PROMOTECH®

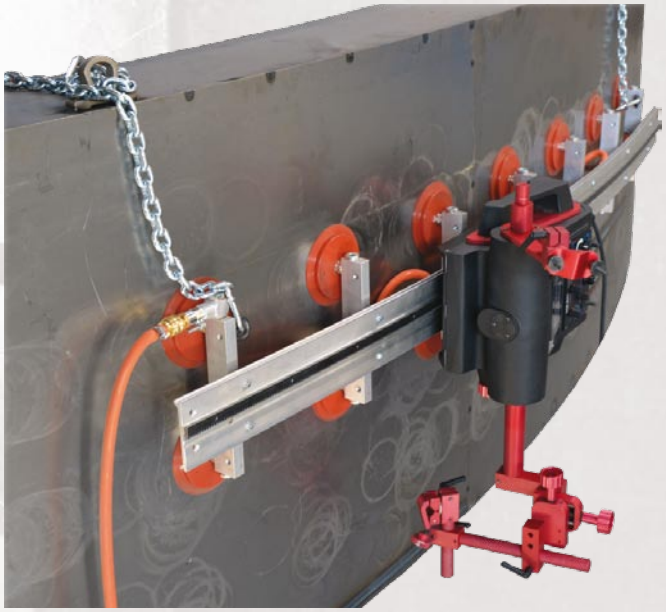
smart tools
for heavy tasks

VACUUM TRACK SYSTEM

Promotech's vacuum fixing system provides firm grip of rail tracks on both ferromagnetic and non-ferromagnetic materials.

Lightweight and modular design enables easy adjustment and fitting of the system to specific needs depending on welding or cutting applications and working positions (e.g. flat, horizontal or vertical).

Vacuum fixing system can be applied to both rigid and semi-flexible tracks to enable usage on surface with a radius of more than 5 m (16 ft).



Features

- back up reservoir for added safety in case of a power failure; back up vacuum offers additional time to safely secure a welding tractor and tracks; it also greatly reduces installation time of the whole system
- maximum plate temperature up to +320°C (608°F)
- only 100 mm (4") minimal distance from heat source to vacuum pads

Applications

- welding and cutting of non-ferromagnetic materials (aluminum or stainless steel constructions)
- welding and cutting of thin or coated ferromagnetic materials when magnetic adhesion may be insufficient

System elements and accessories

Semi-flexible or rigid rail tracks with vacuum units

- compatible with Rail Bull rail tracks

Portable vacuum pump with safety reservoir

- generates vacuum and supports up to 21 vacuum units
- AGR-0541-10-20-00-0 for 230 V
- AGR-0541-10-10-00-0 for 115 V with UK plug

MST-0541-10-02-00-0
Modular vacuum unit

- consists of 2 vacuum pads and manifold block

Modular vacuum unit can be configured in 3 different ways as

- entry unit

- middle/extension unit

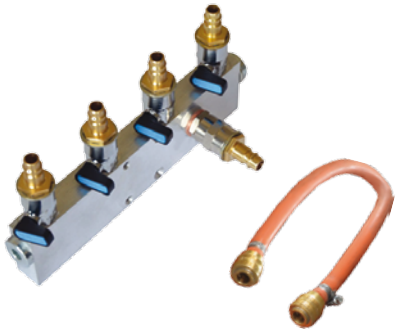
- end unit

Vacuum pad (spare part)

- SSW-0541-99-01-00-0

Pump connection hose

- connects pump to entry vacuum unit (10 m / 33 ft)
- PWD-0541-06-00-00-0



4-way manifold with connection cable

- can separately connect vacuum units of up to four rails
- allows rail leapfrogging during operation
- ROZ-0541-04-00-00-0

Cut-off valve (for entry vacuum unit)

- ZWR-0541-10-01-30-0

Threaded plug (for end vacuum unit)

- KRK-0541-99-00-00-0

2-meter / 7-foot hose

- for interconnecting vacuum units within rail tracks
- 1 per rail track
- should be cut to the required length
- PWD-0541-10-07-00-0

Hose clamp

- OPS-000005

Coupled hose

- for interconnecting vacuum units of different rail tracks
- 1 per additional rail track (serial connection)
- PWD-0541-10-04-00-0

Quick coupling
- SZB-000018

Hose fitting
- KRC-000013

Hose extension adapter
- LCZ-0541-05-00-00-0

Safety eye bolt
- SRB-000365

Track elements

Semi-flexible track (2 m / 6.5 ft)
- PRW-0482-15-05-00-0

Bracket for semi-flexible track
- DYS-0541-11-01-00-0

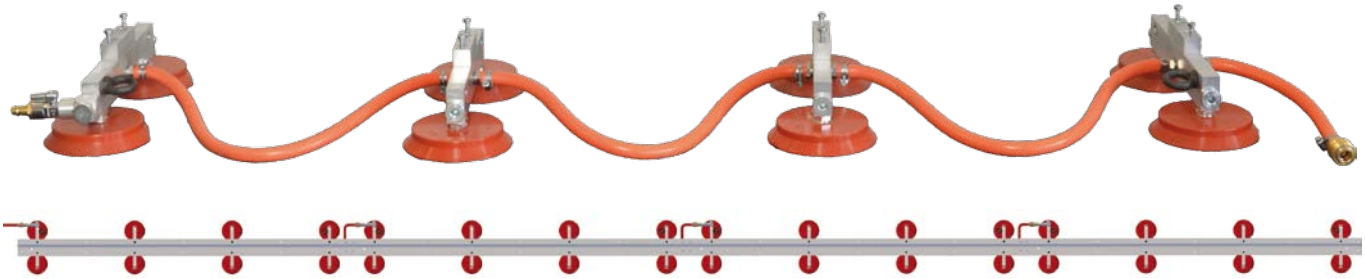
Gear rack adjustment tool
- PKT-0341-13-00-00-0

Rigid track up-grade set
- WSP-0523-13-01-00-0

System configuration for serial connection

System includes:

- Entry vacuum unit (1 unit per rail track)
- Middle vacuum units (up to 5 units per rail track)
- Extension vacuum unit (for serial connection)

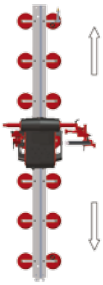


- 4 vacuum units are required per rail track placed in horizontal position

- 7 vacuum units are required per rail track placed on walls or curvatures

- Minimal OD is 10 m (32 ft)

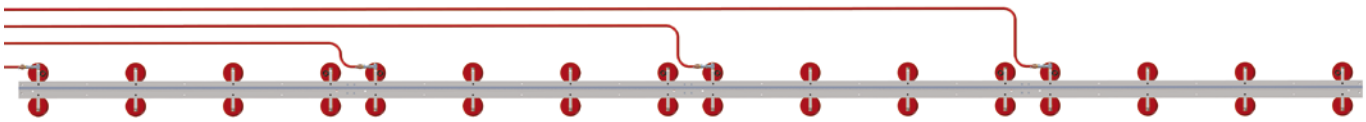
- Minimal OD is 3 m (10 ft)



System configuration for single track or parallel connection

System includes:

- Entry vacuum unit (1 unit per rail track)
- Middle vacuum units (up to 5 units per rail track)
- End vacuum unit (for single rail track or parallel connection)



Technical specifications

Promotech's system consists of a vacuum pump that generates vacuum and of vacuum units that fix the semi-flexible or rigid track to the surface.

A single pump provides gauge pressure sufficient for up to 21 vacuum units.

A single vacuum unit provides suction power of 1400 N (at gauge pressure of –0.7 bar / –10 psig).

The permitted load is up to 30 kg (66 lbs) - welding/ cutting tractor with accessories.

Semi-flexible track can be fixed on flat or curved surfaces with a radius of at least 5 meters (16 ft).

An optional manifold can separately connect vacuum units of up to four rails, what allows rail leapfrogging during operation.

Temperature of material on which vacuum pads are used cannot exceed +320°C (608°F).

Heat source must be kept at least 100 mm (4") away from vacuum pads.

Safety eye bolts are provided to suspend vacuum rail tracks and protect them against accidental fall.

Vacuum Track System parameters	
Maximum number of vacuum units per vacuum pump	21
Minimum curvature radius of a semi-flexible track	5 m (16 ft)
Vacuum unit holding force	1400 N (at gauge pressure of –0.7 bar / –10 psig)
Working positions	flat, horizontal, vertical
Maximum permitted track load	30 kg (66 lbs)
Required number of vacuum units per rail placed in horizontal position	4
Required number of vacuum units per rail placed on walls or curvatures	7
Permitted ambient temperature near vacuum units	from –20°C to 200°C (from –4°F to 392°F)

Portable vacuum pump parameters	
Voltage	1~ 230 V, 50–60 Hz 1~ 115 V, 50–60 Hz
Power	400 W
Gauge pressure obtainable	–0.8 bar (–11.5 psig) (where 0 is for atmospheric pressure, and –1 is for perfect vacuum)
Pump capacity	4 m^3/h (141 ft^3/h)
Ambient temperature	0–40°C (32–104°F)
Safety reservoir volume	10 l (0.35 ft^3)
Weight (with safety reservoir)	23 kg (51 lbs)

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