

# MAGTRACK

DERC SALOTECH



**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, based on either water jetting or sandblasting. All the water jetting tools work with high pressure 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**



## Carrier



### 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.

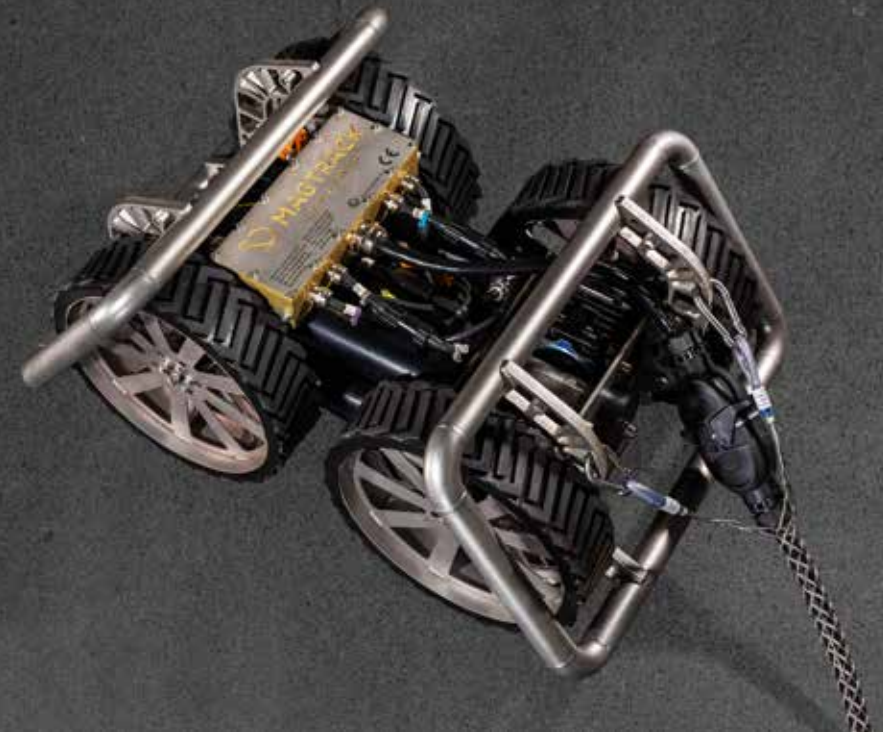
Operation is safe and easy and can be done by one man. The carrier can be set up with your desired tool in 30 minutes. The remote control ensures that the operator stays on the ground and out of the line of fire! No more need for scaffolding or cherry pickers.

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

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: 80 kg





Modular design

## Features

- Up to 120m<sup>2</sup> 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: 25 kg



## Blast Can

### Closed Waterblasting

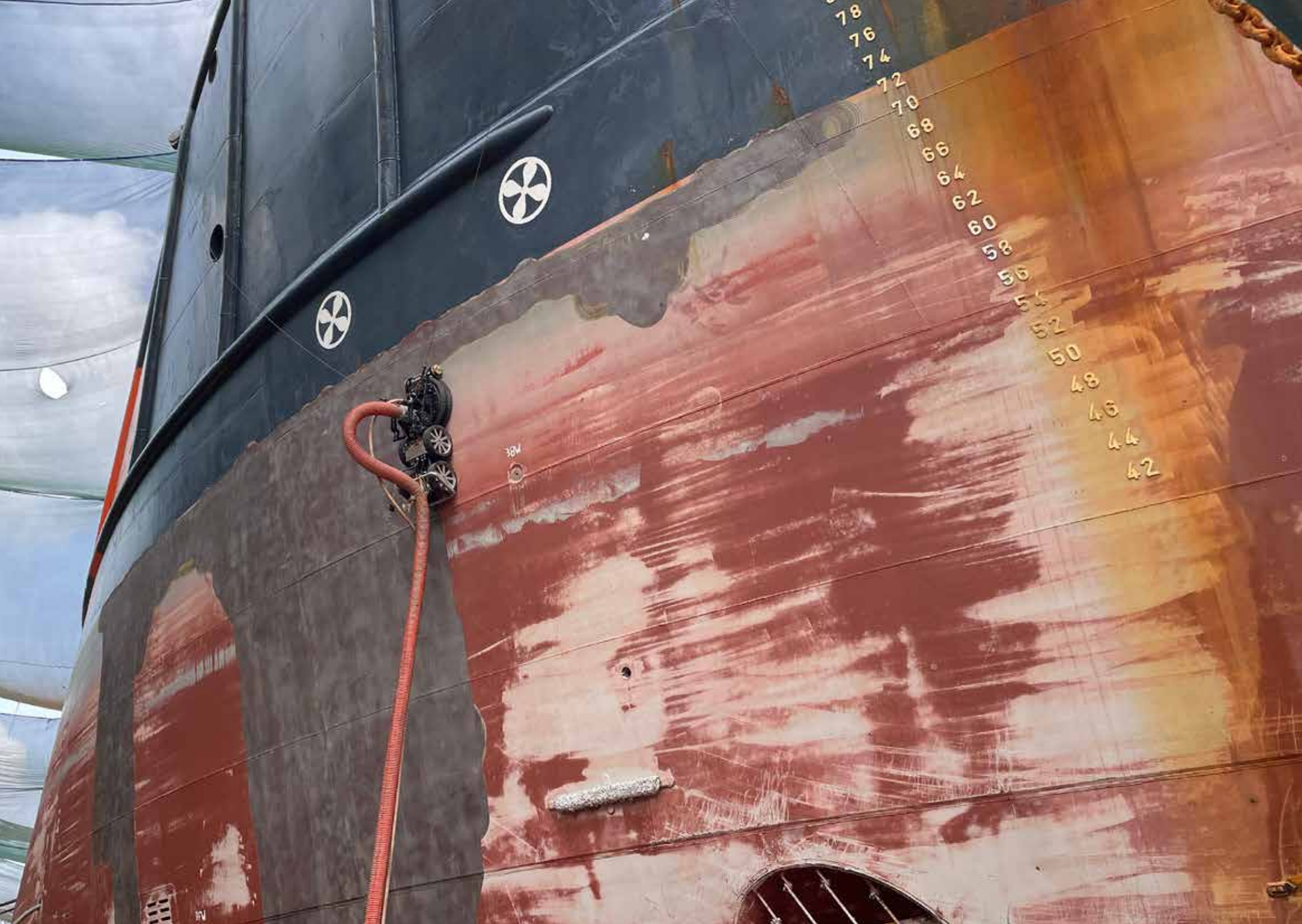
The MagTrack Blast Can (vacuum dome) is installed in front of the 4-wheel carrier and is used for "closed" waterblasting. The blast can is connected to a vacuum unit, so that both water and debris is collected without any leakage.

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.







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## 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.

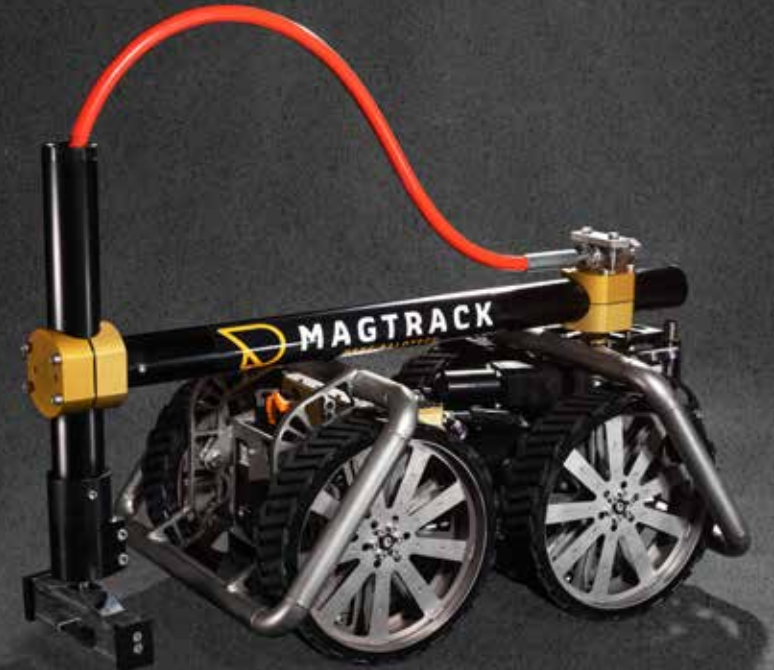
The automatic drive mode can be controlled by adjusting the swing speed, drive speed and step size. Standard the swing arm is equipped with a swivel and a rotating manifold with pressure up to 3000 Bar. Other options are a fixed washing manifold or a holder for sandblasting.

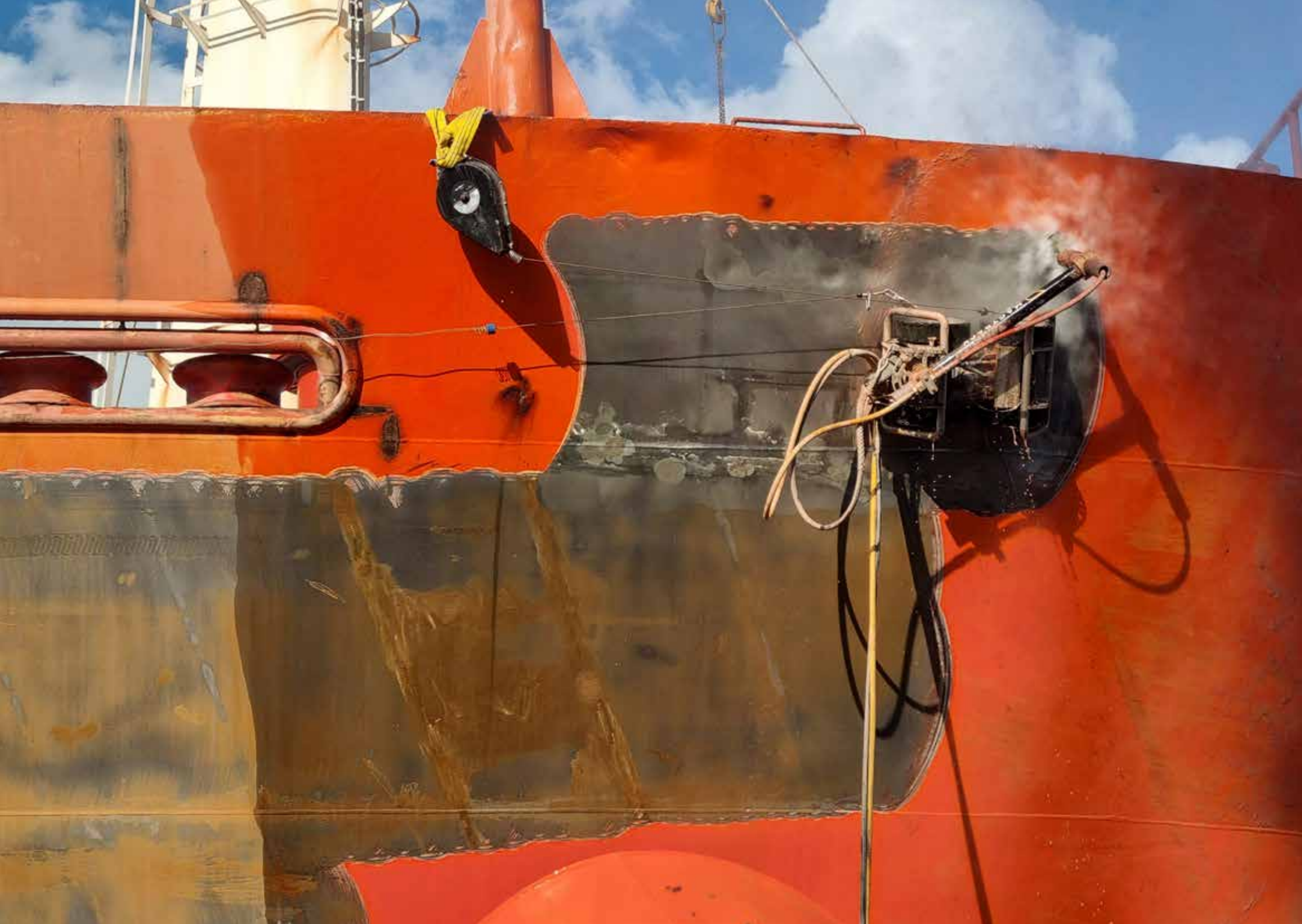
It is the perfect for industrial cleaning or surface preparation jobs, when it isn't necessary to collect dirt or debris. A cost effective alternative to closed waterblasting, because there is no need for a vacuum pump.

Modular design

## Features

- Up to 140 m<sup>2</sup> 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: 20 kg









## Tilt Swing Arm



### Open Waterblasting

The MagTrack Tilt Swing Arm is used for open water blasting, cleaning or sand-blasting. 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.

Modular design

## Features

- Tilt function by electric actuator
- Up to 140 m<sup>2</sup> 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: 25 kg







## Sandblaster Swing Arm

### 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.

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: 20 kg



Modular design

## Features

- 3 nozzles
- Cleaning path: 2000 mm
- Dimensions: 2000x300x300 mm
- Weight: 35 kg

# ReCycleBlaster

## Closed Circuit Sandblasting

The MagTrack ReCycleBlaster is an add on tool which is installed in front of the 4-wheel carrier and is used for “closed-circuit” sandblasting, also called vacuum blasting. The RecycleBlaster uses a high-pressure stream of compressed air, which is mixed with the abrasive material at the nozzle’s exit point, to effectively remove contaminants, coatings, rust, and other undesired materials from the surface.

With vacuum this system collects and recovers the used abrasive, as well as any debris or contaminants from the surface. The used abrasive material and removed contaminants are collected and transported through a recovery system, which separates the abrasive material from the contaminants and dust. The cleaned and separated abrasive material is then reintroduced into the blasting process.

This makes the ReCycleBlaster especially useful for industrial cleaning and preparation jobs where surface roughness needs to be established without preventing the release of harmful airborne particles into the atmosphere. By doing so, it reduces environmental impact and ensures a safer and cleaner work environment, and at the same time reducing the amount of abrasive through recycling. Making it also a cost-effective solution.







## 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)



### Main Control Unit

- Stainless steel main control box
- Trolley mounted
- Input needs to be specified 230VAC or 110VAC
- Input power cable standard 1 meter
- 50 meter cable for 48V power supply to the crawler
- Grounding point
- Upgrade main control to EX 2 Zone with overpressure system (optional)
- Pump control integration (optional)



### Fall Arrestor (optional)

- Necessary safety for working on vertical surfaces
- Fall arrestor as quoted has 30 meter cable
- Minimum 2 pieces required



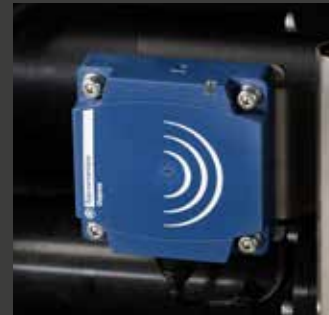
### Transport Plate

- 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



### LED Lights (optional)

- Optional the MagTrack can be equipped with LED zone 2 ATEX lighting. 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 off the high pressure water



### 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



### 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





**Exclusive Regional Partner:**

**Asia Waterjet Equipment**  
United Arab Emirates

E: [sales@asiawaterjet.com](mailto:sales@asiawaterjet.com)

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