The Rail Bull is a track welding tractor designed to produce butt and fillet welds with or without oscillation. The tractor can work in PA (flat), PB (horizontal vertical), PC (horizontal), PD (overhead horizontal-vertical), PE (overhead), PF (vertical-up) and PG (vertical-down) welding positions.

Rail Bull moves along either rigid or semi-flexible track on both ferromagnetic and non-ferromagnetic materials thanks to rack and pinion drive and tracks fixed to flat or curved surfaces by means of various magnetic or vacuum units. The minimum curvature radius required for semi-flexible track is 5 m (16 ft).

Applications:
- Trailer manufacturing
- Truck tanks
- Oil tanks
- Water storage tanks
- Pressure vessels
- Vessel overlay/Hard facing
- Bridge girders
- Structural steel
- Structural towers
- Panel welding
- Transformers
- Shipyards
- Any application demanding long, continuous welds
Linear oscillation with trapezoid and straight line paths

Continuous welding

Horizontal speed 0–120 cm/min

Vertical speed 0–110 cm/min

Min. path convex radius 5000 mm

Min. path concave radius 5000 mm

1. Power switch
2. Control panel
3. Torch holder with clamp
4. Oscillator arm
5. Display
6. Cable anchor
7. Drive clutch knob
8. Mounting lever
9. Carrying handle
10. Arc ignition socket
Primary features and benefits:

- Compact, lightweight design with durable aluminum cast housing
- Convenient Power Supply 115–230 V, 50–60 Hz or 42 V, 50–60 Hz
- Quick clamping torch holder mechanism for different types of MIG/MAG torches with diameters of 16–22 mm (0.63–0.87”); up to 35 mm (1.38”) option
- Precise torch adjustment with screw drive cross slide
- Ready to work in both vertical and horizontal positions
- Multifunctional LED display (process parameters & warnings)
- Consistent heat input reduces distortion
- Reduce wasted filler metal - eliminates over welding
- Automatic arc on/off initiates welding and travel, simultaneously
- Closed-loop position control system based on electric motor with encoder – ensures increased accuracy of speed and positioning
- Improves working environment - removes operator from heat and fumes
- Linear torch oscillator to produce weave welds
- Menu in English (other languages on request)
- Rack and pinion drive
- Continuous welding
- Rigid rail track system
## TECHNICAL SPECIFICATIONS RAIL BULL

<table>
<thead>
<tr>
<th>Feature</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Voltage</strong></td>
<td>1– 115–230 V, 50–60 Hz</td>
</tr>
<tr>
<td></td>
<td>42 V, 50–60 Hz</td>
</tr>
<tr>
<td><strong>Power</strong></td>
<td>100 W</td>
</tr>
<tr>
<td><strong>Welding position</strong></td>
<td>PA / 1F / 1G</td>
</tr>
<tr>
<td></td>
<td>PB / 2F</td>
</tr>
<tr>
<td></td>
<td>PC / 2G</td>
</tr>
<tr>
<td></td>
<td>PD / 4F</td>
</tr>
<tr>
<td></td>
<td>PE / 4G</td>
</tr>
<tr>
<td></td>
<td>PF / 3G</td>
</tr>
<tr>
<td></td>
<td>PG / 3G</td>
</tr>
<tr>
<td><strong>Torch diameter</strong></td>
<td>16–22 mm (0.63–0.87”); up to 35 mm (1.38”) option</td>
</tr>
<tr>
<td><strong>Minimum radius of curved workpiece surface</strong></td>
<td>5000 mm (16 ft)</td>
</tr>
<tr>
<td><strong>Minimum workpiece thickness</strong></td>
<td>5 mm (0.2”)</td>
</tr>
<tr>
<td><strong>Horizontal pulling force</strong></td>
<td>350 N</td>
</tr>
<tr>
<td><strong>Vertical pulling force</strong></td>
<td>150 N</td>
</tr>
<tr>
<td><strong>Cross slide adjustment range</strong></td>
<td>0–35 mm (0–1.38”) up-down, left-right</td>
</tr>
<tr>
<td><strong>Horizontal speed</strong></td>
<td>0–120 cm/min (0–47.2 in/min)</td>
</tr>
<tr>
<td><strong>Vertical speed</strong></td>
<td>0–110 cm/min (0–43.3 in/min)</td>
</tr>
<tr>
<td><strong>Weight</strong></td>
<td>20 kg (44 lbs)</td>
</tr>
<tr>
<td><strong>Welding settings storage</strong></td>
<td>1 (last used)</td>
</tr>
<tr>
<td><strong>Oscillation type</strong></td>
<td>linear (0 - 100 mm)</td>
</tr>
<tr>
<td><strong>Oscillation (weaving) pattern</strong></td>
<td>trapezoid, straight line</td>
</tr>
<tr>
<td><strong>Oscillation width</strong></td>
<td>0–50 mm (0–1.9”)</td>
</tr>
<tr>
<td><strong>Oscillation speed</strong></td>
<td>0–1500 mm/min (0–59 in/min)</td>
</tr>
<tr>
<td><strong>Oscillation delay time</strong></td>
<td>0–5 s (at external and central points)</td>
</tr>
<tr>
<td><strong>Product Code (115–230 V, 50–60 Hz, plug EU)</strong></td>
<td>WOZ-0482-10-20-01-0</td>
</tr>
<tr>
<td><strong>Product Code (115–230 V, 50–60 Hz, plug UK)</strong></td>
<td>WOZ-0482-10-10-01-0</td>
</tr>
<tr>
<td><strong>Product Code (42 V, 50–60 Hz)</strong></td>
<td>WOZ-0624-10-04-00-0</td>
</tr>
</tbody>
</table>

### Weld paths:

I. **Trapezoid**
   - The tractor travels continuously even during dwell mode.
   - Weld path is determined by weave speed and dwell time at center and on sides of the weld path.

II. **Straight**
   - The tractor travels continuously while oscillation is switched-off.

### Dimensions:

[Diagram of the welder showing dimensions]
Standard accessories:

- **Power Cord 3m (10 ft)**
- **KBL-0466-17-00-00-0**
  - Dual Arc Ignition Cable of 6.5 m (21 ft)
- **UCW-0476-20-00-00-0**
  - Torch Holder
- **UCW-0482-17-00-00-0**
  - Short Rod Clamp Assembly

Rigid track length 2 m (6.5 ft)
- **PRW-0482-47-00-00-0**

Magnetic unit
- **ZSP-0475-92-00-00-0**

Lightweight Dual Magnetic Unit
- **MST-0677-00-00-00-0**

Heat-resistant magnetic unit
- **ZSP-0475-93-00-00-0**

Magnetic spacing-adjustable unit
- **ZSP-0523-19-00-00-0**

Magnetic narrow unit with hexagon
- **PDS-0582-10-00-02-0**

Bracket for magnetic unit for rigid track
- **DYS-0482-21-00-00-0**

Bracket for magnetic unit for semi-flexible track and Hi Flex track
- **DYS-0482-19-00-00-0**

Bracket for magnetic unit for semi-flexible track and Hi Flex track
- **DYS-0582-10-00-00-0**

Vacuum modular unit
- **MST-0541-10-00-00-0**

Aluminum track support for semi-flexible track
- **WSP-0541-11-02-00-0**

Steel track support for semi-flexible track
- **WSP-0541-11-01-00-0**

Magnetic unit
- **ZSP-0475-92-00-00-0**

Lightweight Dual Magnetic Unit
- **MST-0677-00-00-00-0**

Heat-resistant magnetic unit
- **ZSP-0475-93-00-00-0**

Magnetic spacing-adjustable unit
- **ZSP-0523-19-00-00-0**

Magnetic narrow unit with hexagon
- **PDS-0582-10-00-02-0**

Bracket for magnetic unit for semi-flexible track
- **DYS-0482-19-00-00-0**

Bracket for magnetic unit for semi-flexible track
- **DYS-0582-10-00-00-0**

Magnetic unit
- **ZSP-0475-92-00-00-0**

Lightweight Dual Magnetic Unit
- **MST-0677-00-00-00-0**

Heat-resistant magnetic unit
- **ZSP-0475-93-00-00-0**

Brackets for magnetic units:
- **DYS-0482-21-00-00-0**
- **DYS-0482-19-00-00-0**
- **DYS-0482-19-00-00-0**
- **DYS-0482-19-00-00-0**
- **DYS-0541-11-00-00-0**
- **DYS-0582-10-00-00-0**
- **DYS-0582-10-00-00-0**
- **DYS-0582-10-00-00-0**

Standard accessories:

- **Rigid track length 2 m (6.5 ft)**
  - Minimum 5 m (16 ft) curvature radius required
- **Semi-flexible track length 2 m (6.5 ft)**
  - Minimum 5 m (16 ft) curvature radius required
  - Semi-flexible tracks can be custom rolled permanently within the radius range from 1.5 m up to 5 m (5 ft up to 16 ft)
Optional accessories for variety of applications:

- PKT-0341-13-00-00-0 Gear Rack Adjustment Tool
- PEP-0482-18-00-00-0 Transport Attachment
- ZCS-0476-04-01-00-0 14-22 mm Torch Clip
- ZRZ-0466-19-00-00-0 22-35 mm Torch Clamp

Rail Bull is suitable for work in both horizontal and vertical positions

The Rail Bull welding tractor is supplied in a metal box including:
- welding tractor
- metal box
- cross slide assembly
- short rod torch holder with clamp
- cable anchor
- power cord 3 m (10 ft)
- arc ignition cable of 6.5 m (21 ft)
- 3 mm hex wrench
- 4 mm hex wrench
- operator’s manual

More information available at [www.promotech.eu](http://www.promotech.eu)