

Modular Magnetic Crawler









Modular Magnetic Crawler

MagTrack is a modular system that is built around an universal carrier. The crawlers are designed to be used on flat and slightly curved steel surfaces. Depending on the application, the carrier can easily be fitted with a full range of modular tools. All the tools work with high pressure water jets up to 3000 bar.

MagTrack Mini is a lightweight and compact 2-wheel drive MagTrack. It has a specific design which isn't modular. It carries a fixed blast can which can provide high pressure up to 3000 bar. By replacing the flat vacuum seal with a curved seal on the blast can, the MagTrack Mini can also be used to clean pipes in radial direction.

The DERC MagTrack robots are magnetic crawlers, electrically driven, suitable for multi purpose applications:

- Surface preparation
- Oil storage tank cleaning
- Industrial cleaning and washing
- Cargo hold cleaning
- Abrasive blasting
- Inspection
- Waterjet cutting

MAGTRACK





Modular design

Features

- Compact design
- Four 48V electric drives
- Wheels with profile for maximum grip
- Magnets back and front, height adjustable
- ATEX zone 2 certified
- Operating speed: 0-6 m/min
- Dimensions: 720x510x360 mm (fits through 24" manhole)
- Weight: 80kg





Modular crawler

The base of the MagTrack is a remote controlled, magnetic, 4 wheel drive carrier (crawler) which can be used for applications on flat or slightly curved steel surfaces. This universal carrier is the base for many different solutions. It can be used with a range of MagTrack tools. But it is also possible to set it up with a custom designed tool.

Operation is safe and easy and can be done by one man. The carrier can be set up with your desired tool in 30 minutes. The remote control ensures that the operator stays on the ground and out of the line of fire! No more need for scaffolding or cherry pickers.

The MagTrack Carrier is delivered with a remote controller, main control unit, antenna cable, magnetic antenna foot and transport plate.





7



Modular design

Features

- Up to 120m2 per hour cleaning capacity
- Replaceable wear seal, under flexible bellow
- Adjustable vent valve for optimal extraction
- Rotating manifold suitable for 20 inserts model type P/model 965
- Atex zone 2 certified
- Optional LED lights
- Max 3000 bar @ 40 l/min
- Cleaning path: 370mm
- Dimensions: 685x630x450 mm (fits through 24" manhole)
- Weight: 25kg



Closed Waterblasting

The MagTrack Blast Can (vacuum dome) is installed in front of the 4-wheel carrier and is used for "closed" waterblasting. The blast can is connected to a vacuum unit, so that both water and debris is collected without any leakage.

This makes the blast can especially useful for industrial cleaning and preparation jobs, when there is an absolute need to leave a clean and dry surface. For example the cleaning of (oil) storage tanks or the removal of old paint from ship hulls.

Since the blast can is installed in front of the carrier, it also leaves a clean driving path for the carrier. This ensures the carrier won't slip and stays even firmer attached to the steel surface.









Modular design

Features

- Up to 140 m2 per hour cleaning capacity
- No need for vacuum supply
- Rotating manifold suitable for 8 inserts model type P/model 965
- Max 3000 bar @ 30 l/min
- Cleaning path: 1500 mm
- Dimensions: 925x217x750 mm (fits through 24" manhole)
- Weight: 20kg

Swing Arm

Open Waterblasting

The Magtrack Swing Arm is used for open waterblasting, cleaning or sandblasting. It can easily be installed by one man on our 4-wheel magnetic carrier in under 30 minutes.

The automatic drive mode can be controlled by adjusting the swing speed, drive speed and step size. Standard the swing arm is equipped with a swivel and a rotating manifold with pressure up to 3000 Bar. Other options are a fixed washing manifold or a holder for sandblasting.

It is the perfect for industrial cleaning or surface preparation jobs, when it isn't necessary to collect dirt or debris. A cost effective alternative to closed waterblasting, because there is no need for a vacuum pump.









Modular design

Features

- Tilt function by electric actuator
- Up to 140 m2 per hour cleaning capacity
- No need for vacuum supply
- Rotating manifold suitable for 8 inserts model type P/model 965
- Max 3000 bar @ 30 l/min
- Cleaning path: 1500 mm
- Dimensions: 925x510x750 mm (fits through 24" manhole)
- •Weight: 25kg

Tilt Swing Arm

Open Waterblasting

The MagTrack Tilt Swing Arm is used for open water blasting, cleaning or sandblasting. It can easily be installed by one man on our 4-wheel carrier in under 30 minutes.

The distance from the cleaning head to the surface can be adjusted with the actuator while driving. This is perfect for easy cleaning of (oil) storage tank wind girders or other similar constructions.

The automatic drive mode can be controlled by adjusting the swing speed, drive speed and step size. Standard the swing arm is equipped with a swivel and a rotating manifold with pressure up to 3000 Bar. Other options are a fixed washing manifold or a holder for sandblasting.









Sandblaster Swing Arm

Modular design

Features

- Up to 3 nozzles
- 2 joints for height and angle adjustment of nozzles
- Easy fix nozzle holders, nozzle pitch easy to adjust
- Cleaning path: 1500 mm
- Dimensions: 925x510x750 mm (depends on the adjustment of the nozzles)
- Weight: 20kg



Open Sandblasting

The Magtrack Sandblaster Swing Arm is used for open sandblasting (abrasive blasting). It can easily be installed by one man on our 4-wheel magnetic carrier in under 30 minutes.

The automatic drive mode can be controlled by adjusting the swing speed, drive speed and step size. Suitable to operate with 1, 2 or 3 abrasive nozzles to meet your application and production rate. Easy to adjust in height, angle, and pitch to make a perfect overlap.

It is the perfect tool for surface preparation jobs, when it isn't necessary to collect dirt or debris. After blasting the surface is completely dry and therefore ready to paint or coat instantly. Using the Sandblaster Swing Arm gives a rougher end result than using a water jetting tool.







MagTrack Mini



Closed Waterblasting

The MagTrack Mini is a lightweight 2-wheel drive MagTrack. The compact crawler carries a fixed blast can (vacuum dome) which is used for closed waterblasting. The blast can is connected to a vacuum unit so that both water and debris is collected without any leakage.

This makes the blast can especially useful for industrial cleaning and preparation jobs, when there is an absolute need to leave a clean and dry surface. Furthermore, due to its lightweight and compact design, the MagTrack Mini is easy to transport and can be used in narrow spaces. It is therefore perfectly suitable for offshore oil rig applications.

By replacing the flat vacuum seal with a curved seal, the MagTrack mini can also be used to clean pipes in radial direction.

The MagTrack Mini is delivered with a remote controller, main control unit, antenna cable, magnetic antenna foot and transport plate

Compact design

Features

- Compact design
- Two 48V electric drives
- Wheels with profile for maximum grip
- Height adjustable magnet
- ATEX zone 2 certified
- Main control box with 50m cable to carrier (optional in ATEX)
- Dimensions: 800x330x340 (fits through 24" manhole)
- Weight: 45kg
- Max 3000 bar @ 30 l/min
- Cleaning path: 180 mm
- Integrated with carrier
- Flat or curved seal







Accessories





Remote Controller

- Joystick operation, easy to use by operator
- ATEX zone 2
- Charger cable
- 150 meters free space range
- Battery life approx. 45h
- Auto drive function
- Trim function
- Auto program for swingarm applications
- Pump control (pressure on/off)

• Stainless steel main control box

• Input power cable standard 1 meter

• Pump control integration (optional)

Main Control Unit

Trolley mounted

Grounding point

(optional)

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LED Lights (optional)

• Optional the MagTrack can be equipped with LED zone 2 ATEX lightning. For use inside tanks this is a big benefit



Wall Contact Switch (optional)

- For extra safety a surface/wall contact switch can be installed on the Magnetic Crawler 4 wheel drive carrier
- This wall contact switch is in connection with the main control box
- In the rare event the robot would accidentally detach from the surface it automatically switches of the high pressure water



Fall Arrestor (optional)

• Necessary safety for working on vertical surfaces

• Input needs to be specified 230VAC or 110VAC

• 50 meter cable for 48V power supply to the crawler

• Upgrade main control to EX 2 Zone with overpressure system

- Fall arrestor as quoted has 30 meter cable
- Minimum 2 pieces required



Magnetic Antenna Foot with Extension Cable

- Supplied as standard with every MagTrack
- Extension cable of 5 m
- Allows the antenna to be placed in a confined space for better range in confined spaces



Transport Plate

 For easy use of the MagTrack all robots are supplied with a transport plate for easy transport and safe deployment of the MagTrack to the surface



Antenna Cable

- Supplied as standard with every MagTrack 30m
- Allows wired use of the remote controller in case of connection problems due to external environmental factors or confined spaces (cage of faraday)
- Can also be used as an extension cable for magnetic antenna base





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