lifting table with height adjustment of the GF- and RA-machines to the required pipe dimension
- Accurate and clean work by swarf collection tray



Mobile workstation

| TECHNICAL DATA | MOBILE WORKSTATION |
|------------------------|---|
| Dimensions (l x w x h) | 115 x 43 x 91 cm 45.3" x 16.9" x 35.8" |
| Load capacity max. | 675 kg 1488.1 lbs |

| ARTICLE | CODE | KG |
|--------------------|--------------------|---------|
| Mobile workstation | 790 068 071 | 137.000 |

PIPE CUTTING AND BEVELING TECHNOLOGY



Pipe feeder base unit



Pipe feeder extension unit

Pipe feeder base unit and extension unit

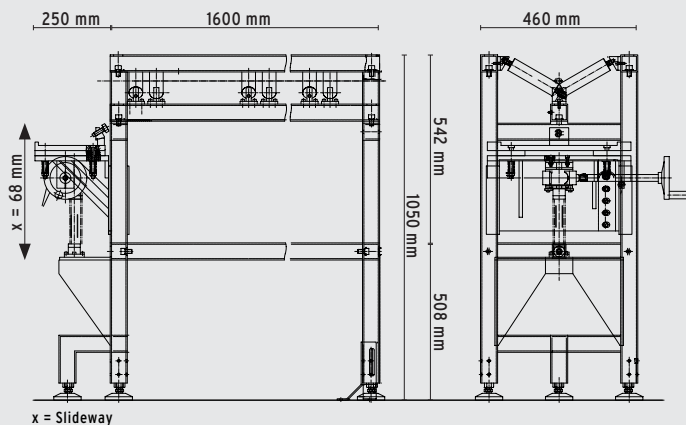
The pipe feeder accurately feeds long and heavy pipes into GF and RA machines. Very sturdy and stable design with powder-coated frames and stainless steel rollers.

Advantages:

- Extremely stable and sturdy
- Fast adjustment of dimensions
- Centerline of tubes and pipes adjust easily in seconds
- Steel frame coated for maintenancefree finish
- Rollers made of stainless steel
- Extension of the pipe feeder possible with extension unit
- Saves time and money
- Perfect for all kinds of steel

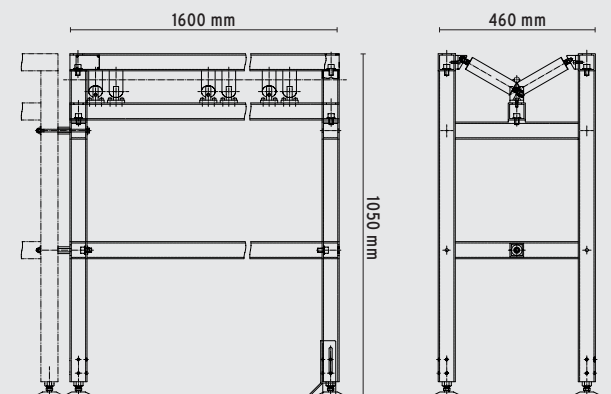
Base unit:

Fits all pipe cutting and beveling machines from Orbitalum Tools (except the RA 21 S and GF 20 AVM. RA 2, GFX 3.0, PS 4.5, PS 4.5 Plus and PS 6.6 on request). The machines can be directly mounted onto the base plate of the pipe feeder base unit, without further parts. The machines can be easily adjusted to the required cutting dimension using the handwheel-operated mechanical height adjustment. The machine is securely fastened to the base plate.



Extension unit:

To extend the base unit, can be used singularly or in multiples, easily bolted together.



Floor bracket accessory:

To fasten the base unit or the extension unit to the floor.
 The assembly consists of 4 brackets and 8 bolts with washers.

| APPLICATION RANGE/ TECHNICAL DATA | PIPE FEEDER BASE UNIT | PIPE FEEDER EXTENSION UNIT | |
|---|--|---|---------|
| Tube OD | 16 - 325 mm 0.63" - 12.8" | 16 - 325 mm 0.63" - 12.8" | |
| Dimensions approx. | 185 x 105 x 50 cm 72.8" x 41.3" x 19.7" | approx. 160 x 105 x 50 62.9" x 41.3" x 19.7" | |
| Load capacity max. | 400 kg 881.8 lbs | 400 kg 881.8 lbs | |
| Height-adjustable mounting plate (adjusting range) | 68 mm 2.68" | - - | |
| | | | |
| ARTICLE | CODE | | KG |
| Pipe feeder base unit | 790 068 051 | | 116.000 |
| Pipe feeder extension unit | 790 068 061 | | 72.000 |
| Floor bracket accessory | 790 068 053 | | 1.900 |

Other accessories

- Saw blades and bevel cutters, see from page 27
- Collapsible work bench, see page 82

Saw blades and bevel cutters for GF and RA machines



Saw blades

Features and application ranges, see page 27.

Most saw blades are available in favorable packs of 10 (individually packed) - meaning that you save 30% on the normal list price when you buy these value packs.

Please note the differing code number when ordering the 10-pack.



Saw blade Economy



Saw blade Performance



Saw blade High-Performance



Saw blade Premium



Saw blades with additional borehole

| ARTICLE | VERSION | WALL THICKNESS | | SAW BLADE Ø | | PACKAGE OF 1 PC | | | PACKAGE OF 10 PCS | |
|-------------------------|------------------|----------------|---------------|-------------|--------|--------------------|--|-------|--------------------|--|
| | | [MM] | [INCH] | [MM] | [INCH] | CODE | | KG | CODE | |
| Saw blade | Economy* | 1.5 - 6.0 | 0.059 - 0.236 | 68 | 2.677 | 790 042 063 | | 0.036 | 792 042 063 | |
| Saw blade | Economy | 2.0 - 5.5 | 0.079 - 0.217 | 63 | 2.480 | 790 041 020 | | 0.032 | 792 041 020 | |
| Saw blade | Economy* | 5.0 - 12.0 | 0.197 - 0.472 | 80 | 2.953 | 790 043 030 | | 0.075 | 792 043 030 | |
| Saw blade | Performance | 0.6 - 1.2 | 0.024 - 0.047 | 63 | 2.480 | 790 041 036 | | 0.027 | 792 041 036 | |
| Saw blade | Performance | 1.0 - 1.6 | 0.039 - 0.063 | 68 | 2.677 | 790 042 049 | | 0.050 | 792 042 049 | |
| Saw blade | Performance | 1.0 - 3.0 | 0.039 - 0.118 | 63 | 2.480 | 790 048 072 | | 0.035 | 792 048 072 | |
| Saw blade | Performance | 1.2 - 2.5 | 0.047 - 0.098 | 63 | 2.480 | 790 041 035 | | 0.040 | 792 041 035 | |
| Saw blade | Performance | 1.2 - 2.5 | 0.047 - 0.098 | 68 | 2.677 | 790 042 064 | | 0.045 | 792 042 064 | |
| Saw blade | Performance** | 1.2 - 2.5 | 0.047 - 0.098 | 100 | 3.937 | 790 043 036 | | 0.104 | 792 043 036 | |
| Saw blade | Performance | 1.2 - 3.0 | 0.047 - 0.118 | 83 | 3.268 | 790 043 024 | | 0.075 | 792 043 024 | |
| Saw blade | Performance | 1.5 - 2.5 | 0.059 - 0.098 | 80 | 3.150 | 790 046 022 | | 0.065 | 792 046 022 | |
| Saw blade | Performance | 2.5 - 5.5 | 0.098 - 0.217 | 63 | 2.480 | 790 041 048 | | 0.035 | 792 041 048 | |
| Saw blade | Performance** | 2.5 - 5.5 | 0.098 - 0.217 | 100 | 3.937 | 790 043 038 | | 0.120 | 792 043 038 | |
| Saw blade | Performance | 2.5 - 7.0 | 0.098 - 0.276 | 68 | 2.677 | 790 042 048 | | 0.045 | 792 042 048 | |
| Saw blade | Performance | 2.5 - 7.0 | 0.098 - 0.276 | 80 | 3.150 | 790 043 018 | | 0.080 | 792 043 018 | |
| Saw blade | Performance | 6.0 - 10.0 | 0.236 - 0.394 | 80 | 2.953 | 790 043 022 | | 0.075 | 792 043 022 | |
| Saw blade | Performance** | 6.0 - 15.0 | 0.236 - 0.591 | 100 | 3.937 | 790 047 026 | | 0.105 | 792 047 026 | |
| Saw blade | High-Performance | 1.2 - 2.5 | 0.047 - 0.098 | 80 | 3.150 | 790 046 021 | | 0.064 | | |
| Saw blade | High-Performance | 1.2 - 2.5 | 0.047 - 0.098 | 63 | 2.480 | 790 041 034 | | 0.040 | | |
| Saw blade | High-Performance | 2.5 - 7.0 | 0.098 - 0.267 | 68 | 2.677 | 790 042 058 | | 0.045 | | |
| Saw blade | Premium | 1.2 - 2.5 | 0.047 - 0.098 | 63 | 2.480 | 790 041 049 | | 0.033 | | |
| Saw blade with borehole | Performance | 1.0 - 2.0 | 0.039 - 0.079 | 63 | 2.480 | 790 048 472 | | 0.035 | 792 048 472 | |
| Saw blade with borehole | Performance | 1.2 - 2.5 | 0.047 - 0.098 | 63 | 2.480 | 790 041 435 | | 0.030 | 792 041 435 | |
| Saw blade with borehole | Performance | 1.2 - 2.5 | 0.047 - 0.098 | 68 | 2.677 | 790 042 464 | | 0.047 | 792 042 464 | |
| Saw blade with borehole | Performance | 1.5 - 2.5 | 0.059 - 0.098 | 80 | 3.150 | 790 046 422 | | 0.052 | 792 046 422 | |
| Saw blade with borehole | Performance | 2.5 - 7.0 | 0.098 - 0.276 | 68 | 2.677 | 790 042 448 | | 0.036 | 792 042 448 | |

* applicable only for aluminum tubes

** only for GF 6, RA 6, RA 8, RA 12 and GF 20 AVM

Saw blades and bevel cutters

For GF and RA machines

These saw blades and bevel cutters are especially designed for our pipe cutters for highest requirements and longest service life. 4 different ranges of saw blades are available.



Innovative manufacturing methods and special cutting geometry ensure a precise, square and burr-free cut

Burr-free and deformation-free



Square



Cutting and beveling



- **Economy** range for low and non-alloy steels and cast iron pipes
- **Performance** range for high-alloy steels (stainless steel)
- **High-Performance** range for high-performance materials and high-alloy steels
- **Premium** range especially made for stainless steel applications with extra long durability

| WORKABLE PIPE MATERIALS | AL | MILD STEEL, CU, CUNI, CUZN, CUSN | INOX, V2A, V4A, 304, 316 (L) | TI, DUPLEX, INCONEL |
|-------------------------|----|----------------------------------|------------------------------|---------------------|
| Economy | * | * | | |
| Performance | | * | * | |
| High-Performance | | * | * | * |
| Premium | | | * | |

The technical data are not binding. They are not warranted characteristics and are subject to change. Please consult our general conditions of supply.

Saw blade/bevel cutter combinations

Features and application ranges, see page 27.
Simultaneous cutting and beveling of pipes in just seconds.

Weld-prep saw blade/bevel cutter combinations (V-prep)

Consisting of one saw blade and one bevel cutter.
It is possible to order the individual parts separately.



Weld-prep saw blade/bevel cutter combination (V-prep)

| VERSION | WALL THICKNESS | | BEVELING ANGLE [°] | HEIGHT OF BEVEL MAX. | | SAW BLADE Ø | | CODE | KG |
|------------------|----------------|-------------|--------------------|----------------------|--------|-------------|--------|--------------------|-------|
| | [MM] | [INCH] | | [MM] | [INCH] | [MM] | [INCH] | | |
| Performance | 1.2 - 3.0 | .047 - .118 | 30 | 3 | .118 | 63 | 2.480 | 790 044 050 | 0.100 |
| Performance | 2.5 - 7.0 | .098 - .276 | 30 | 7 | .276 | 68 | 2.677 | 790 042 161 | 0.108 |
| High-Performance | 2.5 - 5.0 | .098 - .197 | 35 | 5 | .197 | 68 | 2.677 | 790 042 015 | 0.120 |
| High-Performance | 2.5 - 6.0 | .098 - .236 | 45 | 4 | .157 | 68 | 2.677 | 790 042 023 | 0.135 |
| High-Performance | 2.5 - 7.0 | .098 - .276 | 30 | 7 | .276 | 68 | 2.677 | 790 042 013 | 0.108 |

Replacement parts for weld-prep saw blade/bevel cutter combinations (V-prep)

| ARTICLE | VERSION | CODE | KG |
|--|------------------|--------------------|-------|
| Saw blade for 790 044 050 | Performance | 790 044 040 | 0.027 |
| Bevel cutter 30° for 790 044 050 | Performance | 790 044 049 | 0.065 |
| Saw blade for 790 042 155, 790 042 157 and 790 042 161 | Performance | 790 042 153 | 0.040 |
| Bevel cutter 30° for 790 042 161 | Performance | 790 042 160 | 0.060 |
| Saw blade for 790 042 018, 790 042 015, 790 042 023, 790 042 013 | High-Performance | 790 042 016 | 0.040 |
| Bevel cutter 30° for 790 042 013 | High-Performance | 790 042 021 | 0.077 |
| Bevel cutter 35° for 790 042 015 | High-Performance | 790 042 014 | 0.060 |

Support disc for saw blade/bevel cutter combinations

We recommend the use of 1 support disc for the saw blade/bevel cutter combination.

| ARTICLE | CODE | KG |
|--------------|--------------------|-------|
| Support disc | 790 046 188 | 0.068 |

Press fitting saw blade/bevel cutter combinations

Consisting of one saw blade and one bevel cutter. Especially for stainless steel press fitting systems. It is possible to order the individual parts separately.



Press fitting saw blade/bevel cutter combination

| VERSION | WALL THICKNESS | | BEVELING ANGLE [°] | HEIGHT OF BEVEL MAX. | | SAW BLADE Ø | | CODE | KG |
|-------------|----------------|-------------|--------------------|----------------------|-----------|-------------|--------|--------------------|-------|
| | [MM] | [INCH] | | [MM] | [INCH] | [MM] | [INCH] | | |
| Performance | 1.0 - 2.0 | .039 - .079 | 45 / 70 | 0.4/1.0 | .016/.039 | 63 | 2.480 | 790 044 046 | 0.090 |

Replacement parts for press fitting saw blade/bevel cutter combinations

| ARTICLE | VERSION | CODE | KG |
|------------------------------|-------------|--------------------|-------|
| Saw blade for 790 044 046 | Performance | 790 044 040 | 0.027 |
| Bevel cutter for 790 044 046 | Performance | 790 044 042 | 0.064 |

PIPE CUTTING AND BEVELING TECHNOLOGY

Bevel cutters

Features and application ranges, see page 27.

For V-prep profiles on pipe ends.

The bevel cutter is mounted on the GF/RA pipe cutter instead of a saw blade. Reproducible weld seam preparation in just seconds.

Bevel cutters V-prep

| ARTICLE | BEVELING ANGLE [°] | HEIGHT OF BEVEL MAX. | | BEVEL CUTTER Ø | | CODE | KG |
|------------------|--------------------|----------------------|--------|----------------|--------|--------------------|-------|
| | | [MM] | [INCH] | [MM] | [INCH] | | |
| Economy | 30.0 | 9.5 | .374 | 72 | 2.835 | 790 042 045 | 0.165 |
| Economy | 35.0 | 8.9 | .350 | 70 | 2.756 | 790 042 037 | 0.170 |
| Economy | 37.5 | 8.4 | .331 | 70 | 2.756 | 790 042 036 | 0.162 |
| Economy | 45.0 | 7.5 | .295 | 70 | 2.756 | 790 042 038 | 0.162 |
| Performance | 30.0 | 9.5 | .374 | 72 | 2.835 | 790 042 071 | 0.153 |
| Performance | 30.0 | 13.0 | .512 | 76 | 2.992 | 790 043 023 | 0.187 |
| Performance | 37.5 | 8.4 | .331 | 70 | 2.756 | 790 042 070 | 0.163 |
| High-Performance | 30.0 | 9.5 | .374 | 72 | 2.835 | 790 042 073 | 0.157 |



Bevel cutter V-prep

Saw blade lubricant GF TOP

Synthetic high-performance lubricant for cutting and beveling machines.

Increases the tool life of the saw blade. Meets the requirements for H2 lubricants. The screwable brush guarantees an easy and uniform application of lubricant on the saw blade.

| ARTICLE | VERSION | CODE | KG |
|----------------------------|-------------|--------------------|-------|
| Saw blade lubricant GF TOP | Tube, 180 g | 790 060 228 | 0.205 |



GF TOP

Saw blade lubricant GF LUB

Chlorine-free high-performance lubricant for cutting and beveling.

Increases the tool life of the saw blade. This ecologically cutting compound is the environmentally friendly replacement for ROCOL: just with a new name and improved quality. GF LUB meets the latest environmental directives and ecological standards.

| ARTICLE | VERSION | CODE | KG |
|----------------------------|--------------|--------------------|-------|
| Saw blade lubricant GF LUB | Tube, 160 ml | 790 041 016 | 0.160 |



GF LUB



Saw blade TCT

Saw blades for SCORP machines

Saw blade TCT

APPLICATION RANGE SCORP 360 WITH TCT SAW BLADE

| Plastic pipe OD | | Saw blade Ø 140 mm/5.512" max. wall thickness | |
|-----------------|--------|---|--------|
| [mm] | [inch] | [mm] | [inch] |
| 75 | 2.953 | 15.1 | 0.594 |
| 90 | 3.543 | 11.4 | 0.449 |
| 100 | 3.937 | 10.1 | 0.398 |
| 110 | 4.331 | 9.3 | 0.366 |
| 115 | 4.528 | 9.1 | 0.358 |
| 125 | 4.921 | 8.8 | 0.346 |
| 140 | 5.512 | 8.7 | 0.343 |
| 160 | 6.299 | 9.1 | 0.358 |
| 165 | 6.496 | 9.3 | 0.366 |
| 180 | 7.087 | 9.9 | 0.390 |
| 190 | 7.480 | 10.4 | 0.409 |
| 200 | 7.874 | 10.9 | 0.429 |
| 215 | 8.465 | 11.8 | 0.465 |
| 225 | 8.858 | 12.4 | 0.488 |
| 240 | 9.449 | 13.4 | 0.528 |
| 250 | 9.843 | 14.0 | 0.551 |
| 270 | 10.630 | 15.4 | 0.606 |
| 280 | 11.024 | 16.0 | 0.630 |
| 315 | 12.402 | 18.3 | 0.720 |
| 320 | 12.598 | 18.6 | 0.732 |
| 355 | 13.976 | 20.4 | 0.803 |

| ARTICLE | FOR PIPE MATERIALS | SAW BLADE Ø | | RPM MAX. | CODE | KG |
|---------------|---|-------------|--------|----------|--------------------|-------|
| | | [MM] | [INCH] | | | |
| Saw blade TCT | Steel, copper, aluminum, all kinds of plastic | 140 | 5.512 | 4.200 | 790 014 055 | 0.154 |

Cutting blade Diamond



Cutting blade Diamond

| ARTICLE | FOR PIPE MATERIALS | SAW BLADE Ø | | RPM MAX. | CODE | KG |
|------------------------|--------------------|-------------|--------|----------|--------------------|-------|
| | | [MM] | [INCH] | | | |
| Cutting blade Diamond | Cast iron | 140 | 5.512 | 4.200 | 790 014 057 | 0.173 |
| Cutting blade Diamond* | Cast iron | 155 | 6.102 | 4.200 | 790 014 059 | 0.215 |

* only for SCORP 360. While stock last.

Saw blade Cermet



Saw blade Cermet


| ARTICLE | FOR PIPE MATERIALS | SAW BLADE Ø | | RPM MAX. | CODE | KG |
|------------------|--------------------|-------------|--------|----------|--------------------|-------|
| | | [MM] | [INCH] | | | |
| Saw blade Cermet | Stainless steel | 140 | 5.512 | 4.200 | 790 014 056 | 0.153 |

PS 4.5 Plus

Portable tube saws

A mobile, powerful and flexible tube cutting machine for use on construction sites, that's what the PS saw from Orbitalum Tools stands for. This tube saw convinces not only with its burr-free, right-angled and deformation-free cutting results, but also with its low weight.

At the same time its problem-free and simple usage as well as its unbeatable price are the prime factors among its users.



| | |
|--|---|
| Refined technology – simple and convenient to use | ✓ |
| The lightest machine in this field of application on the market | ✓ |
| Integrated line laser to determine the cut off point | ✓ |
| Feeding and sawing in a single pass | ✓ |
| High quality and long service life through rugged sliding elements | ✓ |
| Lightweight and easily transportable machine to provide flexibility for on-site applications | ✓ |
| Deformation-free clamping of thin-walled tubes | ✓ |
| For cutting of thin-walled tubes and elbows | ✓ |
| No rework necessary because of a burr-free and square cut | ✓ |

Tube cutting made easy! Cutting thin-walled stainless-steel tubes and elbows using the superior "Planetary cutting technology".

For its field of applications, the PS 4.5 Plus (23 kg) is amongst the lightest in their class available machines on the market today.

"Enhanced safety due to stationary tube - rotating tool." The tested process of planetary cutting is another important feature, which characterizes all ORBITALUM pipe cutting machines. The saw blade rises into the cutting area and is driven orbitally around the pipe. The advantage is that a small saw blade can cut a large tube diameter, without heating the tube.

As is characteristic for the ORBITALUM pipe saws, the saw allows convenient marking of the cut-off point on the tube with the help of a line laser. A second saw blade clamping point enables tube elbows to be cut off.

The powerful motor is equipped with over-load protection and ergonomic handles and is available for the voltages 230 V, 110 V or 120 V, 50/60 Hz.

The slide housing as well as the self-centering clamping jaws were produced from high-quality aluminum alloys, which measure up to the highest requirements for construction sites.

FURTHER ADVANTAGES:

- Cold cutting process prevents corrosion
- Integrated line laser to determine the cut off point
- Orbital cutting process saves time
- Multiple point clamping
- Fast adjustment of the pipe dimension
- Long saw blade service life
- Press fitting saw blade combinations can be used*
- Speed controlled single-phase AC motor with restart inhibitor

* Only with saw blade/bevel cutter combinations of Orbitalum Tools: Code 790 044 046 or 790 044 047. Especially for stainless steel press fitting systems. Consisting of one saw blade and one bevel cutter. It is possible to order the individual parts separately. Workable wall thickness: 1 - 2 mm (0.039" - 0.079"), beveling angle: 45°/70°, height of bevel: max. 0.4/1 mm (0.016"/0.039").



Supplied in a durable storage and shipping case with compartments for accessories, for example the mounting plate, tools and now also for the tripod (optional available)



Self-centering vice made of high-quality aluminum alloy



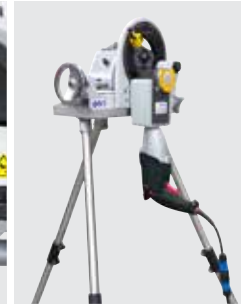
Tried-and-tested planetary cutting technology: The saw blade immerses into the cut and is guided orbitally around the tube



Included: "Performance" saw blade (790 048 072) and saw blade lubricant GF TOP



Second saw blade position to cut off elbows



Tripod made of aluminum optional available. Can be dismantled in a few steps - for space-saving storage, for example in the PS transport case

| APPLICATION RANGE | | PS 4.5 Plus |
|---|---------------------|-------------------|
| Code | [230 V] | 790 048 001 |
| | [110 V] | 790 048 002 |
| | [120 V] | 790 048 003 |
| Tube OD | [mm] | 6 - 120 |
| | [inch] | 0.236 - 4.724 |
| Elbow OD | [mm] | 30 - 120 |
| | [inch] | 1.181 - 4.724 |
| Wall thickness min. - max. | [mm] | 0.6 - 3.0 |
| | [inch] | 0.024 - 0.118 |
| TECHNICAL DATA | | |
| Dimensions | [mm] | 480 x 230 x 600 |
| | [inch] | 20.9 x 9.1 x 23.6 |
| Power | [W] | 1010 |
| | [hp] | 1.5 |
| Protection class (DIN VDE 0740, isolated) | [class] | II |
| Speed | [rpm] | 30 - 165 |
| Vibration level (DIN EN 28662, part 1) | [m/s ²] | < 2.5 |
| Noise level at the workplace approx. | [dB (A)] | 78 |
| SCOPE OF DELIVERY | | |
| Portable tube saw | Pc. | 1 |
| Cast aluminum clamping jaws | Set | 1 |
| Durable storage and shipping case | Pc. | 1 |
| Saw blade (Code 790 048 072) | Pc. | 1 |
| Tool bag equipped with tools | Pc. | 1 |
| Saw blade lubricant GF TOP (Code 790 060 228) | Tube | 1 |
| Operating instructions and spare parts list | Set | 1 |



PS 4.5 Plus

The technical data are not binding. They are not warranted characteristics and are subject to change. Please consult our general conditions of supply.

Portable tube saw

PS 4.5 Plus

Features, application range, technical data and scope of delivery, see page 31.

| ARTICLE | VERSION | CODE | WEIGHT OF MACHINE KG | DISPATCH WEIGHT KG |
|-------------|--------------------|-------------|----------------------|--------------------|
| PS 4.5 Plus | 230 V, 50/60 Hz EU | 790 048 001 | 23.600 | 37.000 |
| PS 4.5 Plus | 110 V, 50/60 Hz EU | 790 048 002 | 23.600 | 37.000 |
| PS 4.5 Plus | 120 V, 50/60 Hz US | 790 048 003 | 23.600 | 37.000 |



PS 4.5 Plus

Quick-mounting base plates with integrated screw clamps

Quick and easy mounting of the machine to the bench with no drilling.
Including 4 socket head screws to fix the PS to the quick-mounting base plate.

| ARTICLE | CODE | KG |
|---|-------------|-------|
| Quick-mounting base plates with integrated screw clamps | 790 048 334 | 2.600 |



Quick-mounting base plates with integrated screw clamps

Saw blades

Performance range for high-alloy steels (stainless steel).
Recommended saw blades (only Ø 63 mm/2.480") for PS 4.5 Plus and PS 6.6.

| ARTICLE | VERSION | WALL THICKNESS | | SAW BLADE Ø | | CODE | KG |
|-----------|-------------|----------------|---------------|-------------|--------|-------------|-------|
| | | [MM] | [INCH] | [MM] | [INCH] | | |
| Saw blade | Performance | 1.0 - 3.0 | 0.039 - 0.118 | 63 | 2.480 | 790 048 072 | 0.035 |
| Saw blade | Performance | 0.6 - 1.2 | 0.024 - 0.047 | 63 | 2.480 | 790 041 036 | 0.027 |



Saw blade Performance

Tripod

Made of aluminum. Suitable for PS 4.5, PS 4.5 Plus, PS 6.6 and GFX 3.0.
For easy mounting of machines directly on the tripod with no base plate.
Can be dismantled in a few steps. NEW: Storage in the PS transport case possible.
Space saving = fast application = easy handling.

| ARTICLE | CODE | KG |
|---|-------------|-------|
| Tripod for PS 4.5, PS 4.5 Plus, PS 6.6, GFX 3.0 | 790 048 390 | 7.400 |



Tripod

Laser retrofitting kit

Line laser to identify the cutting point on the tube.
Easy mounting on the swivel on the PS machines.
Kit contains 1 line laser, 1 laser holder with 2 fixing screws, replacement batteries, 1 set of assembly instructions.

| ARTICLE | CODE | KG |
|---|-------------|-------|
| Laser retrofitting kit for PS 4.5, PS 4.5 Plus and PS 6.6 | 790 048 060 | 0.110 |



Laser retrofitting kit

PIPE CUTTING AND BEVELING TECHNOLOGY

Other accessories

- High-performance lubricants for cutting and beveling, see page 22
- Swivel cable, see page 23
- Quick-mounting base plates with integrated screw clamps, see page 23
- Mobile workstation, see page 23
- Pipe feeder base unit and extension unit, see from page 24
- Collapsible work bench, see page 82

MRA

Metal tube cutter

The clever solution for cutting metal tubes manually in any position.

This metal tube cutter is especially designed for cramped working places and for chipless cutting processes.



For manual cutting of metal tubes in any position. Easy to use - first-rate cutting technology.

The patented cutting technique used in designing the MRA is based on the diameter-specific clamping shells and the flexible multi-roller cutting chain. Both these components are made of hardened, wear resistant steel and provide the following advantages:

- Long service life of the components
- The cutting chain is at a right-angle around the tube
- The MRA runs on track rollers on the clamping shells
- Minimum hand movements
- Tubes made of stainless steel can be cut

FURTHER ADVANTAGES:

- Deformation-free and square cut
- No electricity required
- Requires little space, for use in limited access areas

FOR TUBE MATERIALS:

- High-alloy steel (stainless steel material e.g. no. 1.40... to 1.45... or 304/316 materials)
- Low-alloy and unalloyed steel
- Cast materials
- Non-ferrous metals

| APPLICATION RANGE | MRA |
|---|--|
| Code | 790 008 001 |
| Tube OD | [mm] 25.0 - 254.0 [inch] 0.984 - 10.000 |
| Wall thickness* | [mm] 0.8 - 3.0 [inch] 0.031 - 0.118 |
| TECHNICAL DATA | MRA |
| Dimensions | [mm] 450 x 105 [inch] 17.7 x 4.1 |
| SCOPE OF DELIVERY | MRA |
| Metal tube cutter MRA | Pc. 1 |
| Durable storage & shipping case | Pc. 1 |
| Socket head key | Pc. 1 |
| Connection clamp | Pc. 1 |
| Working gloves | Pair 1 |
| Operating instructions and spare parts list | Set 1 |

The technical data are not binding. They are not warranted characteristics and are subject to change. Please consult our general conditions of supply.

* Depends on material. For high-alloy steels, the max. wall thickness which can be processed is 2.0 - 2.5 mm (0.079 - 0.098")



MRA



Multi-roller cutting chain



Clamping shells

Metal tube cutter

MRA

Features, application range, technical data and scope of delivery, see page 35.

Multi-roller cutting chains and clamping shells must be ordered separately.

| ARTICLE | CODE | WEIGHT OF MACHINE KG | DISPATCH WEIGHT KG |
|-----------------------|-------------|----------------------|--------------------|
| Metal tube cutter MRA | 790 008 001 | 3.100 | 8.000 |

Multi-roller cutting chains MRA

Cutting wheels made from hardened steel.

| ARTICLE | TUBE OD | | CUTTING WHEELS [QTY] | CODE | KG |
|--------------------------------|---------------|----------------|----------------------|-------------|-------|
| | [MM] | [INCH] | | | |
| Multi-roller cutting chain MRA | 25.0 - 114.3 | 0.984 - 4.500 | 15 | 790 008 018 | 0.500 |
| Multi-roller cutting chain MRA | 114.3 - 254.0 | 4.500 - 10.000 | 16 | 790 008 041 | 0.900 |

Clamping shells MRA

Set of two pieces, made from hardened steel. One pair of clamping shells needed for each tube size. Further dimensions of clamping shells are available on request.

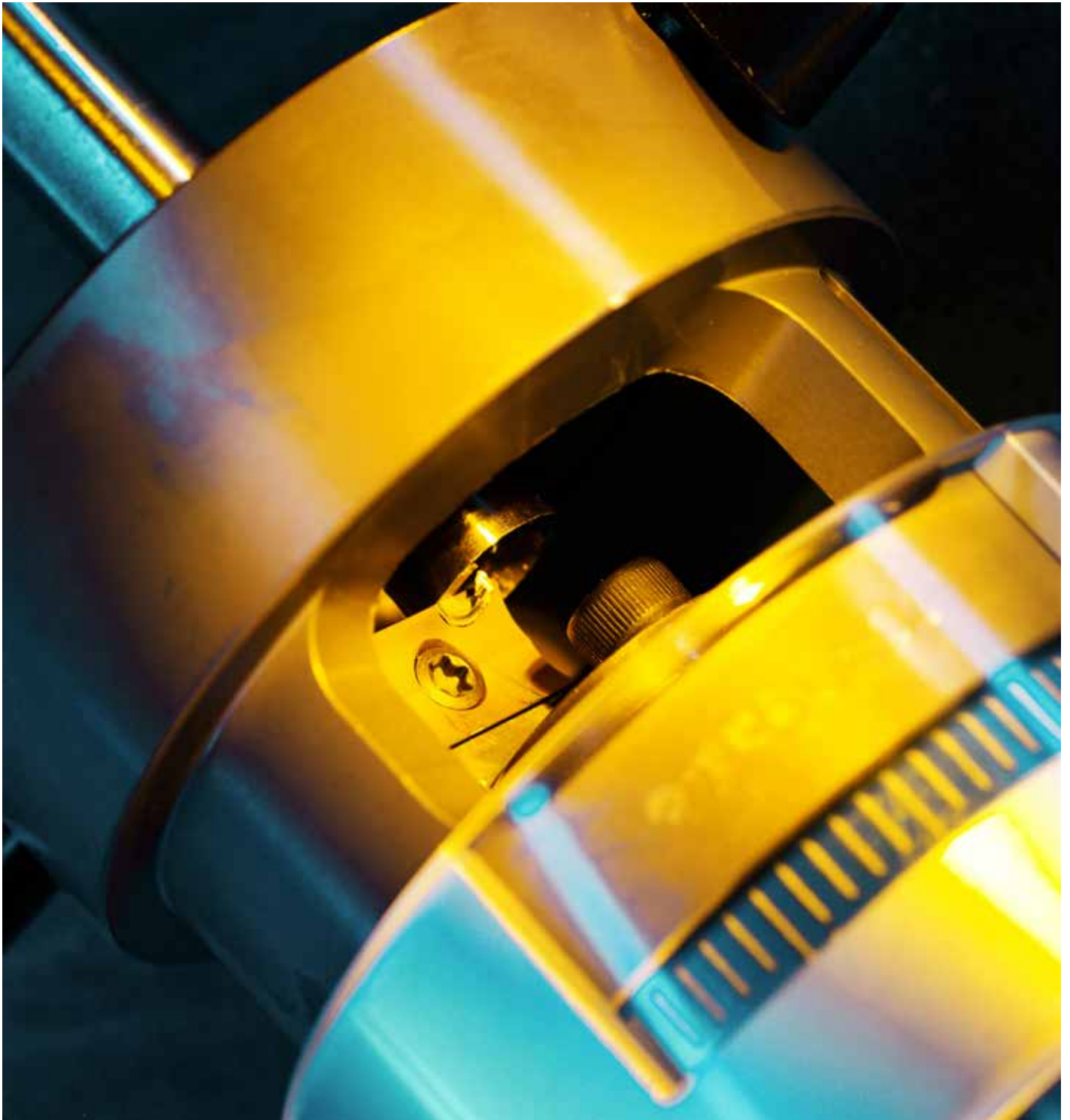
| TUBE OD | | CODE | KG | TUBE OD | | CODE | KG |
|---------|--------|-------------|-------|---------|--------|-------------|-------|
| [MM] | [INCH] | | | [MM] | [INCH] | | |
| 25.0 | 0.984 | 790 008 102 | 0.650 | 80.0 | 3.150 | 790 008 233 | 1.375 |
| 25.4 | 1.000 | 790 008 104 | 0.655 | 84.0 | 3.300 | 790 008 240 | 1.690 |
| 29.0 | 1.142 | 790 008 103 | 0.705 | 85.0 | 3.350 | 790 008 245 | 1.750 |
| 33.7 | 1.330 | 790 008 105 | 0.885 | 88.9 | 3.500 | 790 008 250 | 1.780 |
| 38.1 | 1.500 | 790 008 130 | 0.955 | 100.0 | 3.937 | 790 008 255 | 1.970 |
| 40.0 | 1.575 | 790 008 135 | 0.955 | 101.6 | 4.000 | 790 008 260 | 2.025 |
| 42.4 | 1.670 | 790 008 140 | 1.005 | 104.0 | 4.095 | 790 008 270 | 1.925 |
| 44.5 | 1.752 | 790 008 150 | 1.052 | 108.0 | 4.252 | 790 008 280 | 2.100 |
| 48.3 | 1.900 | 790 008 155 | 1.100 | 110.0 | 4.330 | 790 008 285 | 2.150 |
| 50.0 | 1.970 | 790 008 160 | 1.130 | 114.3 | 4.500 | 790 008 290 | 2.295 |
| 50.8 | 2.000 | 790 008 165 | 1.140 | 129.0 | 5.080 | 790 008 315 | 2.800 |
| 52.0 | 2.050 | 790 008 175 | 1.190 | 139.7 | 5.500 | 790 008 325 | 3.000 |
| 53.0 | 2.087 | 790 008 180 | 1.150 | 150.0 | 5.906 | 790 008 333 | 3.375 |
| 54.0 | 2.125 | 790 008 185 | 1.100 | 152.4 | 6.000 | 790 008 335 | 3.232 |
| 57.0 | 2.244 | 790 008 190 | 1.210 | 154.0 | 6.060 | 790 008 340 | 3.365 |
| 60.3 | 2.375 | 790 008 195 | 1.315 | 160.0 | 6.300 | 790 008 355 | 3.520 |
| 63.5 | 2.500 | 790 008 200 | 1.375 | 165.0 | 6.496 | 790 008 360 | 4.125 |
| 65.0 | 2.559 | 790 008 203 | 1.375 | 168.3 | 6.625 | 790 008 365 | 3.600 |
| 70.0 | 2.755 | 790 008 215 | 1.445 | 204.0 | 8.030 | 790 008 380 | 4.375 |
| 73.0 | 2.874 | 790 008 220 | 1.480 | 219.1 | 8.625 | 790 008 385 | 4.680 |
| 75.0 | 2.950 | 790 008 225 | 1.600 | 228.6 | 9.000 | 790 008 387 | 4.890 |
| 76.1 | 2.996 | 790 008 230 | 1.560 | 254.0 | 10.000 | 790 008 390 | 5.420 |

Other accessories

- Collapsible work bench, see page 82

PIPE CUTTING AND BEVELING TECHNOLOGY

Tube Squaring Technology



Comprehensive training program.

We as Orbitalum emphasize on the safe operation of our equipment as it has the utmost priority.

We generally recommend a product safety and user training to clearly understand the proper usage of the equipment and in order to avoid any possible dangers and accidents.

We offer:

- Training on daily or weekly basis
- At any location
- Skilled trainers
- Certification after successful participation
- Fully equipped training centre in Singen
- State-of-the-art training equipment

If you would like to learn more about our comprehensive training program or if you need information about our next user trainings then please contact our service team.
Via phone:

+49 (0) 77 31 792-200

Or per e-mail to:

training@itw-ocw.com

RPG ONE, RPG 1.5, RPG 2.5

Tube squaring machines (Electric/Cordless)

The RPG series represent ease of use and particularly economical clamping. The capabilities of our RPG range include squaring (I-seam) thin-walled stainless steel tubes and micro-fittings, as well as unalloyed and low-alloyed steels, aluminum and titanium. The machines fit excellently in the hand as their size and weight can hardly be surpassed. Users can select the appropriate clamping shells from the range of accessories for each diameter.



| | |
|--|---|
| Squaring tube ends with a high-quality finish | ✓ |
| Burr-free and square | ✓ |
| Beveling possible with a special tool holder | ✓ |
| Quick clamping system for tools, clamping shells and tubes | ✓ |
| Preparation of thin-walled stainless steel tubes (V4A) and micro fittings | ✓ |
| High-performance coated tool bit with two cutting edges | ✓ |
| Electric versions with built-in electronic speed regulation with speed stabilization | ✓ |
| Environmentally friendly cordless versions thanks to lithium-ion technology | ✓ |
| Space saving, light weight and portable machine for a mobile and secure application | ✓ |

Pipe and installation manufacturers from the high-purity gas, electronics, pharmaceuticals, food processing, beverages, solar and chemical industries benefit from the mobile, high-quality and burr-free processing of pipe ends.

Due to the quick tool change system, tools, clamping shells and tubes can be easily changed without using any additional equipment. All multifunctional tools (MFW) are two-sided tool bits with protective coating against tool wear. This enables the preparation of tubes made of high-alloy, unalloyed and low-alloy steels and aluminum with high precision very quickly and efficiently.

With the **cordless version**, we offer the optimal solution, which is independent of an electricity supply, for extending or repairing an existing plant with limited space availability. The cordless drive was designed to meet customer requirements.

The machines and accessories are supplied in a handy, durable storage and shipping case - the cordless versions additionally with a 230 V charger for the European market or a 120 V charger for the American market.

FURTHER ADVANTAGES:

- Micrometer feed for optimum results
- No additional tools required for operation
- Modular design, ensuring compatibility within the RPG series
- The special adaptor clamping shell allows the RPG 2.5 to be used with the clamping shells for the RPG 1.5 machines.

ELECTRIC VERSIONS:

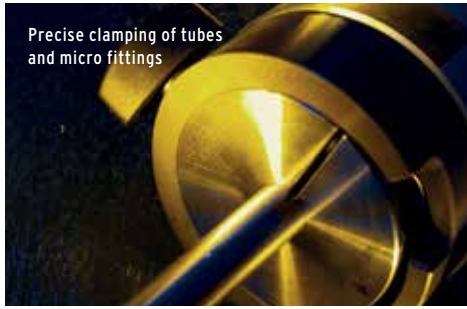
- Machine with rotating/removable drive
- Built-in electronic speed regulation with speed stabilization: Vario-Tachometer-Constant (VTC) full wave electronics
- Restart protection to prevent the machine from starting in an uncontrolled way after it

has been re-connected to the electric mains or after the voltage supply has been reestablished after a power failure

- RPM regulator
- Sturdy marathon motor
- Overload protection
- Shut-off carbon brushes
- Carbon wear indicator

CORDLESS VERSIONS:

- Short design
- Lithium-ion technology
- Motor with high performance and small size
- No memory effect
- Single cell monitoring in the cordless pack
- Electronic overload protection with integrated temperature monitor
- Robust cordless packs with capacity display
- Minimal self-discharge
- Environmentally friendly
- AIR-COOLED technology for short charging times and a long service life



The technical data are not binding. They are not warranted characteristics and are subject to change. Please consult our general conditions of supply.

| APPLICATION RANGE | | RPG ONE | RPG ONE CORDLESS | RPG 1.5 | RPG 1.5 CORDLESS | RPG 2.5 | RPG 2.5 CORDLESS |
|---|---------------------|---|------------------|-------------------|------------------|--|---------------------------------------|
| Code | [230 V] | 790 036 031 | 790 036 021 | 790 037 001 | 790 037 011 | 790 030 001 | 790 030 011 |
| | [115 V] | - | 790 036 022 | - | 790 037 012 | - | 790 030 012 |
| | [120 V] | 790 036 032 | - | 790 037 002 | - | 790 030 002 | - |
| | [110 V] | 790 036 033 | - | 790 037 003 | - | 790 030 003 | - |
| Tube OD min.-max. | [mm] | 3.0* - 25.4 | 3.0* - 25.4 | 3.0* - 38.1 | 3.0* - 38.1 | 3.0* - 65.0 | 3.0* - 65.0 |
| | [inch] | 0.118* - 1.0 | 0.118* - 1.0 | 0.118* - 1.5 | 0.118* - 1.5 | 0.118* - 2.559 | 0.118* - 2.559 |
| Wall thickness max. | [mm] | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 |
| | [inch] | 0.118 | 0.118 | 0.118 | 0.118 | 0.118 | 0.118 |
| Tube materials | | High-alloy steels (stainless steel material no. 1.40... to 1.45... as per DIN 17455 and DIN 17456), unalloyed and low-alloy steels, aluminum. | | | | | |
| TECHNICAL DATA | | RPG ONE | RPG ONE CORDLESS | RPG 1.5 | RPG 1.5 CORDLESS | RPG 2.5 | RPG 2.5 CORDLESS |
| Dimensions (lxwxh) | [mm] | 390 x 70 x 200 | 261 x 80 x 255 | 400 x 160 x 350 | 275 x 90 x 255 | 500 x 170 x 300 | 260 x 320 x 300 |
| | [inch] | 15.4 x 2.8 x 7.9 | 10.3 x 3.2 x 10 | 15.8 x 6.3 x 13.8 | 10.8 x 3.5 x 10 | 19.7 x 6.7 x 11.8 | 10.2 x 12.6 x 11.8 |
| Built-in electronic variable cutting speed | [rpm] | 145 - 380 | 0 - 500 | 145 - 380 | 0 - 500 | 1. speed: 9 - 52 2. speed: 27 - 153 | 1. speed: 0 - 29 2. speed: 0 - 100 |
| Power | [W] | 1010 | - | 1010 | - | 1010 | - |
| Voltage of rechargeable battery | [V] | - | 18 | - | 18 | - | 18 |
| Capacity | [Ah] | - | 4.0 | - | 4.0 | - | 4.0 |
| Noise level at the workplace (EN 23741) | [dB (A)] | approx. 78 | approx. 78 | approx. 78 | approx. 78 | approx. 78.2 | approx. 78.2 |
| Vibration level (EN 50144) | [m/s ²] | < 2.5 | < 2.5 | < 2.5 | < 2.5 | < 2.5 | < 2.5 |
| SCOPE OF DELIVERY | | RPG ONE | RPG ONE CORDLESS | RPG 1.5 | RPG 1.5 CORDLESS | RPG 2.5 | RPG 2.5 CORDLESS |
| Tube squaring machine | Pc. | 1 | 1 | 1 | 1 | 1 | 1 |
| Durable storage and shipping case | Pc. | 1 | 1 | 1 | 1 | 1 | 1 |
| Rechargeable batteries | Pc. | - | 2 | - | 2 | - | 2 |
| Battery charger | Pc. | - | 1 | - | 1 | - | 1 |
| Overload protection (square nut) | Pc. | - | - | - | - | 1 | 1 |
| Tool holder WH (Code 790 ...) | Pc. | 1 (... 037 152) | 1 (... 037 152) | 1 (... 037 152) | 1 (... 037 152) | 1 (... 037 152) | 1 (... 037 152) |
| Multifunctional tool MFW (Code 790 038 314) | Pc. | 1 | 1 | 1 | 1 | 1 | 1 |
| Adapter clamping shell (Code 790 030 094) | Pc. | - | - | - | - | 1 | 1 |
| Tool set | Set | 1 | 1 | 1 | 1 | 1 | 1 |
| Operating instructions and spare parts list | Set | 1 | 1 | 1 | 1 | 1 | 1 |

* Application range with standard tool holder (Code 790 037 152) is from 6.0 mm/0.236" OD. With special tool holder (Code 790 037 161) 3.0 mm/0.118" OD is possible.



RPG ONE



RPG 1.5



RPG 2.5



RPG ONE Cordless



RPG 1.5 Cordless



RPG 2.5 Cordless

Tube squaring machines

RPG ONE, RPG 1.5, RPG 2.5 (Cordless)

Features, application range, technical data and scope of delivery, see page 39.

Stainless steel clamping shells must be ordered separately.

| ARTICLE | VERSION | CODE | WEIGHT OF MACHINE KG | DISPATCH WEIGHT KG |
|-------------------------|--------------------|-------------|----------------------|--------------------|
| RPG ONE | 230 V, 50/60 Hz EU | 790 036 031 | 4.140 | 9.600 |
| RPG ONE | 120 V, 50/60 Hz US | 790 036 032 | 4.140 | 9.600 |
| RPG ONE | 110 V, 50/60 Hz EU | 790 036 033 | 4.140 | 9.600 |
| RPG ONE Cordless (18 V) | 230 V, 50/60 Hz EU | 790 036 021 | 2.880 | 8.200 |
| RPG ONE Cordless (18 V) | 115 V, 60 Hz US | 790 036 022 | 2.880 | 8.200 |
| RPG 1.5 | 230 V, 50/60 Hz EU | 790 037 001 | 4.700 | 9.500 |
| RPG 1.5 | 120 V, 50/60 Hz US | 790 037 002 | 4.700 | 9.500 |
| RPG 1.5 | 110 V, 50/60 Hz EU | 790 037 003 | 4.700 | 9.500 |
| RPG 1.5 Cordless (18 V) | 230 V, 50/60 Hz EU | 790 037 011 | 3.440 | 10.100 |
| RPG 1.5 Cordless (18 V) | 115 V, 60 Hz US | 790 037 012 | 3.440 | 10.100 |
| RPG 2.5 | 230 V, 50/60 Hz EU | 790 030 001 | 6.600 | 12.500 |
| RPG 2.5 | 120 V, 50/60 Hz US | 790 030 002 | 6.600 | 12.500 |
| RPG 2.5 | 110 V, 50/60 Hz EU | 790 030 003 | 6.600 | 12.500 |
| RPG 2.5 Cordless (18 V) | 230 V, 50/60 Hz EU | 790 030 011 | 5.340 | 11.320 |
| RPG 2.5 Cordless (18 V) | 115 V, 60 Hz US | 790 030 012 | 5.340 | 11.320 |



RPG ONE / RPG ONE Cordless



RPG 1.5 / RPG 1.5 Cordless



RPG 2.5 / RPG 2.5 Cordless

Angle drive for RPG ONE (cordless) and RPG 1.5 (cordless)

The angle drive is an available option and can be subsequently mounted on the following RPG machines:

RPG ONE; RPG ONE cordless; RPG 1.5; RPG 1.5 cordless

The squaring machine reduces the design length to 200 mm (7.874").
 Technical characteristics remain unchanged.

| ARTICLE | CODE | KG |
|--|-------------|-------|
| Angle drive for RPG ONE and RPG 1.5 (cordless) | 790 037 400 | 0,475 |



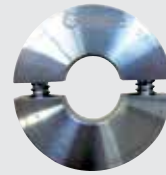
Angle drive

Stainless steel clamping shells

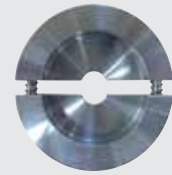
Extremely durable. Assures accurate centering and quick clamping shell change without any tools with its unique design and positive clamping shell mechanism. Further dimensions of clamping shells are available.

Please check the outer diameter of the tubes before ordering the clamping shells.

| Machine model: | Clamping length at tubes: | Clamping length at micro fittings: |
|----------------|---------------------------|------------------------------------|
| RPG ONE | 10.0 mm (0.394") | 4.0 mm (0.157") |
| RPG 1.5 | 15.0 mm (0.591") | 4.0 mm (0.157") |
| RPG 2.5 | 15.0 mm (0.591") | 4.0 mm (0.157") |



Stainless steel clamping shells



Stainless steel clamping shells for micro fittings

| MACHINE MODEL | | RPG ONE | | | | RPG 1.5 | | | | RPG 2.5 | | | |
|---------------|--------|---------|-------|----------------|-------|---------|-------|----------------|-------|---------|-------|----------------|-------|
| TUBE OD | | TUBES | | MICRO FITTINGS | | TUBES | | MICRO FITTINGS | | TUBES | | MICRO FITTINGS | |
| [MM] | [INCH] | 790... | KG | 790... | KG | 790... | KG | 790... | KG | 790... | KG | 790... | KG |
| 3.00 | 0.118 | 036 232 | 0.118 | - | - | 037 220 | 0.300 | 037 300 | 0.225 | - | - | - | - |
| 3.18 | 0.125 | 036 201 | 0.119 | - | - | 037 221 | 0.308 | 037 301 | 0.227 | - | - | - | - |
| 4.00 | 0.157 | - | - | - | - | 037 222 | 0.310 | 037 302 | 0.226 | - | - | - | - |
| 4.78 | 0.188 | - | - | - | - | 037 223 | 0.310 | 037 303 | 0.234 | - | - | - | - |
| 5.00 | 0.197 | - | - | - | - | 037 224 | 0.308 | 037 304 | 0.228 | - | - | - | - |
| 6.00 | 0.236 | 036 213 | 0.117 | 036 304 | 0.066 | 037 225 | 0.310 | 037 305 | 0.220 | - | - | - | - |
| 6.35 | 0.250 | 036 202 | 0.118 | 036 301 | 0.066 | 037 226 | 0.306 | 037 306 | 0.460 | 037 226 | 0.306 | 037 306 | 0.460 |
| 7.00 | 0.276 | 036 214 | 0.118 | - | - | 037 257 | 0.306 | - | - | 037 257 | 0.306 | - | - |
| 8.00 | 0.315 | 036 215 | 0.118 | 036 307 | 0.065 | 037 227 | 0.299 | 037 307 | 0.223 | 037 227 | 0.299 | 037 307 | 0.223 |
| 9.00 | 0.354 | - | - | - | - | 037 254 | 0.280 | - | - | 037 254 | 0.280 | - | - |
| 9.53 | 0.375 | 036 203 | 0.115 | 036 302 | 0.064 | 037 228 | 0.297 | 037 308 | 0.300 | 037 228 | 0.297 | 037 308 | 0.300 |
| 10.00 | 0.394 | 036 204 | 0.115 | 036 305 | 0.065 | 037 229 | 0.298 | 037 309 | 0.222 | 037 229 | 0.298 | 037 309 | 0.222 |
| 10.10 | 0.398 | 036 222 | 0.114 | - | - | - | - | - | - | - | - | - | - |
| 11.00 | 0.433 | 036 226 | 0.112 | - | - | 037 293 | 0.252 | - | - | 037 293 | 0.252 | - | - |
| 11.11 | 0.437 | - | - | - | - | 037 255 | 0.295 | - | - | 037 255 | 0.295 | - | - |
| 12.00 | 0.472 | 036 205 | 0.112 | 036 306 | 0.064 | 037 230 | 0.293 | 037 310 | 0.220 | 037 230 | 0.293 | 037 310 | 0.220 |
| 12.10 | 0.476 | 036 223 | 0.111 | - | - | - | - | - | - | - | - | - | - |
| 12.50 | 0.492 | - | - | - | - | - | - | 037 317 | 0.220 | - | - | 037 317 | 0.220 |
| 12.70 | 0.500 | 036 206 | 0.111 | 036 303 | 0.062 | 037 231 | 0.292 | 037 311 | 0.220 | 037 231 | 0.292 | 037 311 | 0.220 |
| 13.00 | 0.512 | - | - | - | - | 037 232 | 0.295 | - | - | 037 232 | 0.295 | - | - |
| 13.20 | 0.520 | - | - | - | - | 037 263 | 0.290 | - | - | 037 263 | 0.290 | - | - |
| 13.50 | 0.531 | 036 227 | 0.110 | - | - | 037 233 | 0.290 | - | - | 037 233 | 0.290 | - | - |
| 14.00 | 0.551 | 036 228 | 0.108 | - | - | 037 234 | 0.288 | - | - | 037 234 | 0.288 | - | - |
| 14.10 | 0.555 | 036 224 | 0.107 | - | - | - | - | - | - | - | - | - | - |
| 14.30 | 0.563 | - | - | - | - | 037 253 | 0.289 | - | - | 037 253 | 0.289 | - | - |
| 14.70 | 0.579 | - | - | - | - | 037 290 | 0.287 | - | - | 037 290 | 0.287 | - | - |
| 15.00 | 0.591 | 036 216 | 0.107 | - | - | 037 235 | 0.287 | - | - | 037 235 | 0.287 | - | - |
| 15.30 | 0.602 | - | - | - | - | 037 259 | 0.287 | - | - | 037 259 | 0.287 | - | - |
| 15.60 | 0.614 | 036 225 | 0.105 | - | - | - | - | - | - | - | - | - | - |
| 15.70 | 0.618 | - | - | - | - | 037 291 | 0.284 | - | - | 037 291 | 0.284 | - | - |
| 15.88 | 0.625 | 036 211 | 0.105 | - | - | 037 236 | 0.285 | - | - | 037 236 | 0.285 | - | - |
| 16.00 | 0.630 | 036 212 | 0.104 | - | - | 037 237 | 0.285 | - | - | 037 237 | 0.285 | - | - |
| 17.00 | 0.670 | 036 221 | 0.103 | - | - | 037 256 | 0.280 | - | - | 037 256 | 0.280 | - | - |
| 17.08 | 0.672 | - | - | - | - | 037 260 | 0.281 | - | - | 037 260 | 0.281 | - | - |
| 17.20 | 0.677 | 036 207 | 0.104 | - | - | 037 238 | 0.300 | 037 312 | 0.220 | 037 238 | 0.300 | 037 312 | 0.220 |
| 18.00 | 0.709 | 036 217 | 0.102 | - | - | 037 239 | 0.280 | - | - | 037 239 | 0.280 | - | - |
| 19.00 | 0.748 | - | - | - | - | 037 240 | 0.275 | 037 314 | 0.216 | 037 240 | 0.275 | 037 314 | 0.216 |
| 19.05 | 0.750 | 036 208 | 0.100 | - | - | 037 241 | 0.274 | 037 315 | 0.215 | 037 241 | 0.274 | 037 315 | 0.215 |
| 20.00 | 0.787 | 036 230 | 0.096 | - | - | 037 242 | 0.272 | - | - | 037 242 | 0.272 | - | - |
| 21.00 | 0.827 | - | - | - | - | 037 294 | 0.270 | - | - | 037 294 | 0.270 | - | - |
| 21.20 | 0.835 | - | - | - | - | - | - | 037 313 | 0.213 | - | - | 037 313 | 0.213 |
| 21.30 | 0.839 | 036 209 | 0.094 | 036 317 | 0.057 | 037 243 | 0.270 | 037 318 | 0.212 | 037 243 | 0.270 | 037 318 | 0.212 |
| 21.70 | 0.854 | 036 220 | 0.093 | - | - | 037 261 | 0.270 | - | - | 037 261 | 0.270 | - | - |
| 22.00 | 0.866 | 036 218 | 0.093 | - | - | 037 244 | 0.264 | - | - | 037 244 | 0.264 | - | - |
| 22.22 | 0.875 | - | - | - | - | 037 292 | 0.270 | - | - | 037 292 | 0.270 | - | - |
| 23.00 | 0.906 | 036 219 | 0.085 | - | - | 037 245 | 0.255 | - | - | 037 245 | 0.255 | - | - |
| 24.00 | 0.945 | - | - | - | - | 037 246 | 0.256 | - | - | 037 246 | 0.256 | - | - |
| 25.00 | 0.984 | 036 231 | 0.081 | - | - | 037 247 | 0.252 | - | - | 037 247 | 0.252 | - | - |
| 25.40 | 1.000 | 036 210 | 0.083 | - | - | 037 248 | 0.240 | - | - | 037 248 | 0.240 | - | - |

TUBE SQUARING TECHNOLOGY

| MACHINE MODEL | | RPG ONE | | | | | | RPG 1.5 | | | | | | RPG 2.5 | | | | | |
|---------------|--------|---------|--|----|----------------|--|----|----------------|--|-------|----------------|--|----|----------------|--|-------|----------------|--|----|
| TUBE OD | | TUBES | | | MICRO FITTINGS | | | TUBES | | | MICRO FITTINGS | | | TUBES | | | MICRO FITTINGS | | |
| [MM] | [INCH] | 790... | | KG | 790... | | KG | 790... | | KG | 790... | | KG | 790... | | KG | 790... | | KG |
| 26.90 | 1.059 | - | | - | - | | - | 037 249 | | 0.260 | - | | - | 037 249 | | 0.260 | - | | - |
| 27.00 | 1.063 | - | | - | - | | - | 037 264 | | 0.260 | - | | - | 037 264 | | 0.260 | - | | - |
| 27.20 | 1.071 | - | | - | - | | - | 037 262 | | 0.260 | - | | - | 037 262 | | 0.260 | - | | - |
| 28.00 | 1.102 | - | | - | - | | - | 037 250 | | 0.240 | - | | - | 037 250 | | 0.240 | - | | - |
| 29.00 | 1.142 | - | | - | - | | - | 037 251 | | 0.232 | - | | - | 037 251 | | 0.232 | - | | - |
| 30.00 | 1.181 | - | | - | - | | - | 037 252 | | 0.228 | - | | - | 037 252 | | 0.228 | - | | - |
| 31.80 | 1.250 | - | | - | - | | - | 037 280 | | 0.230 | - | | - | 037 280 | | 0.230 | - | | - |
| 32.00 | 1.260 | - | | - | - | | - | 037 258 | | 0.226 | - | | - | 037 258 | | 0.226 | - | | - |
| 33.40 | 1.315 | - | | - | - | | - | 037 281 | | 0.220 | - | | - | 037 281 | | 0.220 | - | | - |
| 33.70 | 1.327 | - | | - | - | | - | 037 282 | | 0.218 | - | | - | 037 282 | | 0.218 | - | | - |
| 34.00 | 1.339 | - | | - | - | | - | 037 283 | | 0.215 | - | | - | 037 283 | | 0.215 | - | | - |
| 35.00 | 1.377 | - | | - | - | | - | 037 284 | | 0.210 | - | | - | 037 284 | | 0.210 | - | | - |
| 36.00 | 1.417 | - | | - | - | | - | 037 285 | | 0.204 | - | | - | 037 285 | | 0.204 | - | | - |
| 38.00 | 1.496 | - | | - | - | | - | 037 286 | | 0.199 | - | | - | 037 286 | | 0.199 | - | | - |
| 38.10 | 1.500 | - | | - | - | | - | 037 287 | | 0.194 | - | | - | 037 287 | | 0.194 | - | | - |
| 40.00 | 1.575 | - | | - | - | | - | - | | - | - | | - | 030 234 | | 0.565 | - | | - |
| 41.00 | 1.614 | - | | - | - | | - | - | | - | - | | - | 030 230 | | 0.560 | - | | - |
| 42.00 | 1.654 | - | | - | - | | - | - | | - | - | | - | 030 117 | | 0.483 | - | | - |
| 42.40 | 1.669 | - | | - | - | | - | - | | - | - | | - | 030 227 | | 0.483 | - | | - |
| 42.70 | 1.681 | - | | - | - | | - | - | | - | - | | - | 030 224 | | 0.483 | - | | - |
| 43.00 | 1.693 | - | | - | - | | - | - | | - | - | | - | 030 231 | | 0.544 | - | | - |
| 44.50 | 1.752 | - | | - | - | | - | - | | - | - | | - | 030 228 | | 0.483 | - | | - |
| 48.30 | 1.902 | - | | - | - | | - | - | | - | - | | - | 030 226 | | 0.500 | - | | - |
| 50.80 | 2.000 | - | | - | - | | - | - | | - | - | | - | 030 220 | | 0.483 | - | | - |
| 51.00 | 2.008 | - | | - | - | | - | - | | - | - | | - | 030 233 | | 0.482 | - | | - |
| 52.00 | 2.047 | - | | - | - | | - | - | | - | - | | - | 030 225 | | 0.483 | - | | - |
| 53.00 | 2.087 | - | | - | - | | - | - | | - | - | | - | 030 232 | | 0.457 | - | | - |
| 54.00 | 2.126 | - | | - | - | | - | - | | - | - | | - | 030 221 | | 0.452 | - | | - |
| 55.00 | 2.165 | - | | - | - | | - | - | | - | - | | - | 030 235 | | 0.440 | - | | - |
| 57.00 | 2.244 | - | | - | - | | - | - | | - | - | | - | 030 229 | | 0.419 | - | | - |
| 60.30 | 2.374 | - | | - | - | | - | - | | - | - | | - | 030 222 | | 0.386 | - | | - |
| 63.50 | 2.500 | - | | - | - | | - | - | | - | - | | - | 030 223 | | 0.350 | - | | - |
| 65.00 | 2.559 | - | | - | - | | - | - | | - | - | | - | 030 236 | | 0.330 | - | | - |

TUBE SQUARING TECHNOLOGY



Tool holder WH

Tool holder WH

Fits multifunctional tool 790 038 314. Incl. Torx fixing screw M4x10 (790 086 220). For max. wall thickness 3 mm (0.118").

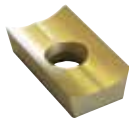
| Application range Tool holder | Possible application | | Beveling angle [°] | | Tube OD | | |
|---|----------------------|----------|--------------------|--------|--------------------|--------------------|--------------------|
| | Squaring | Beveling | | | RPG ONE (Cordless) | RPG 1.5 (Cordless) | RPG 2.5 (Cordless) |
| WH12-I/Standard* Code 790 037 152 | x | - | - | [mm] | 6.0 - 25.4 | 6.0 - 38.1 | 6.0 - 65.0 |
| | | | | [inch] | 0.236 - 1.0 | 0.236 - 1.5 | 0.236 - 2.559 |
| WH12-I Code 790 037 161 | x | - | - | [mm] | 3.0 - 6.0 | 3.0 - 6.0 | 3.0 - 6.0 |
| | | | | [inch] | 0.118 - 0.236 | 0.118 - 0.236 | 0.118 - 0.236 |
| WH12-I/Micro fittings** Code 790 037 156 | x | - | - | [mm] | - | 3.0 - 21.2 | 6.35 - 21.2 |
| | | | | [inch] | - | 0.118 - 0.84 | 0.25 - 0.84 |
| WH3-V-30 Code 790 037 158 | - | x | 30° | [mm] | - | max. 35.0 | max. 60.3 |
| | | | | [inch] | - | max. 1.378 | max. 2.374 |
| WH3-V-35 Code 790 037 159 | - | x | 35° | [mm] | - | max. 33.7 | max. 59.3 |
| | | | | [inch] | - | max. 1.327 | max. 2.335 |
| WH3-V-45*** Code 790 037 157 | - | x | 45° | [mm] | - | max. 33.7 | max. 59.0 |
| | | | | [inch] | - | max. 1.327 | max. 2.3 |

| ARTICLE | CODE | KG |
|---|--------------------|-------|
| Standard tool holder WH12-I* | 790 037 152 | 0.040 |
| Special tool holder WH12-I | 790 037 161 | 0.026 |
| Special tool holder micro fittings WH12-I** | 790 037 156 | 0.100 |
| Tool holder WH3-V-30 | 790 037 158 | 0.024 |
| Tool holder WH3-V-35 | 790 037 159 | 0.024 |
| Tool holder WH3-V-45*** | 790 037 157 | 0.022 |

* Supplied as standard with the RPG.

** Only to be used with stainless steel clamping shells for micro fittings.

*** Not applicable with the RPG ONE.



Multifunctional tool MFW

Multifunctional tool MFW

Two-sided tool bit with protective coating against tool wear. Usable for all machines of the RPG series.

| ARTICLE | QTY | CODE | KG |
|------------------------------|-----|--------------------|-------|
| Multifunctional tool MFW-P-2 | 1 | 790 038 314 | 0.003 |
| Multifunctional tool MFW-P-2 | 10 | 790 038 315 | 0.045 |
| Torx screw | 1 | 790 086 220 | 0.002 |

Other accessories

- Collapsible work bench, see page 82

RPG 4.5 (S), RPG 8.6

Tube squaring machines

In manual welding technology, quality pipe end processing is absolutely essential from an economic perspective. A high quality of pipe-end machining is absolutely required from a technical viewpoint in automated welding, the so-called "orbital welding". Orbitalum has developed the squaring tube machines RPG 4.5, RPG 4.5 S and RPG 8.6. The perfect solution for the demanding, quality preparation of pipe ends for orbital welding!



| | |
|---|---|
| Squaring tube ends with a high-quality finish | ✓ |
| Burr-free and square | ✓ |
| Beveling possible with a special tool holder (not with RPG 4.5 S) | ✓ |
| Quick clamping system for tools, clamping shells and tubes | ✓ |
| Preparation of thin-walled stainless steel tubes (V4A) | ✓ |
| High-performance coated tool bit with two cutting edges | ✓ |
| Built-in electronic speed regulation | ✓ |
| Micrometer feed for optimum results | ✓ |
| Space saving, light weight and portable machine for a mobile and secure application | ✓ |

With high-precision, the user is able to prepare tubes with the RPG 4.5 up to 114.4 mm (4.5") and with the RPG 8.6 up to 219.1 mm (8.6") tube outer diameters quickly, burr-free and absolutely square.

Low operating costs for processing tubes are a big advantage. Our symmetric, exchangeable stainless steel and aluminum clamping shells (not for RPG 4.5 S) allow for a quick and easy tool change without any tool. A dimension change no longer requires a lot of time. The operator can work comfortably thanks to the ergonomic design of the machine, and can also save time.

All multifunctional tools (MFW) are two-sided tool bits with protective coating against tool wear. This enables the preparation of tubes made of high-alloy, unalloyed and low-alloy steels and aluminum with high precision very quickly and efficiently.

Clean and secure working area with a clear view of the cutting head.

The RPG 4.5 (S) and RPG 8.6 are equipped with a high-quality, powerful drive with 230 Volt and/ or 120 Volt.

The machines and accessories are supplied in a handy, durable storage and shipping case.

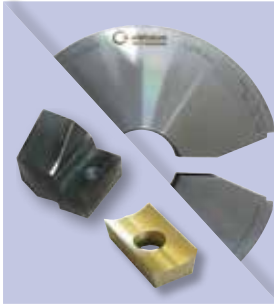
ADDITIONAL FEATURES OF THE RPG 4.5 S:

The tube squaring machine RPG 4.5 S is characterized by its universal vice-clamping system. With this particularly economical alternative to other conventional dimension-specific clamping shells, tubes can be centered, clamped and processed in the easiest way possible.

- Integrated clamping jaws made from coated cast aluminum for different tube diameters
- Cost-effective as no dimension-specific clamping shells required
- Multi-point clamping of the tube



Including durable storage and shipping case



Including tool holder WH and multifunctional tool MFW. A wide range of stainless steel clamping shells are optional available



Burr-free and square



Quick clamping system for tools, clamping shells and tubes



Application area: Process plant builders for the high-purity gas, electronic, pharmaceutical, food, beverage, solar as well as the chemical industry

| APPLICATION RANGE | | RPG 4.5 | RPG 4.5 S | RPG 8.6 |
|---|----------------------|--|-------------------------|-------------------------|
| Code | [230 V] | 790 038 001 | 790 038 011 | 790 039 001 |
| | [110 V] | 790 038 003 | - | 790 039 003 |
| | [120 V] | 790 038 002 | 790 038 012 | 790 039 002 |
| Tube OD | [mm] | 12.7 - 114.3 | 12.7 - 114.3 | 50.8 - 219.1 |
| | [inch] | 0.5 - 4.5 | 0.5 - 4.5 | 2 - 8.6 |
| Wall thickness max. | [mm] | 3.0 | 3.0 | 3.6 |
| | [inch] | 0.118 | 0.118 | 0.142 |
| Tube materials | | High-alloy steels, unalloyed and low-alloy steels and aluminum. Others on request. | | |
| TECHNICAL DATA | | RPG 4.5 | RPG 4.5 S | RPG 8.6 |
| Dimensions (including motor) | [mm] | 460 x 260 x 230 | 610 x 380 x 270 | 500 x 350 x 350 |
| | [inch] | 18.1 x 10.2 x 9.1 | 24 x 15 x 10.6 | 19.7 x 13.8 x 13.8 |
| Power | [W] | 1010 | 1010 | 1010 |
| Protection class | [class] | II | II | II |
| Speed (max. idling speed) | [min ⁻¹] | 8 - 52 | 8 - 52 | 7 - 18 |
| Vibration level (EN 60745) | [m/s ²] | < 2.5 | < 2.5 | < 2.5 |
| Noise level at the workplace (EN 23741) | [dB (A)] | Idle running approx. 83 | Idle running approx. 83 | Idle running approx. 83 |
| SCOPE OF DELIVERY | | RPG 4.5 | RPG 4.5 S | RPG 8.6 |
| Tube squaring machine | Pc. | 1 | 1 | 1 |
| Durable storage and shipping case | Pc. | 1 | 1 | 1 |
| Tool holder WH (Code 790 038 320) | Pc. | 1 | 1 | 1 |
| Multifunctional tool MFW (Code 790 038 314) | Pc. | 1 | 1 | 1 |
| Tool set | Set | 1 | 1 | 1 |
| Operating instructions and spare parts list | Set | 1 | 1 | 1 |

The technical data are not binding. They are not warranted characteristics and are subject to change. Please consult our general conditions of supply.



RPG 4.5



RPG 4.5 S



RPG 8.6

Tube squaring machines

RPG 4.5, RPG 4.5 S, RPG 8.6

Features, application range, technical data and scope of delivery, see page 45.

Clamping shells must be ordered separately.

| ARTICLE | VERSION | CODE | WEIGHT OF MACHINE KG | DISPATCH WEIGHT KG |
|-----------|--------------------|-------------|----------------------|--------------------|
| RPG 4.5 | 230 V, 50/60 Hz EU | 790 038 001 | 10.500 | 19.400 |
| RPG 4.5 | 110 V, 50/60 Hz EU | 790 038 003 | 10.500 | 19.400 |
| RPG 4.5 | 120 V, 50/60 Hz US | 790 038 002 | 10.500 | 19.400 |
| RPG 4.5 S | 230 V, 50/60 Hz EU | 790 038 011 | 23.000 | 34.000 |
| RPG 4.5 S | 120 V, 50/60 Hz US | 790 038 012 | 23.000 | 34.000 |
| RPG 8.6 | 230 V, 50/60 Hz EU | 790 039 001 | 20.500 | 32.000 |
| RPG 8.6 | 110 V, 50/60 Hz EU | 790 039 003 | 20.500 | 32.000 |
| RPG 8.6 | 120 V, 50/60 Hz US | 790 039 002 | 20.500 | 32.000 |



RPG 4.5



RPG 4.5 S

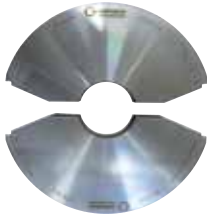


RPG 8.6

Clamping shells

Extremely durable. The two-piece-design with click mechanism ensures accurate centering and quick clamping shell change without any tools. Further dimensions of clamping shells are available.

Please check the outer diameter of the tubes before ordering the clamping shells.



Stainless steel clamping shell for RPG 4.5



Aluminum clamping shells for RPG 8.6

| Machine model: | Clamping lengths: |
|----------------|-------------------|
| RPG 4.5 | 24.9 mm (0.980") |
| RPG 8.6 | 39.9 mm (1.571") |

| APPLICABLE WITH: | | RPG 4.5 | | | RPG 8.6 | | |
|------------------|--------|-----------------|--|-------|-------------|--|-------|
| TUBE OD | | STAINLESS STEEL | | | ALUMINUM | | |
| [MM] | [INCH] | CODE | | KG | CODE | | KG |
| 12.00 | 0.472 | 790 038 454 | | 2.170 | - | | - |
| 12.70 | 0.500 | 790 038 438 | | 2.177 | - | | - |
| 13.00 | 0.512 | 790 038 439 | | 2.176 | - | | - |
| 13.50 | 0.531 | 790 038 440 | | 2.175 | - | | - |
| 14.00 | 0.551 | 790 038 441 | | 2.174 | - | | - |
| 16.00 | 0.630 | 790 038 442 | | 2.168 | - | | - |
| 17.20 | 0.677 | 790 038 443 | | 2.164 | - | | - |
| 18.00 | 0.709 | 790 038 444 | | 2.161 | - | | - |
| 19.00 | 0.748 | 790 038 445 | | 2.150 | - | | - |
| 19.05 | 0.750 | 790 038 446 | | 2.157 | - | | - |
| 20.00 | 0.787 | 790 038 447 | | 2.153 | - | | - |
| 21.30 | 0.839 | 790 038 448 | | 2.100 | - | | - |
| 22.00 | 0.866 | 790 038 449 | | 2.144 | - | | - |
| 22.22 | 0.875 | 790 038 050 | | 2.195 | - | | - |
| 23.00 | 0.906 | 790 038 450 | | 2.140 | - | | - |
| 24.00 | 0.945 | 790 038 451 | | 2.133 | - | | - |
| 25.00 | 0.984 | 790 038 452 | | 2.127 | - | | - |
| 25.25 | 0.994 | 790 038 049 | | 2.180 | - | | - |
| 25.40 | 1.000 | 790 038 051 | | 2.180 | - | | - |
| 26.90 | 1.059 | 790 038 400 | | 2.090 | - | | - |
| 27.20 | 1.071 | 790 038 468 | | 2.165 | - | | - |
| 28.00 | 1.102 | 790 038 401 | | 2.110 | - | | - |
| 29.00 | 1.142 | 790 038 402 | | 2.105 | - | | - |
| 30.00 | 1.181 | 790 038 403 | | 2.095 | - | | - |
| 31.75 | 1.250 | 790 038 052 | | 1.865 | - | | - |
| 31.80 | 1.250 | 790 038 404 | | 2.080 | - | | - |
| 32.00 | 1.260 | 790 038 455 | | 2.080 | - | | - |
| 33.00 | 1.299 | 790 038 465 | | 2.120 | - | | - |
| 33.40 | 1.315 | 790 038 405 | | 2.040 | - | | - |
| 33.70 | 1.327 | 790 038 406 | | 2.060 | - | | - |
| 34.00 | 1.339 | 790 038 407 | | 2.115 | - | | - |
| 35.00 | 1.377 | 790 038 408 | | 2.050 | - | | - |
| 36.00 | 1.417 | 790 038 409 | | 2.044 | - | | - |
| 38.00 | 1.496 | 790 038 410 | | 2.025 | - | | - |
| 38.10 | 1.500 | 790 038 053 | | 2.020 | - | | - |
| 40.00 | 1.575 | 790 038 411 | | 2.000 | - | | - |
| 41.00 | 1.614 | 790 038 412 | | 1.990 | - | | - |
| 42.00 | 1.654 | 790 038 413 | | 1.976 | - | | - |
| 42.16 | 1.660 | 790 038 414 | | 1.950 | - | | - |
| 42.40 | 1.669 | 790 038 415 | | 1.965 | - | | - |
| 42.70 | 1.681 | 790 038 416 | | 1.950 | - | | - |
| 44.45 | 1.750 | 790 038 417 | | 1.955 | - | | - |
| 44.50 | 1.752 | 790 038 418 | | 1.955 | - | | - |
| 45.00 | 1.772 | 790 038 419 | | 1.948 | - | | - |
| 48.00 | 1.890 | 790 038 464 | | 1.960 | - | | - |
| 48.26 | 1.900 | 790 038 420 | | 1.880 | - | | - |
| 48.30 | 1.902 | 790 038 421 | | 1.905 | - | | - |
| 48.60 | 1.913 | 790 038 422 | | 1.875 | - | | - |
| 50.00 | 1.969 | 790 038 456 | | 1.880 | - | | - |
| 50.80 | 2.000 | 790 038 054 | | 1.895 | 790 039 260 | | 4.500 |
| 51.00 | 2.008 | 790 038 423 | | 1.870 | - | | - |
| 52.00 | 2.047 | 790 038 424 | | 1.850 | - | | - |

TUBE SQUARING TECHNOLOGY

| APPLICABLE WITH: | | RPG 4.5 | | | RPG 8.6 | | |
|------------------|--------|-----------------|--|-------|-------------|--|-------|
| TUBE OD | | STAINLESS STEEL | | | ALUMINUM | | |
| [MM] | [INCH] | CODE | | KG | CODE | | KG |
| 53.00 | 2.087 | 790 038 425 | | 1.835 | - | | - |
| 54.00 | 2.126 | 790 038 426 | | 1.827 | - | | - |
| 57.00 | 2.244 | 790 038 457 | | 1.780 | 790 039 265 | | 4.000 |
| 60.00 | 2.362 | 790 038 469 | | 1.780 | - | | - |
| 60.30 | 2.374 | 790 038 427 | | 1.700 | - | | - |
| 60.45 | 2.380 | 790 038 428 | | 1.726 | - | | - |
| 60.50 | 2.382 | 790 038 429 | | 1.695 | - | | - |
| 63.00 | 2.480 | 790 038 461 | | 1.725 | - | | - |
| 63.50 | 2.500 | 790 038 055 | | 1.670 | - | | - |
| 65.00 | 2.559 | 790 038 463 | | 1.700 | - | | - |
| 70.00 | 2.756 | 790 038 430 | | 1.545 | - | | - |
| 73.03 | 2.875 | 790 038 453 | | 1.460 | - | | - |
| 73.15 | 2.880 | 790 038 431 | | 1.482 | - | | - |
| 75.00 | 2.953 | 790 038 462 | | 1.490 | - | | - |
| 76.10 | 2.996 | 790 038 432 | | 1.420 | - | | - |
| 76.20 | 3.000 | 790 038 056 | | 1.420 | 790 039 261 | | 4.200 |
| 76.30 | 3.004 | 790 038 433 | | 1.390 | - | | - |
| 80.00 | 3.150 | 790 038 466 | | 1.390 | 790 039 308 | | - |
| 85.00 | 3.346 | 790 038 434 | | 1.220 | - | | - |
| 85.90 | 3.382 | 790 038 435 | | 1.124 | - | | - |
| 88.90 | 3.500 | 790 038 057 | | 1.130 | 790 039 264 | | 4.000 |
| 89.10 | 3.508 | 790 038 436 | | 1.100 | - | | - |
| 90.00 | 3.543 | 790 038 467 | | 1.150 | - | | - |
| 101.60 | 4.000 | 790 038 058 | | 0.800 | 790 039 252 | | 3.800 |
| 104.00 | 4.094 | 790 038 437 | | 0.740 | 790 039 309 | | 2.500 |
| 108.00 | 4.252 | 790 038 458 | | 0.620 | 790 039 266 | | 3.750 |
| 114.30 | 4.500 | 790 038 059 | | 0.435 | 790 039 256 | | 3.500 |
| 127.05 | 5.002 | - | | - | 790 039 262 | | 3.420 |
| 133.00 | 5.236 | - | | - | 790 039 267 | | 2.980 |
| 139.70 | 5.500 | - | | - | 790 039 259 | | 3.100 |
| 141.30 | 5.563 | - | | - | 790 039 257 | | 2.900 |
| 152.40 | 6.000 | - | | - | 790 039 253 | | 2.700 |
| 159.00 | 6.260 | - | | - | 790 039 268 | | 2.500 |
| 168.30 | 6.625 | - | | - | 790 039 254 | | 2.300 |
| 193.70 | 7.626 | - | | - | 790 039 269 | | 3.500 |
| 197.00 | 7.756 | - | | - | 790 039 263 | | 1.530 |
| 203.20 | 8.000 | - | | - | 790 039 258 | | 1.350 |
| 219.10 | 8.625 | - | | - | 790 039 255 | | 0.600 |

Tool holder WH

Fits multifunctional tool 790 038 314.
Incl. Torx fixing screw M4x10 (790 086 220).

Beveling with the RPG 4.5 S is not recommended.



Tool holder WH

| Application range Tool holder | Possible application | | Beveling angle [°] |
|----------------------------------|----------------------|----------|-----------------------|
| | Squaring | Beveling | |
| Tool holder WH12-I | x | - | - |
| Tool holder WH12-V-30° | - | x | 30 |
| Tool holder WH12-V-35° | - | x | 35 |
| Tool holder WH12-V-45° | - | x | 45 |
| Tool holder WH12-U-20° | - | x | 20 |

| ARTICLE | CODE | KG |
|------------------------|-------------|-------|
| Tool holder WH12-I | 790 038 320 | 0.025 |
| Tool holder WH12-V-30° | 790 038 329 | 0.034 |
| Tool holder WH12-V-35° | 790 038 282 | 0.054 |
| Tool holder WH12-V-45° | 790 038 280 | 0.044 |
| Tool holder WH12-U-20° | 790 038 326 | 0.031 |

TUBE SQUARING TECHNOLOGY



Multifunctional tool MFW

Multifunctional tool MFW

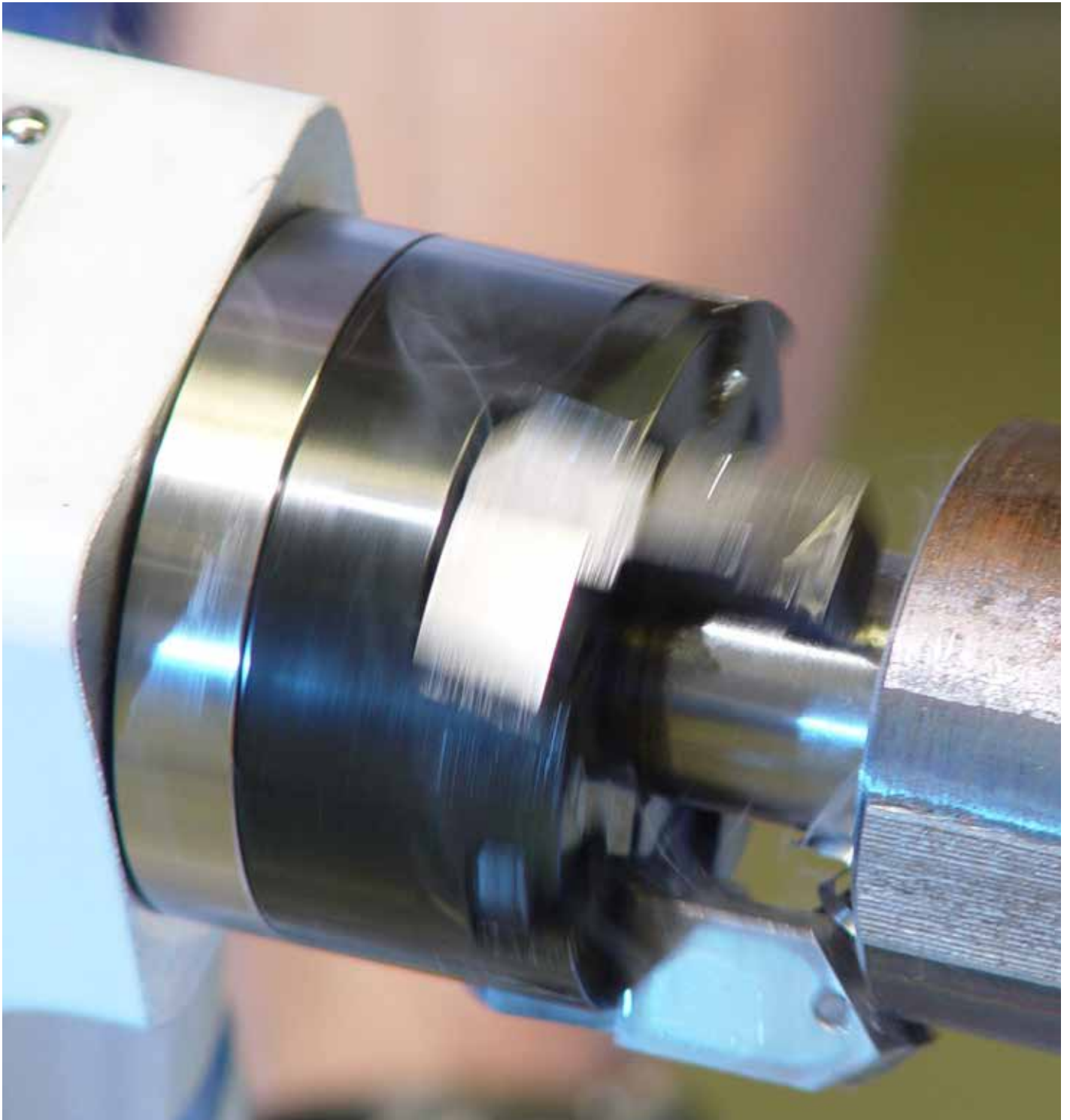
Two-sided tool bit with protective coating against tool wear.
Usable for all machines of the RPG series.

| ARTICLE | QTY. | CODE | KG |
|------------------------------|------|-------------|-------|
| Multifunctional tool MFW-P-2 | 1 | 790 038 314 | 0.003 |
| Multifunctional tool MFW-P-2 | 10 | 790 038 315 | 0.045 |

Other accessories

- Collapsible work bench, see page 82

Pipe Beveling Technology

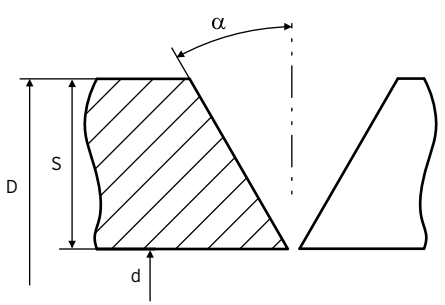
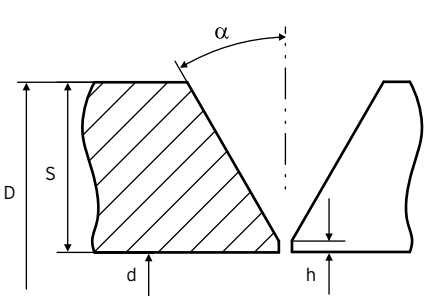
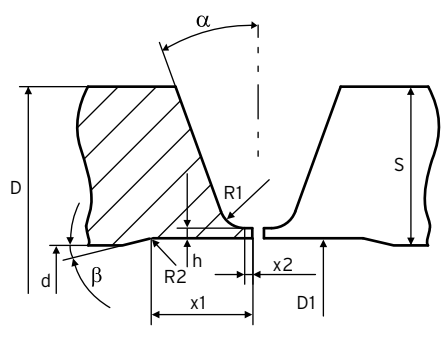
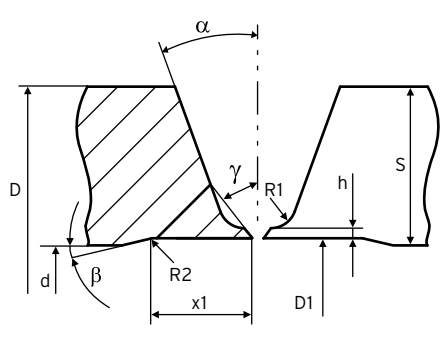


The correct tooling for your individual application

We will gladly help you find the suitable tools for your specific application.

To offer you the relevant tool holders and multifunctional tools for our BRB and REB machines we need some information from you.

Please use the following form and let us know your needs (if known):

| | | | | | | | | | | | | | | | | | | | | | | | |
|---|----|----|----|------------|--|-----|-----|-----|------------|------------|-----|---|----|----|----|----|-----|-----|-----|------------|-----------|------------|-----|
| <p>V-prep</p>  <table border="1" style="float: right; width: 100px; height: 60px;"> <tr><td>D:</td></tr> <tr><td>d:</td></tr> <tr><td>S:</td></tr> <tr><td>α:</td></tr> </table> | D: | d: | S: | α : | <p>Y-prep</p>  <table border="1" style="float: right; width: 100px; height: 60px;"> <tr><td>D:</td></tr> <tr><td>d:</td></tr> <tr><td>S:</td></tr> <tr><td>h:</td></tr> <tr><td>α:</td></tr> </table> | D: | d: | S: | h: | α : | | | | | | | | | | | | | |
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| <p>U-prep (1)</p>  <table border="1" style="float: right; width: 100px; height: 100px;"> <tr><td>D:</td></tr> <tr><td>d:</td></tr> <tr><td>S:</td></tr> <tr><td>h:</td></tr> <tr><td>R1:</td></tr> <tr><td>R2:</td></tr> <tr><td>x1:</td></tr> <tr><td>x2:</td></tr> <tr><td>α:</td></tr> <tr><td>β:</td></tr> <tr><td>D1:</td></tr> </table> | D: | d: | S: | h: | R1: | R2: | x1: | x2: | α : | β : | D1: | <p>U-prep (2)</p>  <table border="1" style="float: right; width: 100px; height: 100px;"> <tr><td>D:</td></tr> <tr><td>d:</td></tr> <tr><td>S:</td></tr> <tr><td>h:</td></tr> <tr><td>R1:</td></tr> <tr><td>R2:</td></tr> <tr><td>x1:</td></tr> <tr><td>α:</td></tr> <tr><td>β:</td></tr> <tr><td>γ:</td></tr> <tr><td>D1:</td></tr> </table> | D: | d: | S: | h: | R1: | R2: | x1: | α : | β : | γ : | D1: |
| D: | | | | | | | | | | | | | | | | | | | | | | | |
| d: | | | | | | | | | | | | | | | | | | | | | | | |
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| h: | | | | | | | | | | | | | | | | | | | | | | | |
| R1: | | | | | | | | | | | | | | | | | | | | | | | |
| R2: | | | | | | | | | | | | | | | | | | | | | | | |
| x1: | | | | | | | | | | | | | | | | | | | | | | | |
| x2: | | | | | | | | | | | | | | | | | | | | | | | |
| α : | | | | | | | | | | | | | | | | | | | | | | | |
| β : | | | | | | | | | | | | | | | | | | | | | | | |
| D1: | | | | | | | | | | | | | | | | | | | | | | | |
| D: | | | | | | | | | | | | | | | | | | | | | | | |
| d: | | | | | | | | | | | | | | | | | | | | | | | |
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| h: | | | | | | | | | | | | | | | | | | | | | | | |
| R1: | | | | | | | | | | | | | | | | | | | | | | | |
| R2: | | | | | | | | | | | | | | | | | | | | | | | |
| x1: | | | | | | | | | | | | | | | | | | | | | | | |
| α : | | | | | | | | | | | | | | | | | | | | | | | |
| β : | | | | | | | | | | | | | | | | | | | | | | | |
| γ : | | | | | | | | | | | | | | | | | | | | | | | |
| D1: | | | | | | | | | | | | | | | | | | | | | | | |

Your contact details:

| | | |
|---------------|---------------------|-----------------|
| Company name: | | |
| Customer no.: | Date: | Contact person: |
| Phone: | Fax: | |
| Address: | Signature and stamp | |
| Remarks: | | |

Please return the completed form by **Fax to +49 (0) 77 31 792-524** or per E-Mail to **tools@orbitalum.com**.

BRB 2, BRB 4

Boiler pipe preparation machines

The solution when space is limited! Only very limited space is often available between welded boiler pipes. The compact body design of BRB machines is optimized for the application in question to provide the operator with the best possible access in every position and is therefore the best solution for pipe end and tube sheet joint preparations in boiler, tank and apparatus construction.



Counterboring and axial turning of pipes made from high-alloy steel (stainless steel), low-alloy and carbon steel with the unique tool system QTC®.

| | |
|--|---|
| Handy, ergonomic and compact design | ✓ |
| Precise and reproducible weld seam preparation | ✓ |
| Fast application with the BRB Pneum./Auto, ideal for continuous production e.g. boiler/heat exchanger applications | ✓ |
| High performance and lightweight | ✓ |
| High-performance coated tool bits with up to 4 cutting edges | ✓ |
| Quick clamping system for tools with easy adjustment | ✓ |
| Adjustable air outlet | ✓ |
| Easy to change tools; up to 3 tools can be used simultaneously | ✓ |
| Tools adaptable on all BRB machines | ✓ |

Powerful und robust boiler prep machine! The BRB series from Orbitalum, developed for boiler applications with the lowest space availability, makes precise welding preparations possible using optimal torque, together with low weight.

With the Orbitalum patented Quick-Tool-Change (QTC®), tools can be replaced easily and quickly. All multifunctional tools (MFW) are multi-edge tool bits with protective coating against tool wear. Thus pipe-ends made from unalloyed, low-alloy and high-alloy steels, with a high percentage of chromium and nickel, can be processed quickly, cost-effectively, and very precisely.

The machines and accessories are supplied in a durable storage and shipping case.

THE VARIOUS CLAMPING SYSTEMS:

The **"NC" clamping system** with its clamping wedges anchored in the mandrel is ideal for applications in which foreign objects may not enter the pipe inside or a tank.

The "NC" clamping system provides additional certainty in particular at vertical applications.

The **"Standard" clamping system** has proven itself in many years of use through its stability and reliability. You can continue to use this system.

DRIVE VERSIONS:

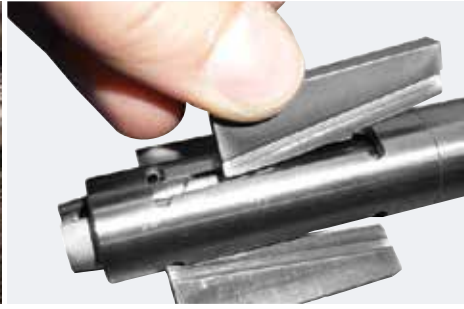
Electric: 230 V, 50/60 Hz or 120 V, 50/60 Hz; Single-phase AC motor, Protection class II; Built-in electronic variable cutting speed.

Pneumatic: Pneumatic power drive.

Pneumatic/Auto: Pneumatic multi-disc motor with additional pneumatic clamping system. Time is of the essence when installing or repairing boiler pipes, the pneumatic clamping system greatly reduces the time to both clamp and release the machine, improving efficiency. The machine centers itself on the inside diameter of the pipe and then clamps automatically by using the toggle switch, likewise the toggle switch releases the clamping after the machining operation. This is why the BRB with automatic pneumatic clamping is ideal for continuous production e.g. boiler and heat exchanger applications.



Ideal for series machining



The "NC" clamping system cannot be lost thanks to its clamping wedges anchored in the mandrel

Manufacturer's warranty can only be given when using a mobile air unit. We recommend the mobile air unit from Orbitalum Tools, Code 790 093 060.

| TECHNICAL DATA | | BRB 2 | BRB 2 | BRB 2 | BRB 4 | BRB 4 | BRB 4 |
|--|-----------------------|----------|-----------|--------------|----------|-----------|--------------|
| Drive version | | Electric | Pneumatic | Pneum./ Auto | Electric | Pneumatic | Pneum./ Auto |
| Power | [kW] | 0.5 | 0.38 | 0.38 | 1.2 | 1.0 | 1.0 |
| Speed | [rpm] | 18 - 118 | 0 - 120 | 0 - 120 | 12 - 37 | 0 - 110 | 0 - 110 |
| Air consumption (at 6 bar) | [m ³ /min] | - | 0.7 | 0.7 | - | 1.0 | 1.0 |
| Noise level Laeq 1 m (EN 23741), approx. | [dB (A)] | 76 | 82 | 82 | 82 | 84 | 84 |
| Vibration level (EN 28662, part 1) | [m/s ²] | 2.5 | 2.5 | 2.5 | 2.5 | 2.5 | 2.5 |

| APPLICATION RANGE | | BRB 2 | BRB 2 | BRB 4 | BRB 4 |
|-----------------------------|--------------|---------------|---------------|---------------|---|
| | | KIT 1 | KIT 2 | KIT 3 | KIT 5 |
| Clamping system | | Standard | NC | NC | NC |
| Code | [230 V] | 790 085 011 | 790 185 012 | 790 186 013 | 790 186 015 |
| | [120 V] | 790 085 021 | 790 185 022 | 790 186 023 | 790 186 025 |
| | [Pneumatic] | 790 085 007 | 790 185 002 | 790 186 003 | 790 186 005 |
| | [Pneu./Auto] | 790 085 041 | 790 185 042 | 790 186 033 | 790 186 035 |
| Tube ID / Clamping range Ø | [mm] | 12.75 - 25.5 | 19.1 - 47.0 | 35.0 - 108.0 | 19.1 - 108.0 |
| | [inch] | 0.502 - 1.004 | 0.752 - 1.850 | 1.378 - 4.252 | 0.752 - 4.252 |
| Tool retainer Ø | [mm] | 50.0 / 12.75 | 50.0 / 16.0 | 120.0 / 27.0 | 68.0 / 19.0 68.0 / 27.0 120.0 / 27.0 |
| | [inch] | 1.969 / 0.502 | 1.969 / 0.630 | 4.724 / 1.063 | 2.677 / 0.748 2.677 / 1.063 4.724 / 1.063 |
| | [mm] | 12.75 | 19.05 | 34.5 | 19.05 34.5 |
| Mandrel Ø | [inch] | 0.502 | 0.750 | 1.358 | 0.750 1.358 |
| | [mm] | 16.75 - 41.5 | 23.0 - 50.8 | 38.5 - 114.3 | 23.0 - 114.3 |
| Tube OD | [inch] | 0.659 - 1.634 | 0.906 - 2.441 | 1.516 - 4.50 | 0.906 - 4.50 |
| | [mm] | 1.5 - 5.0 | 2.0 - 6.0 | 2.0 - 15.0 | 2.0 - 15.0 |
| Wall thickness* min. - max. | [mm] | 0.059 - 0.197 | 0.079 - 0.236 | 0.079 - 0.590 | 0.079 - 0.590 |
| | [inch] | 0.059 - 0.197 | 0.079 - 0.236 | 0.079 - 0.590 | 0.079 - 0.590 |

| SCOPE OF DELIVERY | | BRB 2 | BRB 2 | BRB 4 | BRB 4 |
|---|------------|-------|-------|-----------|------------|
| | | KIT 1 | KIT 2 | KIT 3 | KIT 5 |
| Boiler pipe preparation machine | Pc. | 1 | 1 | 1 | 1 |
| Durable storage & shipping case | Pc. | 1 | 1 | 1 | 1 |
| Tool retainers (dimensions, please see the table above) | Pc. | 1 | 1 | 1 | 3 |
| Clamping sets (dimensions, please see the table above) | Set | 6 | 6 | 18 (8+10) | 24 (14+10) |
| Mandrel (dimensions, please see the table above) | Pc. | 1 | 1 | 1 | 2 |
| Cutting lubrication KSS-TOP (Code 790 060 226) | Spray pump | 1 | 1 | 1 | 1 |
| Tool set | Set | 1 | 1 | 1 | 1 |
| Operating instructions and spare parts list | Set | 1 | 1 | 1 | 1 |

* Depending on pipe material and dimension. With BRB 4: Aluminum up to 15 mm/0.59" wall thickness. Stainless steel up to 8 mm/0.315" wall thickness. Steel up to 10 mm/0.39" wall thickness

The technical data are not binding. They are not warranted characteristics and are subject to change. Please consult our general conditions of supply.



BRB 2 Electric with clamping system "Standard"



BRB 2 Pneumatic with clamping system "Standard"



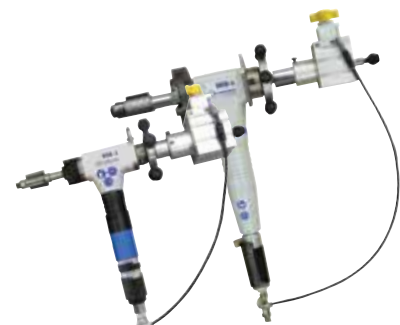
BRB 2 Pneumatic/Auto with clamping system "Standard"



BRB 2 and BRB 4 Electric with clamping system "NC"



BRB 2 and BRB 4 Pneumatic with clamping system "NC"



BRB 2 and BRB 4 Pneum./Auto with clamping system "NC"

Boiler pipe preparation machines

BRB 2, BRB 4

Features, application range, technical data and scope of delivery, see from page 53.

Tool holder, multifunctional tools and tool bits must be ordered separately, see from page 60.



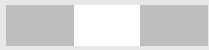
e.g. BRB 2 and BRB 4 Pneumatic/Auto with clamping system "NC"

| ARTICLE | VERSION | CLAMPING SYSTEM | CODE | | WEIGHT OF MACHINE KG | DISPATCH WEIGHT KG |
|-------------------------|-----------------------|-----------------|-------------|--|----------------------|--------------------|
| BRB 2 EL, Kit 1 | 230 V, 50/60 Hz EU | Standard | 790 085 011 | | 4.100 | 12.200 |
| BRB 2 EL, Kit 1 | 120 V, 50/60 Hz EU/US | Standard | 790 085 021 | | 4.100 | 12.200 |
| BRB 2 P, Kit 1 | Pneumatic | Standard | 790 085 007 | | 3.800 | 11.900 |
| BRB 2 Pneu./Auto, Kit 1 | Pneumatic/Auto | Standard | 790 085 041 | | 4.600 | 13.300 |
| BRB 2 EL, Kit 2 | 230 V, 50/60 Hz EU | NC | 790 185 012 | | 4.900 | 13.000 |
| BRB 2 EL, Kit 2 | 120 V, 50/60 Hz EU/US | NC | 790 185 022 | | 4.900 | 13.000 |
| BRB 2 P, Kit 2 | Pneumatic | NC | 790 185 002 | | 4.400 | 12.500 |
| BRB 2 Pneu./Auto, Kit 2 | Pneumatic/Auto | NC | 790 185 042 | | 5.100 | 13.800 |
| BRB 4 EL, Kit 3 | 230 V, 50/60 Hz EU | NC | 790 186 013 | | | 23.300 |
| BRB 4 EL, Kit 3 | 120 V, 50/60 Hz EU/US | NC | 790 186 023 | | | 23.300 |
| BRB 4 P, Kit 3 | Pneumatic | NC | 790 186 003 | | | 22.200 |
| BRB 4 Pneu./Auto, Kit 3 | Pneumatic/Auto | NC | 790 186 033 | | | 23.400 |
| BRB 4 EL, Kit 5 | 230 V, 50/60 Hz EU | NC | 790 186 015 | | 11.400 | 26.400 |
| BRB 4 EL, Kit 5 | 120 V, 50/60 Hz EU/US | NC | 790 186 025 | | 11.400 | 26.000 |
| BRB 4 P, Kit 5 | Pneumatic | NC | 790 186 005 | | | 25.500 |
| BRB 4 Pneu./Auto, Kit 5 | Pneumatic/Auto | NC | 790 186 035 | | | 26.000 |

Suitable accessories

- Tool bits TB, see page 61
- Tool holder for tool bits, see page 62
- Tool holder WH, see page 60
- Multifunctional tools MFW, see page 61
- Combination possibilities of tool holder and multifunctional tools, see page 66
- Upgrade sets BRB 2 for dimension extension, see page 62
- Feed ratchet for BRB 4, see page 62
- Bevel cutter heads for BRB 2 (V-/Y-prep), see page 63
- Bevel cutter heads for BRB 4 (V-prep), see page 63
- Balancer spring, see page 62
- Adjustable spacer, see page 63
- Mobile air unit DWE 10 and air hose with quick coupling, see page 64
- Cutting lubrication KSS-TOP, see page 64
- Collapsible work bench, see page 82

The different weld prep profiles:



Facing / I-prep



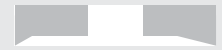
V-prep



Y-prep



J-prep / U-prep



Counterboring / ID-prep

Description of the tools made by Orbitalum Tools:

Samples::

Multifunctional tool MFW for working on the pipe OD (**MFW 30-V/I-4-R5**):

| Multifunctional tool | Max. workable wall thickness in mm | Weld prep profiles | Number of cutting edges | Prep radius in mm |
|----------------------|------------------------------------|--------------------|-------------------------|-------------------|
| MFW | 30 | V/I | 4 | R5 |

Multifunctional tool MFW for working on the pipe ID (**MFW 10-ID-2-R0.8**):

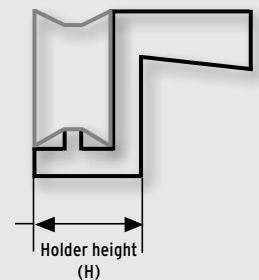
| Multifunctional tool | Max. length on the counterbore / bevel | For working on the inner diameter | Number of cutting edges | Prep radius in mm |
|----------------------|--|-----------------------------------|-------------------------|-------------------|
| MFW | 10 | ID | 2 | R0.8 |

Tool holder WH for beveling (**WH 30-V-30°**):

| Tool holder | Max. workable wall thickness in mm | Weld prep profile | Prep angle |
|-------------|------------------------------------|-------------------|------------|
| WH | 30 | V | 30° |

Tool holder WH for facing (**WH 30-I-H27**):

| Tool holder | Max. workable wall thickness in mm | Weld prep profile | Holder height in mm |
|-------------|------------------------------------|-------------------|---------------------|
| WH | 30 | I | H27 |



Tool holder WH for counterboring (**WH 10-ID-14°**):

| Tool holder | Max. length on the counterbore / bevel | For working on the inner diameter | Counterbore angle |
|-------------|--|-----------------------------------|-------------------|
| WH | 10 | ID | 14° |

Do you need any support in finding the right weld prep tools? Then please contact us using the contact form on page 52.

REB 6, REB 14

Pipe end preparation machines

The portable pipe end preparation machines REB are setting new standards in the weld prepping of metal pipes. Take advantage of this latest technology to reduce your tool and manufacturing costs and to increase your productivity when making precise and reproduceable weld prep profiles, both on site and in the prefab workshop.



Compact design for precise and reproducible weld prep profiles

| | |
|---|---|
| Compact design | ✓ |
| For precise and reproducible weld prep profiles | ✓ |
| Quick-Tool-Change QTC® | ✓ |
| Square and burr-free | ✓ |
| High-performance coated tool bit with two or four cutting edges | ✓ |
| Sturdy construction | ✓ |
| Tools adaptable on all REB machines | ✓ |
| Optimized performance and ergonomic drive system | ✓ |
| Portable with an integral carrying handle | ✓ |

The powerful pipe end preparation solution. Counterboring and axial turning of pipes made from high-alloy steel (stainless steel), low-alloy and carbon steel with the unique tool system QTC®. Up to 4 tools can be used at the same time.

With the Orbitalum patented Quick-Tool-Change (QTC®), tools can be replaced easily and quickly. All multifunctional tools (MFW) are multi-edge tool bits with protective coating against tool wear. Thus pipe-ends made from unalloyed, low-alloy and high-alloy steels, with a high percentage of chromium and nickel, can be processed quickly, cost-effectively, and very precisely.

The REB machines are available in the following drive versions:

- **Electric:** 230 V, 50/60 Hz or 120 V, 50/60 Hz.
- **Pneumatic** power drive.

The machines and accessories are supplied in a durable storage and shipping case.



Quick-Tool-Change OTC®



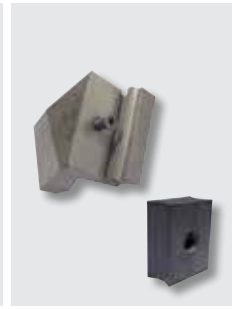
Fast adjustment of the pipe dimension



Available with compressed air or electric drive



Cutting lubrication KSS-TOP included



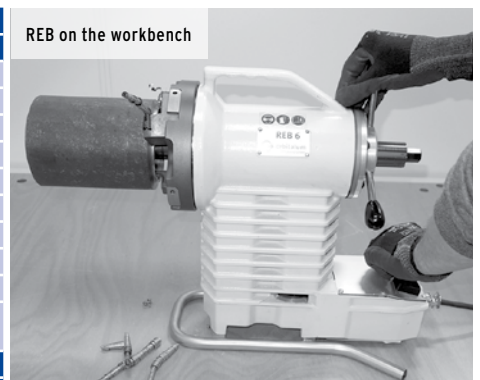
A wide range of tool holder and multifunctional tools (available option)



Mobile air unit (available option)

Manufacturer's warranty can only be given when using a mobile air unit. We recommend the mobile air unit from Orbitalum Tools, Code 790 093 060.

| APPLICATION RANGE* | | REB 6 | REB 6 | REB 14 | REB 14 |
|---|------------|---|-------------------------------------|-------------------------------------|-------------------------------------|
| | | PNEUMATIC | ELECTRIC | PNEUMATIC | ELECTRIC |
| Code | [Pneum.] | 790 093 001 | - | 790 094 001 | - |
| | [230 V] | - | 790 093 002 | - | 790 094 002 |
| | [120 V] | - | 790 093 005 | - | 790 094 005 |
| Tube ID | [mm] | 49 - 159 | 49 - 159 | 92 - 320 | 92 - 320 |
| | [inch] | 1.93 - 6.26 | 1.93 - 6.26 | 3.62 - 12.60 | 3.62 - 12.60 |
| Wall thickness | [mm] | 3 - 22 | 3 - 22 | 4 - 30 | 4 - 22 |
| | [inch] | 0.12 - 0.87 | 0.12 - 0.87 | 0.16 - 1.18 | 0.16 - 0.87 |
| Tube OD | [mm] | 56 - 168.3 | 56 - 168.3 | 100 - 358.0 | 100 - 358.0 |
| | [inch] | 2.20 - 6.61 | 2.20 - 6.61 | 3.94 - 14.00 | 3.94 - 14.00 |
| Tube materials | | Unalloyed and low-alloyed steels, high-alloyed steels (stainless steel), aluminum | | | |
| TECHNICAL DATA | | REB 6 | REB 6 | REB 14 | REB 14 |
| | | PNEUMATIC | ELECTRIC | PNEUMATIC | ELECTRIC |
| Dimensions | [mm] | 560 x 260 x 400 | 640 x 260 x 420 | 625 x 375 x 490 | 700 x 375 x 510 |
| | [inch] | 22 x 10.2 x 15.8 | 25.2 x 10.2 x 16.5 | 24.6 x 14.8 x 19.3 | 27.6 x 14.8 x 20 |
| Power | [kW] | 1.8 | 1.2 | 1.8 | 1.2 |
| Air consumption (at 6 bar) | [m³/min] | 2.0 | - | 2.0 | - |
| Speed | [min⁻¹] | 0 - 26 | 10 - 32 | 0 - 13 | 5 - 16 |
| Vibration level (EN 28662, part 1) | [m/s²] | < 2.5 | < 2.5 | < 2.5 | < 2.5 |
| Noise level at the workplace (average speed range), approx. | [dB (A)] | At idle-speed: 75 Under load: 77 | At idle-speed: 75 Under load: 77 | At idle-speed: 75 Under load: 77 | At idle-speed: 75 Under load: 77 |
| | | | | | |
| SCOPE OF DELIVERY | | REB 6 | REB 6 | REB 14 | REB 14 |
| | | PNEUMATIC | ELECTRIC | PNEUMATIC | ELECTRIC |
| Pipe end preparation machine | Pc. | 1 | 1 | 1 | 1 |
| Transportation case | Pc. | 1 | 1 | 1 | 1 |
| Clamping chuck | Pc. | 1 | 1 | 1 | 1 |
| Clamping sets each with 3 clamping wedges | Pc. | 5 | 5 | 6 | 6 |
| Cutting lubrication KSS-TOP (Code 790 060 226) | Spray pump | 1 | 1 | 1 | 1 |
| Tool set | Set | 1 | 1 | 1 | 1 |
| Operating instructions and spare parts list | Set | 1 | 1 | 1 | 1 |



REB on the workbench



Portable with an integral carrying handle

The technical data are not binding. They are not warranted characteristics and are subject to change. Please consult our general conditions of supply.

* It is possible to extend the dimensions by using the optional clamping wedges (accessories).



REB 6 Pneumatic



REB 6 Electric



REB 14 Pneumatic



REB 14 Electric

Pipe end preparation machines

REB 6, REB 14

Features, application range, technical data and scope of delivery, see from page 57.

Tool holder and multifunctional tools must be ordered separately, see from page 60.

| ARTICLE | VERSION | CODE | WEIGHT OF MACHINE KG | DISPATCH WEIGHT KG |
|---------|--------------------|-------------|----------------------|--------------------|
| REB 6 | Pneumatic | 790 093 001 | 32.000 | 52.000 |
| REB 6 | 230 V, 50/60 Hz EU | 790 093 002 | 35.000 | 55.000 |
| REB 6 | 120 V, 50/60 Hz US | 790 093 005 | 35.000 | 55.000 |
| REB 14 | Pneumatic | 790 094 001 | 61.000 | 90.000 |
| REB 14 | 230 V, 50/60 Hz EU | 790 094 002 | 64.000 | 93.000 |
| REB 14 | 120 V, 50/60 Hz US | 790 094 005 | 64.000 | 93.000 |

Suitable accessories

- Tool holder WH, see page 60
- Multifunctional tools MFW, see page 61
- Combination possibilities of tool holder and multifunctional tools, see page 66
- Mobile air unit DWE 10 and air hose with quick coupling, see page 64
- Cutting lubrication KSS-TOP, see page 64
- Elbow clamping system, see page 64
- ID tracking for REB 14, see page 65
- Collapsible work bench, see page 82



REB 6 Electric



REB 14 Pneumatic

Accessories for BRB and REB machines

Tool holder WH

With Torx screw. Combination possibilities of tool holder and multifunctional tools, see page 66.

| ARTICLE | WELD PREP PROFILE | APPLICABLE WITH | HEIGHT [MM] | HEIGHT [INCH] | CODE | KG |
|-------------------------------------|-------------------|---------------------|-------------|---------------|-------------|-------|
| WH5-I | I | BRB 2 / REB | 10 | 0.394 | 790 085 230 | 0.005 |
| WH4-I* | I | BRB 2 | 10 | 0.394 | 790 085 234 | 0.033 |
| WH12-I | I | BRB 4 | 20 | 0.787 | 790 086 210 | 0.035 |
| WH12-I / short | I | BRB 2 / BRB 4 | 14 | 0.551 | 790 086 281 | 0.032 |
| WH15-I | I | BRB 4 / REB | 20 | 0.787 | 790 092 202 | 0.100 |
| WH15-I | I | BRB 4 / REB | 27 | 1.063 | 790 092 204 | 0.100 |
| WH15-I** | I | BRB 4 / REB | 16.5 - 23 | 0.650 - 0.906 | 790 093 410 | 0.247 |
| WH30-I | I | REB | 20 | 0.787 | 790 093 202 | 0.166 |
| WH30-I | I | REB | 27 | 1.063 | 790 093 204 | 0.235 |
| WH5-V-30° | V/Y | BRB 2 | - | - | 790 085 236 | 0.015 |
| WH12-V-30° | V/Y | BRB 4 | - | - | 790 086 214 | 0.040 |
| WH12-V-30° / short | V | BRB 2 / BRB 4 | - | - | 790 086 282 | 0.036 |
| WH12-V-37.5° | V/Y | BRB 4 | - | - | 790 086 216 | 0.040 |
| WH12-V-45° | V/Y | BRB 4 | - | - | 790 086 474 | 0.052 |
| WH12-V-80° | V/Y | BRB 4 / REB | - | - | 790 093 462 | 0.115 |
| WH12-V-35° | V/Y | BRB 4 | - | - | 790 086 272 | 0.048 |
| WH15-V-30° | V/Y | BRB 4 / REB | - | - | 790 092 210 | 0.100 |
| WH15-V-37.5° | V/Y | BRB 4 / REB | - | - | 790 092 216 | 0.100 |
| WH12-V-37.5° / short | V | BRB 2 / BRB 4 | - | - | 790 086 283 | 0.035 |
| WH15-V-45° | V/Y | BRB 4 / REB | - | - | 790 092 218 | 0.144 |
| WH15-V-60° | V/Y | BRB 4 / REB | - | - | 790 092 212 | 0.100 |
| WH30-V-15° | V/Y | REB | - | - | 790 093 468 | 0.200 |
| WH30-V-25° | V/Y | REB | - | - | 790 093 476 | 0.209 |
| WH30-V-30° | V/Y | REB | - | - | 790 093 210 | 0.192 |
| WH30-V-32.5° | V/Y | REB | - | - | 790 093 424 | 0.234 |
| WH30-V-37.5° | V/Y | REB | - | - | 790 093 216 | 0.199 |
| WH30-V-40° | V/Y | REB | - | - | 790 093 510 | 0.237 |
| WH30-V-45° | V/Y | REB | - | - | 790 093 404 | 0.204 |
| WH5-U-20° | U | BRB 2 | - | - | 790 085 228 | 0.014 |
| WH12-U-10° | U | BRB 4 | - | - | 790 086 208 | 0.044 |
| WH12-U-15° | U | BRB 4 / REB | - | - | 790 086 213 | 0.044 |
| WH12-U-20° | U | BRB 4 | - | - | 790 086 224 | 0.047 |
| WH12-U-20° / large clamping surface | U | BRB 4 / REB | - | - | 790 086 476 | 0.091 |
| WH12-U-25° | U | BRB 4 | - | - | 790 086 212 | 0.051 |
| WH30-U-5° | U | REB | - | - | 790 093 509 | 0.210 |
| WH30-U-7° | U | BRB 4 / REB | - | - | 790 093 408 | 0.206 |
| WH30-U-10° | U | BRB 4 / REB | - | - | 790 093 220 | 0.174 |
| WH30-U-14° | U | REB | - | - | 790 093 474 | 0.190 |
| WH30-U-20° | U | BRB 4 / REB | - | - | 790 093 218 | 0.184 |
| WH30-U-25° | U | REB | - | - | 790 093 478 | 0.165 |
| WH5-ID-14° / 10 mm (0.394") deep | ID | BRB 2 | - | - | 790 085 232 | 0.017 |
| WH5-ID-14° | ID | BRB 4 / REB | - | - | 790 093 406 | 0.139 |
| WH5-ID-45°*** | ID | BRB 2 / BRB 4 / REB | - | - | 790 086 218 | 0.055 |
| WH10-ID-5° / long | ID | BRB 4 / REB | - | - | 790 093 400 | 0.152 |
| WH10-ID-14° | ID | BRB 4 / REB | - | - | 790 093 402 | 0.160 |
| WH10-ID-14° / 30 mm (1.181") deep | ID | BRB 4 / REB | - | - | 790 093 466 | 0.265 |
| WH12-ID-10° / from ID 50 (1.969") | ID | BRB 4 / REB | - | - | 790 086 280 | 0.060 |
| WH10-ID-30° | ID | BRB 4 / REB | - | - | 790 093 493 | 0.100 |
| WH10-ID-45° | ID | REB | - | - | 790 093 494 | 0.107 |
| WH10-ID-80°*** | ID | BRB 2 / BRB 4 | - | - | 790 086 275 | 0.075 |

* Special tool holder for facing pipes in pipe plates.

** Adjustable tool holder WH for I-prep. Comes with adjustable tool holder, multifunctional tool MFW15-V/I-4 (Code 790 093 037), Torx screws and adjusting plates.

*** Special tool holder WH for cutting tubes from tube sheets.



WH12-I



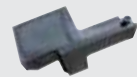
WH15-I**



WH15-V-30°



WH12-U-15°



WH5-ID-14°

Multifunctional tools MFW "Economy"

Two- or four-sided tool bits without coating.

For low-alloy steel, carbon steel, aluminum and cast iron pipes.

| ARTICLE | VERSION | FOR WALL THICKNESS | | APPLICABLE WITH TOOL HOLDER / FOR WELD PREP PROFILE | APPLICABLE WITH | CODE | KG |
|-------------|---------|--------------------|-------------|--|-----------------|-------------|-------|
| | | [MM] | [INCH] | | | | |
| MFW15-V/I-4 | Economy | 2 - 15 | 0.079-0.591 | V, Y, I | BRB 4 / REB | 790 093 047 | 0.033 |
| MFW30-V/I-4 | Economy | 2 - 30 | 0.079-1.181 | V, Y, I | REB | 790 093 043 | 0.055 |

Multifunctional tools MFW "High-Performance"

Two- and/or four-sided tool bits with high-performance protective coating against tool wear.

For high-alloy steel (stainless steel) low-alloy steel, carbon steel, aluminum and cast iron pipes.

| ARTICLE | VERSION | FOR WALL THICKNESS | | APPLICABLE WITH TOOL HOLDER / FOR WELD PREP PROFILE | APPLICABLE WITH | CODE | KG |
|-----------------------|------------------|--------------------|---------------|--|-----------------|-------------|-------|
| | | [MM] | [INCH] | | | | |
| MFW5-U-2-R0.4 | High-Performance | max. 6 | max. 0.236 | WH5-I and WH5-U-20° radius 0.4 mm | BRB 2 | 790 085 030 | 0.002 |
| MFW5-U-2-R2 | High-Performance | max. 6 | max. 0.236 | WH5-I and WH5-U-20° radius 2 mm | BRB 2 | 790 085 032 | 0.002 |
| MFW30-V / I-4 | High-Performance | 2 - 30 | 0.079 - 1.181 | V, Y, I | REB | 790 093 033 | 0.055 |
| MFW30-U-4-R5 | High-Performance | 2 - 30 | 0.079 - 1.181 | V, Y, I, U radius 5 mm | REB | 790 093 034 | 0.055 |
| MFW30-U-4-R2 | High-Performance | 2 - 30 | 0.079 - 1.181 | V, Y, I, U radius 2 mm | REB | 790 093 035 | 0.060 |
| MFW30-U-4-R0.4 | High-Performance | 2 - 30 | 0.079 - 1.181 | V, Y, I, U radius 0.4 mm | REB | 790 093 042 | 0.060 |
| MFW4-I-2 | High-Performance | max. 4 | max. 0.157 | WH4-I-2 (special holder) | BRB 2 | 790 085 031 | 0.002 |
| MFW15-V / I-4 | High-Performance | 2 - 15 | 0.079 - 0.591 | V, Y, I | BRB 4 / REB | 790 093 037 | 0.055 |
| MFW12-V / I-2 | High-Performance | 2 - 12 | 0.079 - 0.472 | V, Y, I, U radius 1.2 mm | BRB 4 | 790 086 060 | 0.003 |
| MFW12-U-2-R2 | High-Performance | 2 - 12 | 0.079 - 0.472 | V, Y, I, U radius 2 mm | BRB 4 | 790 086 064 | 0.003 |
| MFW5-ID-2-R0.4 (14°) | High-Performance | - | - | WH5-ID-14° radius 0.4 mm | BRB 4 / REB | 790 093 039 | 0.003 |
| MFW5-ID-2-R0.4 (45°) | High-Performance | - | - | WH5-ID-45° radius 0.4 mm | BRB 4 / REB | 790 086 061 | 0.002 |
| MFW10-ID-2-R0.4 (80°) | High-Performance | - | - | WH10-ID-80° radius 0.4 mm | BRB 4 | 790 086 062 | 0.002 |
| MFW10-ID-2-R0.8 (14°) | High-Performance | - | - | WH10-ID-14° radius 0.8 mm | REB | 790 093 038 | 0.002 |
| MFW10-ID-2-R3 (14°) | High-Performance | - | - | WH10-ID-14° radius 3 mm | REB | 790 093 041 | 0.004 |

Tool bits TB

Can only be used with the BRB 2.

With a width of only 4.5 mm (0.177") the tool bits are ideal for shortening heat exchanger pipes. This allows even heat exchangers with minimal pipe spacing to be processed without problems. The opposing tool holders or cutting edges furthermore ensure improved force transmission.

The corresponding **tool retainer for tool bits** has to be ordered separately (see page 62).

| ARTICLE | WELD PREP PROFILE | APPLICABLE WITH | WIDTH | WIDTH | PREP ANGLE | CODE | KG |
|----------------|-------------------|-----------------|-------|--------|------------|-------------|-------|
| | | | [MM] | [INCH] | | | |
| TB4.5-I | I | BRB 2 | 4.5 | 0.177 | - | 790 085 500 | 0.012 |
| TB4.5-V-30° | V | BRB 2 | 4.5 | 0.177 | 30 | 790 085 501 | 0.014 |
| TB4.5-V-37.5° | V | BRB 2 | 4.5 | 0.177 | 37.5 | 790 085 502 | 0.015 |
| TB4.5-V-45° | V | BRB 2 | 4.5 | 0.177 | 45 | 790 085 503 | 0.015 |
| TB6-REMOVE-45° | - | BRB 2 | 6.0 | 0.236 | 45 | 790 085 504 | 0.012 |



MFW15-V/I-4 "Economy"



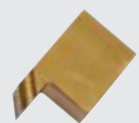
MFW30-U-4-R1



MFW15-V / I-4



MFW5-ID-2-R0.4 (14°)



Tool bits TB



Tool holder for tool bits TB

Tool holder for tool bits TB

This tool retainer is available separately for the **BRB 2**.

Depending on the application (for example the processing of heat exchangers) the use of tool bits (page 61) as well as the corresponding tool retainer is required. This retainer can be mounted on the BRB 2 in just a few steps.

| ARTICLE | CODE | KG |
|---------------------------|--------------------|-------|
| Tool holder for tool bits | 790 085 510 | 0.235 |



Upgrade set BRB Standard "dimension extension"

Upgrade sets BRB 2 for dimension extension

For dimension extension of BRB 2 machines through upgrading from Kit 2 to Kit 1 (BRB 2 Standard) or from Kit 1 to Kit 2 (BRB 2 NC).

| MACHINE, CLAMPING SYSTEM | UPGRADING FROM KIT TO KIT | MANDREL Ø | | TOOL RETAINER Ø | | DIMENSION EXTENSION TO | | | |
|--------------------------|---------------------------|-----------|--------|-----------------|---------------|------------------------|---------------|--------------|---------------|
| | | | | | | TUBE ID | | TUBE OD | |
| | | [MM] | [INCH] | [MM] | [INCH] | [MM] | [INCH] | [MM] | [INCH] |
| BRB 2, Standard | Kit 2 > Kit 1 | 12.75 | 0.500 | 50.0 | 1.968 | 12.75 - 25.5 | 0.500 - 1.004 | 16.75 - 41.5 | 0.659 - 1.634 |
| BRB 2, NC | Kit 1 > Kit 2 | 19.05 | 0.750 | 50.0 / 16.0 | 1.969 / 0.630 | 19.1 - 47.0 | 0.752 - 1.850 | 23.0 - 62.0 | 0.906 - 2.441 |

| ARTICLE | CODE | KG |
|--|--------------------|-------|
| Upgrade set BRB 2, Standard "Kit 2 to Kit 1" | 790 085 017 | 0.800 |
| Upgrade set BRB 2, NC "Kit 1 to Kit 2" | 790 185 018 | 1.870 |



Feed ratchet for BRB 4

Feed ratchet for BRB 4

Especially designed for cramped working spaces, for example when cutting out finned tubes.

| ARTICLE | CODE | KG |
|------------------------|--------------------|-------|
| Feed ratchet for BRB 4 | 790 086 127 | 0.420 |



Balancer spring and hoist bracket

Balancer spring and hoist brackets

For load-free hanging of BRB machines with a balancer. Ideal for series machining! Using a balancer enables optimal machining results from relaxed and fatigue-free work with longer work duration, and at the same time ensures more safety for the user (machine is safeguarded from falling).

Hoist brackets

BRB machines which have been manufactured up to October 2009 can be retrofitted with the suitable hoist brackets. All new models are already equipped with the hoist bracket.

| ARTICLE | CODE | KG |
|-------------------------|--------------------|-------|
| Balancer spring | 832 030 002 | 3.800 |
| Hoist bracket for BRB 4 | 790 086 310 | 0.270 |
| Hoist bracket for BRB 2 | 790 085 310 | 0.185 |

Bevel cutter heads for BRB 2 (V-/Y-prep)

Optimized work, smoother and steadier cutting. Including adjustable tool holder. The bevel cutter heads can be replaced like a tool mounting plate. They are available for several prep angles. The bevel cutter heads can be adapted to all machines (even older models).

Scope of delivery:

- 2 Multifunctional tools (MFW-12-V/1-2, Code 790 086 060)
- 2 Tool bits (tool bit R4.5-I, Code 790 085 390)
- 2 Torx screws
- 6 Threaded pins
- 3 Fastening screws each, M5x16

| ARTICLE | APPLICATION RANGE | | | | CODE | KG |
|-------------------------|---------------------------|---------------|---------------------------|---------------|-------------|-------|
| | KIT 1 (ID MIN. - OD MAX.) | | KIT 2 (ID MIN. - OD MAX.) | | | |
| | [MM] | [INCH] | [MM] | [INCH] | | |
| Bevel cutter head 30° | 16 - 46 | 0.630 - 1.810 | - | - | 790 085 380 | - |
| Bevel cutter head 37.5° | 16 - 36 | 0.630 - 1.420 | - | - | 790 085 381 | 0.316 |
| Bevel cutter head 45° | 16 - 33 | 0.630 - 1.300 | - | - | 790 085 382 | 0.330 |
| Bevel cutter head 30° | - | - | 19 - 43 | 0.750 - 1.690 | 790 085 383 | 0.360 |
| Bevel cutter head 37.5° | - | - | 19 - 39 | 0.750 - 1.540 | 790 085 384 | - |
| Bevel cutter head 45° | - | - | 19 - 36 | 0.750 - 1.420 | 790 085 385 | 0.356 |



Bevel cutter heads for BRB 2

Bevel cutter heads for BRB 4 (V-prep)

The bevel cutter heads with 3 cutting edges provide considerable advantages for heavy chip removal, e.g. for welded material. The bevel cutter heads can be replaced like a tool mounting plate. They are available for various prep angles and can be adapted to all machines (even older models).

Scope of delivery:

- 3 Multifunctional tools (MFW-12-V/1-2, Code 790 086 060; MFW-P-2, Code 790 038 314 on request)
- 3 Torx screws
- 3 Fastening screws each, M6x16

| ARTICLE | APPLICATION RANGE | WALL THICKNESS MAX. | | CODE | KG |
|-----------------------|---|---------------------|--------|-------------|-------|
| | | [MM] | [INCH] | | |
| Bevel cutter head 30° | ID 36 mm to OD 78 mm (1.417 - 3.071") in 3 steps of 5 mm (0.197") distance | 10 | 0.394 | 790 086 500 | 0.465 |
| Bevel cutter head 45° | ID 45 mm to OD 73 mm (1.772 - 2.874") in 2 steps of 5 mm (0.197") distance | 10 | 0.394 | 790 086 459 | 0.515 |



Bevel cutter heads for BRB 4

Adjustable spacer

For BRB machines. The adjustable spacer ensures a constant and repeatable depth machining of boiler pipes, etc. Flexibly adjustable.

| ARTICLE | CODE | KG |
|-----------------------------|-------------|-------|
| Adjustable spacer for BRB 2 | 790 085 055 | 0.513 |
| Adjustable spacer for BRB 4 | 790 086 045 | 1.285 |



Adjustable spacer



Mobile air unit DWE 10



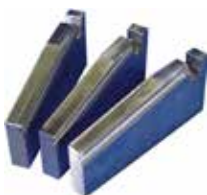
Air hose with quick coupling



Cutting lubrication KSS-TOP



Elbow clamping system



Optional clamping wedges

Mobile air unit DWE 10

Lubricator and air filter adjustable pressure range 0-10 bar, flow max. 2.6 m³/min (91.8 cfm). Air inlet side: 1/2" clutch coupling (DIN 3481). Air outlet side: 1/2" quick coupling. Suitable for air hose 790 093 061.

| ARTICLE | CODE | KG |
|------------------------|-------------|-------|
| Mobile air unit DWE 10 | 790 093 060 | 4.200 |

Air hose with quick coupling

To connect the REB or BRB machine with the mobile air unit DWE 10. Length: 4 m (157.5"). ID: 19.1 mm (0.752"). Air inlet side: 1/2" quick coupling. Air outlet side: 90° angle screw with 1/2" quick coupling and a nipple to screw into the speed regulation handle on REB or BRB.

| ARTICLE | CODE | KG |
|------------------------------|-------------|-------|
| Air hose with quick coupling | 790 093 061 | 2.000 |

Cutting lubrication KSS-TOP

The water soluble, fully synthetic cooling fluid extends the tool life of the tool bits. Is well corrosion resistant. Developed conforming to drinking water requirements according to DVGW work sheet W521 (thread cutting compounds for drinking water installations) and basically complies with these specifications. Is biologically degradable (OECD 302 B).

| ARTICLE | VERSION | CODE | KG |
|---|------------------------|-------------|--------|
| Cutting lubrication KSS-TOP | Spray pump with 500 ml | 790 060 226 | 0.630 |
| Cutting lubrication KSS-TOP refill canister | Canister with 10 l | 790 060 227 | 11.000 |

Elbow clamping system

For preparing elbows with the REB 6 with an ID of 75 - 157 mm (2.95" - 6.18").

Scope of delivery:

- 1 Durable storage and shipping case
- 1 Mandrel with clamping mechanism for elbows
- 1 Straightening tool
- 8 Sets with 3 pins for dimension range 75 - 157 mm (2.953" - 6.181")

| ARTICLE | CODE | KG |
|--|-------------|-------|
| Elbow clamping system for REB 6 complete | 790 093 015 | 9.900 |

Optional clamping wedges

To extend the dimension of the REB standard machines.

| ARTICLE | APPLICABLE WITH | TUBE ID [MM] | TUBE ID [INCH] | CODE | KG |
|---------------|-----------------|--------------|-----------------|-------------|-------|
| Clamping sets | REB 6 | 155 - 166 | 6.102 - 6.535 | 790 093 295 | 1.300 |
| Clamping sets | REB 14 | 320 - 339 | 12.598 - 13.346 | 790 094 189 | 3.600 |
| Clamping sets | REB 14 | 331 - 350 | 13.031 - 13.780 | 790 094 190 | 3.850 |

PIPE BEVELING TECHNOLOGY

ID tracking for REB 14

The REB ID tracking can be used to prepare thin-walled, large-scale pipes for welding, where precise pipe end preparation and an exact base height are required. The module measures the pipe ID. The force of the spring on the inside diameter ensures that the roller "tracks" any irregularities of the pipe, producing a weld prep exactly in accordance with the ID. Thus maintaining a perfect weld prep. All weld preparations such as V-, Y- and U-preps can be realized with the ID tracking module.

Scope of delivery:

- ID tracking module
- Mount for plane
- Assembly instructions

| APPLICATION RANGE | [MM] | [INCH] |
|---------------------|-----------|----------------|
| Tube ID | 150 - 320 | 5.910 - 12.600 |
| Wall thickness max. | 15 | 0.591 |

| ARTICLE | CODE | KG |
|------------------------|-------------|-------|
| ID tracking for REB 14 | 790 094 013 | 5.750 |



ID tracking for REB 14

Combination possibilities of tool holder WH and multifunctional tools MFW for REB and BRB machines

| Tools for "I-prep" | | | |
|--------------------------------------|------------------------------------|---------------------------|---|
| CODE | TOOL HOLDER | TORX SCREWS | SUITABLE MULTIFUNCTIONAL TOOLS |
| 790 085 234 | WH 4-I | 790 085 244 | 790 085 031 with R 0 |
| 790 085 230 | WH 5-I | 790 093 224 | 790 085 030 with R 0.4 |
| 790 086 210 | WH 12-I-H 20 mm | 790 086 220 | 790 086 060 with R 1.2 |
| 790 086 281 | WH 12-I / short | 790 086 220 | 790 086 060 with R 1.2 |
| 790 092 202 | WH 15-I-H 20 mm | 790 093 226 | 790 093 037 with R 0 |
| 790 092 204 | WH 15-I-H 27 mm | 790 093 226 | 790 093 037 with R 0 |
| 790 093 202 | WH 30-I-H 20 mm | 790 093 226 | 790 093 033 with R 0 |
| 790 093 204 | WH 30-I-H 27 mm | 790 093 226 | 790 093 033 with R 0 |
| 790 093 410 | WH 15-I-H 16.5-23 mm (adjustable) | 790 093 226 / 790 093 425 | 790 093 037 with R 0 |
| Tools for "V-prep" and "Y-prep" | | | |
| CODE | TOOL HOLDER | TORX SCREWS | SUITABLE MULTIFUNCTIONAL TOOLS |
| 790 085 236 | WH 5-V-30° | 790 093 224 | 790 085 030 with R 0.4 |
| 790 086 214 | WH 12-V-30° | 790 086 220 | 790 086 060 with R 1.2 |
| 790 086 282 | WH 12-V-30° / short | 790 086 220 | 790 086 060 with R 1.2 |
| 790 086 272 | WH 12-V-35° | 790 086 220 | 790 086 060 with R 1.2 |
| 790 086 216 | WH 12-V-37.5° | 790 086 220 | 790 086 060 with R 1.2 |
| 790 086 283 | WH 12-V-37.5° / short | 790 086 220 | 790 086 060 with R 1.2 |
| 790 086 474 | WH 12-V-45° | 790 086 022 | 790 086 060 with R 1.2 |
| 790 093 462 | WH 12-V-80° | 790 086 220 | 790 086 060 with R 1.2 |
| 790 092 210 | WH 15-V-30° | 790 093 226 | 790 093 037 with R 0 / 790 093 047 |
| 790 092 216 | WH 15-V-37.5° | 790 093 226 | 790 093 037 with R 0 / 790 093 047 |
| 790 092 218 | WH 15-V-45° | 790 093 226 | 790 093 037 with R 0 / 790 093 047 |
| 790 092 212 | WH 15-V-60° | 790 093 226 | 790 093 037 with R 0 / 790 093 047 |
| 790 093 468 | WH 30-V-15° | 790 093 226 | 790 093 033 with R 0 / 790 093 043 |
| 790 093 476 | WH 30-V/U-25° | 790 093 226 | 790 093 033 with R 0 / 790 093 043 |
| 790 093 210 | WH 30-V-30° | 790 093 226 | 790 093 033 with R 0 / 790 093 043 |
| 790 093 424 | WH 30-V-32.5° | 790 093 226 | 790 093 033 with R 0 / 790 093 043 |
| 790 093 216 | WH 30-V-37.5° | 790 093 226 | 790 093 033 with R 0 / 790 093 043 |
| 790 093 404 | WH 30-V-45° | 790 093 226 | 790 093 033 with R 0 / 790 093 043 |
| 790 093 470 | WH 30-V-50° | 790 093 226 | 790 093 033 with R 0 / 790 093 043 |
| 790 093 472 | WH 30-V-55° | 790 093 226 | 790 093 033 with R 0 / 790 093 043 |
| Tools for "U-prep" | | | |
| CODE | TOOL HOLDER | TORX SCREWS | SUITABLE MULTIFUNCTIONAL TOOLS |
| 790 085 228 | WH 5-U-20° | 790 093 224 | 790 085 030 with R 0.4 |
| 790 086 208 | WH 12-U-10° | 790 086 220 | 790 086 060 with R 1.2 / 790 086 064 with R 2 |
| 790 086 213 | WH 12-U-15° | 790 086 220 | 790 086 060 with R 1.2 / 790 086 064 with R 2 |
| 790 086 224 | WH 12-U-20° | 790 086 220 | 790 086 060 with R 1.2 / 790 086 064 with R 2 |
| 790 086 476 | WH 12-U-20° large clamping surface | 790 086 220 | 790 086 060 with R 1.2 / 790 086 064 with R 2 |
| 790 086 212 | WH 12-U-25° | 790 086 220 | 790 086 060 with R 1.2 / 790 086 064 with R 2 |
| 790 093 408 | WH 30-U-7° | 790 093 226 | 790 093 034 with R 5 / 790 093 035 with R 2 |
| 790 093 220 | WH 30-U-10° | 790 093 226 | 790 093 034 with R 5 / 790 093 035 with R 2 |
| 790 093 474 | WH 30-U-14° | 790 093 226 | 790 093 034 with R 5 / 790 093 035 with R 2 |
| 790 093 468 | WH 30-V/U-15° | 790 093 226 | 790 093 034 with R 5 / 790 093 035 with R 2 |
| 790 093 218 | WH 30-U-20° | 790 093 226 | 790 093 034 with R 5 / 790 093 035 with R 2 |
| 790 093 478 | WH 30-U-25° | 790 093 226 | 790 093 034 with R 5 / 790 093 035 with R 2 |
| Tools for "beveling / counterboring" | | | |
| CODE | TOOL HOLDER | TORX SCREWS | SUITABLE MULTIFUNCTIONAL TOOLS |
| 790 085 232 | WH 5-ID-14° | 790 093 224 | 790 093 039 with R 0.4 |
| 790 093 406 | WH 5-ID-14° | 790 093 224 | 790 093 039 with R 0.4 |
| 790 086 218 | WH 5-ID-45° | 790 093 224 | 790 086 061 with R 0.4 |
| 790 093 400 | WH 10-ID-5° / long | 790 093 225 | 790 093 038 with R 0.8 / 790 093 041 with R 3 |
| 790 093 402 | WH 10-ID-14° | 790 093 225 | 790 093 038 with R 0.8 / 790 093 041 with R 3 |
| 790 093 466 | WH 10-ID-14° / 30 mm (1.181") deep | 790 093 225 | 790 093 038 with R 0.8 / 790 093 041 with R 3 |
| 790 086 296 | WH 10-ID-60° | 790 093 225 | 790 093 038 with R 0.8 / 790 093 041 with R 3 |
| 790 086 275 | WH 10-ID-80° | 790 086 220 | 790 086 062 with R 0.4 |
| 790 086 280 | WH 12-ID-10° / from ID 50 (1.969") | 790 086 217 | 790 086 060 with R 1.2 |
| 790 093 494 | WH 10-ID-45° | 790 086 220 | 790 093 040 with R 0.8 |
| 790 093 493 | WH 10-ID-30° | 790 086 220 | 790 093 040 with R 0.8 |

Application range of tool holder for J-prep

| | | BRB 2 Mandrel Ø 12.7 WZT Ø 51 | | BRB 2 Mandrel Ø 19 WZT Ø 51 | | BRB 4 Mandrel Ø 19 WZT Ø 68 | | BRB 4 Mandrel Ø 32 WZT Ø 68 | | BRB 4 Mandrel Ø 32 WZT Ø 90 | | BRB 4 Mandrel Ø 32 WZT Ø 120 | | REB 6 Mandrel Ø 40 WZT Ø 183 | | REB 14 Mandrel Ø 63 WZT Ø 375 | |
|---|---------------|-------------------------------------|-----------------|-----------------------------------|-----------------|-----------------------------------|-----------------|-----------------------------------|-----------------|-----------------------------------|-----------------|------------------------------------|-----------------|------------------------------------|-----------------|-------------------------------------|-----------------|
| Max. ID with a height of land 1 mm (0.039") | | | | | | | | | | | | | | | | | |
| Code | Description | ID max. [mm] | ID min. [mm] | ID max. [mm] | ID min. [mm] | ID max. [mm] | ID min. [mm] | ID max. [mm] | ID min. [mm] | ID max. [mm] | ID min. [mm] | ID max. [mm] | ID min. [mm] | ID max. [mm] | ID min. [mm] | ID max. [mm] | ID min. [mm] |
| 790 085 228 | WH 5-U-20° | 34 | 15 | 38 | 21 | - | - | - | - | - | - | 104 | 34 | 159 | 49 | 320 | 65 |
| 790 093 220 | WH 30-U-10° | - | - | - | - | - | - | - | - | - | - | 58 | 34 | 121 | 49 | 313 | 65 |
| 790 093 474 | WH 30-U-14° | - | - | - | - | - | - | - | - | - | - | 58 | 34 | 121 | 49 | 313 | 65 |
| 790 093 468 | WH 30-V/U-15° | - | - | - | - | - | - | - | - | - | - | 58 | 34 | 121 | 49 | 313 | 65 |
| 790 093 218 | WH 30-U-20° | - | - | - | - | - | - | - | - | - | - | 58 | 34 | 121 | 49 | 313 | 65 |
| 790 093 478 | WH 30-U-25° | - | - | - | - | - | - | - | - | - | - | 58 | 34 | 121 | 49 | 313 | 65 |
| 790 093 408 | WH 30-U-7° | - | - | - | - | - | - | - | - | - | - | 58 | 34 | 121 | 49 | 313 | 65 |
| 790 086 208 | WH 12-U-10° | - | - | - | - | 32 | 21 | - | - | 54 | 34 | 84 | 34 | 147 | 49 | 320 | 65 |
| 790 086 224 | WH 12-U-20° | - | - | - | - | 32 | 21 | - | - | 54 | 34 | 84 | 34 | 147 | 49 | 320 | 65 |
| 790 086 212 | WH 12-U-25° | - | - | - | - | 32 | 21 | - | - | 54 | 34 | 84 | 34 | 147 | 49 | 320 | 65 |

Application range of tool holders for counterboring

| Counterboring | | BRB 2 Mandrel Ø 12.7 WZT Ø 51 | | BRB 2 Mandrel Ø 19 WZT Ø 51 | | BRB 4 Mandrel Ø 19 WZT Ø 68 | | BRB 4 Mandrel Ø 32 WZT Ø 68 | | BRB 4 Mandrel Ø 32 WZT Ø 90 | | BRB 4 Mandrel Ø 32 WZT Ø 120 | | REB 6 Mandrel Ø 40 WZT Ø 183 | | REB 14 Mandrel Ø 63 WZT Ø 375 | |
|---|--|-------------------------------------|-----------------|-----------------------------------|-----------------|-----------------------------------|-----------------|-----------------------------------|-----------------|-----------------------------------|-----------------|------------------------------------|-----------------|------------------------------------|-----------------|-------------------------------------|-----------------|
| Workable pipe inner diameter (0.5 mm / 0.020" safe distance to mandrel) | | | | | | | | | | | | | | | | | |
| Code | Description | ID max. [mm] | ID min. [mm] | ID max. [mm] | ID min. [mm] | ID max. [mm] | ID min. [mm] | ID max. [mm] | ID min. [mm] | ID max. [mm] | ID min. [mm] | ID max. [mm] | ID min. [mm] | ID max. [mm] | ID min. [mm] | ID max. [mm] | ID min. [mm] |
| 790 085 232 | WH 5-ID-14° / 10 mm deep | 38 | 27 | 38 | 36 | 55 | 36 | 55 | 42 | 77 | 42 | 107 | 42 | 159 | 53 | 320 | 92 |
| 790 093 400 | WH 10-ID-5° / long | - | - | - | - | - | - | - | - | 72 | 59 | 105 | 61 | 159 | 71 | 320 | 95 |
| 790 093 402 | WH 10-ID-14° | - | - | - | - | - | - | - | - | 72 | 59 | 105 | 61 | 159 | 71 | 320 | 95 |
| 790 093 406 | WH 5-ID-14° | - | - | - | - | - | - | - | - | 60 | 39 | 96 | 43 | 159 | 60 | 320 | 92 |
| 790 093 466 | WH 10-ID-14° / 30 mm (1.181") deep | - | - | - | - | - | - | - | - | 61 | 53 | 105 | 61 | 159 | 78 | 320 | 101 |
| 790 086 218 | WH 5-ID-45° | 24 | 20* | 37 | 24 | 49 | 27 | 49 | 37 | 40 | 40 | 107 | 37 | 159 | 58 | 320 | 92 |
| Application range of tool holders for facing | | | | | | | | | | | | | | | | | |
| 790 086 275 | WH 10-ID-80° | 41 | 37 | 41 | 43 | 58 | 43 | 58 | 56 | 80 | 56 | 110 | 56 | 159 | 64 | 320 | 92 |

* With diameter 20 mm: max. length of bevel 4 - 5 mm (0.157" - 0.197").

Abbreviations:

WH = Tool holder

WZT = Tool support / Tool retainer

Length of land with the use of tool holder for facing 790 092 202 / 790 093 202 and 790 086 210

| Code | Description (C) | MFW 12-V/I-2- R1.2 790 086 060 | MFW 30-U-4- R2 790 093 035 | MFW 30-U-4- R5 790 093 034 |
|-------------|--------------------|--------------------------------------|----------------------------------|----------------------------------|
| | | Length of land (X1) | | |
| 790 085 228 | WH 5-U-20° | - | - | - |
| 790 093 218 | WH 30-U-20° | - | 1.4 mm | 0 mm |
| 790 093 220 | WH 30-U-10° | - | 2.5 mm | 0.5 mm |
| 790 093 408 | WH 30-U-7° | - | 3.8 mm | 1.1 mm |
| 790 093 474 | WH 30-U-14° | - | 2.3 mm | 0 mm |
| 790 093 478 | WH 30-U-25° | - | 1.1 mm | 0 mm |
| 790 086 208 | WH 12-U-10° | 1.5 mm | - | - |
| 790 086 212 | WH 12-U-25° | 1.5 mm | - | - |
| 790 086 224 | WH 12-U-20° | 1.5 mm | - | - |

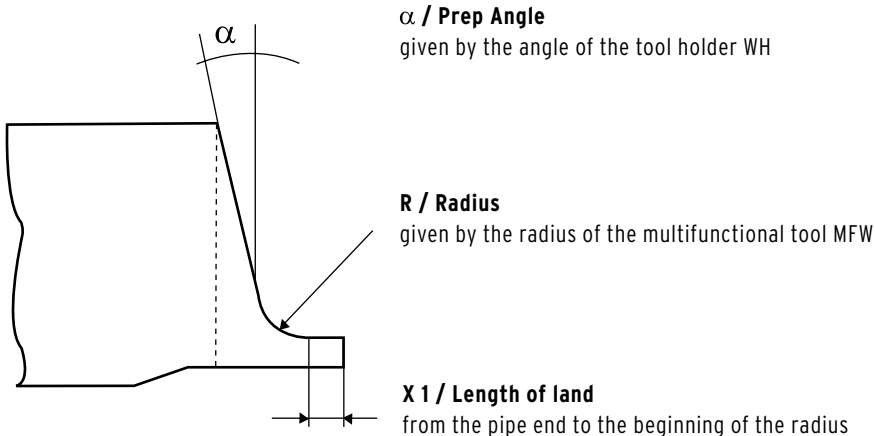
Length of land with the use of tool holder for facing 790 093 410 (adjustable)

| Code | Description (C) | MFW 12-V/I-2- R1.2 790 086 060 | MFW 30-U-4- R2 790 093 035 | MFW 30-U-4- R5 790 093 034 |
|-------------|--------------------|--------------------------------------|----------------------------------|----------------------------------|
| | | Length of land (X1) | | |
| 790 093 408 | WH 30-U-7° | - | 1 - 7 mm | 0 - 2.5 mm |
| 790 093 220 | WH 30-U-10° | - | 0 - 6 mm | 0 - 3 mm |
| 790 093 474 | WH 30-U-14° | - | 0 - 6.5 mm | 0 - 1 mm |
| 790 093 218 | WH 30-U-20° | - | 0 - 5 mm | 0 - 3.5 mm |
| 790 093 478 | WH 30-U-25° | - | 0 - 5 mm | 0 - 1 mm |
| 790 086 208 | WH 12-U-10° | 0 - 5 mm | - | - |
| 790 086 224 | WH 12-U-20° | 0 - 5 mm | - | - |
| 790 086 212 | WH 12-U-25° | 0 - 5 mm | - | - |

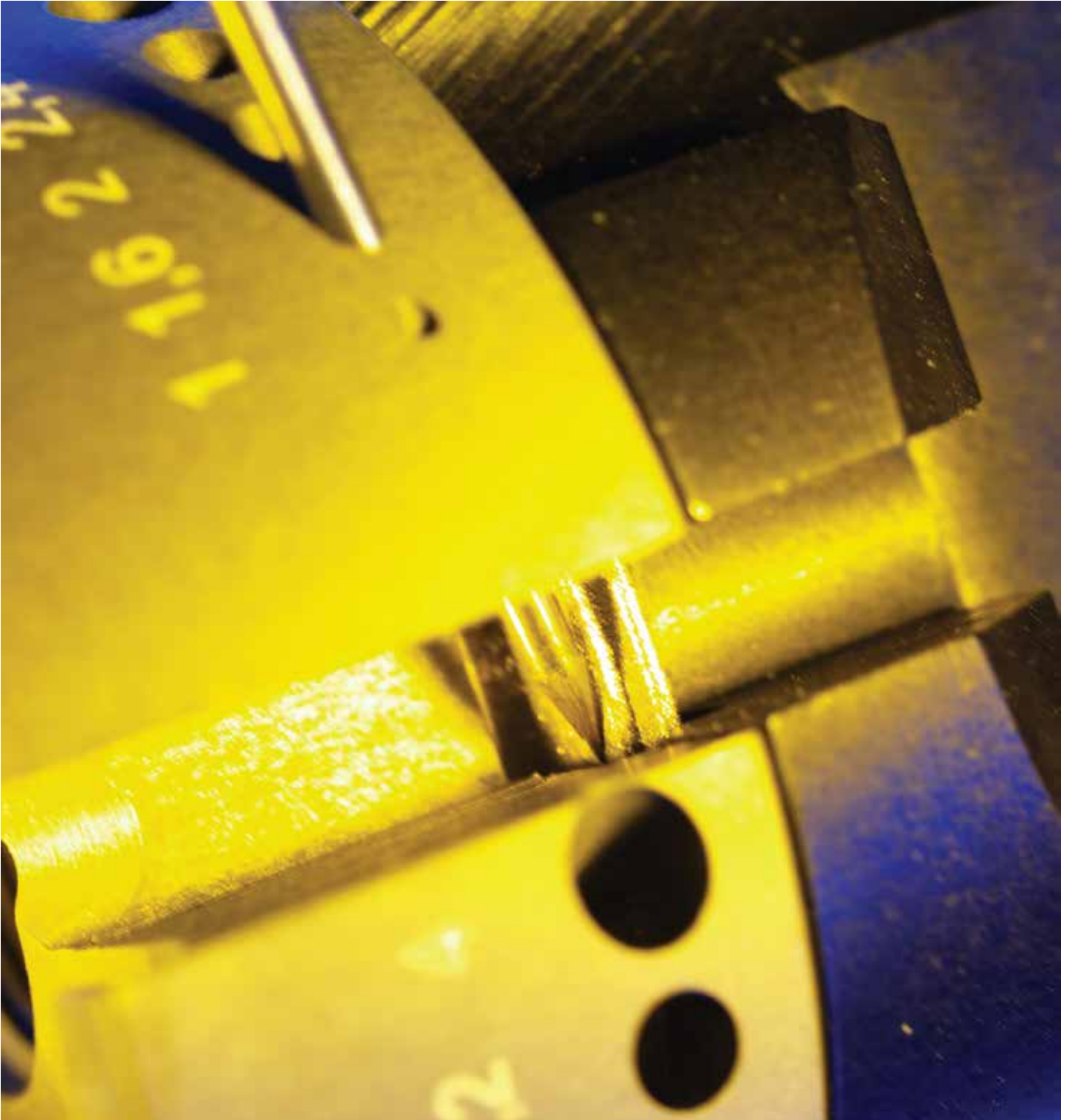
Abbreviations:

WH = Tool holder

WZT = Tool support / Tool retainer



Tungsten Grinding Technology



Orbital welding systems and accessories for high-purity process piping from Orbitalum Tools.



E.g. compact power supplies for mechanized TIG orbital welding with a currently unique operating concept and a whole series of other special technical features. In connection with an ORBITALUM orbital weld head, the user is being offered an extremely innovative and economical welding system.

Please ask for our separate catalogue to learn more about this and other products for orbital welding.

ESG Plus, ESG Plus²

Tungsten Grinders

The best solution for a precise and fast preparation of tungsten electrodes.

The perfect hand-held grinder for cutting, grinding and planing electrodes which are used in WIG/TIG welding machines.



Repeatable points every time due to preset grinding angles

| | |
|--|---|
| Repeatable points every time due to preset grinding angles | ✓ |
| Easy and fast to use | ✓ |
| Optimum preparation for orbital and manual welding | ✓ |
| Longitudinal grinding for optimum arc ignition and excellent arc stability | ✓ |
| Guarantees longer tool life and ease of ignition of the tungsten electrode | ✓ |
| Specially designed for one-off jobs on site | ✓ |
| Compact design, optimum resilience and perfect reproducibility | ✓ |
| Functional design | ✓ |
| Precise orbital grinding | ✓ |

The powerful Hand-Tungsten-Grinder for grinding, facing and cutting.

One machine - complete electrode preparation:

- Grinding electrodes:
 - 4 different angles
 - 6 different electrode sizes
- Facing electrodes
- Cutting electrodes

The machines are available with a high-quality and powerful drive with 230 Volt and/or 110 Volt. Machines and accessories are delivered in a durable storage and shipping case.

FURTHER ADVANTAGES:

- Facility for easy trimming of the electrodes (optional)
- External dust extractor can be easily adapted
- Short preparation times with high grinding performance
- No adjustment needs to be done before operation

ADDITIONAL FEATURES ESG PLUS²:

- Portable tungsten grinder with two different grinding wheels. This allows the electrode to be pre-ground with the coarse diamond wheel then finished with the fine diamond wheel.



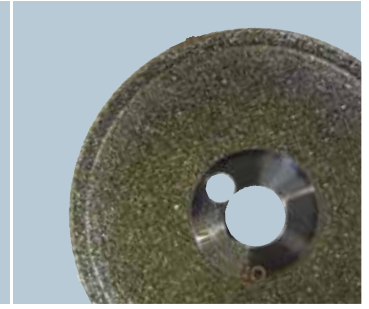
Grinding electrodes:
4 different angles and 6 different electrode sizes



Facing electrodes



Cutting electrodes



Replaceable grinding wheel diamond-coated on both sides for optimal performance



| SCOPE OF DELIVERY / APPLICATION RANGE | | ESG PLUS | ESG PLUS ² |
|--|-----------------------------------|--|--|
| Code | [230 V] | 790 052 485 (15°/18°/22.5°/30°) 790 052 545 (15°/30°/45°/60°) | 790 052 585 (15°/18°/22.5°/30°) 790 052 546 (15°/30°/45°/60°) |
| | [110 V] | 790 052 486 (15°/18°/22.5°/30°) 790 052 645 (15°/30°/45°/60°) | 790 052 586 (15°/18°/22.5°/30°) 790 052 646 (15°/30°/45°/60°) |
| | Tungsten grinder | Pc. 1 | 1 |
| | Durable storage and shipping case | Pc. 1 | 1 |
| Grinding head for electrodes Ø 1.0 - 1.6 - 2.0 - 2.4 - 3.2 - 4.0 mm (0.04" - 1/16" - 0.08" - 3/32" - 1/8" - 5/32") | Pc. 1 | 1 | 1 |
| Grinding head for grinding angle 15° - 18° - 22.5° - 30° or 15° - 30° - 45° - 60° | Pc. 1 | 1 | 1 |
| Diamond grinding wheel Fine (790 052 487) | Pc. - | - | 1 |
| Diamond grinding wheel Medium (790 052 488) | Pc. 1 | 1 | - |
| Diamond grinding wheel Coarse (790 052 550) | Pc. - | - | 1 |
| Tool to replace the grinding wheel | Pc. 1 | 1 | 1 |
| Operating instructions and spare parts list | Set 1 | 1 | 1 |
| TECHNICAL DATA | | ESG PLUS | ESG PLUS ² |
| Dimensions (including motor) | [mm] | Ø 65 x 350 | Ø 65 x 350 |
| | [inch] | Ø 2.56 x 13.78 | Ø 2.56 x 13.78 |
| Power | [W] | 500 | 500 |
| Power-on time | [%] | 100 | 100 |
| Speed (Rotary speed) | [rpm] | 30.000 | 30.000 |
| Main supply cable (length) | [m] | 3 | 3 |
| | [inch] | 118.1 | 118.1 |
| Vibration level (EN 28662, part 1) | [m/s ²] | < 2.5 | < 2.5 |
| Noise level at the workplace (Idle running), approx. | [dB (A)] | 83 | 83 |

The technical data are not binding. They are not warranted characteristics and are subject to change. Please consult our general conditions of supply.

Tungsten Grinders ESG

ESG Plus, ESG Plus²

Features, application range, technical data and scope of delivery, see from page 71.

| ARTICLE | VERSION | GRINDING ANGLES [°] | CODE | WEIGHT OF MACHINE KG | DISPATCH WEIGHT KG |
|-----------------------|-----------------------|---------------------|--------------------|----------------------|--------------------|
| ESG Plus | 230 V, 50/60 Hz EU | 15 / 18 / 22.5 / 30 | 790 052 485 | 1.430 | 3.560 |
| ESG Plus | 110 V, 50/60 Hz EU/US | 15 / 18 / 22.5 / 30 | 790 052 486 | 1.430 | 3.560 |
| ESG Plus | 230 V, 50/60 Hz EU | 15 / 30 / 45 / 60 | 790 052 545 | 1.430 | 3.560 |
| ESG Plus | 110 V, 50/60 Hz EU/US | 15 / 30 / 45 / 60 | 790 052 645 | 1.430 | 3.560 |
| ESG Plus ² | 230 V, 50/60 Hz EU | 15 / 18 / 22.5 / 30 | 790 052 585 | 1.520 | 3.825 |
| ESG Plus ² | 110 V, 50/60 Hz EU/US | 15 / 18 / 22.5 / 30 | 790 052 586 | 1.520 | 3.825 |
| ESG Plus ² | 230 V, 50/60 Hz EU | 15 / 30 / 45 / 60 | 790 052 546 | 1.520 | 3.825 |
| ESG Plus ² | 110 V, 50/60 Hz EU/US | 15 / 30 / 45 / 60 | 790 052 646 | 1.520 | 3.825 |



ESG Plus

ESG Plus²

Diamond grinding wheels

Replaceable grinding wheel diamond-coated on both sides for optimal performance.

For 1.0 and 1.6 mm (0.039"/0.063") electrodes we recommend the standard grinding wheel. For 2.0 and 2.4 mm (0.078"/0.094") electrodes a medium grained grinding wheel and for 3.2 and 4.0 mm (0.126"/0.157") a coarse grained grinding wheel is advisable.

| ARTICLE | APPLICABLE WITH | GRAIN | WHEEL Ø | | S | | CODE | KG |
|------------------------|---------------------------------|----------|---------|--------|------|--------|--------------------|-------|
| | | | [MM] | [INCH] | [MM] | [INCH] | | |
| Diamond grinding wheel | ESG 4 | Standard | 32.00 | 1.290 | 1.2 | 0.047 | 790 052 460 | 0.005 |
| Diamond grinding wheel | ESG Plus, ESG Plus ² | Fine | 33.50 | 1.319 | 2.2 | 0.087 | 790 052 487 | 0.010 |
| Diamond grinding wheel | ESG Plus, ESG Plus ² | Medium | 33.50 | 1.319 | 2.2 | 0.087 | 790 052 488 | 0.011 |
| Diamond grinding wheel | ESG Plus, ESG Plus ² | Coarse | 33.50 | 1.319 | 2.2 | 0.087 | 790 052 550 | 0.011 |



Diamond grinding wheels

Cutting device

For simple separating of the electrodes.

Applicable up to an electrode diameter of 2.4 mm (0.094").

| ARTICLE | SETTING | CUTTING LENGTHS | | CODE | KG |
|----------------|---------|-----------------|--------|--------------------|-------|
| | | [MM] | [INCH] | | |
| Cutting device | fixed* | 12.0 | 0.472 | 790 052 513 | 0.030 |
| | | 13.0 | 0.512 | | |
| | | 15.0 | 0.591 | | |
| | | 17.0 | 0.669 | | |



Cutting device

* Further cutting lengths possible on request.

TUNGSTEN GRINDING TECHNOLOGY



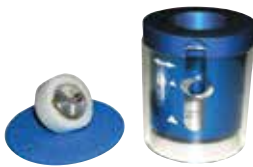
Electrode holder with collet



Spare collet



Wall-/table-/vice-mounting plate



Protective cover



Double-Decker Kit

Electrode holder

For machining smaller electrodes.

The electrode holder is supplied including 1 flexible collet.

| ARTICLE | SETTING | ELECTRODE Ø | | CODE | KG |
|------------------------------|------------|-------------|---------------|--------------------|-------|
| | | [MM] | [INCH] | | |
| Electrode holder with collet | continuous | 1.0 - 3.2 | 0.039 - 0.126 | 790 052 457 | 0.023 |
| Spare collet | continuous | 1.0 - 3.2 | 0.039 - 0.126 | 790 052 481 | 0.002 |

Wall-/table-/vice-mounting plate

For stationary use of the ESG Plus and ESG Plus².
Simple and rapid mounting to a wall, a table or a vice.

| ARTICLE | CODE | KG |
|----------------------------------|--------------------|-------|
| Wall-/table-/vice-mounting plate | 790 052 483 | 0.102 |

Protective cover

Easy to adapt on the ESG Plus head.
With integrated retainer for suction units.
For use on electrodes with thorium.
Consider country-specific regulations, standards and guidelines.

| ARTICLE | CODE | KG |
|--|--------------------|-------|
| Protective cover ESG Plus | 790 052 496 | 0.170 |
| Protective cover ESG Plus ² | 790 052 596 | 0.220 |

Double-Decker Kit

Easy to mount to the ESG Plus.
This attachment makes it possible to use 2 different grinding wheels at the same time.

- Including:
- 1 grinding head
 - 1 diamond grinding wheel (Coarse)
 - 1 cylinder-head screw with collar (M4x34)
 - 1 shaft extension.

| ARTICLE | APPLICABLE WITH | GRINDING ANGLES [°] | CODE | KG |
|-------------------|-----------------|---------------------|--------------------|-------|
| Double-Decker Kit | ESG Plus | 15 / 18 / 22.5 / 30 | 790 052 490 | 0.160 |
| Double-Decker Kit | ESG Plus | 15 / 30 / 45 / 60 | 790 052 390 | 0.100 |

Threading, Jointing and Sealing Technology





Replacement set of threading chasers for ASK



Nipple holder

Accessories for Pipe Threading Technology

Replacement sets of threading chasers

for Whitworth pipe threads according to DIN 2999.
Made of HSS (high-speed steel). Right-handed.

| ARTICLE | VERSION | CODE | KG |
|--|----------|-------------|-------|
| Replacement set of threading chasers for ASK | R 3/8 | 790 003 503 | 0.100 |
| Replacement set of threading chasers for ASK | R 1/2 | 790 003 504 | 0.145 |
| Replacement set of threading chasers for ASK | R 3/4 | 790 003 505 | 0.130 |
| Replacement set of threading chasers for ASK | R 1 | 790 003 506 | 0.170 |
| Replacement set of threading chasers for ASK | R 1 1/4 | 790 003 507 | 0.145 |
| Replacement set of threading chasers for ASK | R 1 1/2* | 790 003 508 | 0.205 |
| Replacement set of threading chasers for ASK | R 2* | 790 003 509 | 0.260 |

* not for TGA

Nipple holder

With internal clamping. Self-clamping. For pipes according to DIN 2440.

| ARTICLE | VERSION | THREAD | CODE | KG |
|---------------|---------|---------|-------------|-------|
| Nipple holder | DN 15 | R 1/2 | 790 002 101 | 0.345 |
| Nipple holder | DN 20 | R 3/4 | 790 002 102 | 0.566 |
| Nipple holder | DN 25 | R 1 | 790 002 103 | 0.740 |
| Nipple holder | DN 32 | R 1 1/4 | 790 002 104 | 1.120 |
| Nipple holder | DN 40* | R 1 1/2 | 790 002 105 | 1.420 |
| Nipple holder | DN 50* | R 2 | 790 002 106 | 2.120 |

* not for TGA

Thread Jointing Technology

Flax dispenser "Sales Display Package"

Cardboard box including 10 flax bobbins.

Innovative and unique retail pack for the presentable display of flax bobbins at the sales counter.

For decades Orbitalum flax bobbins have stood for high-purity, finely-brushed flax with optimal sealing qualities and precise proportioning.

Further advantages:

- Dispenser box including 10 flax bobbins (packaged individually)
- Parallel winding
- Optimal dispensing
- No waste
- Simple handling
- Suitable for dispenser



Flax dispenser "Sales Display Package"

| ARTICLE | VERSION | CODE | KG |
|---------------------------------------|---------------------------|--------------------|-------|
| Flax dispenser, sales display package | including 10 flax bobbins | 790 052 716 | 0.780 |



Seal dispenser

Seals

Seal dispenser

For gas and water installations. Approved by the DVGW in accordance with DIN 3535, Part 6.

With 225 asbestos-free seals. Including transparent labeled protective cover. Very robust, shock-proof and break-proof seal dispenser block made of elastic material that protects the seals against moisture, falling out or damage. The seals can be removed singly and are always at hand.

| ARTICLE | CODE | | KG |
|--|--------------------|--|-------|
| Seal dispenser | 790 052 721 | | 0.682 |
| Seal dispenser, empty | 790 052 722 | | 0.335 |
| Protective covering for seal dispenser | 790 052 723 | | 0.049 |



Seals

IT-seals, asbestos-free.

Explanations

R = Raccord (union/fittings)

RV = Radiator valve

H = Dutchman seal

HK = Dutchman seal, small

HG = Dutchman seal, large

| ARTICLE | VERSION | DIMEN- SION | QTY. PER PACK | CODE | | KG |
|---------|-------------|----------------|------------------|--------------------|--|-------|
| Seals | R 1/4 | 10 x 6 | 100 | 790 052 726 | | 0.001 |
| Seals | R 3/8 | 14 x 10 | 100 | 790 052 727 | | 0.002 |
| Seals | R 3/8 | 15 x 8 | 100 | 790 052 728 | | 0.002 |
| Seals | R 3/8 | 15 x 10 | 100 | 790 052 729 | | 0.002 |
| Seals | R 1/2 | 18 x 10 | 100 | 790 052 730 | | 0.002 |
| Seals | R 1/2 | 18 x 11 | 100 | 790 052 731 | | 0.002 |
| Seals | R 1/2 | 18 x 12 | 100 | 790 052 732 | | 0.002 |
| Seals | R 3/4 | 23 x 17 | 100 | 790 052 733 | | 0.002 |
| Seals | R 3/4 | 24 x 15 | 100 | 790 052 734 | | 0.002 |
| Seals | R 1 | 30 x 22 | 100 | 790 052 735 | | 0.003 |
| Seals | R 1 1/4 | 37 x 29 | 100 | 790 052 736 | | 0.002 |
| Seals | R 1 1/4 | 39 x 32 | 100 | 790 052 737 | | 0.002 |
| Seals | R 1 1/2 | 44 x 37 | 100 | 790 052 738 | | 0.003 |
| Seals | R 2 | 56 x 48 | 50 | 790 052 739 | | 0.002 |
| Seals | Leather 3/4 | 23 x 16 | 100 | 790 052 740 | | 0.002 |
| Seals | RV 3/4 | 23 x 17 | 100 | 790 052 741 | | 0.002 |
| Seals | H 3/4 | 38 x 27 | 100 | 790 052 742 | | 0.002 |
| Seals | H 1 | 44 x 32 | 100 | 790 052 743 | | 0.002 |
| Seals | H 1 1/4 | 55 x 42 | 50 | 790 052 744 | | 0.004 |
| Seals | H 1 1/2 | 62 x 46 | 50 | 790 052 745 | | 0.002 |
| Seals | H 2 | 78 x 60 | 50 | 790 052 746 | | 0.007 |
| Seals | HK 3/8 | 24 x 17 | 100 | 790 052 747 | | 0.002 |
| Seals | HK 1/2 | 30 x 21 | 100 | 790 052 748 | | 0.003 |
| Seals | HG 3/8 | 27 x 19 | 100 | 790 052 749 | | 0.002 |
| Seals | HG 1/2 | 34 x 23 | 100 | 790 052 750 | | 0.002 |

* Weight per seal

Copper Pipe Installation Technology





Clamp holder with carbon V-electrode



Carbon V-electrode



Stick electrode

Accessories for LAM 1500, LAM 1600

Clamp holder with carbon V-electrode

Made of stainless steel.

| ARTICLE | CODE | | KG |
|--------------------------------------|-------------|--|-------|
| Clamp holder with carbon V-electrode | 790 057 020 | | 0.038 |

Carbon V-electrode

Minimum purchase: 10 pieces.

| ARTICLE | CODE | | KG |
|--------------------|-------------|--|-------|
| Carbon V-electrode | 790 057 025 | | 0.010 |

Stick electrode

Minimum purchase: 6 pieces.

| ARTICLE | CODE | | KG |
|-----------------|-------------|--|-------|
| Stick electrode | 790 057 026 | | 0.020 |

Accessories for Workshop and Site





Collapsible work bench



Deburring tool

Collapsible work bench, deburring tool

Collapsible work bench

Can only be used for saws with an application range of up to 4.5" pipe outer diameter. From 6", please use the pipe feeder (Code 790 068 051) or mobile workstation (Code 790 068 071) - please see from page 24.

| DIMENSIONS | COLLAPSIBLE WORK BENCH | | |
|---|---|--|--------|
| Dimension (lxwxh) | 100 x 70 x 85 cm / 39.37" x 27.56" x 33.46" | | |
| ARTICLE | CODE | | KG |
| Collapsible work bench, load capacity: 650 kg | 790 052 030 | | 30.000 |

Deburring tool

| APPLICATION RANGE | DEBURRING TOOL | | |
|-------------------|----------------|--|-------|
| Tube OD max. | 54 mm / 2.126" | | |
| Tube ID max. | 10 mm / 0.394" | | |
| ARTICLE | CODE | | KG |
| Deburring tool | 790 052 052 | | 0.455 |

ACCESSORIES FOR WORKSHOP AND SITE



About us

For the finest in pipe & tube cutting, beveling and orbital welding products.

For more than 40 years construction companies rely on the standard in the industrial prefabrication of pipeline systems set by the market leader Orbitalum.

Orbitalum Tools based in Singen, Germany and E.H. Wachs based in Lincolnshire, Illinois, USA are operating jointly as **ITW Orbital Cutting & Welding**, a division of the US industrial group ITW.

Orbitalum Tools is a global leader in providing complete solutions for the industrial prefabrication, installation and maintenance of pipeline systems - for everything from cutting pipes and preparing weld seams to orbital welding for process and plant engineering.

With its high-quality, nearly indestructible, portable and user-friendly pipe processing machines for cutting and beveling, **E.H. Wachs** has established itself in many industries. For example, in the oil and gas industry, the chemical industry and in pipeline and ship construction - in the preproduction, maintenance, repair and dismantling of installations.

ITW (Illinois Tool Works, www.itw.com) is a US Fortune 200 global industrial manufacturer of consumables, specialty equipment and related service businesses headquartered in Glenview, Illinois. ITW Orbital Cutting & Welding is part of the ITW Welding Group, which is world market leader in welding products (e.g. MILLER ELECTRIC, HOBART BROTHERS).

When you partner with us you're not only partnering with the industry leader in portable weld preparation machine tools and orbital welding systems, you're partnering with ITW, the industry leader in advanced welding technologies.

The ITW Orbital Cutting & Welding group stands for the best, most efficient technology for all aspects of orbital cutting and welding around the globe.

As ITW OCW we provide an almost unique product availability, a worldwide customer service and technical support as well as a sales network at local level. A partnership with ITW OCW involves:

- Acclaimed state-of-the-art technology, competent contact partners
- Fast, comprehensive delivery service
- Reliable product support
- Large stocks at local level
- Comprehensive OEM spare parts and consumables
- Strategically ideal located sales locations, service and rental centers
- Excellently factory-trained and certified technicians
- Practical trainings - at our site or at your location
- Certified company

ITW Orbital Cutting & Welding continues the Orbitalum and E.H. WACHS tradition of offering world class products, combined with exceptional service and support, to keep ITW-OCW the supplier of choice for tools used to cut - prep - weld - all from one source.

Waste disposal / environmental protection



Disposal of electrical (electronic) devices

(RL 2012/19/EU)

Electrical (electronic) devices which are marked with the symbol above, may not be disposed of with household waste in accordance to the EU directive 2002/96/EC.

By actively using the offered return and collection systems, you actively contribute to the reuse, recycling and utilisation of electrical (electronic) devices.

Electrical (electronic) used devices contain parts which must be handled selectively according to the EU directive. Separate collection and selective treatment is the basis for environment-friendly disposal and the protection of human health.

Our products that were sold to you after August 13th, 2005 are taken back and treated according to legal standards. These products have to be sent free of charge.

The return of used devices which pose a health or safety risk for human beings due to contamination during use may be refused.

The legally compliant disposal of electrical (electronic) devices that were placed on the market before August 13th, 2005 are in the responsibility of the end-user.



Returning of batteries

Some of our products work with batteries. Batteries which are marked with the symbol above may not be disposed of together with household waste according to the applicable EU directive 2006/66/EU. With batteries containing hazardous substances, the chemical symbol for the heavy metal content is indicated below the waste bin:

Cd = Cadmium
Hg = Mercury
Pb = Lead

The ITW ORBITAL CUTTING & WELDING group provides global customers one source for the finest in pipe & tube cutting, beveling and orbital welding products.

For more information about us www.itw-ocw.com



Orbital cutting, beveling and welding machines for high-purity process piping.

tools@orbitalum.com
www.orbitalum.com



Portable weld prep machine tools for industrial applications.

sales@ehwachs.com
www.ehwachs.com



Certified management system according to ISO 9001:2015



Authorized Economic Operator (AEO)



Certified according to ISO 9001

worldwide | sales + service

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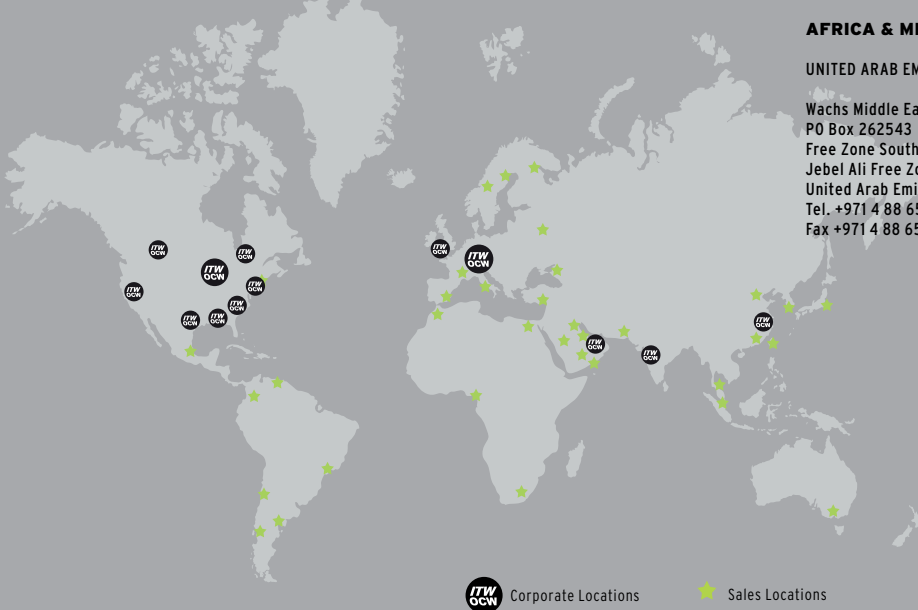
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Corporate Locations

Sales Locations

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