

The powerful pipe end preparation solution!



Quick-Tool-Change QTC®



Fast adjustment of the pipe dimension



Portable with an integral carrying handle



Sturdy construction



Compact design for precise and reproducible weld prep profiles

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Pipe End Preparation Machines REB

Pipe End Preparation Machines

- 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

REB 6, REB 14, REB 20

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.

Machine comes with:

- 1 Pipe End Preparation Machine REB 6, REB 14 or REB 20
- 1 Transportation case
- 1 Clamping chuck (REB 6 and REB 14) or 2 clamping chucks (REB 20)
- 5 Clamping sets, each with 3 clamping wedges (REB 6) or 6 Clamping sets, each with 3 clamping wedges (REB 14 and REB 20)
- 1 Tool set
- 1 KSS-TOP lubricant spray pump (Code 790 060 226)
- 1 Set of operating instructions and spare parts list

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 (see page 65).



REB 6 Electric



REB 14 Pneumatic



REB 20 Pneumatic

| Application range* | REB 6 Pneumatic | REB 6 Electric | REB 14 Pneumatic | REB 14 Electric | REB 20 Pneumatic |
|---|---|---|---|---|---|
| Pipe ID | 49 - 159 mm 1.93 - 6.26 inch | 49 - 159 mm 1.93 - 6.26 inch | 92 - 320 mm 3.62 - 12.60 inch | 92 - 320 mm 3.62 - 12.60 inch | 282 - 500 mm 11.10 - 19.69 inch |
| Wall thickness | 3 - 22 mm 0.12 - 0.87 inch | 3 - 22 mm 0.12 - 0.87 inch | 4 - 30 mm 0.16 - 1.18 inch | 4 - 22 mm 0.16 - 0.87 inch | 4 - 10 mm 0.16 - 0.39 inch |
| Pipe OD | 56 - 168 mm 2.20 - 6.61 inch | 56 - 168 mm 2.20 - 6.61 inch | 100 - 355.6 mm 3.94 - 14.00 inch | 100 - 355.6 mm 3.94 - 14.00 inch | 290 - 508 mm 11.42 - 20 inch |
| Pipe materials | Unalloyed and low-alloyed steels, high-alloyed steels (stainless steel), aluminum | | | | |
| Technical data | | | | | |
| Dimensions | 560 x 260 x 400 mm 22 x 10.2 x 15.8 inch | 640 x 260 x 420 mm 25.2 x 10.2 x 16.5 inch | 625 x 375 x 490 mm 24.6 x 14.8 x 19.3 inch | 700 x 375 x 510 mm 27.6 x 14.8 x 20 inch | 700 x 510 x 570 mm 27.6 x 20 x 22.4 inch |
| Power | 1.8 kW | 1.2 kW | 1.8 kW | 1.2 kW | 1.8 kW |
| Air consumption (at 6 bar) | 2.0 m³/min | – | 2.0 m³/min | – | 2.0 m³/min |
| Speed | 0 - 26 min ⁻¹ | 10 - 32 min ⁻¹ | 0 - 13 min ⁻¹ | 5 - 16 min ⁻¹ | 0 - 13 min ⁻¹ |
| Vibration level according to EN 28662, Part 1 | < 2.5 m/s ² | < 2.5 m/s ² | < 2.5 m/s ² | < 2.5 m/s ² | < 2.5 m/s ² |
| Noise level in the workplace | at idle-speed: approx. 75 dB (A) (average speed range); under load: approx. 77 dB (A) | | | | |

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

| 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 |

| Article | Version | Code | | Weight of machine kg | Dispatch weight kg |
|---------|--------------------|--------------------|--|----------------------|--------------------|
| 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 |
| REB 20 | Pneumatic | 790 094 010 | | 88.000 | 135.000 |

Accessories for BRB- and REB machines

Description of the tools made by Orbitalum Tools:

Multifunctional tool MFW for working on the pipe OD:

MFW 30-V / I-4-R5

| | |
|------------------------------|----------------|
| Prep radius in mm | R5 |
| Number of cutting edges | 4 |
| Weld prep profiles | V and I |
| max. workable wall thickness | 30 mm |

Multifunctional tool MFW for working on the pipe ID:

MFW 10-ID-2-R0,8

| | |
|--|--------------|
| Prep radius in mm | R0.8 |
| Number of cutting edges for working on the inner diameter | 2 |
| max. length on the counterbore / bevel | 10 mm |

Tool holder WH for beveling:

WH 30-V-30°

| | |
|------------------------------|--------------|
| Prep angle | 30° |
| Weld prep profile | V |
| max. workable wall thickness | 30 mm |

Tool holder WH for facing:

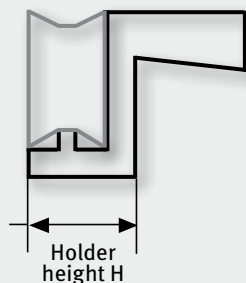
WH 30-I-H27

| | |
|------------------------------|--------------|
| Holder height in mm | H27 |
| Weld prep profile | I |
| max. workable wall thickness | 30 mm |

Tool holder WH for counterboring ID:

WH 10-ID-14°

| | |
|--|--------------|
| Counterbore angle for working on the inner diameter | 14° |
| max. length on the counterbore / bevel | 10 mm |



The different weld prep profiles:



Facing
I-prep



Plain beveling
V-prep



Beveling, facing
Y-prep



J-prepping
U-prep



Counterboring
ID-prep

Tool holder WH

With Torx screw. Combination possibilities of tool holder and multifunctional tools, see page 69.

| 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 |
| 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-37,5° | V/Y | BRB 4 | - | - | 790 086 216 | 0.115 |
| WH12-V-45° | V/Y | BRB 4 | - | - | 790 086 474 | 0.054 |
| WH12-V-80° | V/Y | BRB 4 / REB | - | - | 790 093 462 | 0.048 |
| WH12-V-35° | V/Y | BRB 4 | - | - | 790 086 272 | 0.100 |
| 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 |
| 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 | 0.206 |
| 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 | 0.174 |
| 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 4 | - | - | 790 086 218 | 0.160 |
| WH10-ID-5° / short | ID | BRB 4 / REB | - | - | 790 093 398 | 0.135 |
| WH10-ID-5° / long | ID | BRB 4 / REB | - | - | 790 093 400 | 0.152 |
| WH10-ID-14° | ID | BRB 4 / REB | - | - | 790 093 402 | 0.170 |
| WH10-ID-14° / 30 mm (1.181") deep | ID | BRB 4 / REB | - | - | 790 093 466 | 0.155 |
| 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 | 0.042 |
| WH10-ID-45° | ID | REB | - | - | 790 093 494 | 0.107 |
| WH10-ID-80°*** | ID | BRB 2 / BRB 4 | - | - | 790 086 275 | 0.075 |
| WH5-ID-45°*** | ID | BRB 2 / BRB 4 / REB | - | - | 790 086 218 | 0.155 |



WH12-I



WH15-I**



WH15-V-30°



WH12-U-15°



WH5-ID-14°

* 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.

Multifunctional tool 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 tool 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-V / I-2 | High-Performance | max. 6 | max. 0.236 | WH5-I and WH5-U-20° | BRB 2 | 790 085 030 | | 0.155 |
| 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 | I-, V-, Y-, U radius 5 mm | REB | 790 093 034 | | 0.055 |
| MFW30-U-4-R2 | High-Performance | 2 - 30 | 0.079 - 1.181 | I-, V-, Y-, U radius 2 mm | REB | 790 093 035 | | 0.060 |
| MFW30-U-4-R1 | High-Performance | 2 - 30 | 0.079 - 1.181 | I-, V-, Y-, U radius 1 mm | REB | 790 093 036 | | 0.060 |
| MFW30-U-4-R0.4 | High-Performance | 2 - 30 | 0.079 - 1.181 | I-, V-, Y-, 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 | BRB 4 | 790 086 060 | | 0.025 |
| MFW12-U-2-R2 | High-Performance | 2 - 12 | 0.079 - 0.472 | V, Y, I, U radius 2.0 | BRB 4 | 790 086 064 | | 0.025 |
| MFW5-ID-2-R0.4 (14°) | High-Performance | - | - | WH5-ID-14° radius 0.4 | BRB 4 / REB | 790 093 039 | | 0.003 |
| MFW5-ID-2-R0.4 (45°) | High-Performance | - | - | WH5-ID-45° radius 0.4 | BRB 4 / REB | 790 086 061 | | 0.002 |
| MFW10-ID-2-R0.4 (80°) | High-Performance | - | - | WH10-ID-80° radius 0.4 | 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-R3.0 (14°) | High-Performance | - | - | WH10-ID-14° radius 3.0 mm | REB | 790 093 041 | | 0.004 |



MFW15-V/I-4 "Economy"



MFW30-U-4-R1



MFW15-V/I-4



MFW5-ID-2-R0.4 (14°)



Mobile air unit DWE 10



Air hose with quick coupling



Cutting lubrication KSS-TOP



Elbow clamping system

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 inch). ID: 19.1 mm (0.752 inch). 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.

Contains no hazardous substances (no labeling requirements according to GefStoffV1) and 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 | Pump sprayer 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 inch).

Comes with:

- 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 (2.95 - 6.18 inch).

| 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 | Pipe ID [mm] | Pipe ID [inch] | Code | kg |
|-----------------|-----------------|--------------|-----------------|--------------------|-------|
| Clamping wedges | REB 6 | 155 - 166 | 6.102 - 6.535 | 790 093 295 | 1.300 |
| Clamping wedges | REB 14 | 320 - 339 | 12.598 - 13.346 | 790 094 189 | 3.600 |
| Clamping wedges | REB 14 | 331 - 350 | 13.031 - 13.780 | 790 094 190 | 3.850 |



Clamping wedges optional

Plastic (POM) clamping shell segments

Customized plastic (POM) clamping shell segments for REB 6, REB 14 and REB 20 for thin-walled pipes. Deformation-free clamping system.

These clamping shell segments are especially manufactured for an individual ID of a pipe and can be utilized only for this diameter. Please specify the exact pipe ID with your order.

Comes with:

- 6 Cylinder head screws
- 3 Clamping shells
- 3 Plastic (POM) clamping shell segments

Other dimensions on request.

| Article | Applicable with | Pipe ID [mm] | Pipe ID [inch] | Code | kg |
|--------------------------------|-----------------|---------------|-----------------|--------------------|-------|
| Plastic clamping shell segment | REB 6 | 108.2 - 110.1 | 4.260 - 4.335 | 790 093 297 | 1.600 |
| Plastic clamping shell segment | REB 6 | 147.0 - 149.0 | 5.787 - 5.866 | 790 093 298 | 1.905 |
| Plastic clamping shell segment | REB 14 | 160.0 | 6.299 | 790 094 203 | 3.700 |
| Plastic clamping shell segment | REB 14 | 161.5 - 162.7 | 6.358 - 6.406 | 790 094 202 | 3.800 |
| Plastic clamping shell segment | REB 14 | 211.6 - 213.5 | 8.331 - 8.401 | 790 094 206 | 5.600 |
| Plastic clamping shell segment | REB 14 | 227.58 | 8.960 | 790 094 198 | 5.880 |
| Plastic clamping shell segment | REB 14 | 250.0 | 9.843 | 790 094 208 | 5.600 |
| Plastic clamping shell segment | REB 14 | 264.7 - 266.2 | 10.421 - 10.480 | 790 094 210 | 5.600 |
| Plastic clamping shell segment | REB 14 | 314.7 - 315.9 | 12.390 - 12.437 | 790 094 222 | 4.100 |
| Plastic clamping shell segment | REB 14 | 342.9 | 13.500 | 790 094 226 | 4.800 |
| Plastic clamping shell segment | REB 14 | 347.7 | 13.689 | 790 094 224 | 4.750 |



Plastic (POM) clamping shell segments



ID-Tracking

ID tracking for REB 14 and REB 20

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.

Comes with:

- ID tracking module
- Mount for plane
- Assembly instructions

| Application range | ID Tracking for REB 14 | | ID Tracking for REB 20 | |
|---------------------|------------------------|----------------|------------------------|-----------------|
| | [mm] | [inch] | [mm] | [inch] |
| Pipe ID | 150 - 320 | 5.910 - 12.600 | 290 - 500 | 11.417 - 19.685 |
| Wall thickness max. | 15 | 0.591 | 10 | 0.394 |

| Article | Code | kg |
|--------------------------------|-------------|-------|
| ID-Tracking for REB 14, REB 20 | 790 094 013 | 5.750 |