

## RAIL BULL 2

### MODULAR TRACK WELDING TRACTOR FOR ALL-POSITION MECHANIZED WELDING AND CUTTING

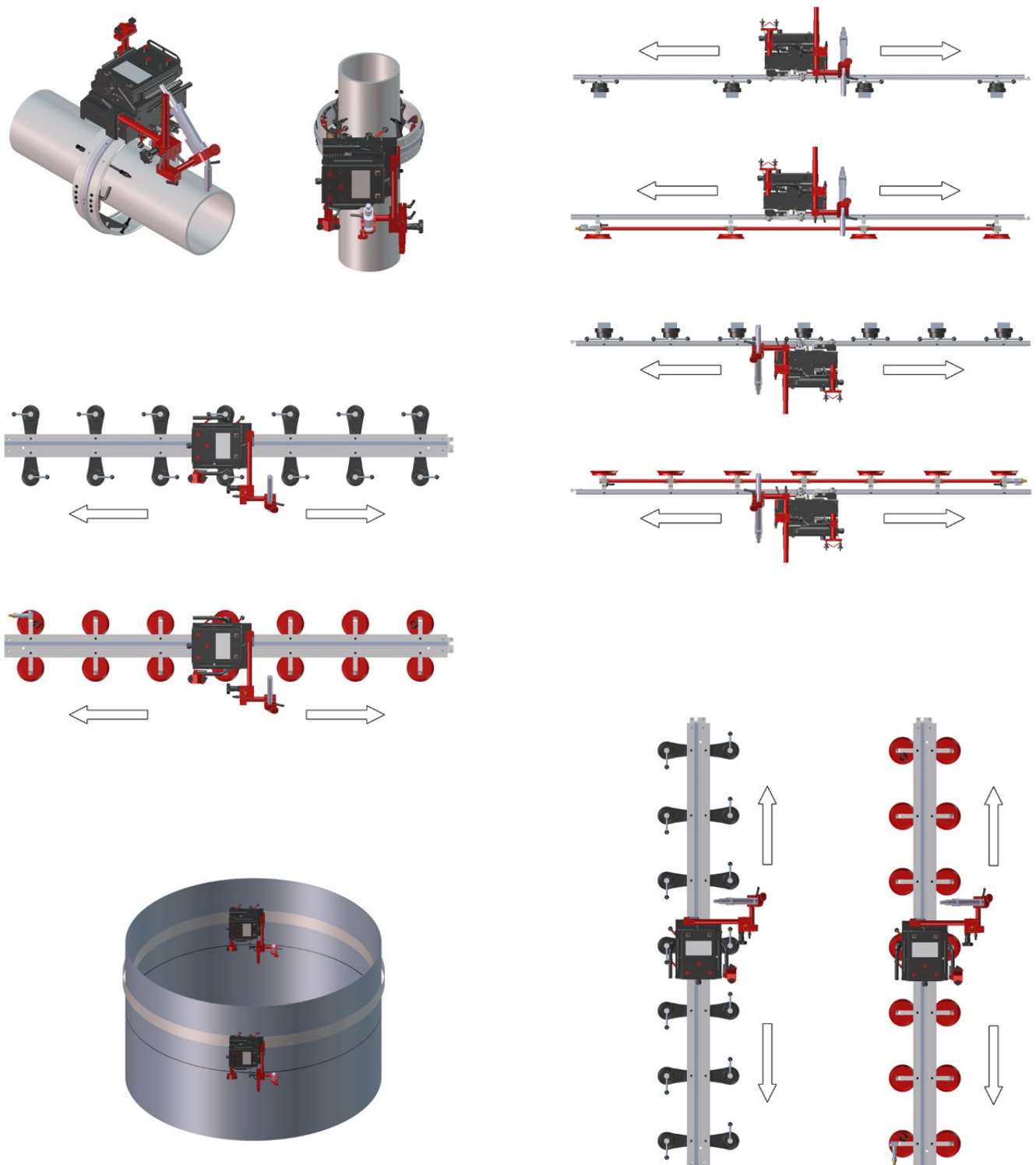
#### Primary features and benefits:

- 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





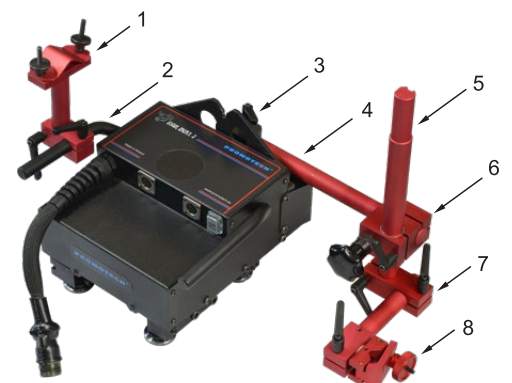
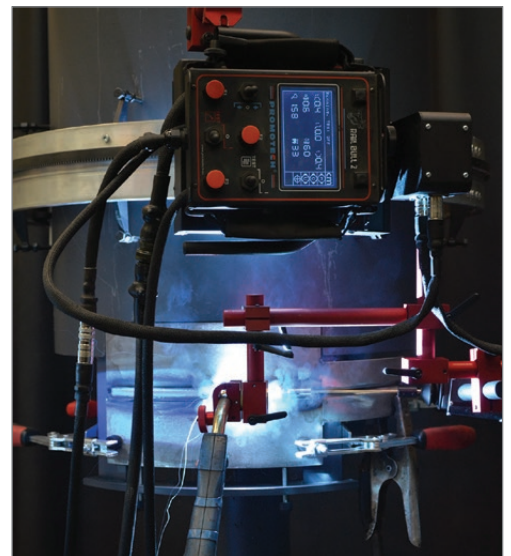
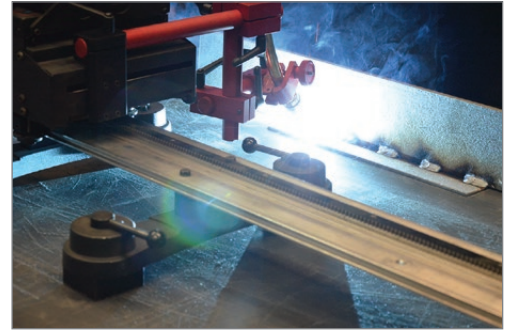
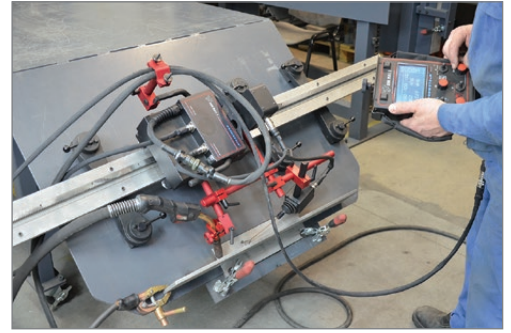
Rail Bull 2 can work in all welding positions on both ferromagnetic and non-ferromagnetic materials by using rack and pinion drive and various tracks equipped with magnetic or vacuum units.





## Features and benefits:

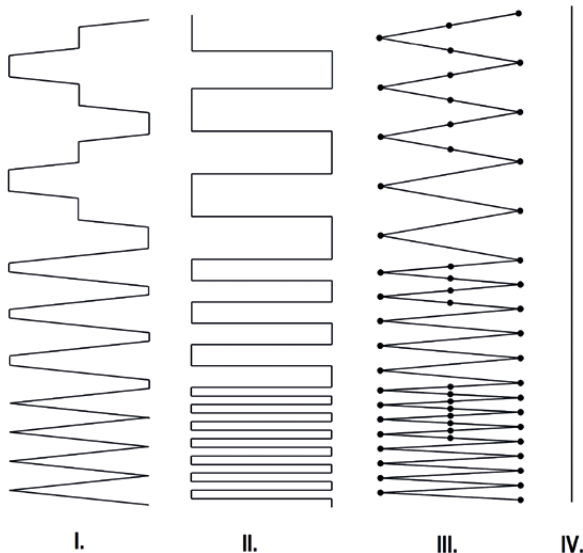
- Easy to upgrade modular design
- Continuous and programmable path of stitch welds (weld length, space between welds, backweld length, crater fill time)
- Linear torch oscillator to produce weave welds
- Three modes of automatic seam tracking (vertical, horizontal and both)
- Limit switch stops the 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



1. Cable anchor
2. Carrying handle
3. Torch rod holder
4. 300 mm (12”) rod
5. 300 mm (12”) rack with 180 mm (7”) adjustment range
6. Rackholder
7. Clamping block with levers
8. Short rod torch holder with fits-all clamp

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 (according to EN ISO 6947 and AWS/ASME)	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 Hi-flex tracks Custom rolled tracks Semi-flexible track
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)

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:**



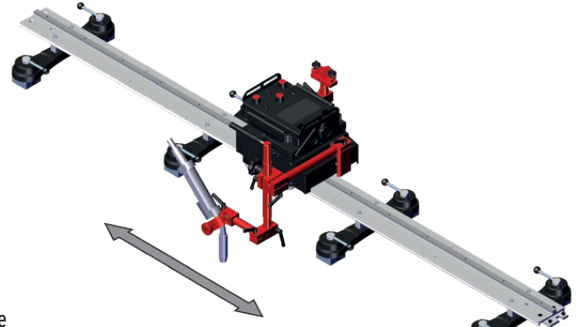
5 m (17 ft) power cable  
PWD-0523-10-03-00-0



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

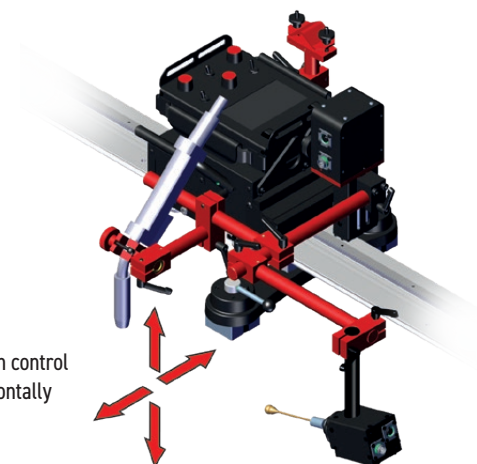


Configuration with seam tracking horizontally and vertically requires an optional seam tracking attachment and a motorized vertical slide

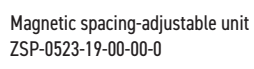
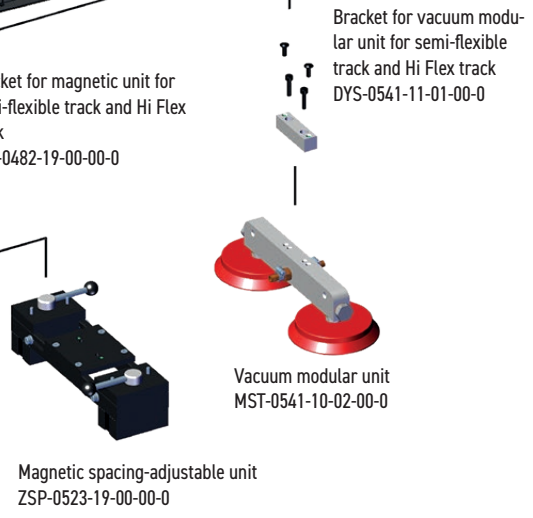
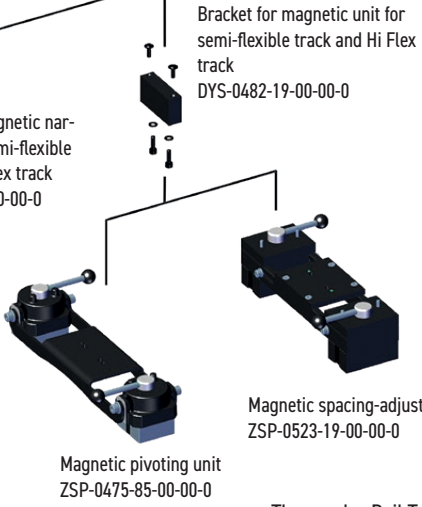
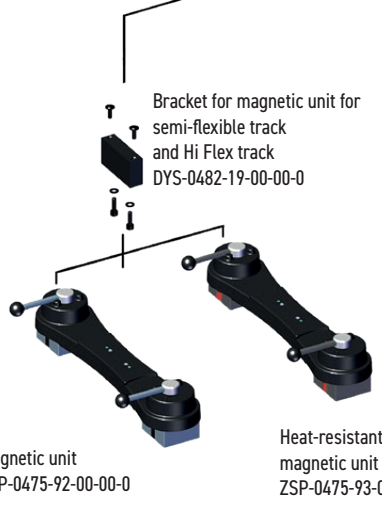
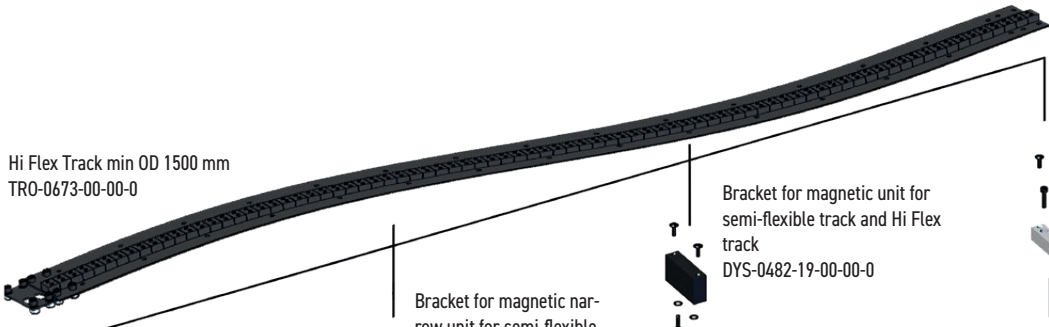
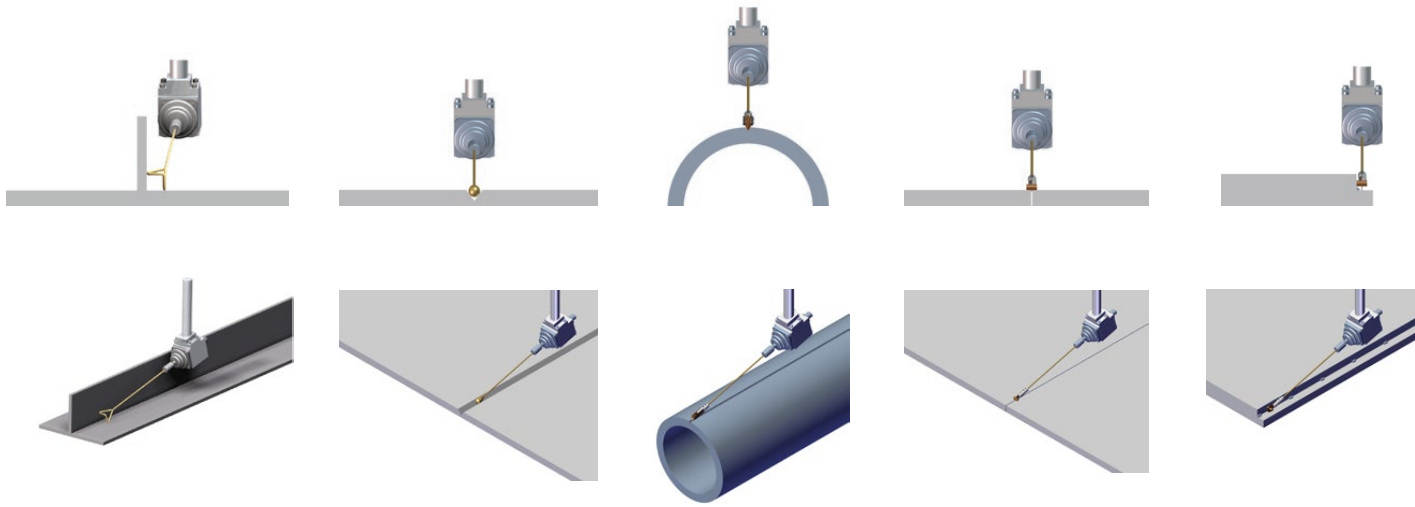
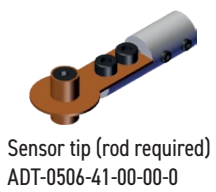
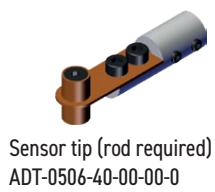
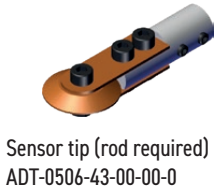
Motorized vertical slide  
OSK-0523-06-00-00-0



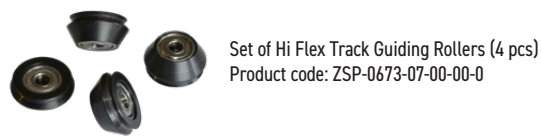
Active torch position control  
vertically and horizontally







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



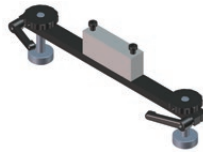
## Ring tracks

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).

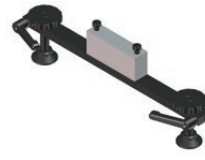
Ring tracks can be equipped with various supports depending on the customer's needs.



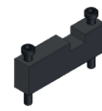
Support with bolts  
WSP-0523-14-02-00-0



Support with magnets  
WSP-0523-14-12-00-0

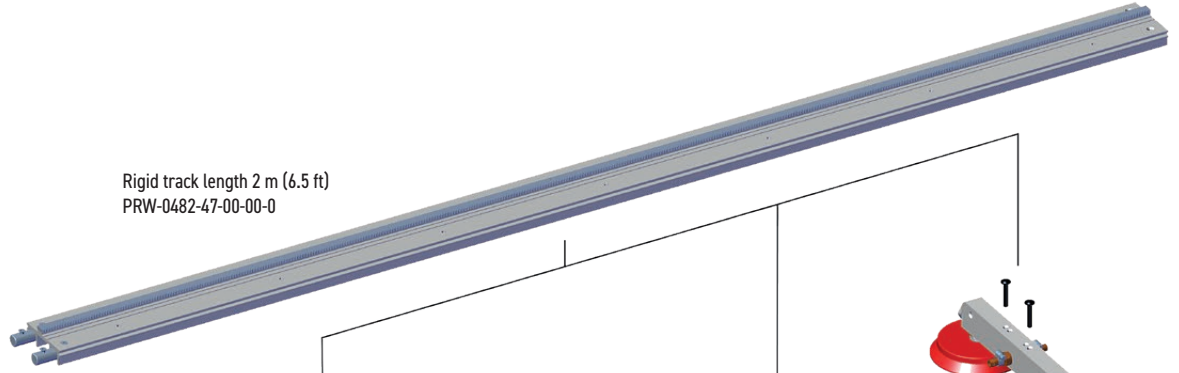


Support with plastic feet  
WSP-0523-14-11-00-0

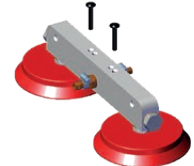


Bracket for ring track supports to expand pipe diameter range by 50 mm downwards  
DYS-0523-14-14-00-0

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



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



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



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



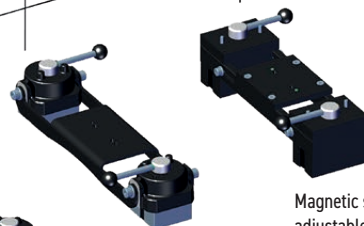
Magnetic unit  
ZSP-0475-92-00-00-0



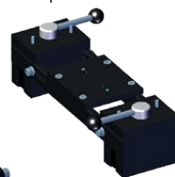
Lightweight Magnetic Unit  
MST-0677-00-00-00-0



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



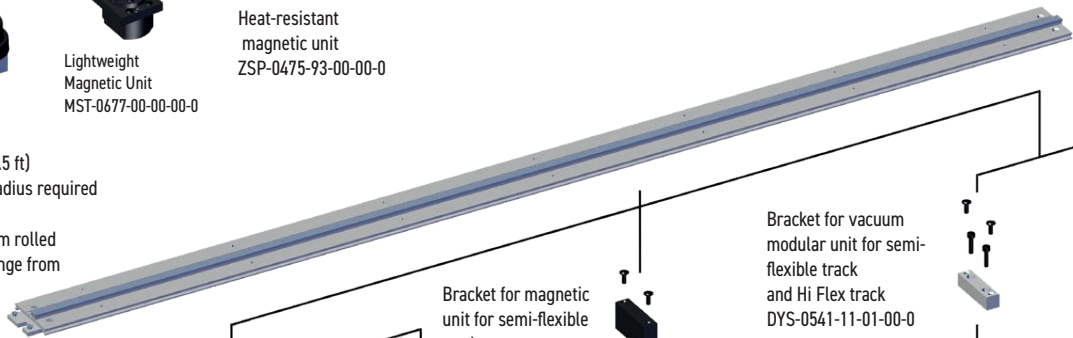
Magnetic pivoting unit  
ZSP-0475-85-00-00-0



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

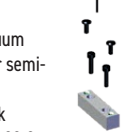
Semi-flexible track length 2 m (6.5 ft)  
Minimum 5 m (16 ft) curvature radius required  
PRW-0482-15-05-00-0

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)



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

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



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



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

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-0582-10-00-00-0



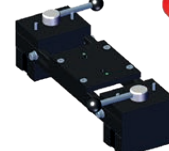
Magnetic narrow unit with hexagon  
PDS-0582-10-00-02-0



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



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



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



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



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



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

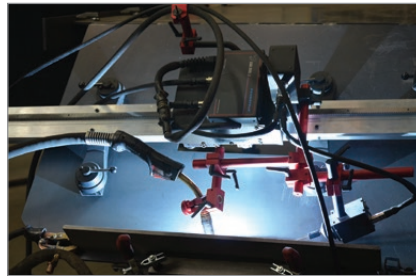


Rail Bull 2 is supplied in plastic box including:

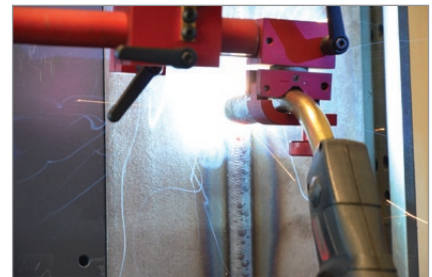
- Tractor
- Power supply (optional)
- 5 m (17 ft) power cable
- Remote control pendant
- 3 m (10 ft) remote control cable
- 6.5 m (21 ft) arc ignition cable
- 300 mm (12") rod
- 300 mm (12") rack
- Rackholder
- Clamping block with levers
- Short rod torch holder with fits-all clamp
- Cable anchor
- Contact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



Mitglied im DVS – Deutscher Verband für Schweißen und verwandte Verfahren e. V.



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



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