Primary features and benefits:

- Fully modular mechanized travel tractor can be custom configured for a variety of welding, thermal cutting and gouging applications on flat or curved plate, tube and pipe
- Linear torch oscillator to produce weave welds
- Active compensation of torch position vertically and horizontally by means of modular automatic seam tracking system
- Programmable path of stitch welds
- Possibility to select one limit switch preset out of three presets available.
- Suitable for variety of circumferential and irregular surface applications down to minimum radius of 100 mm (4”)
  - Ring tracks on diameters from 200 mm (8”) OD up to 3 m (10 ft) OD
  - Hi-Flex tracks on diameters from 1500 mm (59”) OD upwards
  - Custom rolled tracks on diameters from 3 m (10 ft) OD up to 10 m (32 ft) OD
  - Semi-flexible tracks can be flexed to minimum radius of 5 m (16 ft) without permanent deformation
- Ergonomic remote control pendant with simple and easy to find control knobs makes adjustments possible without lifting of the operators welding hood
- Magnetic adhesion of the pendant provides firm grip on ferromagnetic materials
- Suitable for all welding positions on both ferromagnetic and non-ferromagnetic materials thanks to rack and pinion drive and various tracks equipped with magnetic or vacuum units
- Rail Bull 2 produces consistent high quality welds and cuts in a fraction of the time required by manual operations
- High speed up to 3 m/min makes plasma cutting available
Continuous welding

Linear oscillation with trapezoid, triangle, square and straight line paths

Hi Flex Track
min OD 1500 mm (59”)

Ring tracks from 200 mm (8”) OD up to 3 m (10 ft) OD

Custom rolled tracks from 3 m (10 ft) OD up to 10 m (32 ft) OD

Min. path convex radius for semi-flexible tracks is 5 m (16 ft)

Stitch welding

Vertical speed 10–300 cm/min

Horizontal speed 10–300 cm/min

Rail Bull 2 can work in all welding positions on both ferromagnetic and non-ferromagnetic materials by using rack and pinion drive and various tracks equipped with magnetic or vacuum units.
Features and benefits:

- Easy to upgrade modular design
- Continuous and programmable path of stitch welds (weld length, space between welds, backweld length, crater fill time)
- Linear torch oscillator to produce weave welds
- Three modes of automatic seam tracking (vertical, horizontal and both)
- Limit switch stops the arc and travels the tractor to the initial position
- Hand-held ergonomic control pendant (3 m cable included) with magnetic adhesion provides firm grip on ferromagnetic materials
- Multifunctional LED display with numeric representations for each motion parameter makes presetting and repeating of the optimum welding or cutting procedure simple and without guess work
- Intuitive software with user-friendly interface
- Automatic arc on/off initiates welding and travel simultaneously
- Rack and pinion drive
- Convenient external 230 V, 115 V or 42 V power supply
- Closed-loop position control system based on electric motor with encoder – ensures increased accuracy of speed and positioning
- Consistent heat input reduces distortion
- Reduces wasted filler metal – eliminates over welding
- Quick-clamping torch holder mechanism for different types of torches with diameters of 16–22 mm (0.63–0.87”); up to 35 mm (1.38”) option
- Precise torch adjustment
- Improves working environment – removes operator from heat and fumes
**RAIL BULL 2 Technical specification**

| **Voltage** | 1~230 V, 50–60 Hz  
|            | 1~115 V, 50–60 Hz  
|            | 1~42 V, 50–60 Hz  |
| **Power**  | 120 W  |
| **Welding position** | PA / 1F / 1G  
|          | PB / 2F  
|          | PC / 2G  
|          | PD / 4F  
|          | PE / 4G  
|          | PF / 3G  
|          | PG / 3F (contact your dealer)  
|          | PG / 3G  |
| **Fixing on pipes and round workpieces** | Ring tracks  
|          | from 200 mm (8") OD up to 3 m (10ft) OD  
|          | Hi-flex tracks  
|          | Minimum curvature radius of 750 mm (30")  
|          | Custom rolled tracks  
|          | from 3 m (10 ft) OD up to 10 m (32 ft) OD  
|          | Semi-flexible track  
|          | Minimum curvature radius of 5 m (16 ft)  |
| **Torch type** | MIG/MAG, Plasma, Oxy-fuel  |
| **Torch diameter** | 16–22 mm (0.63–0.87")  
|          | up to 35 mm (1.38") option  |
| **Horizontal pulling force** | 400 N  |
| **Vertical pulling force** | 300 N  |
| **Horizontal speed** | 0–300 cm/min (0–120 in/min)  |
| **Vertical speed** | 0–300 cm/min (0–120 in/min)  |
| **Oscillation type** | Linear  |
| **Weld path** | Straight, triangle, trapezoid, square  |
| **Oscillation width** | 0.2–11.8 cm (0.1–4.5")  |
| **Oscillation speed** | 10–300 cm/min (5–120 in/min)  |
| **Oscillation dwell time at center and on ends** | 0–5 s  
| **Weight** | 10 kg (22 lbs) |

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**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. **Square**  
The tractor travels only during dwell and stops during oscillator cross travel.  
Only dwell time determines the weld path, and weave speed has no influence.

III. **Triangle**  
The tractor travels only during weaving.  
Both the tractor and oscillation stop during dwell mode.

IV. **Straight**  
The tractor travels continuously while oscillation is switched-off.
**Standard accessories:**

5 m (17 ft) power cable  
PWD-0523-10-03-00-0

Remote control pendant  
PNL-0523-03-00-00-0

3 m (10 ft) remote control cable  
PWD-0523-10-01-00-0

6.5 m (21 ft) arc ignition cable  
KBL-0466-17-00-00-0

300 mm (12’’) rod  
WSP-0523-16-00-00-0

Rackholder  
ZSP-0475-62-00-00-0

300 mm (12’’) rack  
RAM-0523-17-00-00-0

Cable anchor  
UCW-0523-05-01-00-0

Clamping block with levers  
KST-0525-11-00-00-0

Short rod torch holder with fits-all clamp  
UCW-0476-20-00-00-0

Contact block  
ZDR-0523-76-00-00-0

**Optional equipment:**

Power supply  
(3 voltage versions to choose from)
1 – 230 V, 50–60 Hz, ZSL-0523-09-00-00-0
1 – 115 V, 50–60 Hz, ZSL-0523-09-00-01-0
1 – 42 V, 50–60 Hz, ZSL-0523-97-00-02-0

Configuration with seam tracking horizontally and vertically requires an optional seem tracking attachment and a motorized vertical slide
Seam tracking attachment
CZJ-0523-07-00-00-0

Rod for sensor tips
WSP-0523-07-01-13-0

Sensor tip (rod required)
ADT-0506-43-00-00-0

Sensor tip (rod required)
ADT-0506-40-00-00-0

Sensor tip (rod required)
ADT-0506-41-00-00-0

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

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

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

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

Set of Hi Flex Track Guiding Rollers (4 pcs)
Product code: ZSP-0673-07-00-00-0

Hi Flex Track min OD 1500 mm
TRO-0673-00-00-0

Bracket for magnetic narrow 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-0482-19-00-00-0

Bracket for magnetic narrow unit for semi-flexible track and Hi Flex track
DYS-0582-19-00-00-0

Bracket for vacuum modular unit for semi-flexible track and Hi Flex track
DYS-0541-11-01-00-0

Magnetic pivoting unit
MST-0541-10-02-00-0

The regular Rail Tug / Rail Bull 2 rollers should be replaced with the optional Hi Flex track guiding rollers
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).

Bracket for magnetic unit for rigid track
DYS-0523-21-00-00-0

Bracket for magnetic unit for semi-flexible track and Hi Flex track
DYS-0523-19-00-00-0

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

Bracket for magnetic spacing-adjustable unit
DYS-0523-14-00-00-0

Bracket for vacuum modular unit for semi-flexible track and Hi Flex track
DYS-0541-11-01-00-0

Bracket for ring track supports to expand pipe diameter range by 50 mm downwards
DYS-0523-18-00-00-0

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

Semi-flexible track length 2 m (6.5 ft)
Minimum 5 m (16 ft) curvature radius required
PRW-0482-15-05-00-0
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)

Vacuum modular unit
MST-0541-10-02-00-0

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

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

Magnetic pivoting unit
ZSP-0475-85-00-00-0

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

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

Steel track support for semi-flexible track
WSP-0523-12-01-00-1

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

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

Bracket for magnetic unit for semi-flexible track
DYS-0523-19-00-00-0

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

Bracket for magnetic spacing-adjustable unit
DYS-0523-14-00-00-0

Bracket for vacuum modular unit for semi-flexible track and Hi Flex track
DYS-0541-11-01-00-0

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

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

Magnetic pivoting unit
ZSP-0475-85-00-00-0

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

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

Steel track support for semi-flexible track
WSP-0523-12-01-00-1

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

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

Bracket for magnetic spacing-adjustable unit
DYS-0523-14-00-00-0

Bracket for vacuum modular unit for semi-flexible track and Hi Flex track
DYS-0541-11-01-00-0

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

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

Magnetic pivoting unit
ZSP-0475-85-00-00-0

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

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

Steel track support for semi-flexible track
WSP-0523-12-01-00-1

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

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

Bracket for magnetic spacing-adjustable unit
DYS-0523-14-00-00-0

Bracket for vacuum modular unit for semi-flexible track and Hi Flex track
DYS-0541-11-01-00-0

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

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

Magnetic pivoting unit
ZSP-0475-85-00-00-0

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

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

Steel track support for semi-flexible track
WSP-0523-12-01-00-1

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

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

Bracket for magnetic spacing-adjustable unit
DYS-0523-14-00-00-0

Bracket for vacuum modular unit for semi-flexible track and Hi Flex track
DYS-0541-11-01-00-0

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

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

Magnetic pivoting unit
ZSP-0475-85-00-00-0

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

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

Steel track support for semi-flexible track
WSP-0523-12-01-00-1

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

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

Bracket for magnetic spacing-adjustable unit
DYS-0523-14-00-00-0

Bracket for vacuum modular unit for semi-flexible track and Hi Flex track
DYS-0541-11-01-00-0

Ring tracks

Available on request, diameter can be custom configured within the range from 200 mm OD up to 3000 mm OD (from 8” to 10 ft).

Ring tracks can be equipped with various supports depending on the customer’s needs.

Ring tracks available on request, diameter can be custom configured within the range from 200 mm OD up to 3000 mm OD (from 8” to 10 ft).

Ring tracks can be equipped with various supports depending on the customer’s needs.
Rail Bull 2 is supplied in plastic box including:

- Tractor
- Power supply (optional)
- 5 m (17 ft) power cable
- Remote control pendant
- 3 m (10 ft) remote control cable
- 6.5 m (21 ft) arc ignition cable
- 300 mm (12'') rod
- 300 mm (12'') rack
- Rackholder
- Clamping block with levers
- Short rod torch holder with fits-all clamp
- Cable anchor
- Contact block
- 6 mm hex wrench
- Operator’s Manual

Applications:

- Trailer manufacturing
- Truck tanks
- Oil tanks
- Water storage tanks
- Pressure vessels
- Vessel overlay / hardfacing
- Bridge girders
- Structural steel
- Structural towers
- Panel welding
- Transformers
- Shipyards
- Any application demanding long continuous welds

More information available at www.promotech.eu

PROMOTECH Sp. z o.o.
ul. Elevatorska 23/1, 15-620 BIALYSTOK, POLAND
tel. (+48 85) 678 34 05, fax (+48 85) 662 78 77
marketing@promotech.eu     www.promotech.eu