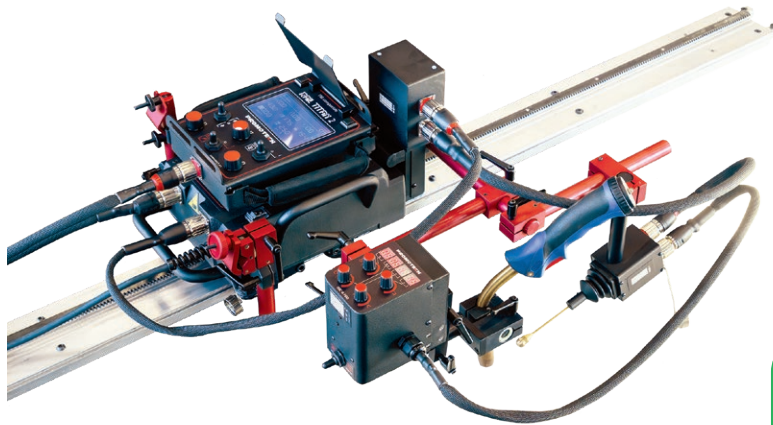


## RAIL TITAN 2 | MODULAR TIG-MIG-MAG WELDING AND CUTTING RAIL TRACTOR

Rail Titan 2 is fully modular mechanized tractor that can be custom configured for TIG-MIG-MAG welding, oxy-fuel or plasma cutting and gouging applications on flat or curved plate, tube and pipe.


Linear torch oscillator produces straight, triangle, trapezoid and square weld paths.

Rail Titan 2 can travel on hi-flex, semi-flexible, rigid or ring tracks that can be clamped to ferrous materials with magnetic units and to non-ferrous materials by means of vacuum track system incl. vacuum pump and vacuum units.



### Primary features and benefits:

- Suitable for TIG welding (HF resistant)
- Robust design with die-cast aluminum housing
- Ergonomic remote control pendant with simple and easy to find control knobs makes adjustments possible without lifting of the operators welding hood
- Programmable path of stitch welds
- Suitable for variety of circumferential and irregular surface applications down to min. 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
  - Semi-flexible tracks can be flexed to minimum radius of 5 m (16 ft) without permanent deformation
- Seam tracking enables active compensation of torch position vertically and horizontally with and without oscillation
- Reliable signal sockets/plugs feature increased HF immunity and improved grip for easier tightening & loosening
- 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 Titan 2 produces consistent high quality welds and cuts in a fraction of the time required by manual operations
- The mirror switch function allows the welder to adjust the torch position to the left or right, regardless of the welder's position relative to the torch
- Wide input voltage range: 100-240V, 50-60Hz 1ph (single phase)




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



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



Hi Flex Track  
min OD 1500 mm (5 ft)  
min ID 3400 mm (11 ft)



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



Mirror switch




Continuous welding



Stitch welding

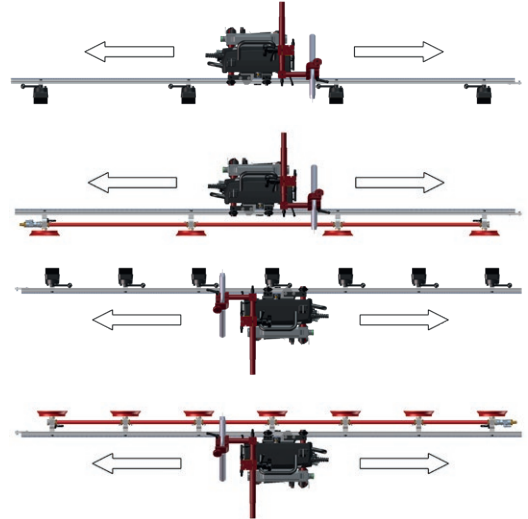
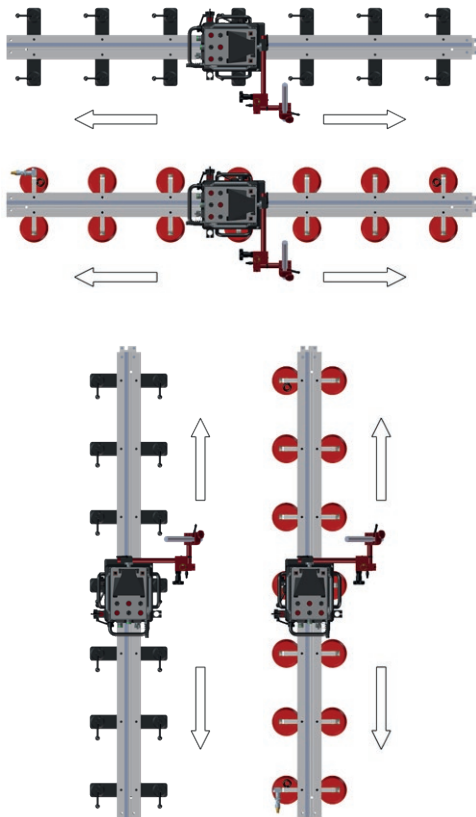


Horizontal speed  
0-250 cm/min



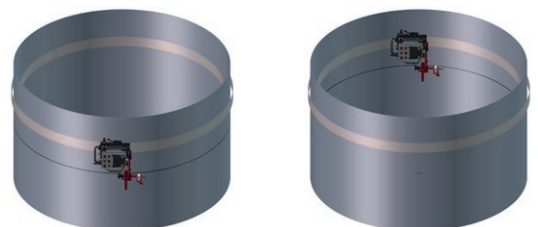
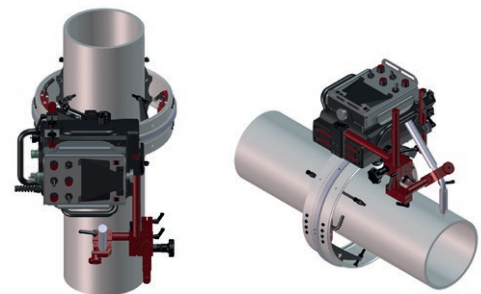
Vertical speed  
0-250 cm/min

Rail Titan 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.

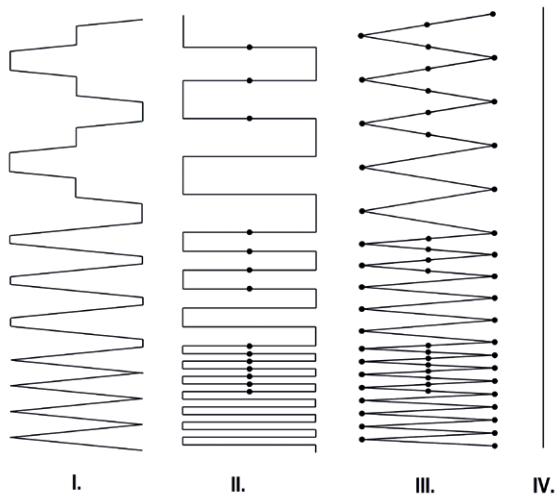


## ■ Mirror Switch

The mirror switch function allows the operator to adjust the torch position to the left or right regardless of the welder's position relative to the torch.



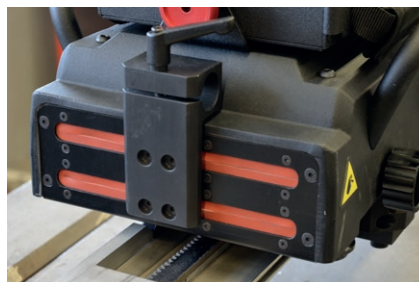
## Weld paths



- 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.



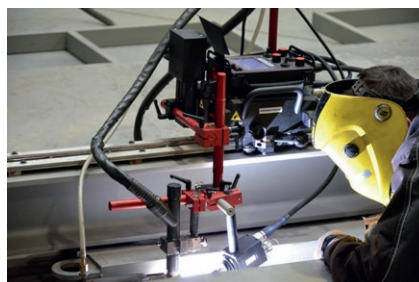
Single lever with lock to position Rail Titan to track



Silicone covers protect against dirt and spatter



Reliable signal sockets and plugs

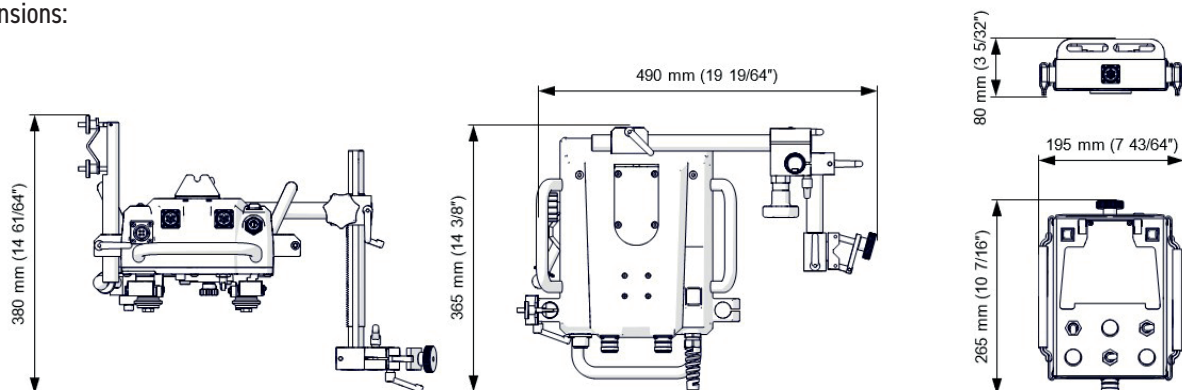


TIG welding of titanium plate



Seam tracking works with and without oscillation

## Dimensions:





## Standard accessories



Remote control pendant



Power cord 3 m (10 ft)  
PWD-0466-18-00-00-0 (230 V CEE)  
PWD-0466-16-00-00-0 (115 V USA)  
PWD-0466-28-00-00-0 (115 V UK)



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



5 m (16.5 ft) remote control cable  
3 m (10 ft) remote control cable  
0.5 m (1.5 ft) remote control cable



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



300 mm long rod with  
182 mm geared rack  
RAM-0523-17-00-00-0



Sliding clamping  
block type 1  
ZSP-0475-62-00-00-0



Double clamping block  
with levers  
KST-0525-11-00-00-0



Short rod torch holder with clamp 16-22 mm  
UCW-0754-07-00-00-0



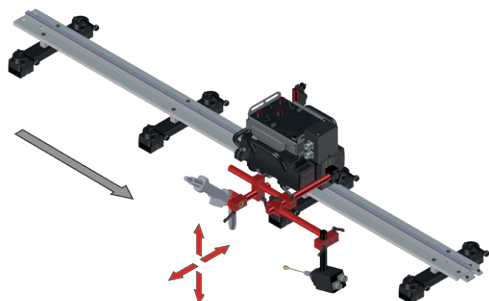
Cable anchor  
UCW-0654-02-00-00-0



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

## Optional equipment

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



Seam tracking assembly  
CZJ-0654-05-00-00-0



Sensor rod with tip I  
ADT-0506-40-00-00-0



Sensor rod with tip II  
ADT-0506-41-00-00-0



Sensor rod with tip IV  
ADT-0506-43-00-00-0



Sensor rod for tips  
WSP-0523-07-01-13-0



Motorized vertical slide  
OSK-0654-04-00-00-0

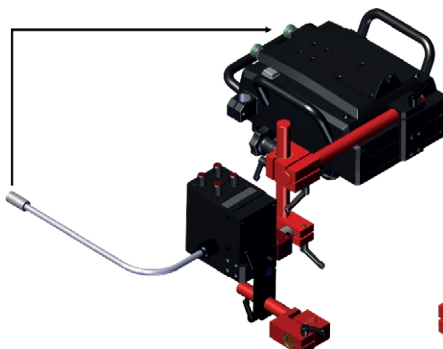


Rack adjustment tool  
PKT-0341-13-00-00-0

Contact block for hi-flex track  
ZDR-0673-08-00-00-0



Transport Attachment  
PEP-0523-93-00-00-0



203 mm rod  
KLM-0236-00-16-00-0



Double clamping block  
with levers  
KST-0525-11-00-00-0

PROMOTECH offers a wide range of tracks suitable for variety of circumferential and irregular surface applications down to min. radius of 100 mm (4")

	RING TRACKS	HI-FLEX TRACKS	SEMI-FLEXIBLE TRACKS
Outer Diameter			
0.2 m			
1.5 m			
3.0 m			
10.0 m			
unlimited OD			



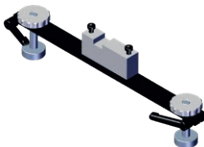
**Ring tracks**

For circumferential applications from 200 mm OD up to 3000 mm OD (from 8" to 10 ft.)

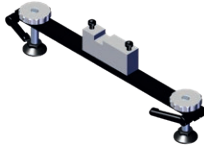
Ring tracks can be equipped with various supports depending on the customer's needs.



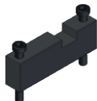
Ring track support with bolts  
WSP-0654-11-00-00-0



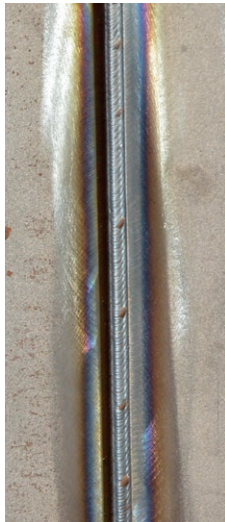
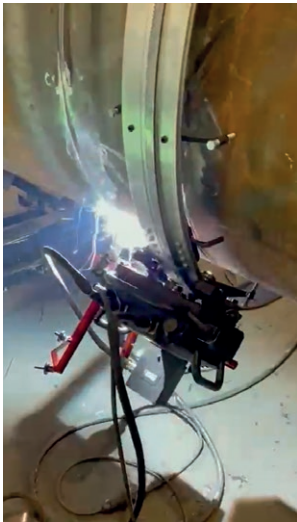
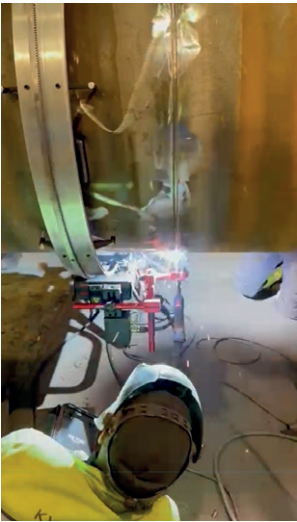
Ring track support with magnets  
WSP-0654-13-00-00-0



Ring track support with plastic feet  
WSP-0654-12-00-00-0

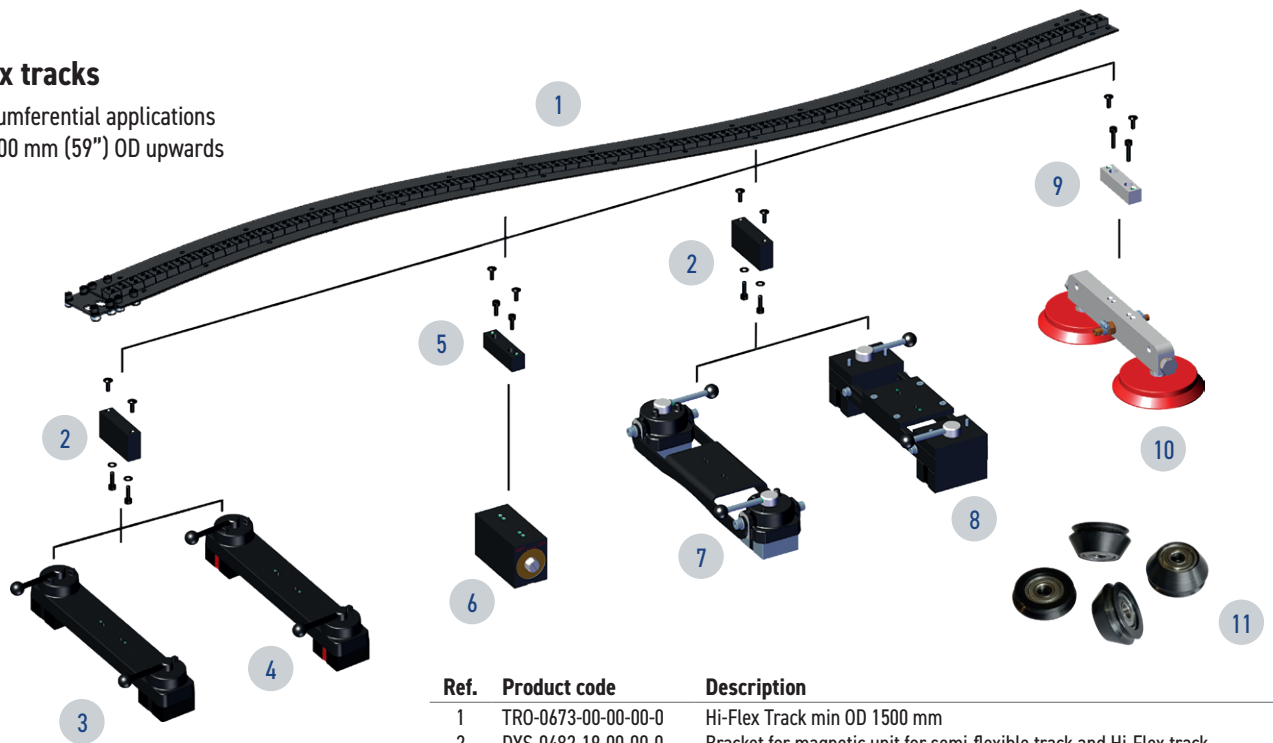


Bracket for ring track supports to expand pipe diameter range by 50 mm downwards  
DYS-0523-14-14-00-0



## Hi-Flex tracks

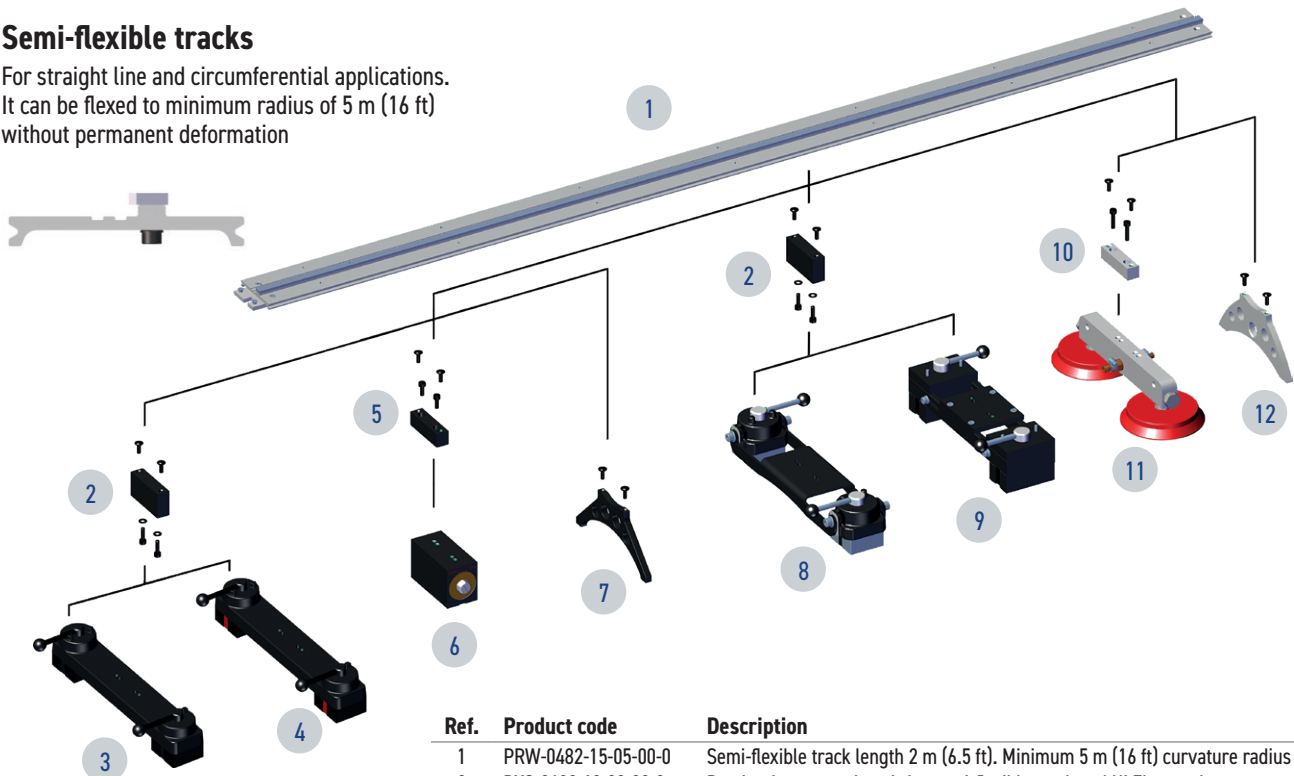
For circumferential applications  
from 1500 mm (59") OD upwards



Ref.	Product code	Description
1	TRO-0673-00-00-0	Hi-Flex Track min OD 1500 mm
2	DYS-0482-19-00-00-0	Bracket for magnetic unit for semi-flexible track and Hi-Flex track
3	ZSP-0475-92-00-00-0	Magnetic unit
4	ZSP-0475-93-00-00-0	Heat-resistant magnetic unit
5	DYS-0582-10-00-00-0	Bracket for magnetic narrow unit for semi-flexible track and Hi-Flex track
6	PDS-0582-10-00-02-0	Narrow magnetic unit with hexagon
7	ZSP-0475-85-00-00-0	Pivoting magnetic unit
8	ZSP-0523-19-00-00-0	Spacing-adjustable magnetic unit
9	DYS-0541-11-01-00-0	Bracket for vacuum modular unit for semi-flexible track and Hi-Flex track
10	MST-0541-10-02-00-0	Vacuum modular unit
11	ZSP-0673-07-00-00-0	Set of Hi Flex Track Guiding Rollers (4 pcs)

## Semi-flexible tracks

For straight line and circumferential applications.  
It can be flexed to minimum radius of 5 m (16 ft)  
without permanent deformation

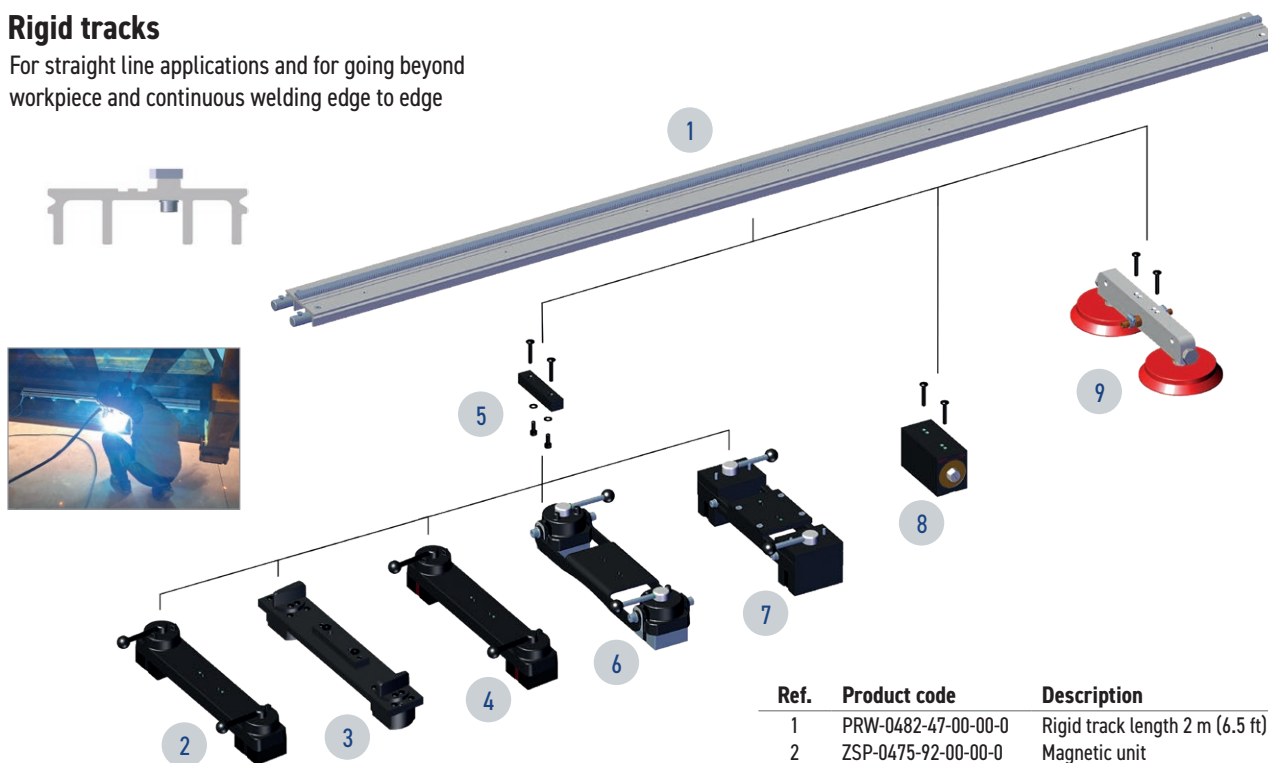


Ref.	Product code	Description
1	PRW-0482-15-05-00-0	Semi-flexible track length 2 m (6.5 ft). Minimum 5 m (16 ft) curvature radius required
2	DYS-0482-19-00-00-0	Bracket for magnetic unit for semi-flexible track and Hi Flex track
3	ZSP-0475-92-00-00-0	Magnetic unit
4	ZSP-0475-93-00-00-0	Heat-resistant magnetic unit
5	DYS-0582-10-00-00-0	Bracket for magnetic narrow unit for semi-flexible track and Hi Flex track
6	PDS-0582-10-00-02-0	Narrow magnetic unit with hexagon
7	WSP-0523-12-01-00-1	Steel support for semi-flexible track
8	ZSP-0475-85-00-00-0	Pivoting magnetic unit
9	ZSP-0523-19-00-00-0	Spacing-adjustable magnetic unit
10	DYS-0541-11-01-00-0	Bracket for vacuum modular unit for semi-flexible track and Hi Flex track
11	MST-0541-10-02-00-0	Vacuum modular unit
12	WSP-0541-11-02-00-0	Aluminum track support for semi-flexible track

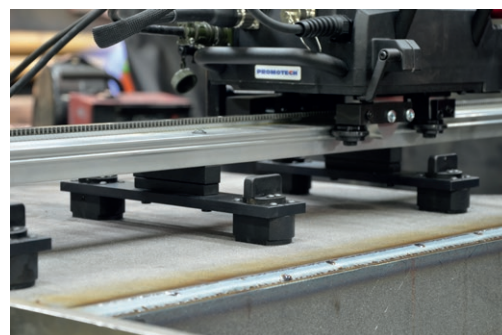


## Rigid tracks

For straight line applications and for going beyond  
workpiece and continuous welding edge to edge



Ref.	Product code	Description
1	PRW-0482-47-00-00-0	Rigid track length 2 m (6.5 ft)
2	ZSP-0475-92-00-00-0	Magnetic unit
3	MST-0677-00-00-00-0	Lightweight Magnetic Unit
4	ZSP-0475-93-00-00-0	Heat-resistant magnetic unit
5	DYS-0482-21-00-00-0	Bracket for magnetic units for rigid track
6	ZSP-0475-85-00-00-0	Pivoting magnetic unit
7	ZSP-0523-19-00-00-0	Spacing-adjustable magnetic unit
8	PDS-0582-10-00-02-0	Narrow magnetic unit with hexagon
9	MST-0541-10-02-00-0	Vacuum modular unit



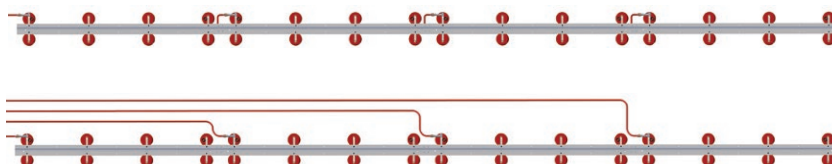
## Vacuum tracks system

For non-ferrous applications

Promotech's vacuum fixing system provides firm grip of rail tracks on both ferromagnetic and non-ferromagnetic materials (aluminum or stainless steel constructions)

Portable vacuum pump with safety reservoir generates vacuum and supports up to 21 vacuum units

System can be configured as serial or parallel connection



More  
information about  
Promotech's Vacuum  
System configurations and  
components is available  
at company website  
[www.promotech.eu](http://www.promotech.eu)

RAIL TITAN 2 Technical specification		
Voltage		1~100-240V, 50-60Hz
Power		120 W
Welding position (according to EN ISO 6947 and AWS/ASME)	Horizontal	PA/1F/1G PB/2F PC/2G PD/4F PE/4G
	Vertical	PF/3G PG/3F (contact your dealer) PG/3G
Fixing on pipes and round workpieces	Ring tracks (OD)	200 mm (8") – 3 m (10 ft)
	Hi-flex tracks (OD)	Minimum 1.5 m (5 ft)
	Hi-flex tracks (ID)	Minimum 3.4 m (11 ft)
	Semi-flex tracks (OD)	Minimum 10 m (32 ft)
Torch type		MIG/MAG, TIG, oxy-fuel, plasma
MIG/MAG torch diameter		16–22 mm (0.63–0.87")
Minimum workpiece thickness for magnetic clamping		5 mm (0.2")
Horizontal pulling force		400 N
Vertical pulling force		315 N
Horizontal speed		0–250 cm/min (0–98 in/min)
Vertical speed		0–250 cm/min (0–98 in/min)
Oscillation type		Linear
Weld path		Straight, triangle, trapezoid, square
Oscillation width		0.1–11.8 cm (0.04–4.5")
Oscillation speed		10–200 cm/min (5–78 in/min)
Oscillation dwell time at center and on ends		0–5 s
Maximum oscillator pulling force		100 N
Weight (incl. standard accessories)		13 kg (29 lbs)
Product code		WOZ-0813-10-20-00-0



#### Standard shipping set:

- Rail Titan 2 tractor
- Plastic box
- Remote control pendant
- Set of 3 signal cables
- Power cord
- 6.5 m (21 ft) arc ignition cable
- 300 mm (12") rod
- 300 mm (12") rack with 180 mm (7") adjustment
- Rack holder
- 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



**American Welding Society**  
Supporting Company Member

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



Shipping weight: 23 kg

Shipping dimensions (W x L x H): 515 mm x 830 mm x 340 mm

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



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Your local dealer:

