PROMOTECH®

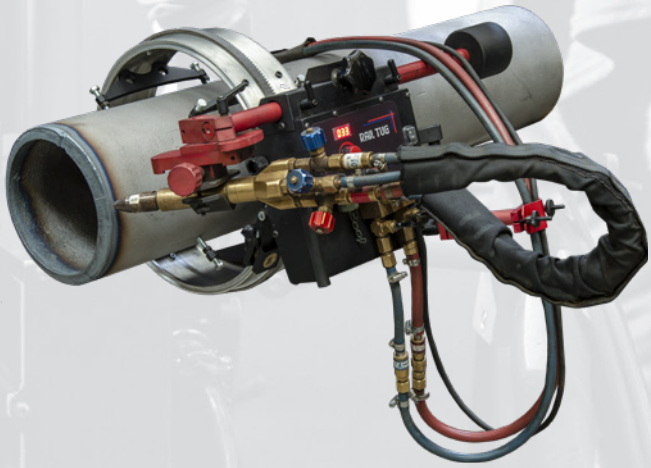
smart tools
for heavy tasks

FM 37982

RAIL TUG | WELDING AND CUTTING TRACTOR

The Rail Tug is a digitally controlled tractor designed for the mechanization of welding and thermal cutting processes. Featuring a rack and pinion drive system with electronic speed control, the Rail Tug creates weld bead geometry which is exact to your specifications, reducing costly over welding and decreasing filler metal usage.

The Rail Tug can be used with semi-flexible track for plate and tank work with a minimum radius of 5 m (16 ft) or adapted to bent ring rail for pipe and tube applications.



Standard ring rails are available for tube diameters from 200 mm (8”) up to 3000 mm (10 ft), whereas custom rolled tracks can be used for tube diameters between 3 m (10 ft) and 10 m (32 ft).

Using a vacuum system allows the track to be clamped to non-ferrous surfaces (stainless steel, aluminum etc.)

The Rail Tug economically meets a broad array of welding and cutting applications on flat or curved plate, tube and pipe.

Applications:

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

Continuous welding

Horizontal speed
10–200 cm/min

Vertical speed
10–200 cm/min

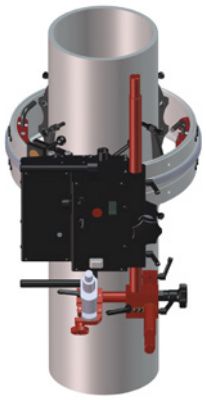
Ring tracks from
200 mm (8”) OD
up to 3 m (10 ft) OD

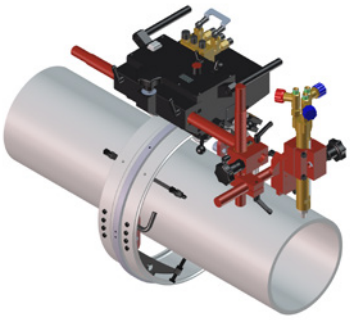
Hi Flex Track
min OD 1500 mm

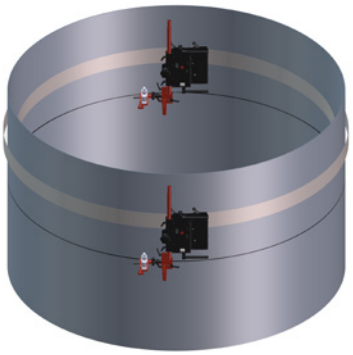
Custom rolled tracks
from 3 m (10 ft) OD
up to 10 m (32 ft) OD

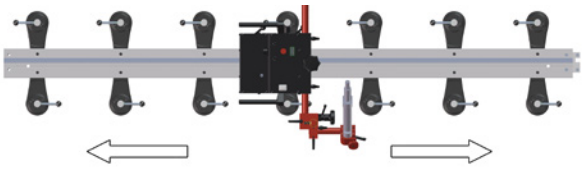
Min. path convex radius
for semi-flexible tracks
is 5 m (16 ft)

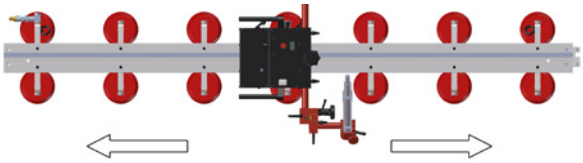
Rail Tug can work in various welding positions on both ferromagnetic and non-ferromagnetic materials by using rack and pinion drive and various tracks equipped with magnetic or vacuum units.

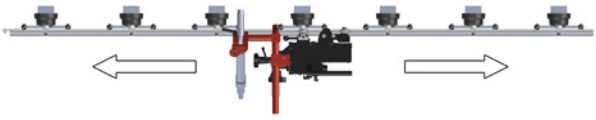




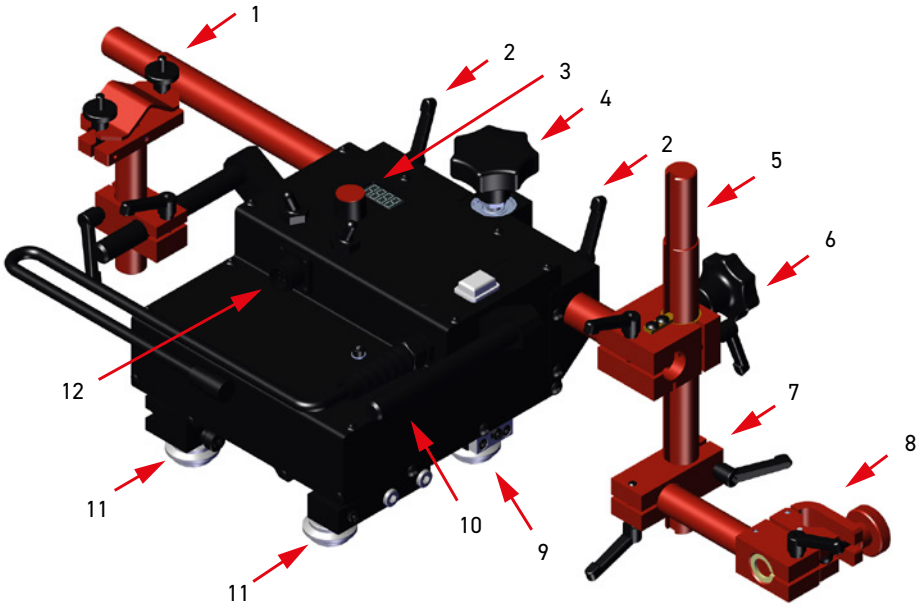






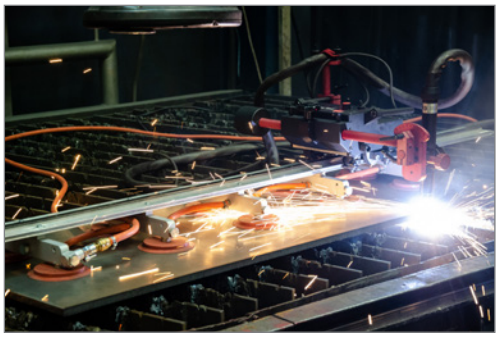


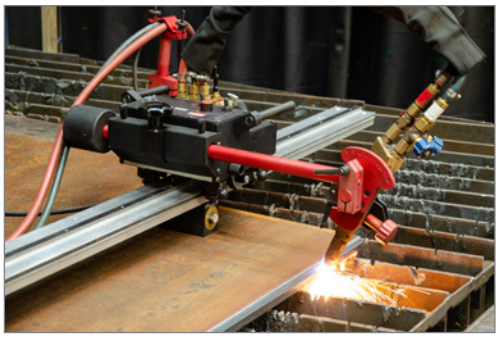
1. 540 mm (21”) rack
2. Rack Locking Levers
3. Control panel
4. Rack adjustment knob
5. 300 mm (12”) rack with 180 mm (7”) adjustment
6. Rack holder
7. Clamping block with levers
8. Short rod torch holder with fits-all clamp
9. Guiding Roller
10. Carrying handle
11. Adjustable Roller
12. Arc ignition socket

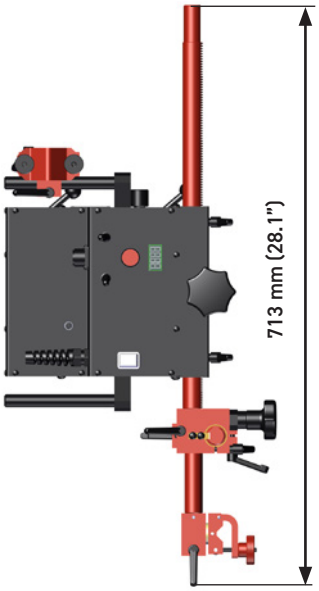


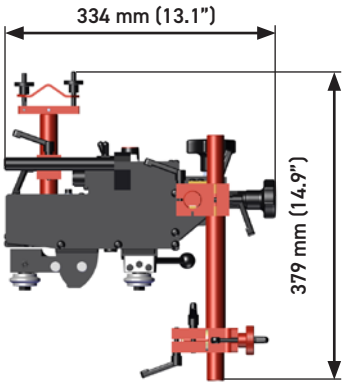
Primary features and benefits

- Compact, lightweight design
- Closed-loop speed control system based on electric motor with encoder – ensures increased accuracy of speed
- Rack and pinion drive
- Consistent heat input reduces distortion
- Reduces wasted filler metal – eliminates over welding
- Digital LED display for presetting of travel speed
- Automatic arc on/off initiates welding and travel simultaneously
- Oxy-fuel and plasma cutting possible with optional accessories
- 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
    - Custom rolled tracks on diameters from 3 m (10 ft) OD up to 10 m (32 ft) OD
    - Semi-flexible tracks can be bended to minimum radius of 5 m (16 ft) without permanent deformation
- 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 with screw drive cross slide
- Convenient external 85-250 V power supply
- Improves working environment – removes operator from heat and fumes









Standard accessories:

Power cord 3 m (9,7 ft)
PWD-0466-18-00-00-0 (230 V CEE)
PWD-0466-16-00-00-0 (115 V USA)
PWD-0466-23-00-00-0 (230 V UK)

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

540 mm (21'') Geared Rack
RAM-0525-07-00-00-0

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

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

300 mm (12") rack
with 180 mm (7") adjustment
RAM-0523-17-00-00-0

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

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

Optional accessories:

PKT-0341-13-00-00-0
Gear Rack Adjustment Tool

RAM-0475-07-03-00-0
700 mm (39.4")
Geared Rack

PWG-0475-09-00-00-0
Counterweight
1.3 kg (2.9 lbs)

RAM-0475-23-00-00-0
1000 mm (39.4")
Geared Rack

PWG-0475-10-00-00-0
Large Counterweight
2,6 kg (5,7lbs)

ZCS-0476-06-01-00-0
16-22 mm Torch Clip

ZRZ-0466-19-00-00-0
22-35 mm Torch Clamp

ZCS-0475-28-10-00-0
Standard Torch Holder 28–35
mm (1.10–1.38'')

203 mm (8") rod
KLM-0236-00-16-00-0

UCW-0475-28-00-00-0
Standard Torch Holder with angle
adjustment

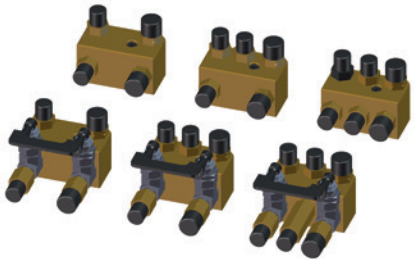
UCW-0475-08-00-00-0
Precise Torch Holder with angle and height
adjustment

UCW-0475-61-00-00-0
Machine Barrel Torch Holder
Ø 30 mm (1.18")

UCW-0475-29-00-00-1
Machine Barrel Torch Holder
Ø 35 mm (1.38'')

UCW-0475-59-00-00-0
Precise Machine Torch Holder
Ø 30 mm (1.18")

UCW-0475-42-00-00-1
Precise Machine Torch Holder
Ø 35 mm (1.38")

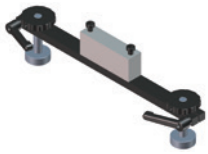


Gas Manifold type	Metric	Imperial
Manifold 2x2	RZD-0475-64-00-00-0	RZD-0475-68-00-00-0
Manifold 2x3	RZD-0475-63-00-00-0	RZD-0475-67-00-00-0
Manifold 3/3	RZD-0475-74-00-00-0	RZD-0475-73-00-00-0
Manifold 2x2 with cut-off valve	RZD-0475-65-00-00-0	RZD-0475-70-00-00-0
Manifold 2/3 with cut-off valve	RZD-0475-66-00-00-0	RZD-0475-69-00-00-0
Manifold 3/3 with cut-off valve	RZD-0475-72-00-00-0	RZD-0475-71-00-00-0

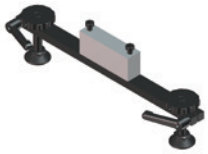
Ring tracks

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.

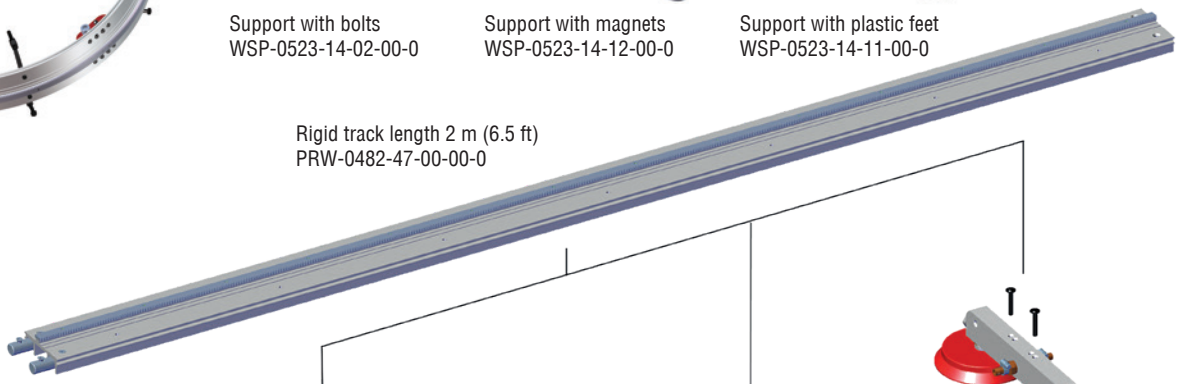
Support with bolts
WSP-0523-14-02-00-0



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

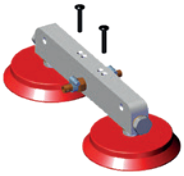


Support with plastic feet
WSP-0523-14-11-00-0

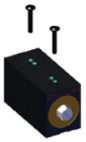


Rigid track length 2 m (6.5 ft)
PRW-0482-47-00-00-0

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

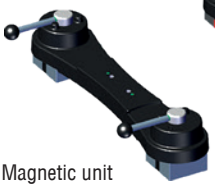


Vacuum modular unit
MST-0541-10-02-00-0



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

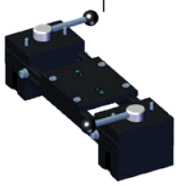
More information about Promotech’s Vacuum System configurations and components is available at company website www.promotech.eu



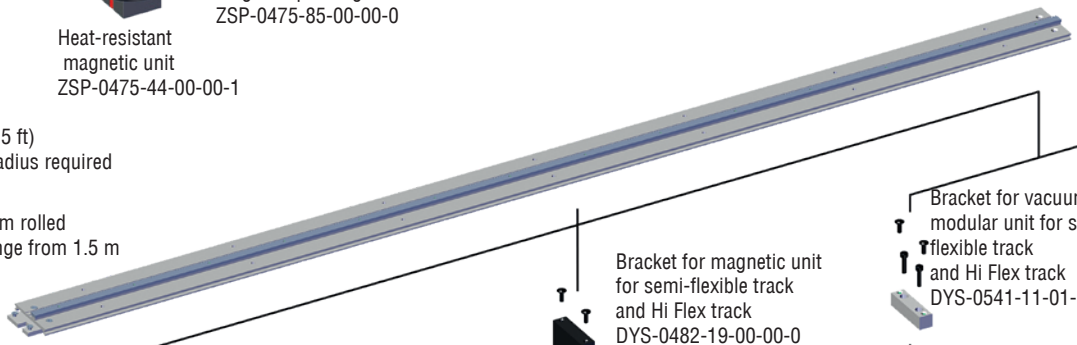
Magnetic unit
ZSP-0475-44-00-00-0

Heat-resistant
magnetic unit
ZSP-0475-44-00-00-1

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

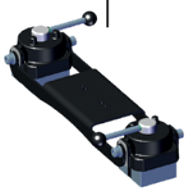
Semi-flexible tracks can be custom rolled permanently within the radius range from 1.5 m up to 5 m (5 ft up to 16 ft)

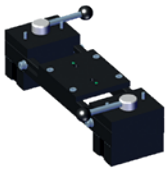
Bracket for magnetic unit
for semi-flexible track
and Hi Flex track
DYS-0482-19-00-00-0

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

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

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





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

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-0582-10-00-00-0

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

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

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

Magnetic unit
ZSP-0475-44-00-00-0

Heat-resistant
magnetic unit
ZSP-0475-44-00-00-1

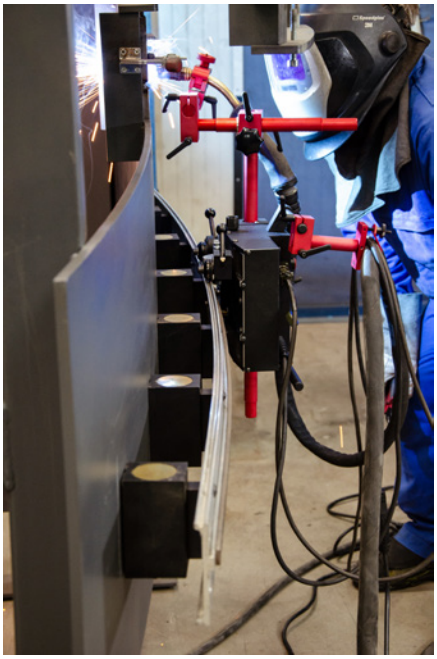
Hi Flex Track
min OD 1500 mm

Hi Flex track can be equipped with magnetic and vacuum units as shown above.

RAIL TUG Technical specification		
Voltage		1~ 115–230 V, 50–60 Hz
Power		66 W
Welding position (according to EN ISO 6947 and AWS/ASME)		PA / 1F / 1G PB / 2F PC / 2G PD / 4F PE / 4G
		PG / 3F (contact your dealer)
Fixing on pipes and round workpieces	Ring tracks	from 200 mm (8”) OD up to 3 m (10ft) OD
	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, SAW, Plasma, Oxy-fuel
Torch diameter	MIG/MAG	16–22 mm (0.63–0.87”)
	SAW, Plasma	
	Oxy-fuel	up to 35 mm (1.38”) option
Horizontal pulling force		300 N
Vertical pulling force		200 N
Horizontal speed		10–200 cm/min (4–80 in/min)
Vertical speed		10–200 cm/min (4–80 in/min)
Weight		10 kg (22 lbs)
Product Code (115–230 V, 50–60 Hz, plug EU)		WOZ-0570-10-20-00-0

Standard shipping set:

- Rail Tug tractor
- Cardboard box
- 300 mm (12”) rack with 180 mm (7”) adjustment
- Rack holder
- Clamping block with levers
- Short rod torch holder with clamp
- Cable anchor
- 6 mm hex wrench
- 6.5 m (21 ft) arc ignition cable
- 3 m (10 ft) power cord
- Operator’s Manual



More information available at www.promotech.eu

American Welding Society
Supporting Company Member

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

All information is subject to change without notice. 1810

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

Find us on

Your local dealer: