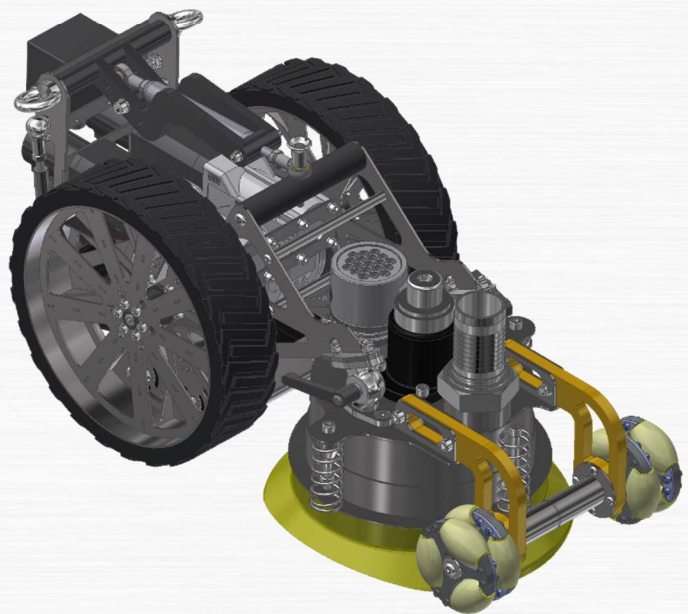
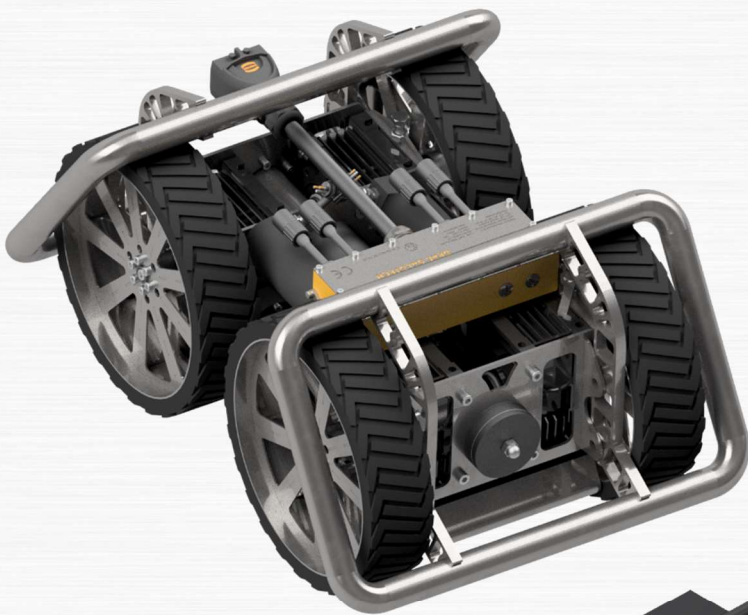


USER MANUAL



**MADE BY
DERC**

MAGTRACK & MAGTRACK mini

Magnetic cleaning robot

M.MAGTRACK.E



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Version of document Version 3.1

Date of document 20-04-2022

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INTRODUCTION

Thank you for purchasing the DERC MAGTRACK or MAGTRACK Mini. Working with high-pressure equipment can be dangerous. Therefore, it is in your interests to read the safety regulations in this user manual thoroughly and follow all instructions carefully.

This manual describes the use, maintenance and repair of the DERC MAGTRACK / DERC MAGTRACK mini. The information in this manual is important for the proper and safe functioning of the magnetic cleaning robot

If you are not familiar with the installation, preventive maintenance, etc. of the DERC MAGTRACK, please read through this user manual carefully from start to finish. Always keep this manual as a reference. You can quickly find the information you need using the table of contents.

In this user manual, the words DERC MAGTRACK / DERC MAGTRACK mini and 'robot' and 'equipment' are used interchangeably. All of these words refer to the DERC MAGTRACK or DERC MAGTRACK mini. This also applies to the words user manual, document and user's guide; all these words refer to this document and its annexes. The words 'machine' and 'installation' denote the DERC MAGTRACK or DERC MAGTRACK mini.

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1. USING THE MANUAL

This manual has been written for authorized and technically-qualified persons. Tasks have only been assigned to specific persons (technically qualified or not) in the chapters 'maintenance' and 'configuration'. All concerned parties must familiarize themselves with the contents of this user manual. These persons are distinguished as follows:

Authorized persons are people who: Have built up a certain level of knowledge via schooling or training and who have enough experience to operate the machine.

Technically qualified persons are people who: Are technically qualified and have sufficient technical knowledge via schooling and/or on-the-job experience. Further, these persons are, due to their knowledge of mechanics, well aware of possible risks and dangers (a mechanic, for example).

The word 'operate' means: Configuring the machine, working with the equipment and performing simple maintenance activities. The aim/purpose of this user manual is to create safe and efficient interaction between people and the machine.

1.1 Guarantee

The guarantee conditions and the conditions concerning liability can be found in the supply conditions (Metal Union, submitted to the Registry at the District Court in Rotterdam).


1.2 Safety regulations

- ✓ Safety is the first priority! Everyone is responsible for a clean, safe and well-lit workplace. Immediately report danger and/or dangerous situations to your supervisor.
- ✓ DERC Salotech advises you to train operators and maintenance personnel to operate, maintain and troubleshoot for this equipment.
- ✓ Operators must be at least 18 years old. Only personnel authorized by the equipment manager may operate this machine or perform activities in the proximity of the machine.
- ✓ It is strictly recommended that operators are familiar with the directives laid down by your national branch organization, and that they also possess the required certificates and have sufficient experience with high pressure equipment.
- ✓ It is paramount that the user is well aware, via training and/or experience (legally recognized), of high-pressure technology, high pressure cleaning and all accompanying safety measures – which must be implemented in full.
- ✓ Never use high pressure apparatus with a maximum working pressure that is lower than the maximum working pressure of the high-pressure unit.
- ✓ Use clean water with an advised maximum temperature of 40°C (110°F), in order to prevent cavitation.
- ✓ Provide a minimum filtration of 1 µm for the water, to prevent clogging and rapid wear of the nozzles and seals.


- ✓ Never point the jet at people or animals. A high-pressure liquid jet enters deep into the skin and can lead to serious wounds, permanent injury and even death. Anyone who is struck by a high-pressure water jet must always seek immediate professional medical care.
- ✓ All personnel assigned the task of operating the machine must be able to demonstrate that they have read and understood those parts of the user manual that describe the machine's operation and safety considerations.
- ✓ All personnel assigned the task of assembling, putting into operation, maintaining and/or repairing the machine must be able to demonstrate that they have read and understood the entire manual.
- ✓ The user(s) of the machine is (are), under all circumstances, responsible for the interpretation and use of the manual. In cases of doubt, contact the supplier/manufacturer.
- ✓ The manual must be kept in close proximity to the machine and must be easily accessible to operators and maintenance personnel.
- ✓ If prescribed configurations are altered or use is made of unauthorized spare parts or repair methods, this absolves the manufacturer of any liability.
- ✓ The surroundings of the machine must comply with workplace health and safety regulations. The user is responsible for taking steps to ensure that the machine can be operated safely and that the environment is sufficiently illuminated.
- ✓ The owner of the machine is responsible for adhering to the instructions stated in this manual.
- ✓ Safety features (e.g. screens) may never be removed or in any way disengaged.
- ✓ Do not get near the magnets with devices such as telephones, watches, pacemakers or other devices that are sensitive to magnetism

1.3 Intended use of the DERC MAGTRACK

The DERC MAGTRACK is an electrically driven cleaning robot (Crawler) with all four wheels driven separately and is specifically designed and made for cleaning flat and slightly curved steel surfaces with ultra high pressure water, e.g. for the internal and external cleaning of storage tanks, and external cleaning in the maritime sector.

 The wall thickness of the steel must be at least 6 mm for sufficient magnetic force.

The DERC MAGTRACK MINI is specifically designed for cleaning small flat surfaces or pipes (min. diameter 1200 mm) with ultra high pressure water. The DERC MAGTRACK MINI is specifically designed for cleaning small flat surfaces or pipes (min. diameter 1200 mm) with ultra high pressure water. Cleaning of smaller pipes is possible with a specific seal for the diameter of the pipe, every pipe diameter needs a different seal.

 Any other use of the DERC MAGTRACK or DERC MAGTRACK mini that does not have the prior written permission of the machine's manufacturer releases the manufacturer from any responsibility and liability.

1.4 Legislation and standards

The DERC MAGTRACK and MAGTRACK MINI is designed and built in accordance with the requirements set out in the Machinery Directive (2006/42/EC), EMC Directive (2014/30/EU), Low Voltage Directive (2014/35/EC), Radio Equipment and Telecommunications Terminal Equipment Directive (2014/53/EU) and the ATEX Directive (2014/34/EU). For an overview of the standards applied during the design and construction of the system, please refer to the EC declaration of conformity for machines (in the back of this user manual).

1.5 Tip markings

Tip markings are symbols in the user documentation and are not displayed on the machine. The following tip markings are used to make you aware of risks and/or dangerous situations:



Tip: Suggestions and advice to make tasks easier.



Note! Additional information that makes you aware of possible problems.



Caution: Deviating from procedures can damage the machine/equipment.




Danger: Deviating from procedures can lead to serious injury.



Reference: Further information about this subject is available elsewhere in this manual.

1.6 Safety pictograms

 Respect these signs; they have been placed for your own safety!

The risk analysis for this machine has indicated a number of safety measures for warning the user. The used safety pictograms are repeated in the user manual and on the machine's work instructions. This clearly provides the user with an insight into the present risks. We have highlighted three different pictogram types.



Prohibition sign: Not allowed to perform an action.




Obligation sign: Obligatory process or action by the user.



Warning sign: Making user aware of present danger.

1.6.1 Pictograms on the MAGTRACK

 Check regularly that all pictograms are still visible and readable. If any pictograms are unreadable, they need to be replaced.












Pictogram or text	Description	Position on the equipment	Number
	Warning: Magnetic field!	Top of the MAGTRACK	1
	CE mark: Indicates compliance with European directives.	The CE mark is on the type plate of the equipment	1
	Indicates compliance with ATEX directive.	The EX brand is on the type plate of the equipment	1
	Warning: Electrical voltage	Control unit door	1

Table 1

1.7 Personal protection equipment



All operators and persons in close proximity must wear the following personal protection equipment:

Body protection:	A strong waterproof suit to protect against surrounding water and dirt. Arms and legs must also be covered;	
Hand protection:	Waterproof gloves made from rubber or a laminated textile or reinforced with metal;	
Foot protection:	Waterproof boots with steel toe-caps. It is recommended to wear boots with a special air cushion in the instep;	
Face protection:	All personnel must wear suitable head protection (plastic helmet). If possible, personnel must wear a face visor;	
Ear protection:	Ear plugs or ear muffs to protect the ear (regularly in excess of 80 dB(A));	
Eye protection:	Safety goggles or face visor. Protection equipment for the eyes must fit properly and, if necessary, must have side protection;	
Protection of air passages:	The air passages must be protected if this can prevent possible injuries.	

2. TECHNICAL DATA

2.1 General

MAGTRACK		
Carrier		
Carrier voltage	48 VDC	
Weight	80 kg	
Dimensions (L x W x H)	718 x 510 x 348 mm	
Control unit		
Dimensions (L x W x H)	700 x 600 x 900 mm	
Weight	35 kg	
Control unit voltage	110VAC	240VAC
Max. current fuse	20 Amp	16 Amp
Frequency	50/60 Hz	
Cable length	50 metres	
Wireless console		
Dimensions (L x W x H)	210 x 135 x 150 mm	
Wireless console voltage	5 VDC	
Battery life	circa 45 hours	
Charging time	circa 4 hours (0 -> 100%)	

Table 2

Swing arm (optional)	
Dimensions (L x W x H)	1000 x 500 x 100 mm
Weight	15 kg
Max. cleaning path	1400 mm
High pressure connection	M30x2
Max. working pressure	3000 bar
Max. flow	30 l/ min
Nozzle type	8x 965.xxx

Table 3

Blast can (optional)	
Dimensions (Ø x H)	700 x 160 mm
Weight	25 kg
Cleaning path	400 mm
Vacuum connection	3" female camlock
High pressure connection	M30x2
Max. working pressure	3000 bar
Max. flow	40 l/ min
Nozzle type	20x 965.xxx

Table 4

MAGTRACK MINI with blastcan	
Dimensions (L, W,H)	700 x 330 x 350 mm
Weight	15 kg
Cleaning path	200 mm
Vacuum connection	2"
High pressure connection	9/16"UNF LH
Max. working pressure	3000 bar
Max. flow	20 l/ min
Nozzle type	8x 965.xxx

Table 5

2.2 Ex code

Below you can see what the ex code contains:

CE  **II 3G Ex mc h IIC T4 Gc**

Explanation:

CE logo	Complies with European directive (without notified body since this is GC or Cat 3 equipment which is module A and this is without notified body).
EX logo	Specific marking for Explosion protection
II	Equipment group, for above ground operations
3G	Equipment category as defined in directive 2014/34/EC -> Gases Vapours / Zone 2
Ex	Explosion protection
m	Encapsulation Ex m EN IEC 60079-18, Normal level of protection -> Category 3 EPL c
h	Control of ignition sources
IIC	Gas Group
T4	Temperature class
Gc	Equipment protection level

2.3 Type plates

Several type plates are mounted on the machine. This is because each part can be sold separately. When you order spare parts or contact the manufacturer about fault-finding, provide the data on the type plate.

The type plate contains the following information:






II Gc Ex-m h T4 IIC



MAGTRACK mini
 Type : DMT.4000
 Salotech International B.V. Serial number : SP ...
 Jan van der Heijdenstraat 44 Connection type : 9/16"- 18 UNF
 3261 LE Oud-Beijerland Year of build : .../20...
 Tel: +31 186 62 14 84 Weight : 45 kg
 The Netherlands Max working pressure : 3000 bar
 WWW.SALOTECH.NL




II 3G Ex mc h IIC T4 Gc



Swing arm
 Type : DMT.3000.Swing
 Salotech International B.V. Serial number : SP ...
 Jan van der Heijdenstraat 44 Connection type :
 3261 LE Oud-Beijerland Year of build : .../20...
 Tel: +31 186 62 14 84 Weight : 15 kg
 The Netherlands Max working pressure : 3000 bar
 WWW.SALOTECH.NL




Control unit
 Type : DMT.3000.Control.xxx
 Salotech International B.V. Serial number : SP ...
 Jan van der Heijdenstraat 44 Power Supply :/
 3261 LE Oud-Beijerland Year of build : .../20...
 Tel: +31 186 62 14 84 Weight : 35 kg
 The Netherlands
 WWW.SALOTECH.NL




II 3G Ex p IIC T4 Gc



Control unit EX
 Type : DMT.3000.Control.xxxEX
 Salotech International B.V. Serial number : SP ...
 Jan van der Heijdenstraat 44 Power Supply :/
 3261 LE Oud-Beijerland Year of build : .../20...
 Tel: +31 186 62 14 84 Weight : 35 kg
 The Netherlands
 WWW.SALOTECH.NL




II 3G Ex mc h IIC T4 Gc



Blast can
 Type : DMT.3000.Blastcan
 Salotech International B.V. Serial number : SP ...
 Jan van der Heijdenstraat 44 Connection type : M30x2
 3261 LE Oud-Beijerland Year of build : .../20...
 Tel: +31 186 62 14 84 Weight : 25 kg
 The Netherlands Max working pressure : 3000 bar
 WWW.SALOTECH.NL

3. OPERATING PRINCIPLE

The DERC MAGTRACK is an electrically driven cleaning robot with all four wheels driven separately and is specifically designed and made for cleaning flat and slightly curved steel surfaces with high pressure water, e.g. for the internal and external cleaning of storage tanks, and external cleaning in the maritime sector.

The system comprises a carrier with transport plate, control unit, wireless console and cleaning tools. By attaching cleaning tools such as a swing arm or blast can, the DERC MAGTRACK can clean quickly and efficiently using high pressure.

Combined with swing arm or blast can, the carrier is suitable for working in an ATEX zone 2. See certificate for coding. The remote is suitable for working in an ATEX zone 2. See certificate for coding.



Caution! the standard control unit is not suitable for placement in an ATEX zone! There is an option to upgrade this to ATEX zone 2.

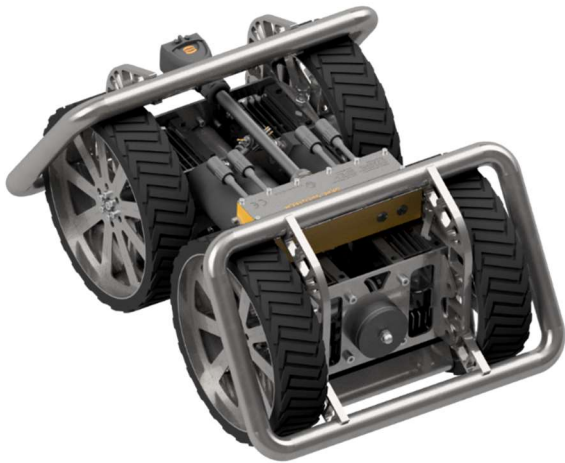


Figure 2 Carrier (ATEX certified)



Figure 1 Control unit (standard non-ATEX)



Figure 3 Wireless Controller (ATEX certified)

The swing arm is specifically for cleaning a wide path (1400 mm) where the collection and extraction of the waste water is not necessary. The stroke and speed of the swing arm can be set up as required.



Figure 4 Carrier with swing arm (ATEX certified)

The blast can is specifically for cleaning steel surfaces in which extraction of the waste water and drying of the steel surface is important. An example would be stripping paint from a storage tank that needs to be repainted or stripping/cleaning a ship's hull.



Figure 5 Carrier with blast can

The DERC MAGTRACK MINI is specifically designed for cleaning small flat surfaces or pipes (min. diameter 1200 mm) with ultra high pressure water. Cleaning of smaller pipes is possible with a specific seal for the diameter of the pipe, every pipe diameter needs a different seal.



Figure 6 MAGTRACK Mini

4. PARTS

4.1 DMT.3000.Carrier

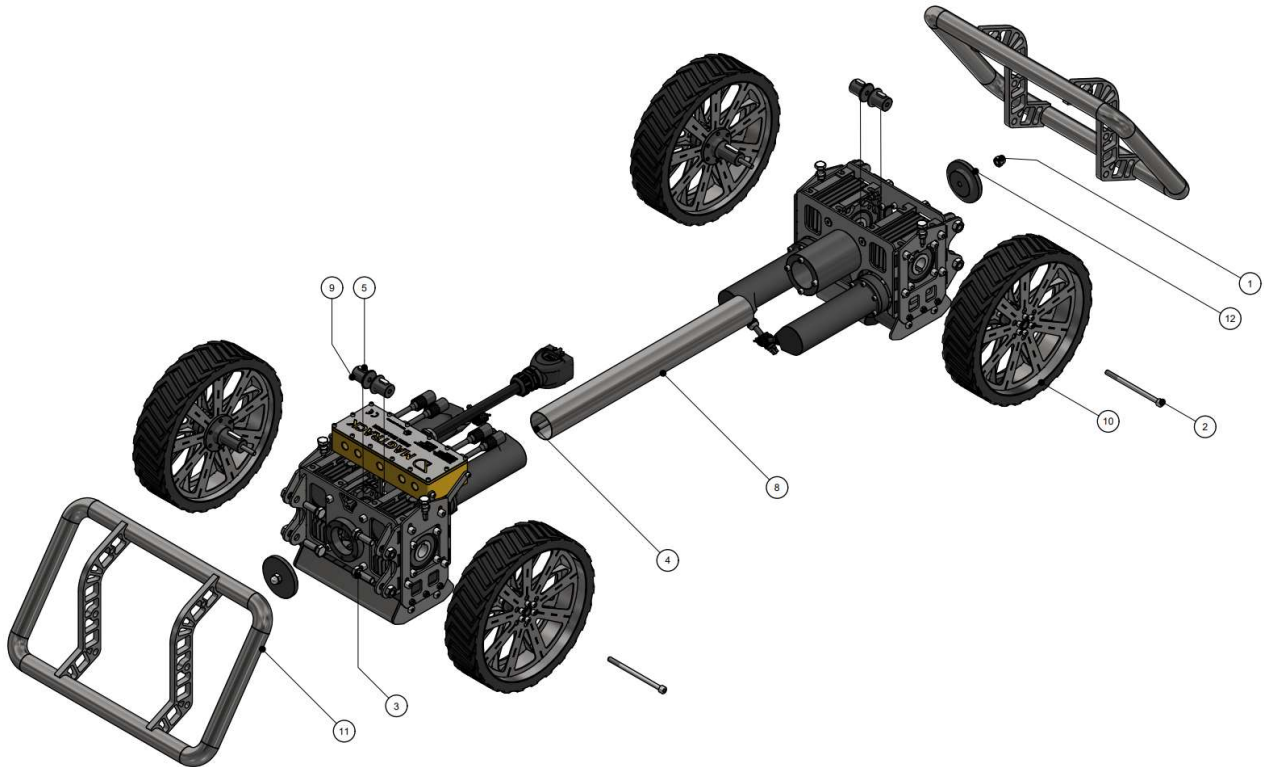


Figure 7 Exploded view carrier

Pos No.	Qty	Description	Part number
1	2	Hexagon Domed Cap Nuts	DIN1587.M10-A4
2	4	Int. hex. socket head bolt	DIN912.M8x130-A4
3	8	Hex. head bolt full thread	DIN933.M12x35-A4
4	1	Threaded rod	DIN975.M10-A4
5	4	Parallel key	DIN6885.8x7x20-A4
6	1	Front assembly	DMT.2.100
7	1	Rear assembly	DMT.2.200
8	1	Frame center pipe	DMT.2.510
9	4	Wheel Shaft Lock	DMT.140
10	4	Wheel assembly	DMT.300
11	2	Weld assembly protection bar	DMT.400
12	2	Frame end cap	DMT.530

Table 6

4.1.1 Front assembly DMT.2.100

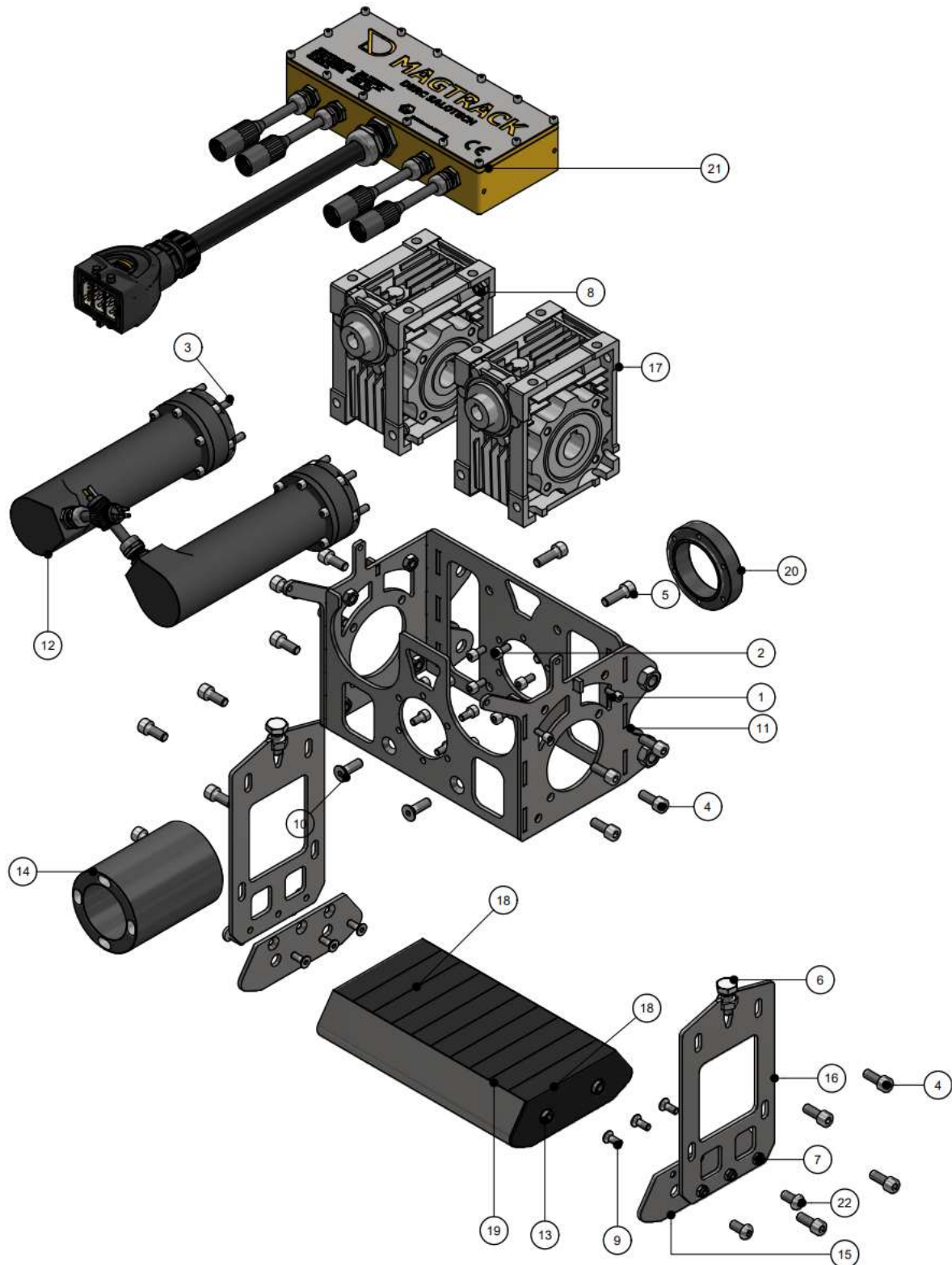


Figure 8 Exploded view front assembly

Pos No.	Qty	Description	Part number
1	4	Int. hex. socket head bolt	DIN912.M5x12-A4
2	12	Int. hex. socket head bolt	DIN912.M6x12-A4
3	12	Int. hex. socket head bolt	DIN912.M6x16-A4
4	16	Int. hex. socket head bolt	DIN912.M8x20-A4
5	4	Int. hex. socket head bolt	DIN912.M8x25-A4
6	2	Hex. head bolt full thread	DIN933.M10x25-A4
7	6	Hex. lock nut	DIN985.M6-A4
8	6	Hex. lock nut	DIN985.M8-A4
9	6	Int. hex. countersunk head bolt	DIN7991.M6x16-A4
10	2	Int. hex. countersunk head bolt	DIN7991.M8x25-A4
11	1	Frame front	DMT.2.110
12	2	Motor assembly	DMT.2.120
13	2	Magnet shaft	DMT.2.152
14	1	Frame center bearing	DMT.2.160
15	2	Magnet bracket lower	DMT.2.232
16	2	Weld assembly adjustment plate	DMT.2.236
17	2	Gearbox	DMT.124-40
18	2	Magnet block	DMT.151
19	1	Magnet protector plate double	DMT.153
20	1	Frame outer bearing	DMT.170
21	1	Junction box	DMT.180
22	4	Hexagon Socket Button Head Screw	ISO7380.M8x16-A4

Table 7

4.1.2 Rear assembly DMT.200

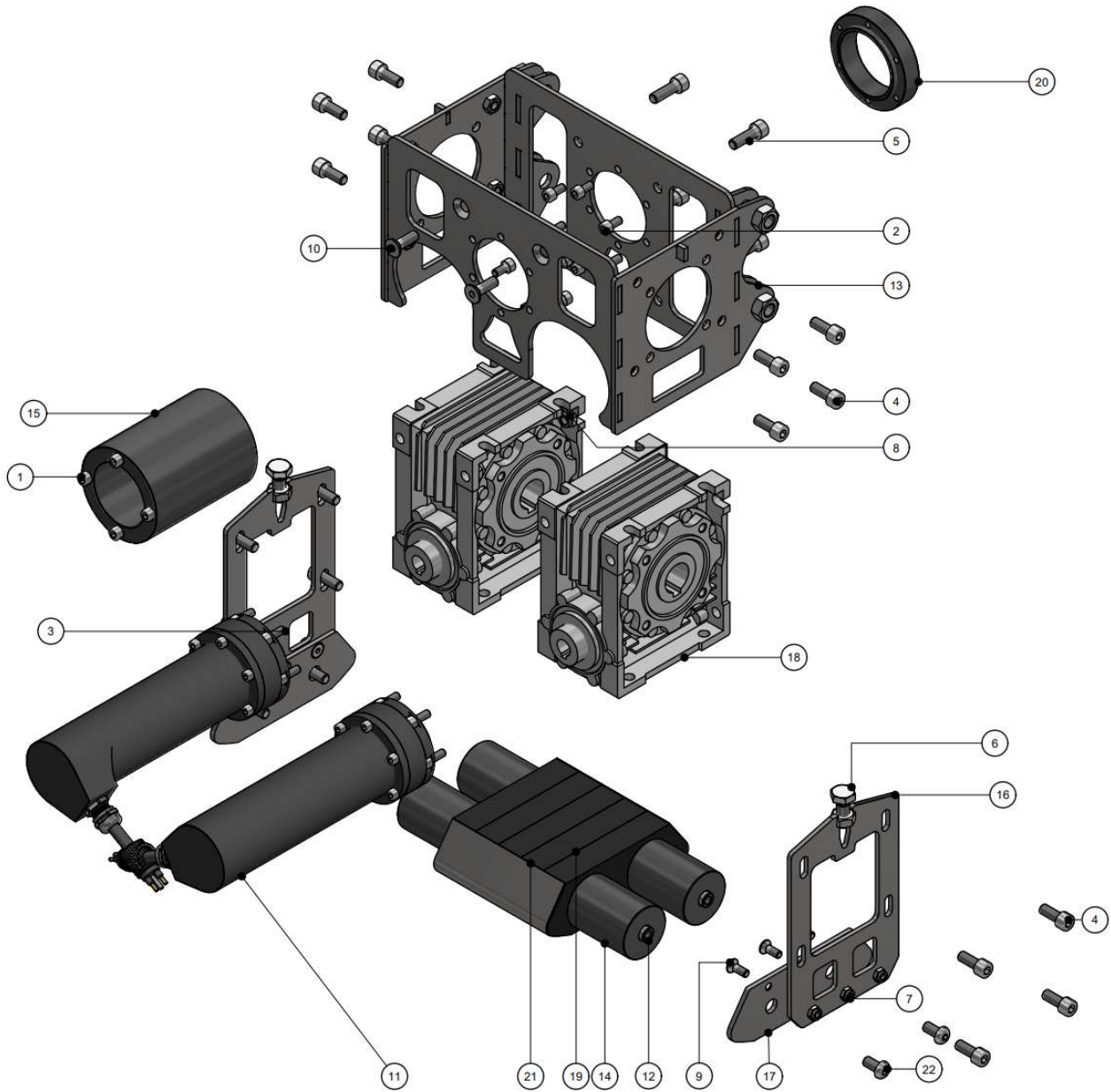


Figure 9 Exploded view rear assembly

Pos No.	Qty	Description	Part number
1	4	Int. hex. socket head bolt	DIN912.M6x10-A4
2	12	Int. hex. socket head bolt	DIN912.M6x12-A4
3	12	Int. hex. socket head bolt	DIN912.M6x16-A4
4	16	Int. hex. socket head bolt	DIN912.M8x20-A4
5	4	Int. hex. socket head bolt	DIN912.M8x25-A4
6	2	Hex. head bolt full thread	DIN933.M10x25-A4
7	6	Hex. lock nut	DIN985.M6-A4
8	6	Hex. lock nut	DIN985.M8-A4
9	6	Int. hex. countersunk head bolt	DIN7991.M6x16-A4
10	2	Int. hex. countersunk head bolt	DIN7991.M8x25-A4
11	2	Motor assembly	DMT.2.120
12	2	Magnet shaft	DMT.2.152
13	1	Weld assembly frame rear	DMT.2.210
14	4	Rear magnet spacer	DMT.2.221
15	1	Frame center bearing	DMT.2.230
16	2	Weld assembly adjustment plate rear	DMT.2.231
17	2	Magnet bracket lower	DMT.2.232
18	2	Gearbox	DMT.124-40
19	1	Magnet block	DMT.151
20	1	Frame outer bearing	DMT.170
21	1	Magnet protector plate single	DMT.222
22	4	Hexagon Socket Button Head Screw	ISO7380.M8x16-A4

Table 8

4.1.3 Wheel assembly DMT.300



Figure 10 Exploded view wheel assembly

Pos No.	Qty	Description	Part number
1	12	Int. hex. socket head bolt	DIN912.M6x10-A4
2	1	Parallel key	DIN6885.8x7x32-A4
3	1	Weld assembly wheel	DMT.310
4	1	Wheel shaft	DMT.320

Table 9

4.2.1 DMT.650 - Manifold

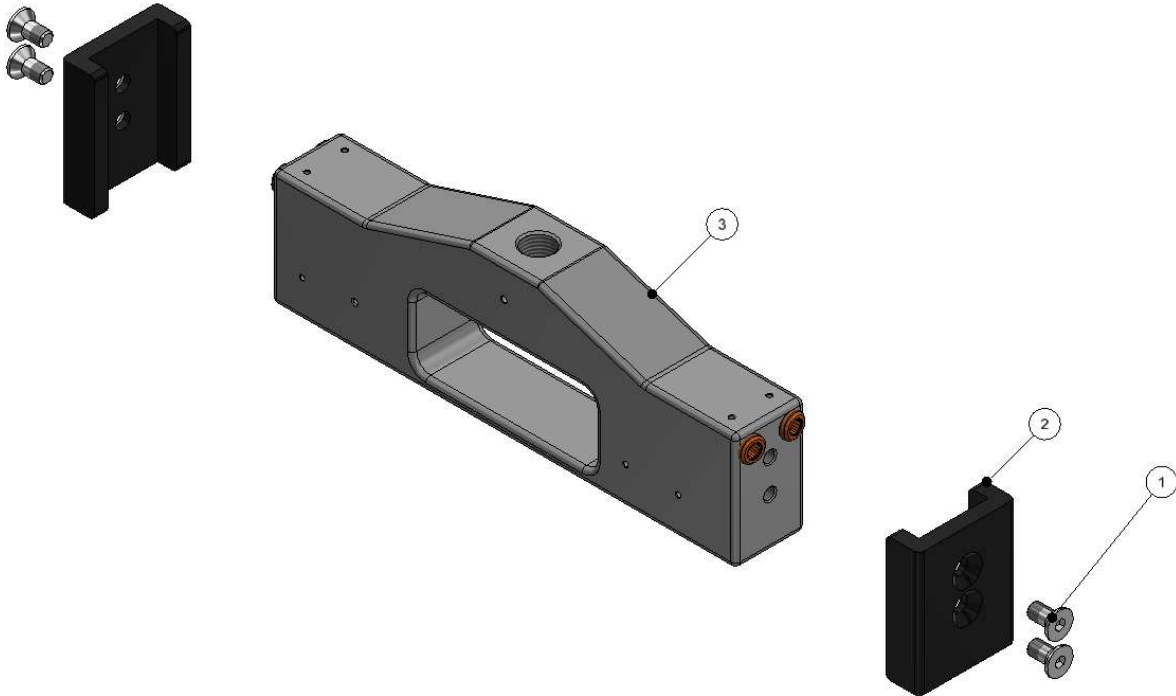


Figure 12 Exploded view manifold

Pos No.	Qty	Description	Part number
1	4	Int. hex. countersunk head bolt	DIN7991.M6x12-A4
2	2	Protection cover	DMT.652
3	1	Assembly Manifold with blind plugs	DMT.653
4*	8	Nozzle type 964/965	964.xxx / 965.xxx

Table 11 *Not included

4.3 DMT.3000.Blastcan

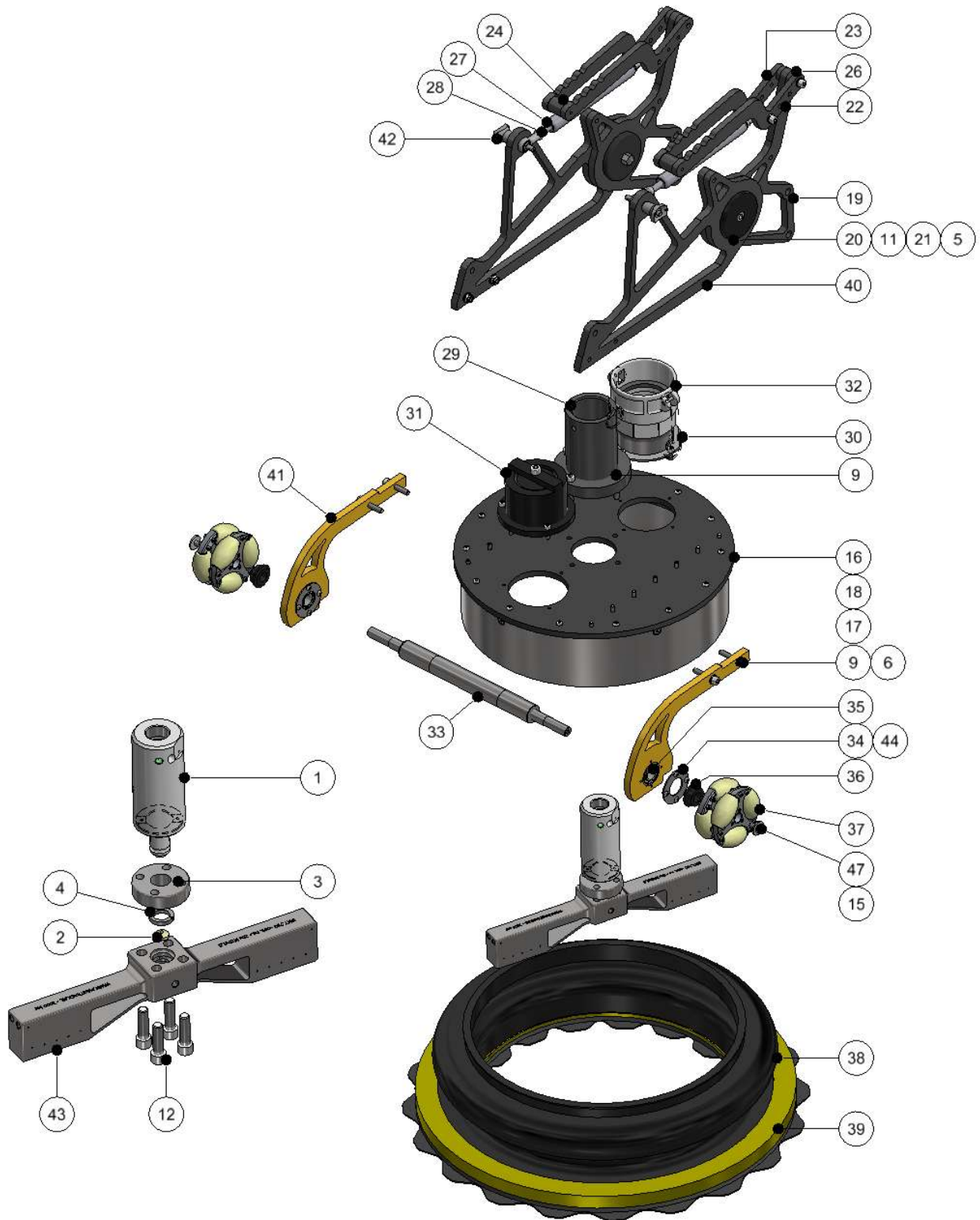


Figure 13 Exploded view blastcan

Pos No.	Qty	Description	Part number
1	1	Swivel	00.00062.0175
2	1	Seallens	01.00727.0042
3	1	Flange for manifold - swivel	01.01055.1052
4	1	Ring	01.03465.0619
5	2	Hexagon Cap Nut	DIN 917 - M10
6	12	Plain washer	DIN125.M8-A4
7	4	Int. hex. socket head bolt	DIN912.M6x16-A4
8	3	Int. hex. socket head bolt	DIN912.M6x20-A4
9	8	Int. hex. socket head bolt	DIN912.M8x40-A4
10	4	Int. hex. socket head bolt	DIN912.M8x50-A4
11	2	Int. hex. socket head bolt	DIN912.M10x40-A4
12	4	Int. hex. socket head bolt	DIN912.M12x40-A4
13	8	Hex. lock nut	DIN985.M8-A4
14	9	Int. hex. countersunk head bolt	DIN7991.M6x16-A4
15	2	Large plain washer	DIN9021.M8-A4
16	1	Base plate	DMT.701
17	1	Support ring	DMT.702
18	1	Skirt 400 mm	DMT.703
19	2	Mounting bracket	DMT.705
20	2	Bearing hinge	DMT.706
21	2	Bearing hinge cap	DMT.707
22	2	Handle left	DMT.708
23	2	Handle right	DMT.709
24	2	Spacer 27 mm	DMT.710
25	4	Spacer 6,5 mm	DMT.711
26	4	Spacer 7,5 mm	DMT.712
27	2	Gas spring	DMT.713
28	4	Rod eye M8	DMT.714
29	1	Swivel holder	DMT.715
30	1	Vacum hose connection	DMT.716
31	1	Vacuum relief valve	DMT.717
32	1	Camlock coupler - 3" female	DMT.718
33	1	Assembly omnivheel shaft	DMT.723-B
34	4	Bearing protection cap	DMT.724
35	2	Bearing	DMT.725
36	2	Spacer omnivheel shaft	DMT.726
37	2	Omnivheels	DMT.728
38	1	Bellow	DMT.729
39	1	Assembly Wear seal blastcan	DMT.730
40	2	Main bracket blascan	DMT.732
41	2	Front bracket blastcan	DMT.733
42	2	Locking pin blastcan	DMT.734
43	1	Manifold	DMT.780

44	16	Hexagon Socket Button Head Screw	ISO7380.M5x6-A4
45	10	Hexagon Socket Button Head Screw	ISO7380.M6x20-A4
46	14	Hexagon Socket Button Head Screw	ISO7380.M6x30-A4
47	2	Hexagon Socket Button Head Screw	ISO7380.M8x16-A4

Table 12

4.4 DMT.3000.CONTROL.XXX

The components in this chapter are required in order to use the Derc MAGTRACK. The part number may vary depending on the voltage selected and ATEX or non ATEX version. See different part numbers bellow:

- ✓ DMT.3000.CONTROL.110 - Control Box 110VAC (Non ATEX) + remote (ATEX)
- ✓ DMT.3000.CONTROL.230 - Control Box 230VAC (Non ATEX) + remote (ATEX)
- ✓ DMT.3000.CONTROL.110EX - Control Box 110VAC (ATEX) + remote (ATEX)
- ✓ DMT.3000.CONTROL.230EX - Control Box 230VAC (ATEX) + remote (ATEX)



Figure 14 Control unit

4.4.1 Remote control system

The remote system includes a remote and an antenna system. See the part numbers below:

- ✓ EXSYS01 – Remote control MAGTRACK
- ✓ EXANT01 – Antenna system for MAGTRACK



Figure 15 Wireless console

4.4.2 DMT.3000.CABLE-50M



Figure 16 50 Meter control cable with strain relief

4.5 DMT.800 – Transport plate



Figure 17 Transport plate for carrier

4.6 DERC MAGTRACK MINI

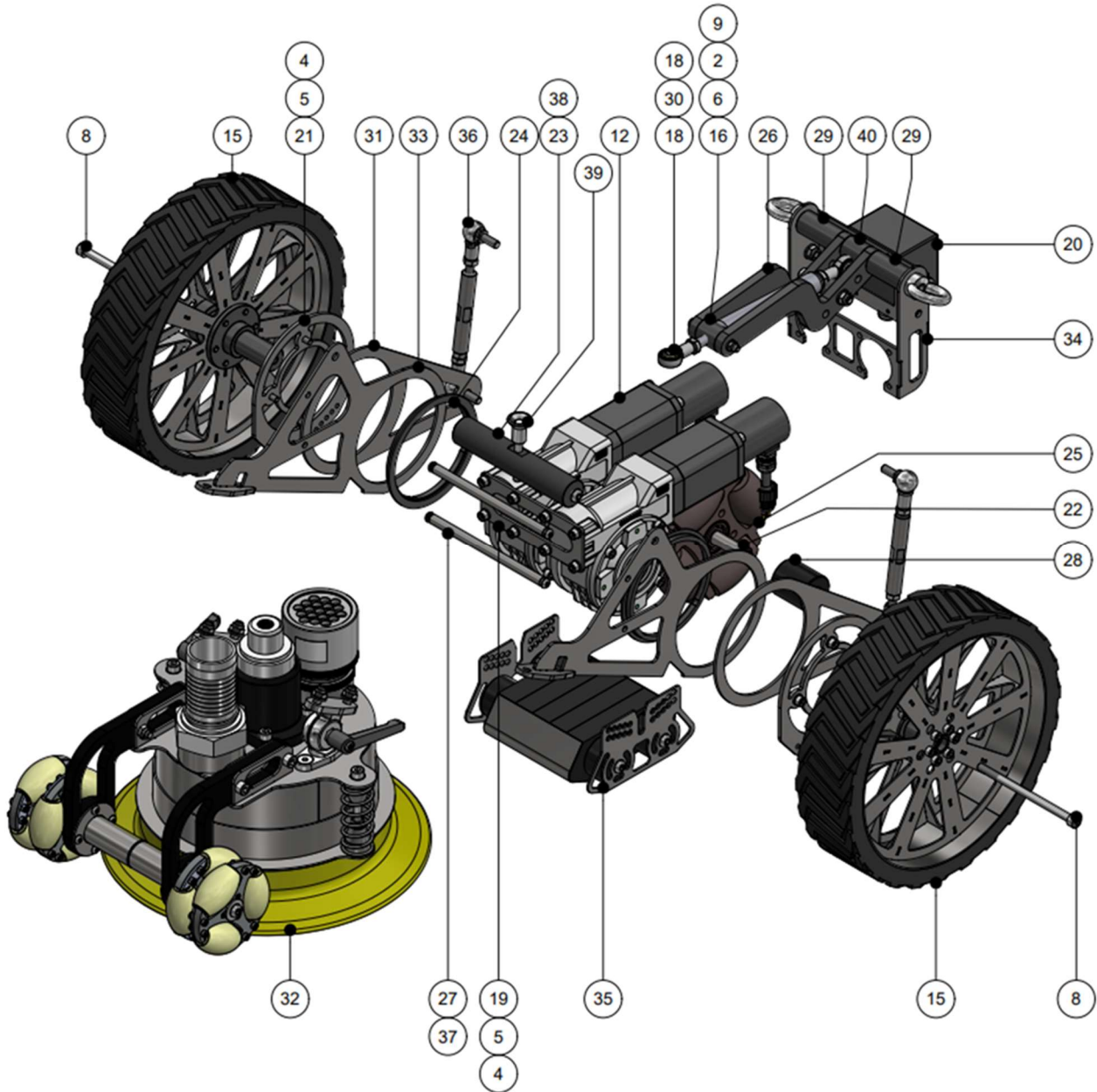
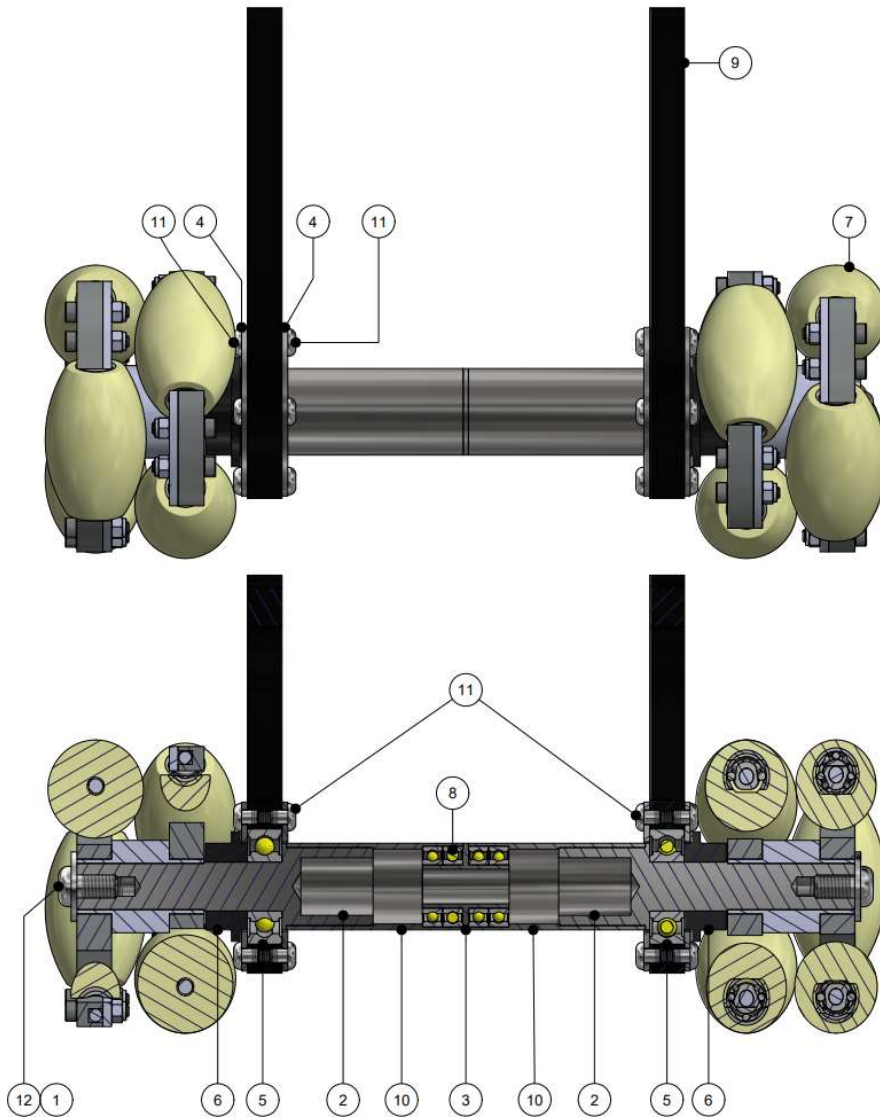


Figure 18 MAGTRACK mini

Pos No.	Qty	Description	Part number
1	2	Eyenuits	DIN 582 - M10
2	2	Plain washer	DIN125.M6-A4
3	12	Plain washer	DIN125.M8-A4
4	16	Spring washer	DIN127.M6-A4
5	16	Int. hex. socket head bolt	DIN912.M6x16-A4
6	1	Int. hex. socket head bolt	DIN912.M6x60-A4
7	1	Int. hex. socket head bolt	DIN912.M8x60-A4
8	2	Int. hex. socket head bolt	DIN912.M8x130-A4
9	1	Hex. lock nut	DIN985.M6-A4
10	11	Hex. lock nut	DIN985.M8-A4
11	8	Int. hex. countersunk head bolt	DIN7991.M8x25-A4
12	2	Swingarm drive	DMT.120-Swing
13	3	Cable Glands M16	DMT.128
14	2	Wheel Shaft Lock	DMT.140
15	2	Wheel assembly	DMT.300
16	1	Spacer 27 mm	DMT.710
17	2	Spacer 7,5 mm	DMT.712
18	2	Rod eye M8	DMT.714
19	1	Connection bracket front	DMT.4000.001
20	1	Junction box	DMT.4000.002
21	2	Side plate magnet	DMT.4000.003
22	1	Rear shaft	DMT.4000.004
23	1	Connecting bar frame blast can	DMT.4000.007
24	2	Glide ring side	DMT.4000.008
25	1	Omniwheel	DMT.4000.009
26	2	Handle	DMT.4000.010
27	2	Reinforcing rod blast can frame	DMT.4000.011
28	2	Bushing omni wheel	DMT.4000.012
29	2	Spacer gas spring bracket	DMT.4000.013
30	1	Gas Spring	DMT.4000.014
31	1	Spacer 27 mm	DMT.4000.015
32	2	Bracket rear omni wheel	DMT.4000.020
33	1	Assembly blast can	DMT.4000.030
34	2	Weld assembly blast can mounting	DMT.4000.040
35	1	Weld assembly rear frame	DMT.4000.050
36	1	Assembly magnet	DMT.4000.060
37	2	Assembly omni wheel rod	DMT.4000.070
38	4	Hexagon Socket Button Head Screw	ISO7380.M6x16-A4
39	2	Hexagon Socket Button Head Screw	ISO7380.M8x16-A4
40	1	Ball lock pin	K0364.2308040

Pos No.	Qty	Description	Part number
1	4	Plain washer	DIN125.M8-A4
2	4	Int. hex. socket head bolt	DIN912.M8x25-A4
3	4	Int. hex. socket head bolt	DIN912.M8x30-A4
4	2	Int. hex. socket head bolt	DIN912.M8x70-A4
5	2	Hex. nut	DIN934.M8-A4
6	12	Hex. lock nut	DIN985.M8-A4
7	4	Int. hex. countersunk head bolt	DIN7991.M8x25-A4
8	1	Assembly Manifold with blind plugs	DMT.653
9	2	Spring \varnothing 3x30x84.5	DMT.4000.031
10	1	Swivel housing	DMT.4000.033
11	1	Swivel 3000 bar 9/16x18 UNF LH F	E0800531
12	2	Hinge blast can	DMT.4000.035
13	1	Blast can top	DMT.4000.036
14	1	weld assembly outer ring	DMT.4000.037
15	1	Assembly omni wheels	DMT.4000.038
16	1	Hose tail 2" BSP	FW.6581120
17	1	Vacuum relief valve	VRV-2-EA
18	1	Flat seal MAGTRACK Mini	DMT.4000.005



Pos No.	Qty	Description	Part number
1	2	Large plain washer	DIN9021.M8-A4
2	2	Omniwheel shaft	DMT.723.1
3	1	Center shaft omni wheel spacer pipe	DMT.723.3
4	4	Bearing protection cap	DMT.724
5	2	Bearing	DMT.725
6	2	Spacer omniwheel shaft	DMT.726
7	2	Omniwheels	DMT.728
8	4	Bearing	DMT.731
9	2	Bracket omniwheels	DMT.4000.038.1
10	2	Spacer pipe omni wheel	DMT.4000.038.2
11	16	Hexagon Socket Button Head Screw	ISO7380.M5x6-A4
12	2	Hexagon Socket Button Head Screw	ISO7380.M8x16-A4

4.7 DERC safety devices

4.7.1 Control unit

- ✓ Emergency stop on the door of the cabinet

4.7.2 Control unit atex

- ✓ The control unit is protected by overpressure to prevent the entry of explosive gases. As soon as the overpressure in the control unit drops below the set value, it will disconnect the main electric power from the unit.
- ✓ Overpressure safety device, a pressure relief valve is fitted to prevent the unit from being exposed to excess pressure.

4.7.3 Carrier

- ✓ The MAGTRACK stops if the connection to the wireless control panel is broken.
- ✓ The MAGTRACK should always be used in combination with 2 fall protections. If the MAGTRACK becomes detached from the wall it will be caught after about 1 meter by the fall protection. After this it will descend automatic. Do not use it above water, use fixed lines.
- ✓ A wall contact sensor is optional. If this loses contact with the steel surface, both the MAGTRACK and the high pressure pump will be switched off.

4.7.4 Swing arm

- ✓ The swing arm is equipped with sensors that limit the stroke of the arm.

4.7.5 Blast can

- ✓ A vacuum valve ensures that the underpressure is limited.

4.7.6 MAGTRACK mini

- ✓ A vacuum valve ensures that the underpressure is limited.
- ✓ The MAGTRACK Mini should always be used in combination with 2 fall protections. If the MAGTRACK becomes detached from the wall it will be caught after about 1 meter by the fall protection. After this it will descend automatic. Do not use it above water, use fixed lines.

4.7.7 Other accessories

- ✓ The MAGTRACK must be transported at all times on the specially designed transport plate. This reduces the magnetic force so that the MAGTRACK can, for example, be passed through a manhole. The MAGTRACK can also be safely mounted with this on the wall and then removed.

5. SETTING UP AND INSTALLING

5.1 Presenting the carrier to the wall

The carrier is on a transport plate with steel plates on it. Gently place this plate including carrier against the steel surface.

⚠ CAUTION! Use the handles designed for this purpose, otherwise there is a risk of entrapment. The carrier stays secured to the steel surface by powerful magnets.

5.2 Connecting the MAGTRACK

! Disconnect the power from the control unit

1. Connect the socket of the control unit to the cable.
2. Connect the plug of the cable to the socket of the MAGTRACK.
3. Attach the pull relief for the cable to the MAGTRACK. As can be seen in Figure 20

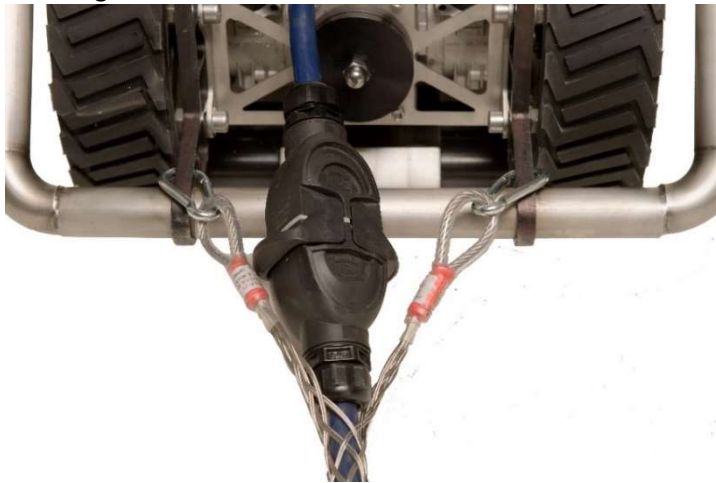


Figure 20 Pull relief

Apply step 4 only when an atex certified control unit is used.

4. Connect the compressed air to the connection on the side of the control unit. See Figure 21
5. Connect the earth to the earth terminal at the back of the control unit. See Figure 22




Figure 19 MAGTRACK on a vertical surface





Figure 21 Control unit




Figure 22 Earth terminal

 The compressed air must be at least 6 bar. The pressure reduction valve on the side of the unit ensures that the correct air pressure is admitted to the unit.


 Unless there is overpressure in the control unit, the control unit may not be used in an explosive environment.

 The control unit is not allowed to be used if the earth is not connected.

6. Connect the high-pressure system to the control unit.
7. Connect the control unit to the power source
8. Start up the wireless console. See chapter 6.1.1 for the start-up instructions

 For use of the wireless console, see chapter 6.1

9. Secure the fall protections
10. Gently drive the MAGTRACK off the transporter plate.

 **CAUTION!** The transporter plate is not magnetic. It will therefore fall off the wall as soon as the carrier drives off

5.3 Connect cleaning tools

5.3.1 Swing arm



Position the MAGTRACK upside down or horizontally on the wall to make mounting easier

1. Place the swing arm brackets on the rear-guard bracket of the carrier as shown in Figure 23.

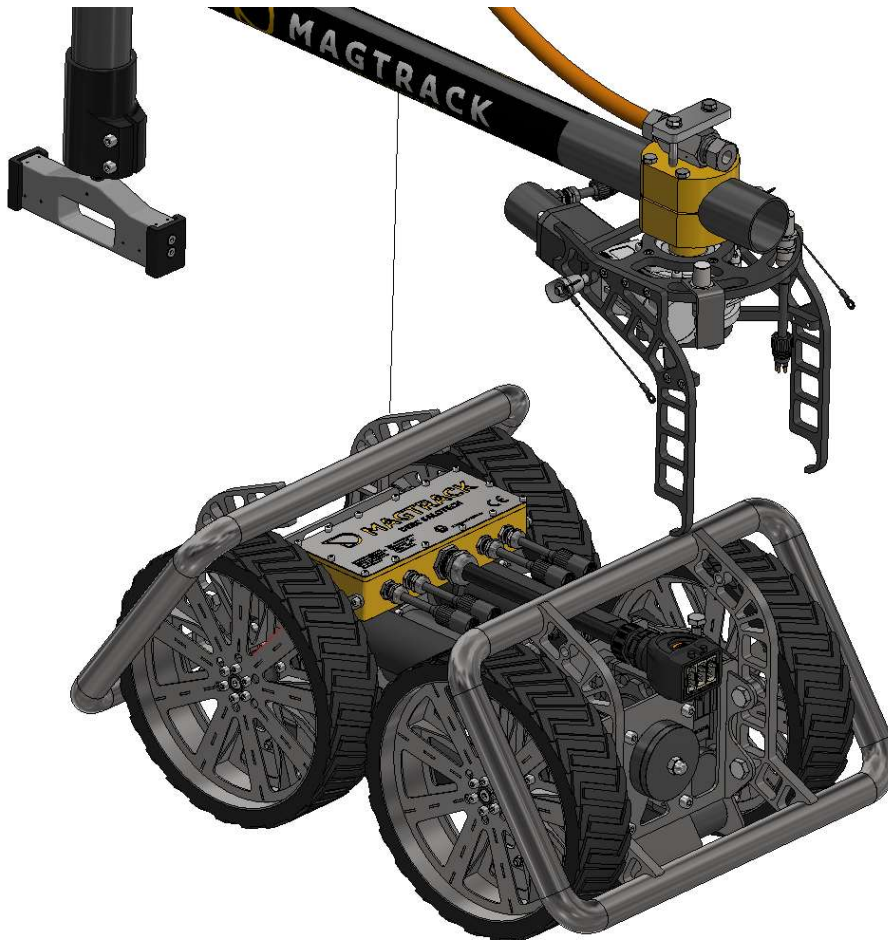


Figure 23 Placing the swing arm



Caution! Ensure that both the motor and the sensor cables continue under the guard bracket.

2. Secure the swing arm with the locking pins provided for this purpose.

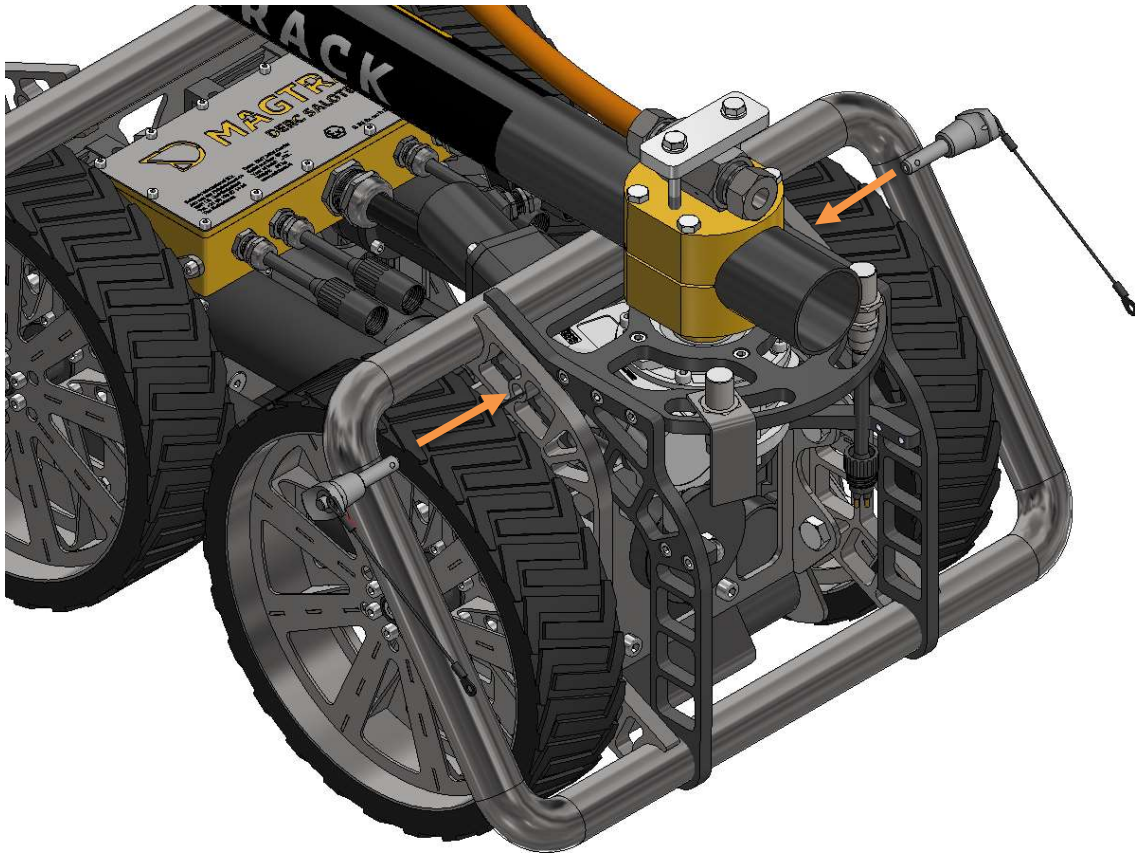


Figure 24 Securing the swing arm

3. Disconnect the power supply from the control unit and connect sensor cables and 2-pole connectors of the swing arm to those of the MAGTRACK. Connectors are also marked with coloured tie wraps



When there is power to the control box, an ignition source can be created when connecting or disconnecting plugs!

5.3.2 *Blast can*

1. Detach the front guard bracket by undoing the 4 hexagon bolts, as shown in Figure 25.

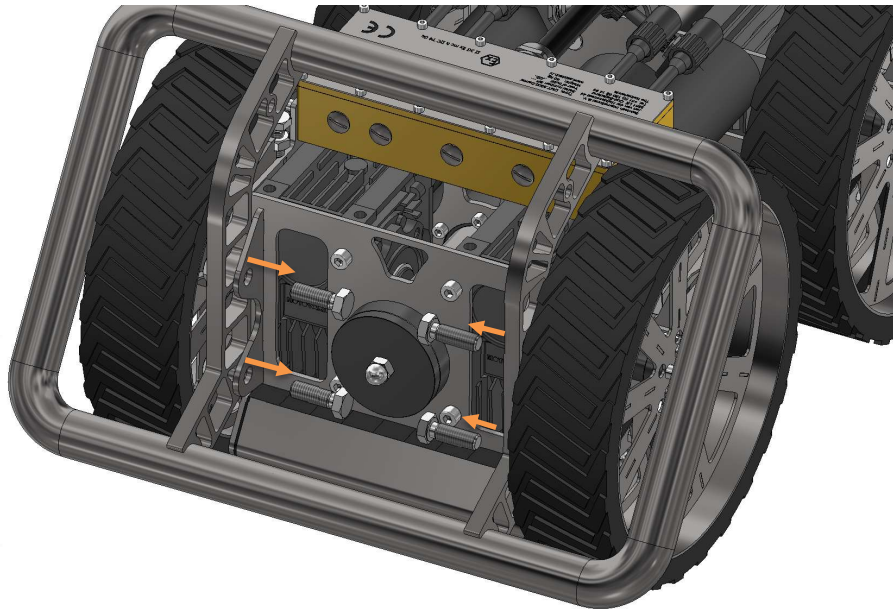


Figure 25 Detaching the guard bracket

2. Detach the gas springs from the blast can by removing the locking pins as shown in figure 26

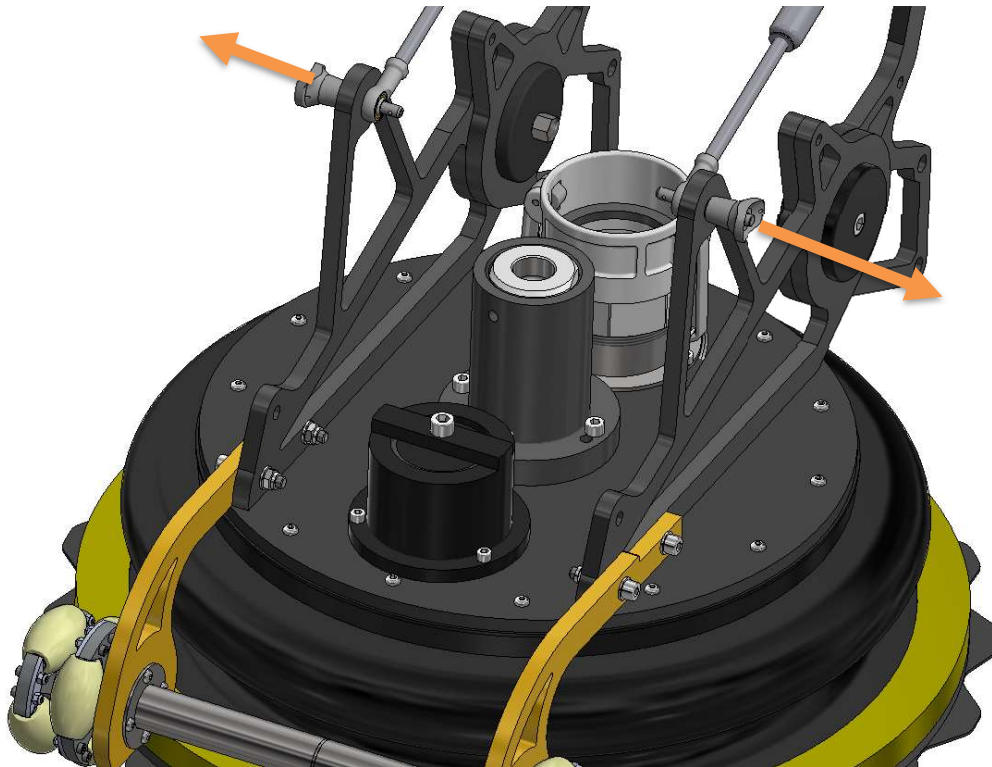


Figure 26 Removing locking pins

3. Fit the blast can at the position of the guard bracket with the same screws

4. Push the blast can against the surface and attach the gas springs with the locking pins designed for this purpose.

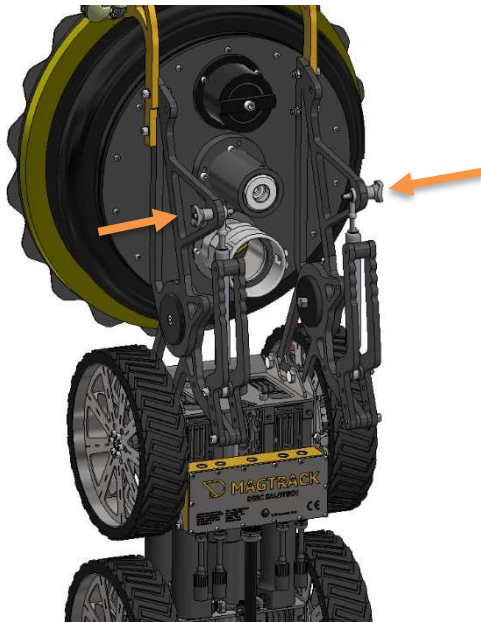


Figure 27 Assembly gas spring

5. Push the gas springs in with the lever until they are over the dead centre.
6. Attach the suction hose to the blast can

5.4 Connecting high pressure water

1. Flush the high-pressure hose before it is connected.
2. Check the quality of the screw threads. They must be undamaged and burr-free.
3. Fit the high-pressure hose to the MAGTRACK connector.



When fitting, always use assembly paste on the male thread.

Always use a hose whip check! (See example in Figure 29).



Figure 28 Hose whip check



Use a hose whip check that is not made of metal. This could affect the swing arm sensors.

5.5 Changing nozzles

1. Switch off the high-pressure unit.



Always place nozzles of the same type and with the same bore in the spray arm to avoid imbalance of the cleaning tool.

2. Remove the nozzle, clean the thread in the manifold.
3. Fit the new nozzle with anti-seize paste. The permissible torque is 25Nm.



If the nozzles are not correctly placed, this may result in damage to the cleaning tool.

20 nozzles can be placed in the blast-can manifold. Four of these are responsible for the rotation. The remaining sixteen nozzles are purely for cleaning. The determination of the ratio depends on the type of work and the specifications of the high-pressure unit. See example:

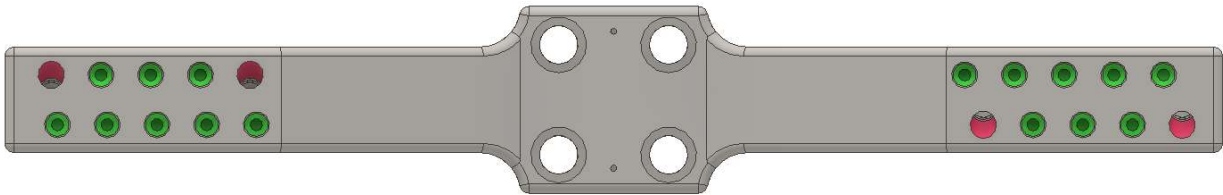


Figure 30 Red= rotation; green= cleaning

8 nozzles can be placed in the swing arm/ DERC MAGTRACK mini manifold. Two of these are responsible for the rotation. The remaining six nozzles are purely for cleaning. The determination of the ratio depends on the type of work and the specifications of the high pressure unit.



Figure 31 Red= rotation; green= cleaning



Outlet ports are allowed to be blocked off. But ensure that this is done in pairs to avoid imbalance.



Be aware that if the ratio deviates, this will affect the rotation speed of the manifolds. Too much flow on the drive will produce too high a speed which may lead to extreme wear and tear of the swivel.

6. START-UP

Partition off the spray site with warning signs and barrier tape or chains at least 6 metres away from the spray site. The warning signs must be in yellow/black and are available from your supplier (see example below). Only operating personnel are allowed to be inside the partitioned-off area. One operator is to operate the high-pressure unit.



Figure 32

- ⚠ The system is not allowed to be connected without the control panel.
- ⚠ The plug is not allowed to be connected or disconnected when the power supply is connected to the control unit
- ⚠ **Caution!** magnetism can affect the functioning of a pacemaker
- ⚠ Setting-up and installing the DERC MAGTRACK should be done in accordance with this user manual.
- ! You are not allowed to stand under the robot. This is because of the fall hazard and water and dirt coming down. During use, the fall protections must be fitted at all times.
- ! The connector between the MAGTRACK and the cable is important – it must be secured sufficiently to prevent it coming loose. You are not allowed to use the MAGTRACK in the absence of this protection.
- ! Avoid obstacles as collisions may lead to metal coming into contact with metal and give rise to friction (heat development). This is hazardous in an ATEX zone
- ! When using the blast can, turn on the vacuum before activating the high pressure
- 👍 Drive forward as much as possible so that the clean surface is driven over
- 📎 Make sure that the hose and cable are long enough and sufficiently free to move when the DERC MAGTRACK is put into use.
- 📎 Make sure all four wheels are on the surface to be cleaned. The magnetic operation is optimal when the space between the magnets and the steel surface is 7 mm. If this is not the case, the magnets can be adjusted in accordance with chapter 6.1
- 📎 **CAUTION!** For steel surfaces that are thinner than 6 mm, the magnetic force will decrease significantly.
- 📎 Do not install more than 200 kg of equipment on the carrier. Also take into account the reaction force of the cleaning tools

6.1 Operation of wireless console

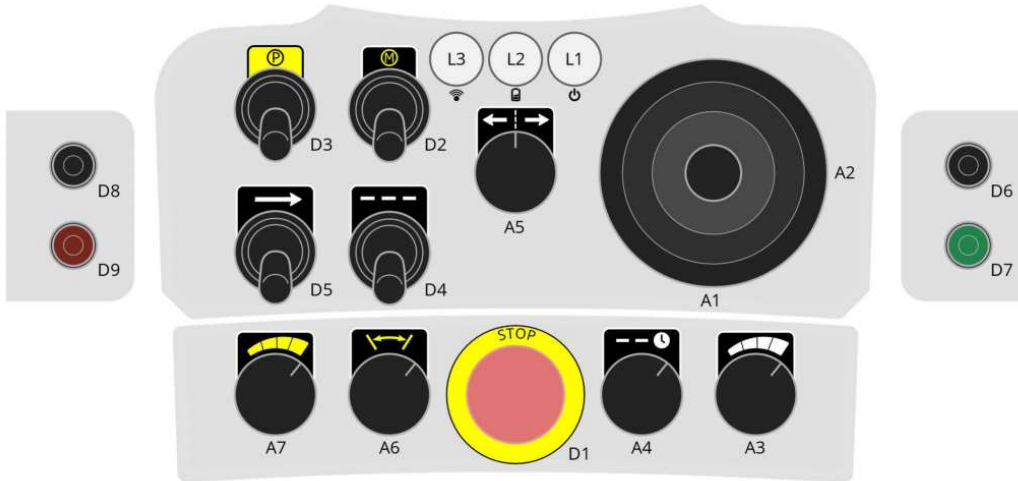


Figure 33 Layout of wireless console

Control	Function
D1	(Emergency) stop button. Sends multiple stop signals to the receiver and puts the device into sleep mode. Deactivate the emergency stop by rotating it.
D2	Swing arm ON/OFF
D3	High pressure pump. pressure UP/DOWN
D4	Step function ON/OFF. This only works when the swing arm (D2) is activated Switch 2 times for reverse driving with an interval of 1 second.
D5	Automatic driving ON (D5 only to be used without swingarm) Push forward once. Robot drives forward. Operation of Joystick cancels the command Push forward twice (within a second). Robot drives backward. Operation of Joystick cancels the command. D5 is not working when a swingarm is used, as soon as a sensor of the arm is connected, D5 will deactivate and D4 will activate. Disconnected sensors and power cycle of the receiver to make D5 work again.
D6	Will reverse the direction of movement of the swing arm. Remains stationary as long as the button is pressed (also called the spot stopper).
D7	Start button. Requires pressing after start-up before other actuators/switches are used.
D8	-
D9	Battery button. Latching push button. Disconnect the battery when storing the remote for a longer period. Push to "in" position before charging.
A1	Joystick drive forward/backward
A2	Joystick steer left/right
A3	Drive speed setting for step function and automatic driving D4 and D5
A4	Duration of step in step mode (D4)
A5	Trim function for fine adjustment in automatic drive mode (D5). Only works if the swing arm is removed!
A6	Adjustment of angle of swing arm (OPTIONAL)
A7	Swing arm speed setting

LED indicator	Colour	Description
L1: Status light	Green	Powered on
	Green Blinking	Actuator active
	Red Blinking	Actuator active before start pressed
	Yellow	Temperature timeout protection period
	Purple Blink Once	Machine started
L2: Battery light	Green	Battery more than 30%
	Orange	Between 20% and 30%
	Red	Between 10% and 20%
	Red blinking fast	Below 10%
	Blinking slow	Charging
L3: Signal light	Green	Looking for receiver
	Green Blinking	Connected
	Red Blinking	Sending stop messages

Tabel 13



When there is a lot of maneuvering in a short time. A protection will be activated to prevent the motors from being overheated. The remote will show a yellow warning indicator and driving is temporarily deactivated for 5 min. After this period reactivation is done automatically.



It is not allowed to use the remote control in a Atex zone without the cover placed on the USB charging port.

6.1.1 Start-up

1. Make sure the remote controller is connected with the main control unit. L3 must be blinking green.
 - a. When light L3 is not blinking make sure there is power on the main control unit
 - b. Make sure the remote controller is paired with the main control box. See chapter 6.1.2 about pairing.
2. Make sure all actuators are in the downward position. Press the green button D7 to start the machine
3. Led L1 will blink purple once when the machine is started.



When L1 is blinking red when executing one of the previous steps. Actuators are active before green button D7 is pushed.

6.1.2 Pairing

1. Remove the power of the main control unit.
2. Turn on the remote controller
3. Push buttons D6, D7 and D8 at the same time. The light will change colour.
4. Put power on the main control unit. After a few seconds the light will change colour. L3 must be blinking green after executing step 4.

6.1.3 Calibrate

To calibrate the remote controller the following steps need to be executed

1. Turn on the remote controller and turn all the potentiometers completely to the left.
2. Push buttons D6, D7 and D8 at the same time. The light will change colour.
3. Press and hold the green button D7 until all the light turn orange.
4. Now turn all potentiometers from min to max and push the joy stick front -> back -> left -> right.
 - a. Complete this step within 20 seconds.

6.1.4 Charging

All indicator lights will go off after the stop button is pressed. If none of the indicator lights light up when the stop button is released, the battery is completely flat.

Use the supplied USB charging cable to charge the battery. Always replace the cover before using the console.

Before connecting any charger make sure that:

1. The battery button (D9) is in the “in” position (i.e. the battery is connected).
2. The stop button (D1) is in the “down” position (i.e. the remote is in “sleep” mode).

6.2 Adjustments MAGTRACK

6.2.1 Magnet adjustment

The profile of the wheels will wear down through usage. This will gradually reduce the distance between the magnets and the surface to be cleaned. The DERC MAGTRACK will gradually move forward increasingly slowly due to the increasing magnetic tensile force. That means the magnets need to be adjusted. This can be done while the MAGTRACK is on the surface.

Adjust the magnets as follows:

1. Loosen the in Figure 34 indicated (4x) bolts 1 or 2 turns. Do not disassemble them completely!
 - a. When they can't be reached all 4 at the same time. Turn the wheel with the remote until they are reachable.
2. Repeat step 1 for the other side.



Figure 34 Loosen up 4 bolts

3. To adjust the magnet, use the indicated bolts Figure 35. Clockwise to move the magnet away from the wall. Counter clockwise to move the magnets to the wall.



Make sure the same amount of turn is done on both sides to prevent the magnets will be in an angle.

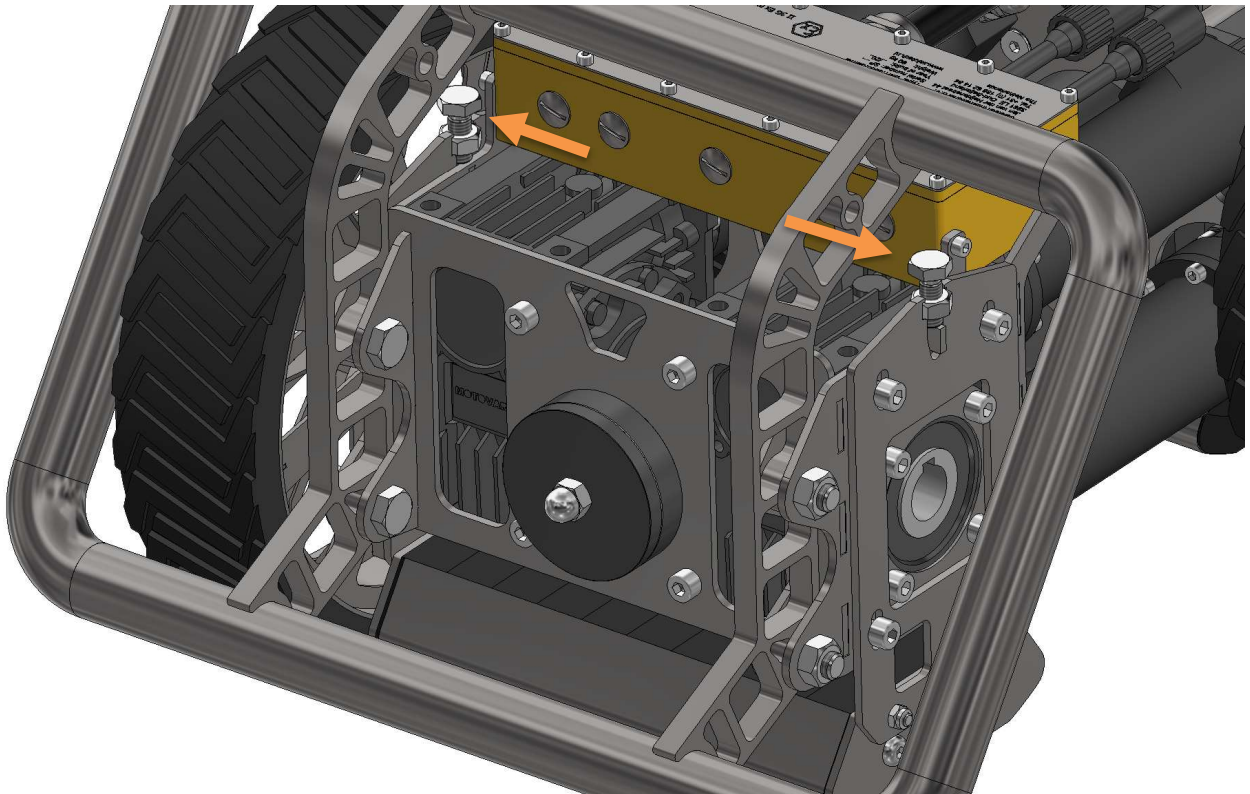


Figure 35 Height adjustment magnets

4. Do not make the gap between the magnet and wall less than 3mm to prevent the magnets from damaging
5. When magnets are on the right distance tighten the bolts from step 1 (both sides)
6. The rear magnet package can be adjusted the same way.



Caution: magnetism! Pacemakers can be affected by magnetism

6.2.2 *Adjusting swing arm angle*

The stroke of the swing arm can be adjusted using the sensors. You can see how to adjust these sensors in Figure 35. Make sure that the distance between sensor and arm is between 2 and 4 mm this is shown in Figure 36.



Figure 36 Adjusting sensors

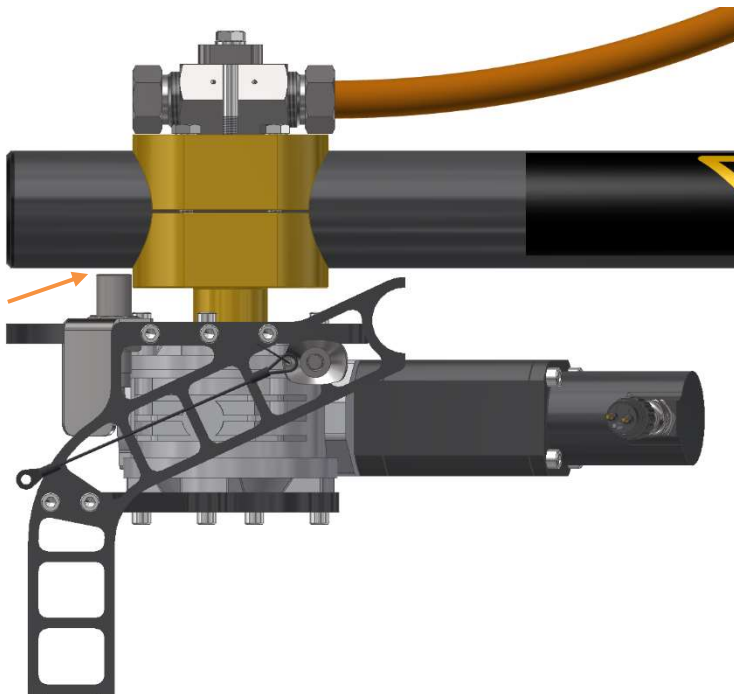


Figure 37 Sensor distance

6.2.3 Adjustment of vacuum valve

To increase the vacuum pressure in the blastcan, the bolt on the vacuum valve (indicated in purple) must be turned clockwise. To decrease the pressure the valve must be turned counter clockwise, make sure the nut does not turn when turning the bolt.

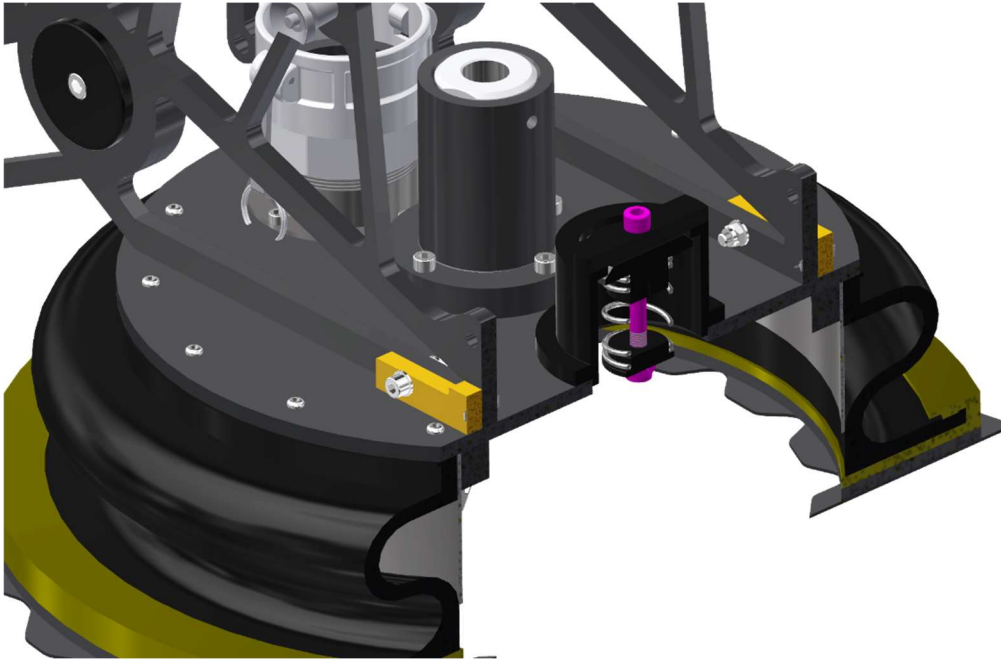


Figure 38 Vacuum pressure adjustment

6.3 Adjustments MAGTRACK Mini

6.3.1 Omniwheel height adjustment

The position of the omniwheel depends in the type of surface. The wheel is lower when riding on a tube than when riding on a flat surface. Therefore the wheel can be adjusted using the adjusting nut, as shown in Figure 39



Figure 39 Omnivheel height adjustment

6.3.2 Adjusting blastcan angle

To adjust the angle between the blast can and the surface, the pivot points must be loosened and re-locked when blastcan in parallel to the surface

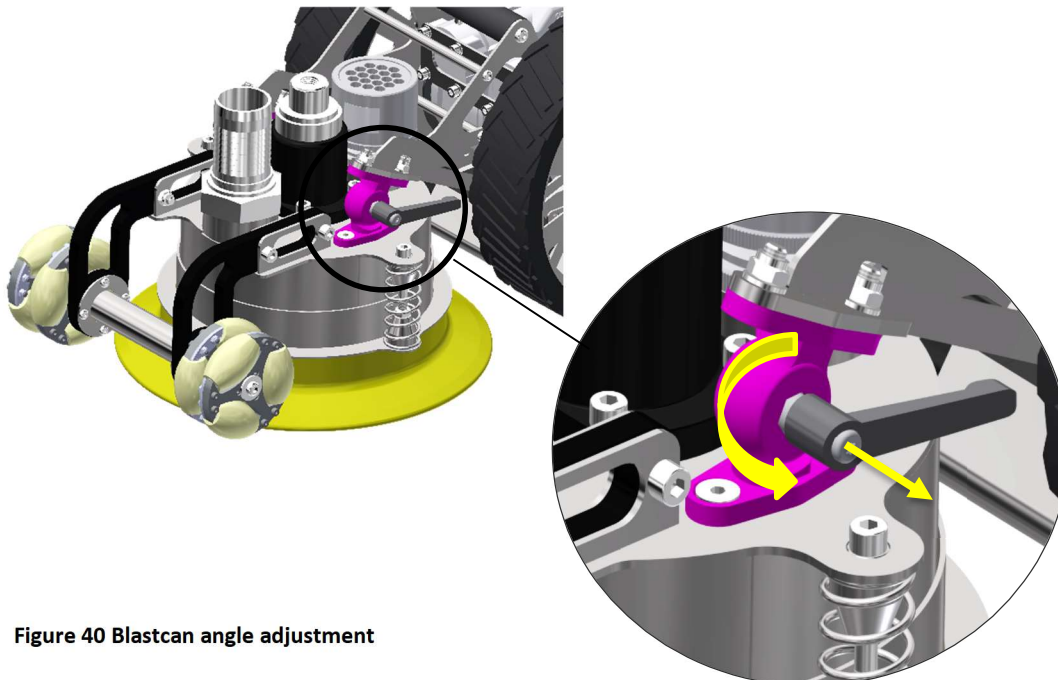


Figure 40 Blastcan angle adjustment

6.3.3 *Vacuum pressure blast can adjustment*

To increase the vacuum pressure in the blastcan, the vacuum valve (indicated in purple) must be turned clockwise. to decrease the pressure the valve must be turned counter clockwise

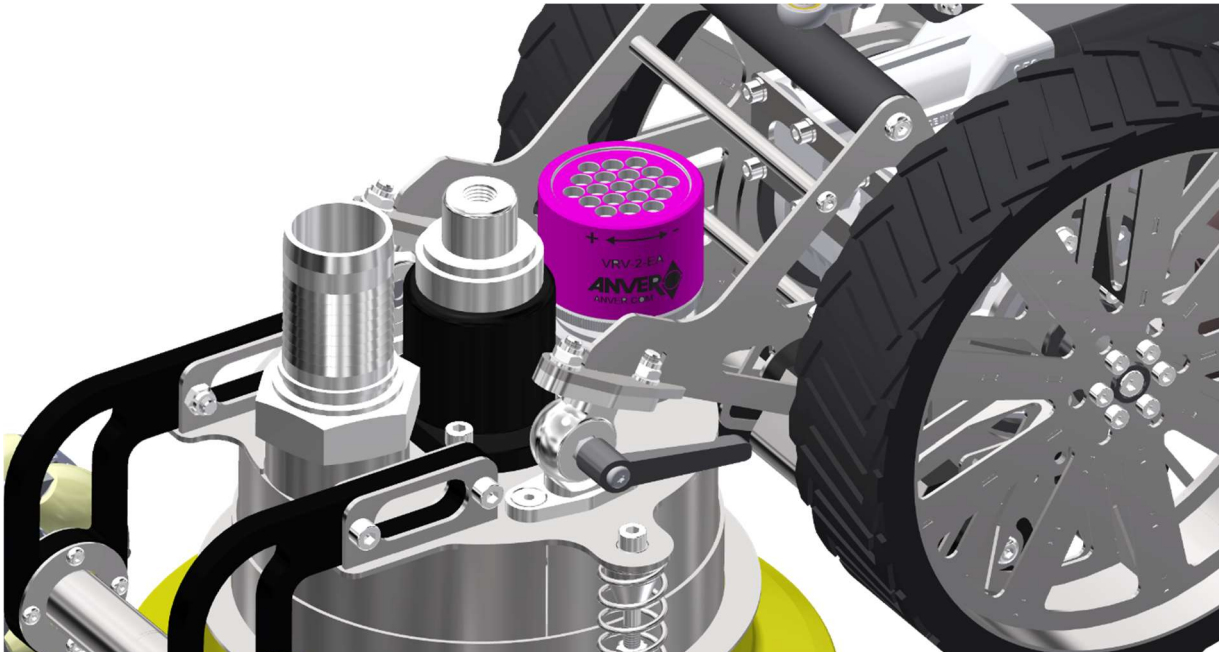



Figure 41 Vacuum pressure adjustment

6.3.4 *Magnet Adjustment*

 **Caution!** Working with strong magnets can be dangerous.

Because the MAGTRACK mini can drive on both flat surfaces and pipes the magnets needs to be adjusted. Perform the following steps:

1. Disassemble both wheels. Disassemble the bolt and pull shaft out of the gearbox

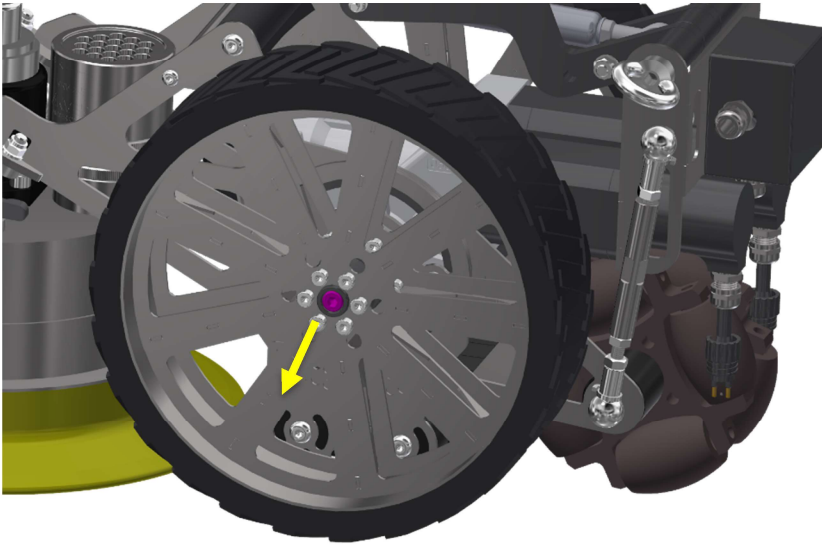


Figure 42 Disassembly of a wheel

2. Loosen the centre bolt by 1 turn. Do not completely disassemble the bolt.
3. Disassemble the 2 bolt which are in the adjustment holes.

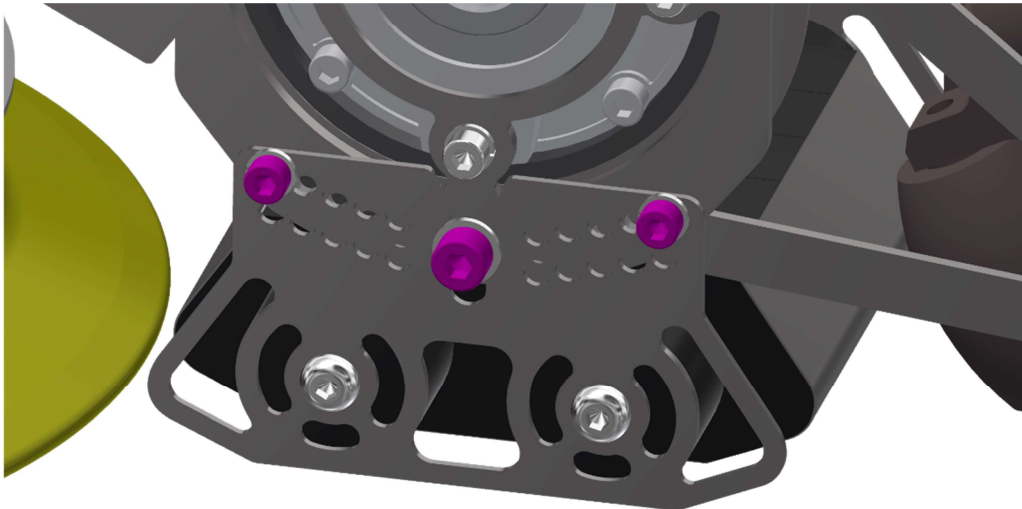


Figure 43 Height adjustment of the magnet

4. Set the magnets on the desired height. Every hole is approx. 2 mm. The advised distance between the magnet surface is 6 mm.



Makes sure both sides are set to the same height.

7. TRANSPORT



Transport of the machine and its components must be carried out in accordance with the relevant legislation and regulations (EU roads and traffic law).



Check that all loose and movable components are properly secured.



Check that the machine is properly secured on the vehicle.



Check that the machine has no unacceptable effects on the way in which the vehicle concerned drives, for example due to a centre of gravity that is too high.

7.1 Transport on site

The carrier can easily be transported using the transport plate designed for that purpose. When moving the carrier, the strength of the magnets should be taken into account.



Never move the carrier with your hands under the transport plate

It is recommended to keep equipment and tools that are sensitive to magnetism, such as phones, pacemakers, cameras, steel open-ended wrenches, etc. at least 50 cm away from the magnets

7.2 Transport by road or air

When transporting the Derc MAGTRACK, additional safety measures have to be taken because of the high magnetic force.

Always insert the carrier in the middle of the transport crate. Place a steel plate that is at least 5 mm in thickness under the magnet to reduce the radiation intensity of the magnets.

The magnets are placed in the Halbach configuration and therefore the highest magnetic force is underneath.

Before transporting, check the relevant transport company's regulations for the transport of permanent magnets. If necessary, perform measurements using a certified Gauss meter. Do this on all planes of the transport crate.

8. MAINTENANCE



Inspection and maintenance tasks must be carried out in accordance with the scheduled maintenance and inspection tasks as described in this manual. In addition to the above-mentioned safety instructions, the safety instructions in force locally should also be observed.



When replacing or repairing machine parts, only use authorized spare parts and repair methods.



Only personnel that have had training are permitted to carry out these tasks. This applies to both maintenance and operational tasks. It is the responsibility of the machine's owner to keep a record of the details of this training. Only well-trained and experienced personnel may operate the machine. Operating personnel should be aware of all the circumstances that could occur in order to act quickly and suitably in the event of an emergency situation.



Only authorised personnel may perform maintenance tasks. Respect the safety regulations as mentioned in paragraphs 1.2 and 1.6



After maintenance has been carried out, the machine must be tested to ensure that it can be used safely again.



For maintenance of the swivel, see the manual supplied with it.



For specific maintenance, see the documentation provided by the supplier.

8.1 General



If you need to check certain parts, this may mean lubricating and performing a visual check for play, wear, defects, tightness, leakage, etc.



Before maintenance is carried out, the high pressure water and the power supply of the machine must first be removed.



After the first 50 hours of operation, the machine must be completely checked.

- ✓ Clean the outside of the DERC MAGTRACK (remove dirt, dust, etc.).
- ✓ Check that all information and pictograms are clean and legible.
- ✓ Check the quality of the screw threads.
- ✓ Secure connections properly with appropriate wrenches and use at least 4 turns of the screw thread.
- ✓ Check the machine for unusual noises.

8.2 Preventive daily maintenance

In determining the maintenance requirements for the machine, normal operating conditions and normal ambient temperatures are assumed. If the machine is used under heavy operating conditions or under extreme conditions (in consultation with the manufacturer) the frequency of maintenance tasks should be adjusted accordingly.



Periodic maintenance is necessary to ensure minimal outage time and safe operation of the machine in the future.

- ✓ Visually check that there are no contaminants present to affect the operation.
- ✓ Before each use, check the high-pressure hose and connections for leakage.



A leaky fitting can result in a high-pressure liquid jet! Always check that there is no leakage before starting work.

8.3 Preventive weekly maintenance

- ✓ Check the high-pressure hose for damage.
- ✓ Check the operating throughput, see included manual
- ✓ When using the blast can, check that the rubber seal is nice and clean.
- ✓ Make sure the nozzles are still working properly.

8.4 Preventive half-yearly maintenance

- ✓ Check all moving parts of the DERC MAGTRACK. Readjust these, if necessary.



When working in an extremely polluted or hot environment, this check should be carried out more frequently.

8.5 Preventive annual maintenance

- ✓ Check the DERC MAGTRACK for defects.
- ✓ Check the wheels for wear and tear.
- ✓ Inspection in accordance with NEN 3140
- ✓ HD inspection of the cleaning tool
- ✓ ATEX inspection



8.6 Spare parts

Spare parts for the DERC MAGTRACK are available through the DERC Salotech Office Sales Department.

DERC Salotech

Jan van der Heijdenstraat 44

3261 LE Oud-Beijerland

The Netherlands

T: +31 186 62 14 84

Internet: www.salotech.nl

E-mail: info@salotech.nl

9. FAULTS AND REPAIRS

This chapter describes all possible faults of the machine. The cause and solution for each fault is stated. There are faults that are easy to resolve and faults that require a certain level of technical knowledge. A distinction is made in this regard.



Only qualified and trained personnel may perform tasks on the machine.



Switch off power to the machine correctly before resolving any faults.



After the fault has been resolved, test the machine to ensure that it can be used safely again.



Technical faults may only be resolved by technically skilled personnel. Possible solutions are indicated by the letter 'T'. If a fault may be resolved by an operator, this will be indicated by the letter 'B'.



If the fault cannot be resolved or there are any questions, please contact the Technical Service of DERC Salotech.

9.1 Faults DERC MAGTRACK

The table below provides a summary of possible faults.

Fault	Cause		Possible solution
Speed is slowed down too much	- Magnets too close to the surface	T	- Replace the wheels. - Adjust the magnets
Wheels do not turn	- Axle/wheels are dirty - Axle/wheel is broken	B	- Clean the axle and/or the wheel - Replace axle/wheel
The assembly vibrates and shudders	- The nozzles are clogged or worn. This creates unbalanced water jets and therefore vibrations	B	- Clean the nozzles or replace them.
Swing arm rotates beyond sensors	- Sensor defect	T	- Replace the sensor
	- Metal cable rupture protection passes the sensor - Connector for the sensors not connected properly	B	- Use a plastic version - Check the connector for correct fitting
Out of range of wireless console	- Obstacle between control unit and console (e.g. wall of a tank)	B	- Place the antenna in sight of the wireless console
	- Distance too great between control unit and console	T	- Fit an extension cable to the antenna
Manifold rotates too fast / too slowly	- Incorrect ratio flow manifold.	B	- Check ratio of nozzles drive versus cleaning *

Table 14



See chapter 5.1 for changing nozzles / and the drive / cleaning ratio

9.2 Repairs to the DERC MAGTRACK

- ✓ Replacing wheels
- ✓ Replacing a drive

9.2.1 Replacing wheels

The wheels of the carrier must be replaced when the polyurethane layer around the wheels is worn. The polyurethane layer also ensures the correct distance of the magnets in relation to the steel wall.

1. Place the carrier on a clean, empty and non-magnetic workbench

 Use non-magnetic tools!

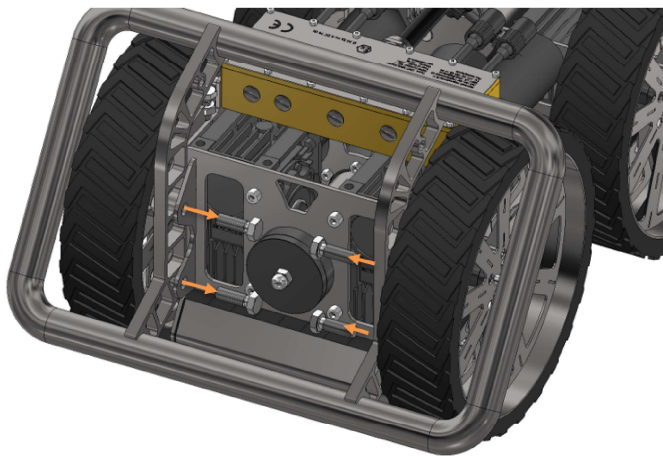


Figure 44 Detaching guard bracket

2. Remove the guard bracket by unscrewing the four bolts. As shown in Figure 44.
3. Remove the bolt and take the wheel including axle out of the gear box. This can be seen in Figure 45

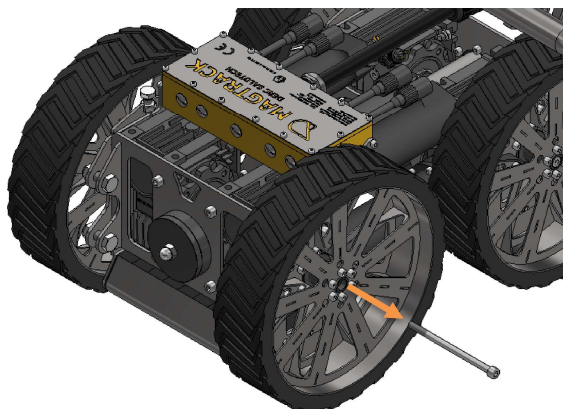




Figure 45 Detaching a wheel


 Make sure the spline does not fall out of the axle.

4. Fit the new wheel in reverse order. Use Loctite 243 and fasten the bolt.

9.2.2 Replacing a drive

 Working with powerful permanent magnets is very dangerous and should be done carefully! Make sure therefore that there is never a loose magnet set in the vicinity of another magnet or magnetic surfaces.

 **Caution!** magnetism can affect the functioning of a pacemaker

 Use non-magnetic tools!

1. Disconnect the connectors from the motors
2. Turn the carrier with the magnets pointing upwards and place the wooden guard block on one of the magnet set.



Figure 46 Remove domed nut

3. Remove the domed nut and end cap as shown in Figure 46.
4. Pull both sides apart and place one side on a clean and non-magnetic surface which is at least 2 metres away from the workbench!

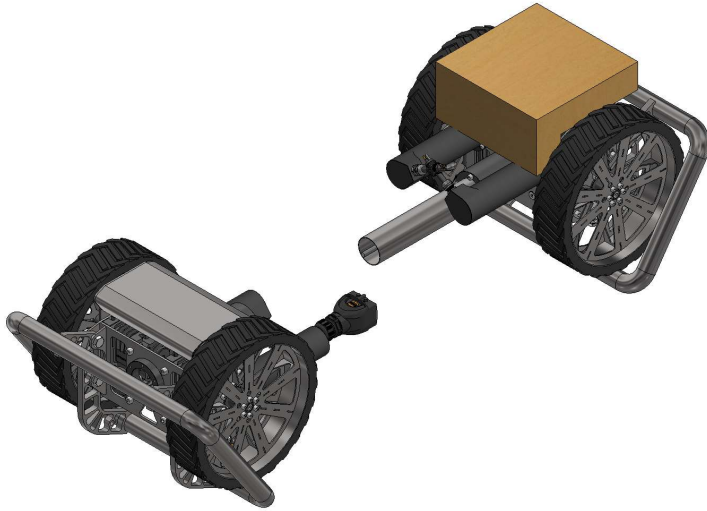


Figure 47 Split the machine

5. Disassemble the 6 socket heads screws and pull the motor out of the gearbox.

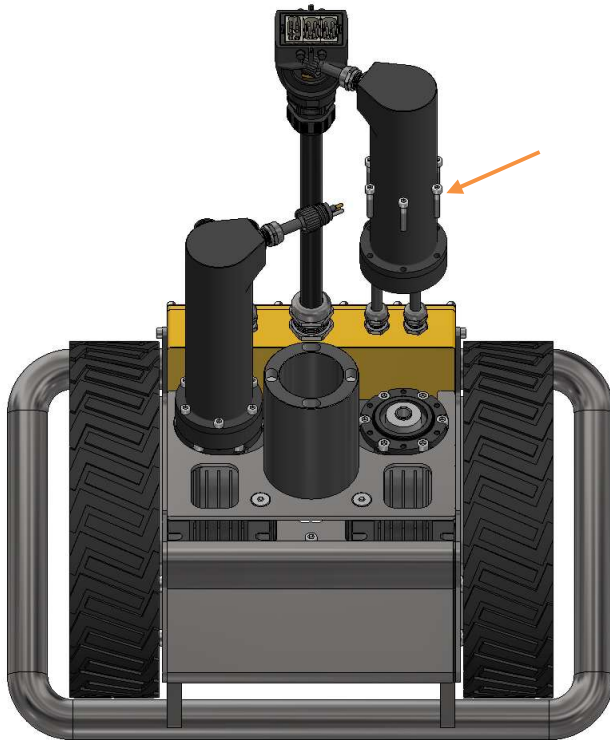


Figure 48 Remove the drive

6. To assemble a new motor follow the previous steps in reverse order. Mount the domed nut with Loctite 243.



10. DISASSEMBLY AND DISPOSAL

When parts are replaced, all the old parts, materials and (liquid) substances must be disposed of in accordance with applicable environmental regulation

EU Declaration of conformity

Salotech International B.V.
Jan van der Heijdenstraat 44
3261 LE Oud-Beijerland
Nederland
Tel: +31 186 62 14 84

Declare under sole responsibility that the product:

DERC MAGTRACK / DERC MAGTRACK MINI with Blastcan or Swingarm

to which this declaration relates is in accordance with the provision of the following directives and standards:

Machinery directive	(2006/42/EG)
ATEX directive	(2014/34/EU)
EMC directive	(2014/30/EU)

And is conformity with the following standards or other normative documents:

EN-IEC 60204-1:2018
EN-ISO 80079-36
EN 61000-6-4:2019
EN-ISO 12100:2010
EN-ISO 60079-0:2018/AC:2020
EN 55011:2016
EN-ISO 13854:2019
EN 61000-6-2:2016-RL

DERC MAGTRACK /DERC MAGTRACK MINI with BLASTCAN or SWINGARM will have the following ATEX code

CE  **II 3G Ex mc h IIC T4 Gc**

Signature:



Date:

30-04-2022

Name: D. van der Wielen

(Manager Development & Engineering)

Place: Oud-Beijerland, Nederland

EU Declaration of conformity

Salotech International B.V.
Jan van der Heijdenstraat 44
3261 LE Oud-Beijerland
Nederland
Tel: +31 186 62 14 84

Declare under sole responsibility that the product:

DERC Control unit

to which this declaration relates is in accordance with the provision of the following directives and standards:

Machinery directive	(2006/42/EG)
ATEX directive	(2014/34/EU)
EMC directive	(2014/30/EU)
Radio Equipment Directive	(2014/53/EU)

And is conformity with the following standards or other normative documents:

EN-IEC 60204-1:2018
EN-IEC 60079-14:2014
EN-IEC 60079-2:2015
EN 62311:2020
EN 62368-1:2014+A11:2017
EN 301 489-1 V2.2.3
EN 301 489-3 V2.1.1
EN 300 220-1 V3.1.1
EN 300 220-2 V3.1.1

DERC Control Unit will have the following ATEX code

CE  **II 3G Ex p IIC T4 Gc**

Signature:



Date:

30-04-2022

Name: D. van der Wielen
(Manager Development & Engineering)

Place: Oud-Beijerland, Nederland

EU Declaration of conformity

Salotech International B.V.
Jan van der Heijdenstraat 44
3261 LE Oud-Beijerland
Nederland
Tel: +31 186 62 14 84

Declare under sole responsibility that the product:

DERC Remote EXREM001 – RECEIVER EXRCV0001

to which this declaration relates is in accordance with the provision of the following directives and standards:

ATEX directive	(2014/34/EU)
Low Voltage Directive	(2014/35/EU)
RoHS directive	(2011/65/EU)
Radio Equipment Directive	(2014/53/EU)

DERC Remote – Receiver will have the following ATEX code

CE  **II 3G Ex i IIB T6 Gc**

CE  **II 3D Ex t IIIC T85°C Dc**

Signature:



Date:

30-04-2022

Name: D. van der Wielen

(Manager Development & Engineering)

Place: Oud-Beijerland, Nederland