

ROBOTICS

# Product manual, spare parts

IRP



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**Product manual, spare parts**

**IRP A -250/500/750**

**IRP B -250/500/750**

**IRP C -500/1000**

**IRP K -300/600/1000**

**IRP L -300/600/1000/2000/5000**

**IRP R -300/600/1000**

**OmniCore**

**Document ID: 3HAC088964-001**

**Revision: A**

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Original instructions.

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# Table of contents

Overview of this manual .....	7
<b>1 Positioners</b> .....	<b>9</b>
1.1 IRP A .....	9
1.2 IRP B .....	10
1.3 IRP C .....	12
1.4 IRP K .....	13
1.5 IRP L .....	14
1.6 IRP R .....	15
<b>2 Rotary units and supports</b> .....	<b>17</b>
2.1 MTD 250 .....	17
2.2 MTD 500/750 .....	22
2.3 MTD 2000 .....	27
2.4 MTD 5000 .....	32
2.5 MID 1.1 .....	37
2.6 MID 1.2 .....	38
2.7 MID 2.1 .....	40
2.8 Support collar .....	42
2.9 Stop lug .....	44
<b>3 Motor units</b> .....	<b>45</b>
3.1 Motor units for MTD 250 .....	45
3.2 Motor unit for MTD 500-750 .....	47
3.3 Motor units for MTD 2000 .....	49
3.4 Motor units for MTD 5000 .....	51
3.5 Motor unit for MID 1.2 .....	53
3.6 Motor unit for MID 2.1-2.2 .....	55
<b>4 Electrical spare parts</b> .....	<b>57</b>
4.1 Cable harnesses .....	57

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# Overview of this manual

## About this manual

This manual contains information on all the spare parts for positioner IRP A, B, C, K, R, and L presented in *Product manual - Product.ProductName*.

## Usage

This manual should be used as a complement to the product manual during:

- maintenance work
- repair work.

## Who should read this manual?

This manual is intended for:

- maintenance personnel
- repair personnel.

## Prerequisites

A maintenance/repair technician working with an ABB manipulator must:

- be trained by ABB and have the required knowledge of mechanical and electrical installation/repair/maintenance work.

## Organization of chapters

The manual is organized in the following chapters:

Chapter	Contents
1	Frame parts
2	Rotary units and supports
3	Motor units
4	Electrical spare parts
5	Controller
6	Safety equipment

## References

Reference	Document ID
<i>Product manual - Product.ProductName</i>	3HAC088963-001

## Revisions

Revision	Description
A	First edition

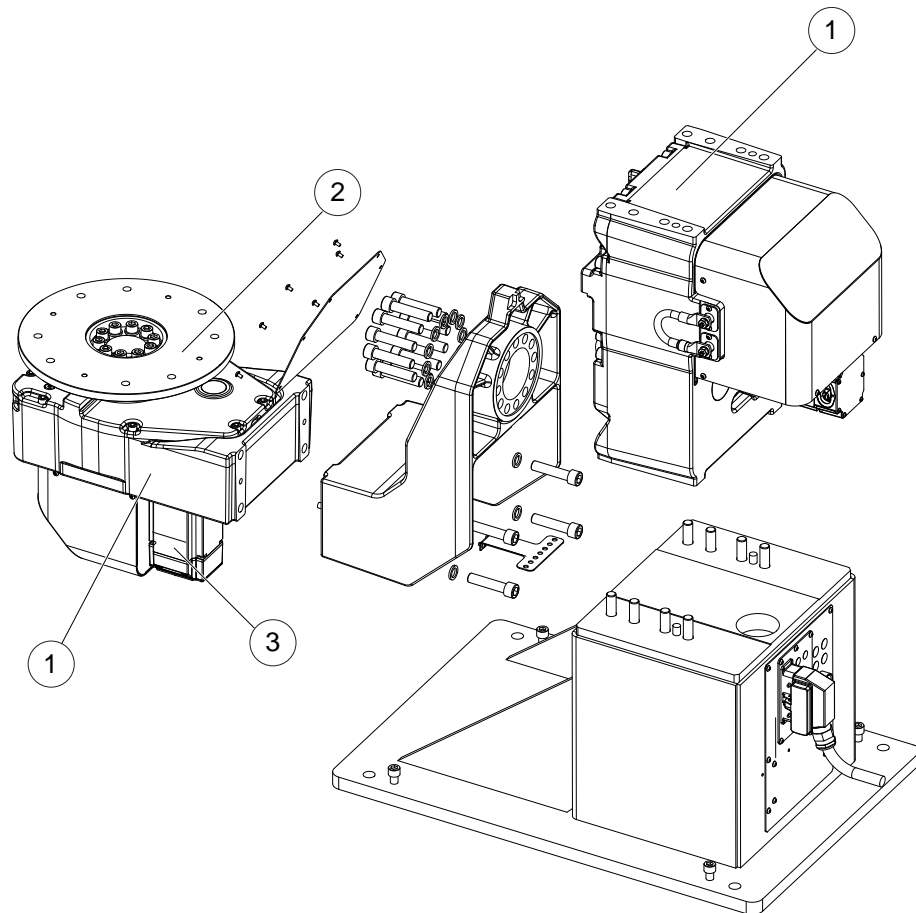
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# 1 Positioners

## 1.1 IRP A

### Frame parts



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Pos	Part	Spare part
1	Gearbox	MTD 250, see <a href="#">MTD 250 on page 17</a> MTD 500/750, see <a href="#">MTD 500/750 on page 22</a>
2	Rotary disc	MTD 250, see <a href="#">MTD 250 on page 17</a> MTD 500/750, see <a href="#">MTD 500/750 on page 22</a>
3	Motor unit	MTD 250, see <a href="#">Motor units for MTD 250 on page 45</a> MTD 500/750, see <a href="#">Motor unit for MTD 500-750 on page 47</a>



#### Note

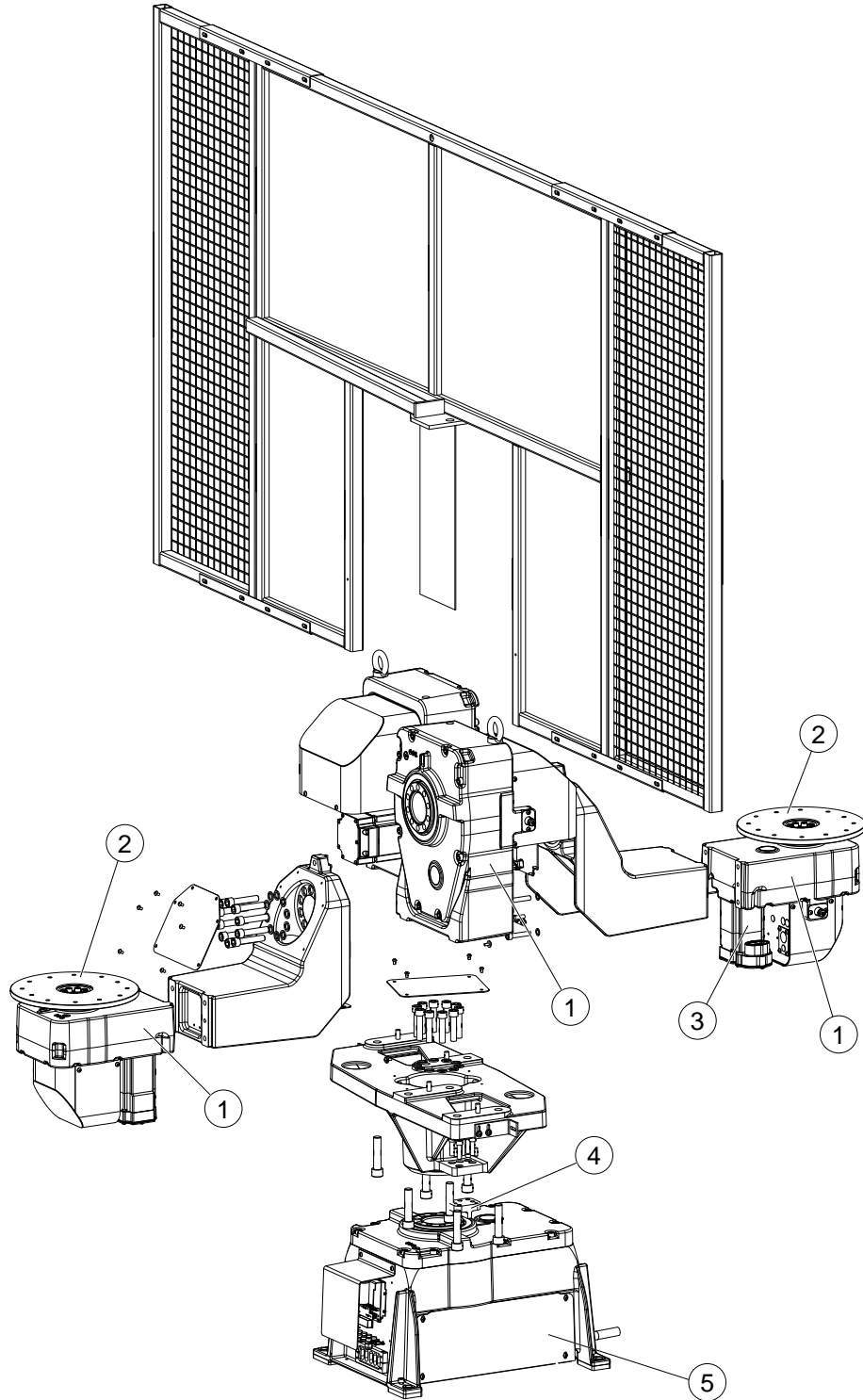
Lifting eyes are not delivered with the IRP.

# 1 Positioners

## 1.2 IRP B

## 1.2 IRP B

### Frame parts



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Pos	Part	Spare part
1	Gearbox	MTD 200, see <a href="#">MTD 250 on page 17</a> MTD 500/750, see <a href="#">MTD 500/750 on page 22</a>
2	Rotary disc	MTD 200, see <a href="#">MTD 250 on page 17</a> MTD 500/750, see <a href="#">MTD 500/750 on page 22</a>
3	Motor units	See <a href="#">Motor units on page 45</a>
4	Stop lug	See <a href="#">Stop lug on page 44</a>
5	Rotary unit	250 MID 1.1, see <a href="#">MID 1.1 on page 37</a> 500/750 MID 2.1, see <a href="#">MID 2.1 on page 40</a>



### Note

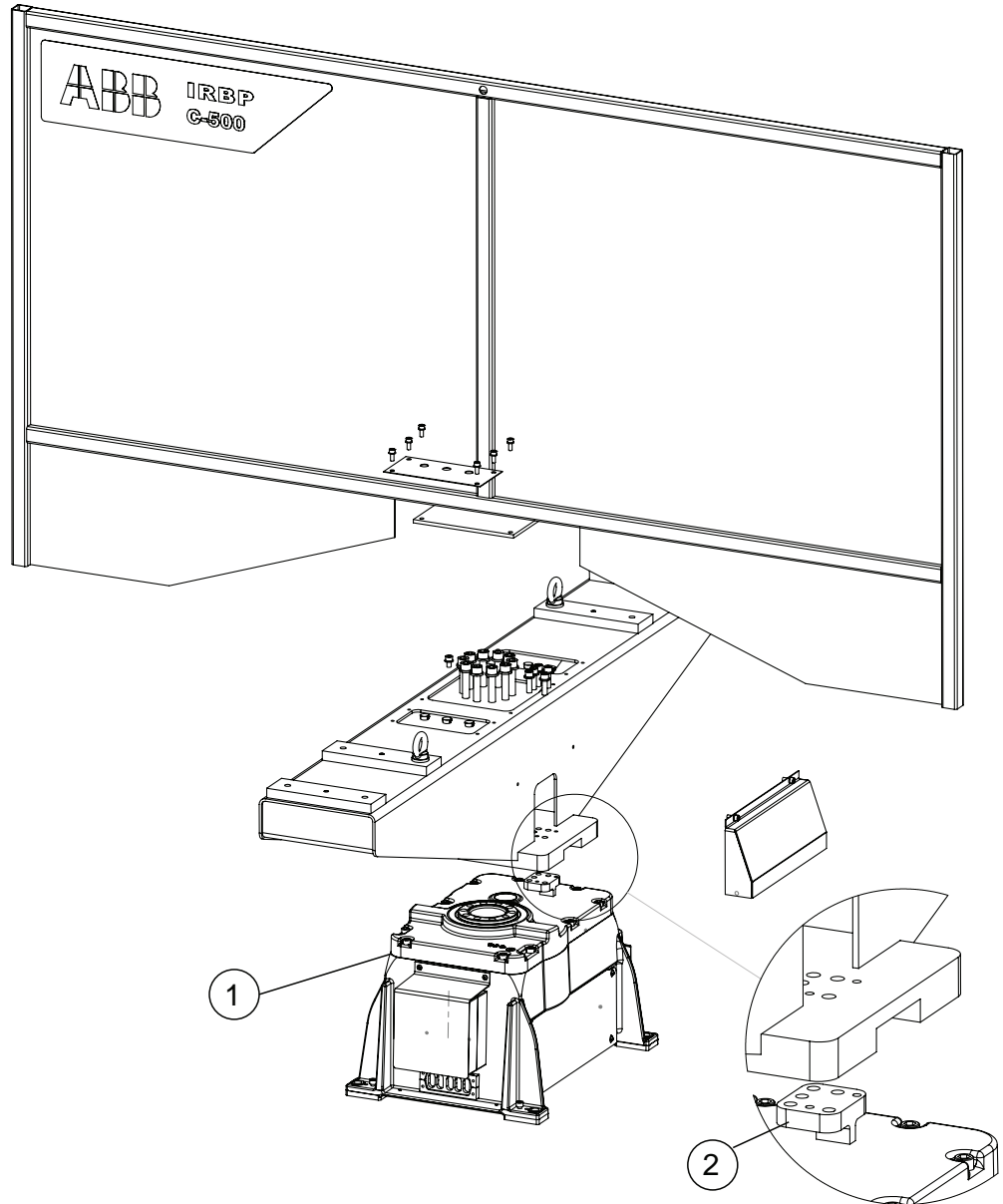
Lifting eyes are not delivered with the IRP.

# 1 Positioners

## 1.3 IRP C

### 1.3 IRP C

#### Frame parts



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Pos	Part	Spare part
1	Rotary unit	500, MID 1.1, see <a href="#">MID 1.1 on page 37</a> 1000, MID 2.1, see <a href="#">Motor unit for MID 2.1-2.2 on page 55</a>
2	Stop lug	See <a href="#">Stop lug on page 44</a>

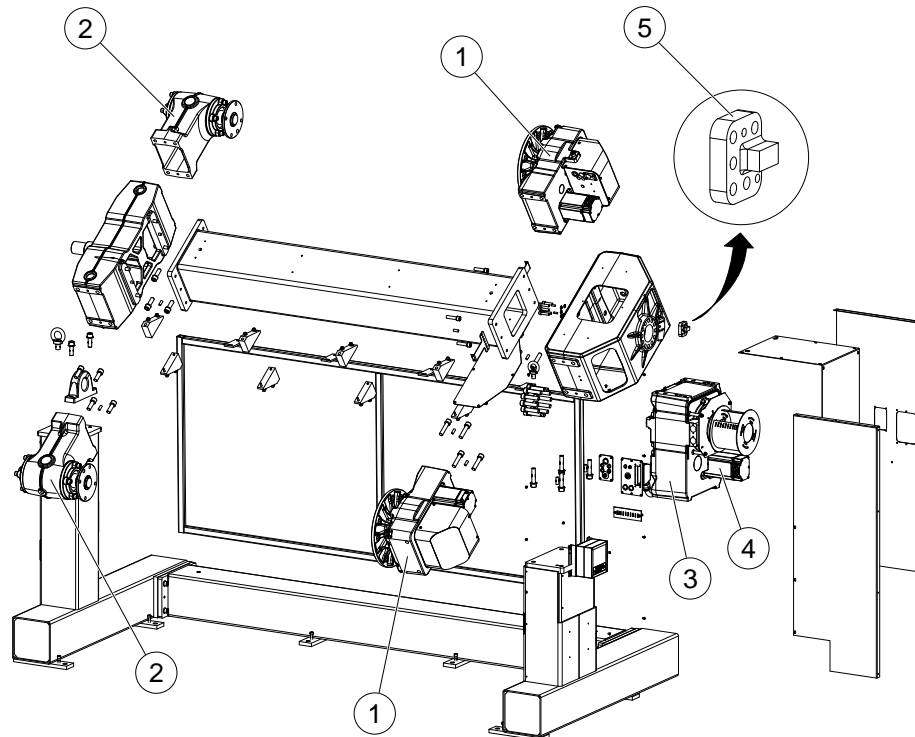


#### Note

Lifting eyes are not delivered with the IRP.

## 1.4 IRP K

## Frame parts



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Pos	Part	Spare part
1	Rotary unit	300, (MTD 250), see <a href="#">MTD 250 on page 17</a> 600, (MTD 500/750), see <a href="#">MTD 500/750 on page 22</a> 1000, (MTD 500/750), see <a href="#">MTD 500/750 on page 22</a>
2	Support collar	See <a href="#">Support collar on page 42</a>
3	Rotary unit	MID 1.2, see <a href="#">MID 1.2 on page 38</a>
4	Motor unit	300, (MTD 250), see <a href="#">Motor units for MTD 250 on page 45</a> 600, (MTD 500/750, see <a href="#">Motor unit for MTD 500-750 on page 47</a> 1000, (MTD 500/750, see <a href="#">Motor unit for MTD 500-750 on page 47</a>
5	Stop lug	See <a href="#">Stop lug on page 44</a>

**Note**

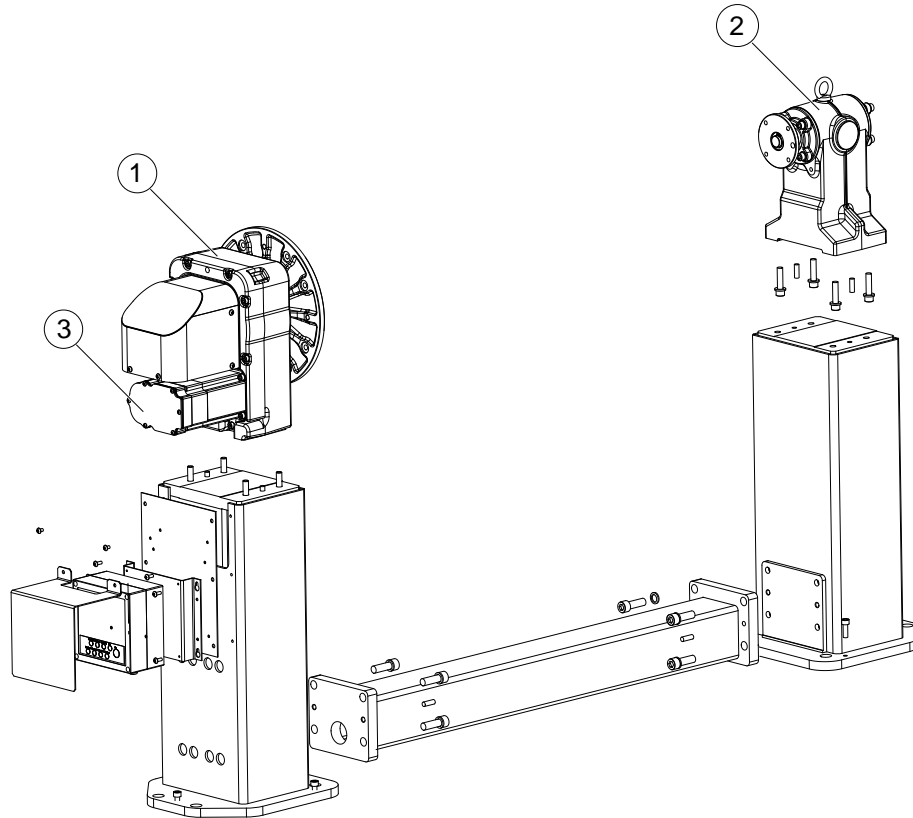
Lifting eyes are not delivered with the IRP.

# 1 Positioners

## 1.5 IRP L

## 1.5 IRP L

### Frame parts



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Pos	Part	Spare part
1	Rotary unit	300, (MTD 250), see <a href="#">MTD 250 on page 17</a> 600, (MTD 500)/750), see <a href="#">MTD 500/750 on page 22</a> 1000, (MTD 500)/750), see <a href="#">MTD 500/750 on page 22</a> 2000, (MTD 2000), see <a href="#">MTD 2000 on page 27</a> 5000, (MTD 5000), see <a href="#">MTD 5000 on page 32</a>
2	Support collar	See <a href="#">Support collar on page 42</a>
3	Motor unit	300, (MTD 250), see <a href="#">Motor units for MTD 250 on page 45</a> 600, (MTD 500/750), see <a href="#">Motor unit for MTD 500-750 on page 47</a> 1000, (MTD 500/750), see <a href="#">Motor unit for MTD 500-750 on page 47</a> 2000, (MTD 2000), see <a href="#">Motor units for MTD 2000 on page 49</a> 5000, (MTD 5000), see <a href="#">Motor units for MTD 5000 on page 51</a>

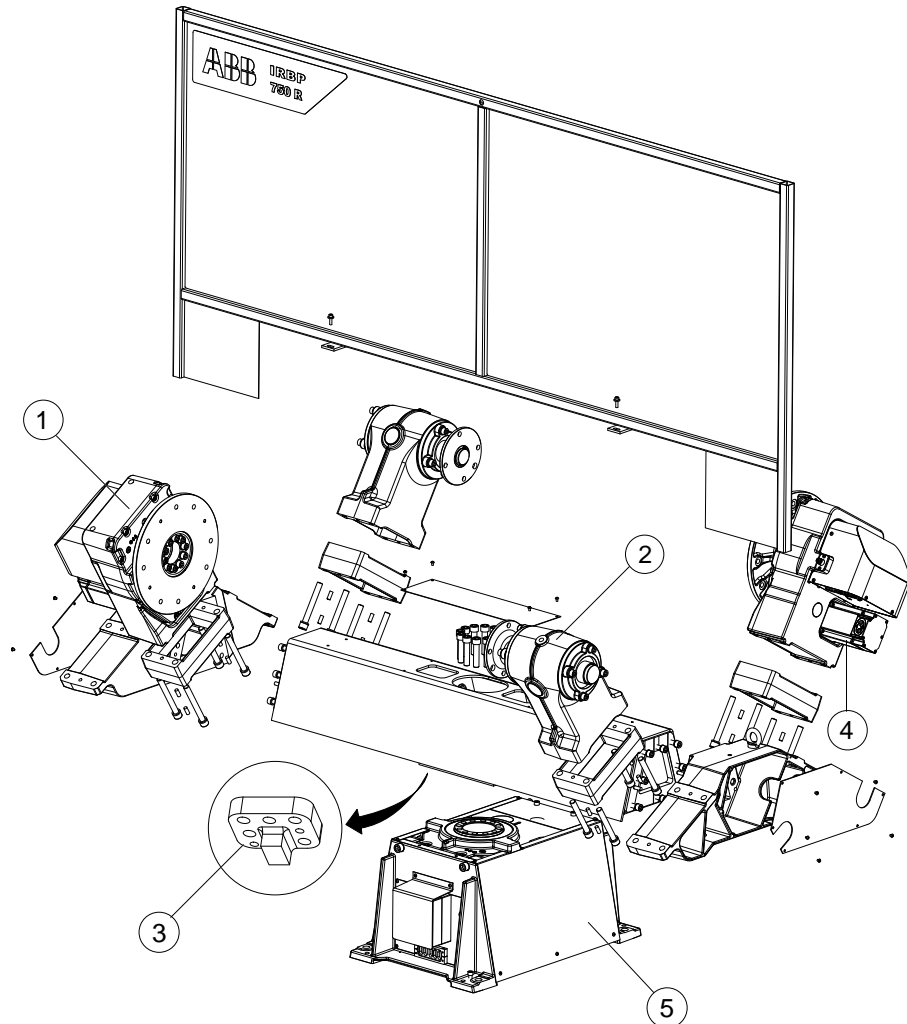


#### Note

Lifting eyes are not delivered with the IRP.

## 1.6 IRP R

## Frame parts



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Pos	Parts	Spare part
1	Rotary unit	300, (MTD 250), see <a href="#">MTD 250 on page 17</a> 600, (MTD 500/750), see <a href="#">MTD 500/750 on page 22</a> 1000, (MTD 500/750), see <a href="#">MTD 500/750 on page 22</a>
2	Support collar	See <a href="#">Support collar on page 42</a>
3	Stop lug	See <a href="#">Stop lug on page 44</a>
4	Motor unit	300, (MTD 250), see <a href="#">Motor units for MTD 250 on page 45</a> 600, (MTD 500/750, see <a href="#">Motor unit for MTD 500-750 on page 47</a> 1000, (MTD 500/750, see <a href="#">Motor unit for MTD 500-750 on page 47</a>
5	Rotary unit	300, MID1.1, see <a href="#">MID 1.1 on page 37</a> 600, MID 2.1, see <a href="#">MID 2.1 on page 40</a> 1000, MID 2.1, see <a href="#">MID 2.1 on page 40</a>

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# 1 Positioners

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## 1.6 IRP R

*Continued*



### Note

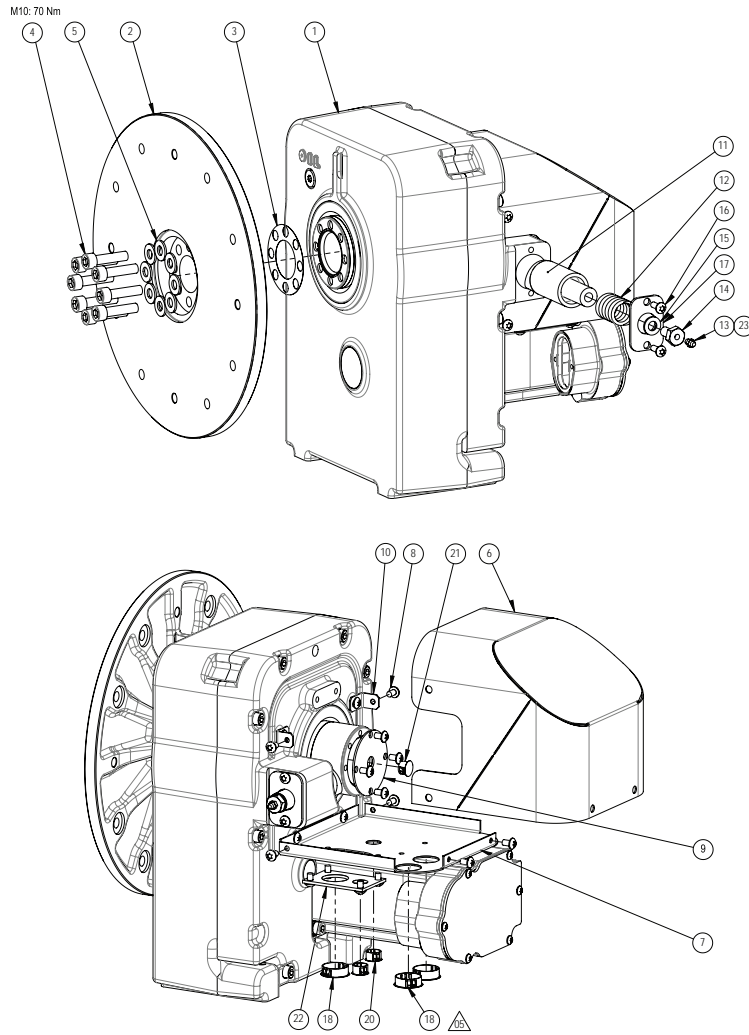
Lifting eyes are not delivered with the IRP.



# 2 Rotary units and supports

## 2.1 MTD 250

### Rotary unit MTD 250



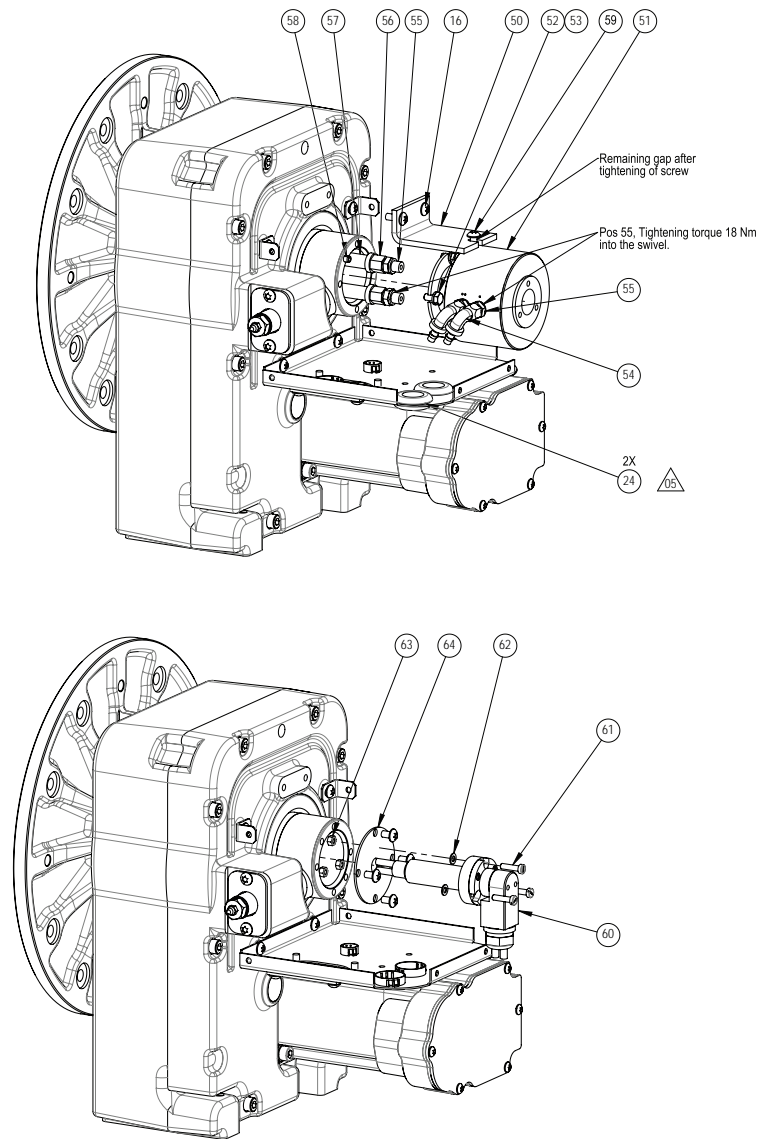
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## 2 Rotary units and supports

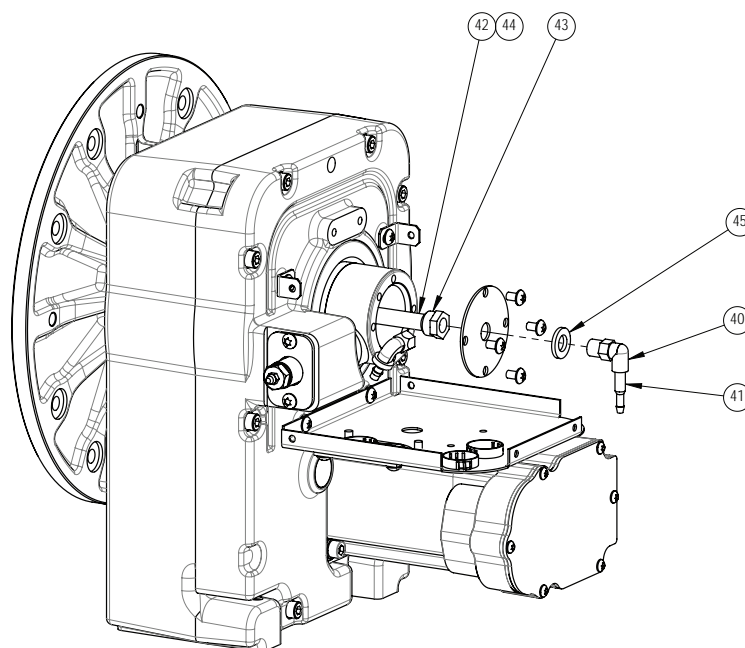
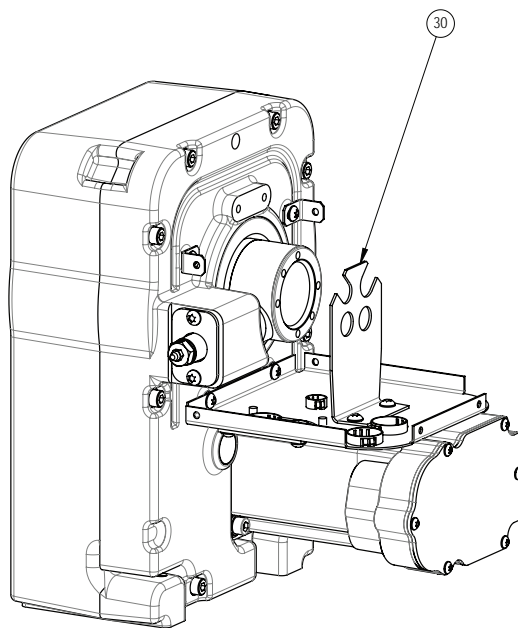
### 2.1 MTD 250

Continued



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#### Gearbox with Motor



#### Note

Before ordering these components, make sure that they match the serial number of the positioner.

Item	Component	Description	Qty	Material, type, etc.	Dimension
1	3HAC048683-001	Gearbox MTD 250, incl motor	1	Graphite White	
6	3HAC052131-001	Cover MTD 250	1	Graphite White	

Continues on next page

## 2 Rotary units and supports

### 2.1 MTD 250

Continued

#### Other components

Item	Component	Description	Qty	Material, type, etc.	Dimension
2	3HAC032817-001	Rotary disc MTD 250	1		
3	3HAC035527-001	Friction shim	1		
4	3HAB7700-2	Hex socket head cap screw	8		
5	3HAC028304-003	Washer 10.5/22	8		10.5 x 22 T=2
6	3HAC052131-001	Cover MTD 250	1	Graphite White	
7	3HAC050219-001	Bottom sheet MTD 250		Graphite White	
8	9ADA629-54	Torx pan head roll. screw	18		
9	503839001	Cover MTC 250	1		
10	503861001	Bracket	1		
11	503852001	Contact bar 250	1		
12	418554002	Spring 3x22x45	1		3X22X4
13	25452021-21	Lubricating nipple	1		AH M6
14	503880001	Screw, Current Collector	1		
15	9ADA312-8	Plain washer, DIN 125	1		
16	9ADA629-56	Torx pan head roll. screw	2		
17	503857001	Washer MTC		Graphite White	
18	3HAC029662-006	Blind Plug	1		D=28
19	3HAC029662-003	Blind Plug	2		D=19
20	3HAC029662-002	Blind Plug	2		D=16
21	3HAC029662-001	Blind Plug	1		D=14
22	3HAC036336-001	Insulated connection plate	1		
23	0501869002	Special grease type P 34	5		
40	501728007	ROTATING COUPLING	1		
41	192200103	Hose Nipple	1		1/4" D4.25-4.4"
42	504478001	Hose 1/4	1		
43	503882001	NIPPEL 1/4	1		
44	193761002	HOSE CLAMP	1		D 13/7
45	3HAC028304-004	Washer 13/24	1		13 x 24 T=3
50	503871001	Bar MTC 250	1		
51	503875880	SWIVEL	1	2-CH	DIAM. 45
54	504474001	Elbow Coupling M12X1.5	2	Steel-A2F	90 degrees
55	504476001	Coupling	4		M10X1
56	504477001	NIPPEL 1/4	2		M12X1.5
57	504478001	Hose 1/4	2		
58	9ABA142-57	Spring pin, slotted	2	Steel	6x16
60	3HAC032972-002	Slip ring capsule	1		

Continues on next page

## 2 Rotary units and supports

2.1 MTD 250

*Continued*

Item	Component	Description	Qty	Material, type, etc.	Dimension
61	3HAC033459-002	Screw	3	Polyamide	M5x20
62	3HAC033458-001	Washer	3	Polyamide	5.3x10x1
64	503883001	Cover elec. Swivel MTC 250			

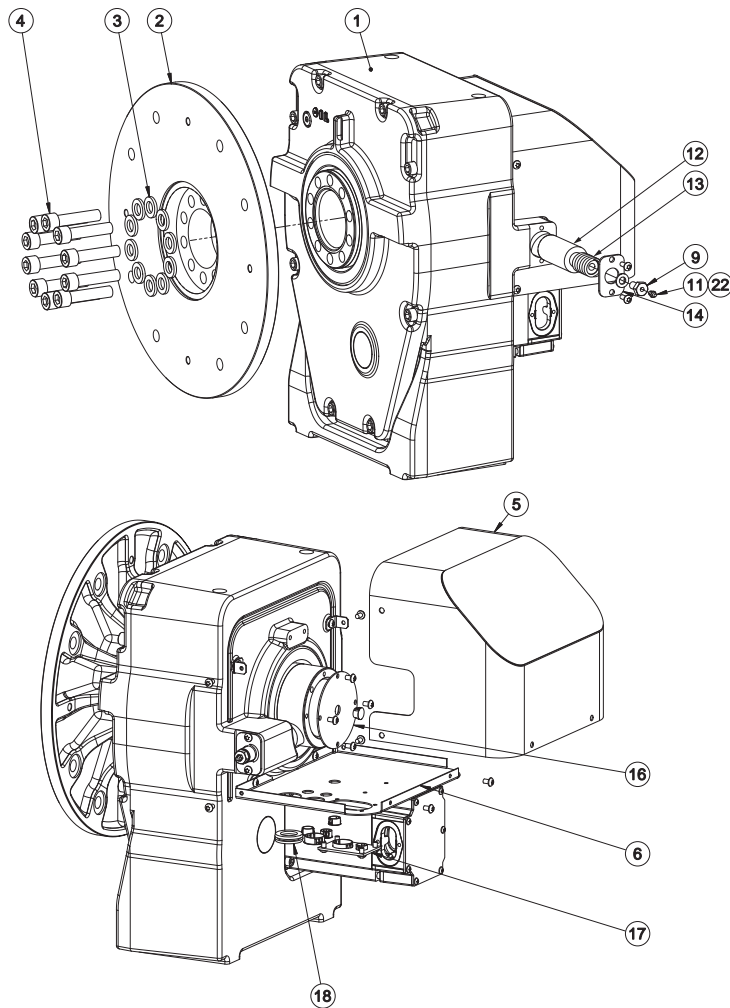
## 2 Rotary units and supports

### 2.2 MTD 500/750

### 2.2 MTD 500/750

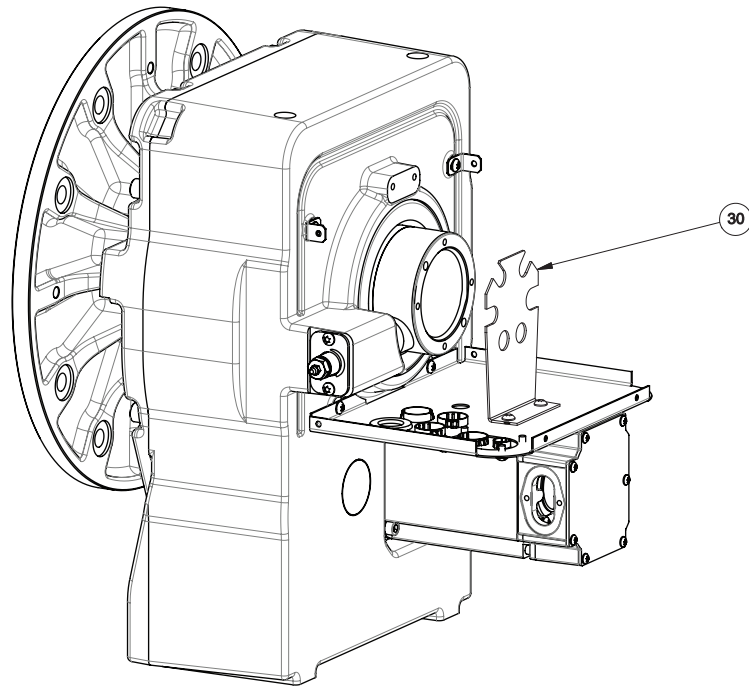
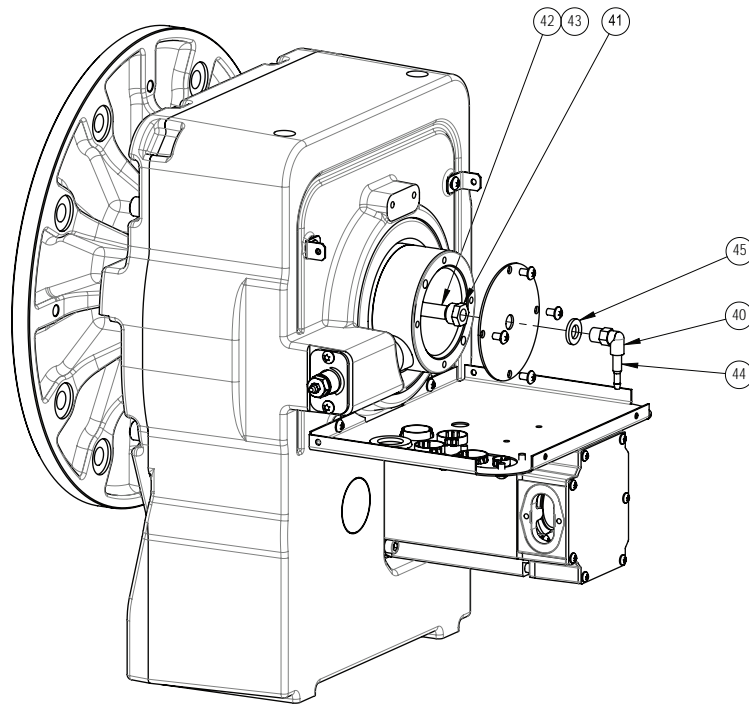
#### Rotary unit MTD 500/750

M16 12.9: 300 Nm



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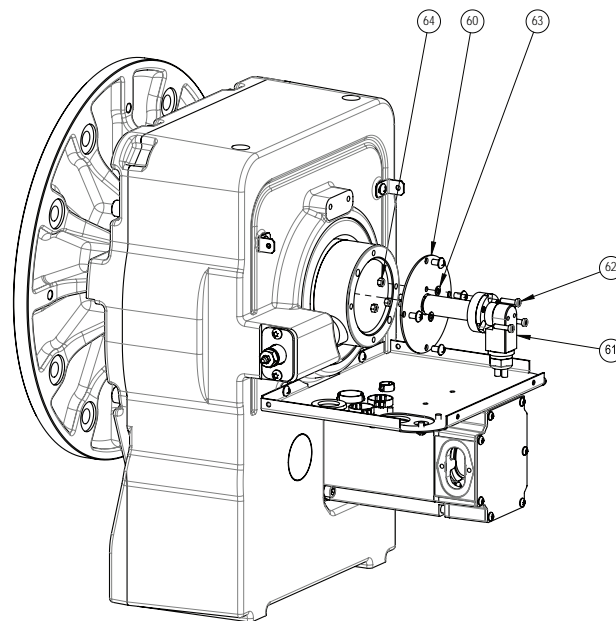
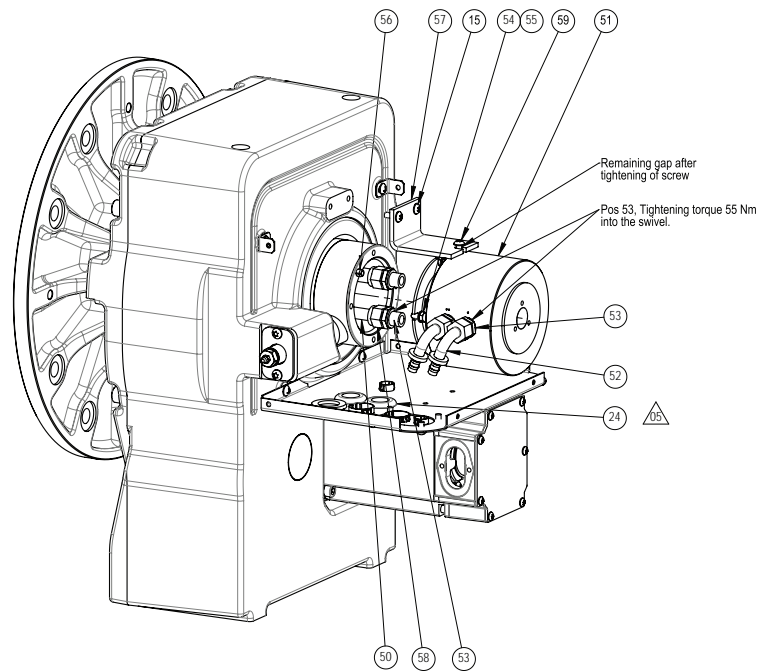
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## 2 Rotary units and supports

### 2.2 MTD 500/750

Continued



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#### Gearbox with Motor



#### Note

Before ordering these components, make sure that they match the serial number of the positioner.

Item	Component	Description	Qty	Material, type, etc.	Dimension
1	3HAC076879-005	Gearbox MTD 500, incl motor	1	Graphite White	
1	3HAC076880-004	Gearbox MTD 750, incl motor	1	Graphite White	

Continues on next page



## 2 Rotary units and supports

2.2 MTD 500/750

Continued

Item	Component	Description	Qty	Material, type, etc.	Dimension
5	3HAC050288-001	Cover MTD 500/750	1	Graphite White	

### Other components

Item	Component	Description	Qty	Material, type, etc.	Dimension
2	3HAC032819-001	Rotary disc MTD 750	1		
3	3HAC028304-005	Washer 17/30	10		17 x 30 T=4
4	3HAB7700-5	Hex socket head cap screw	10	UNBRAKO 12.9 GI 610	M16x70
6	3HAC036350-001	Bottom sheet MTD 500/750	1		
9	503880001	Screw, Current Collector	1		
10	9ADA312-8	Plain washer	1		DIN 125
11	25452021-21	Lubricating nipple	1		AH M6
12	503853001	Contact Bar 500/750	1	MTC 500/750	
13	418554002	Spring	1		Spring 3x22x4
14	503857001	Washer MTC	1		
15	9ADA618-56	Torx pan head screw	2		
16	503839002	Cover MTC 500/750	1		
17	3HAC036336-001	Insulated connection plate	1		
18	504189010	Shelter plug	1		D= 32X40/3
19	3HAC029662-006	Blind Plug	2		D=28
20	3HAC029662-002	Blind Plug	4		D=16
21	3HAC029662-001	Blind Plug	1		D=14
22	0501869002	Special grease type P 34	5		
30	3HAC036352-001	Cable bracket MTD 500/750	1		
40	501728007	ROTATING COUPLING	1		
41	503882001	NIPPEL 1/4	1		
42	504478001	Hose 1/4	1		
43	193761002	HOSE CLAMP	1		D 13/7
44	192200103	Hose Nipple	1		1/4", D4.25-4.4"
45	3HAC028304-004	Washer 13/24 MTD 500	1		13 x 24 T=3
50	504478002	Hose 3/8	2		
51	503876880	Swivel 2-K	1	D 75	
52	504475003	Nipple 90deg.	2		M18X1.5
53	504476003	Coupling	4		M16X1.5
54	9ADA120-20	Hexagon head screw	4		
55	9ADA312-6	Plain washer	4		
56	9ABA142-73	Spring-Type Straight Pins 8x16	2		D8x16
57	503889001	Bar MTC 750	1		
58	504477003	Hose Nipple 3/8 M18X1.5	2		

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## 2 Rotary units and supports

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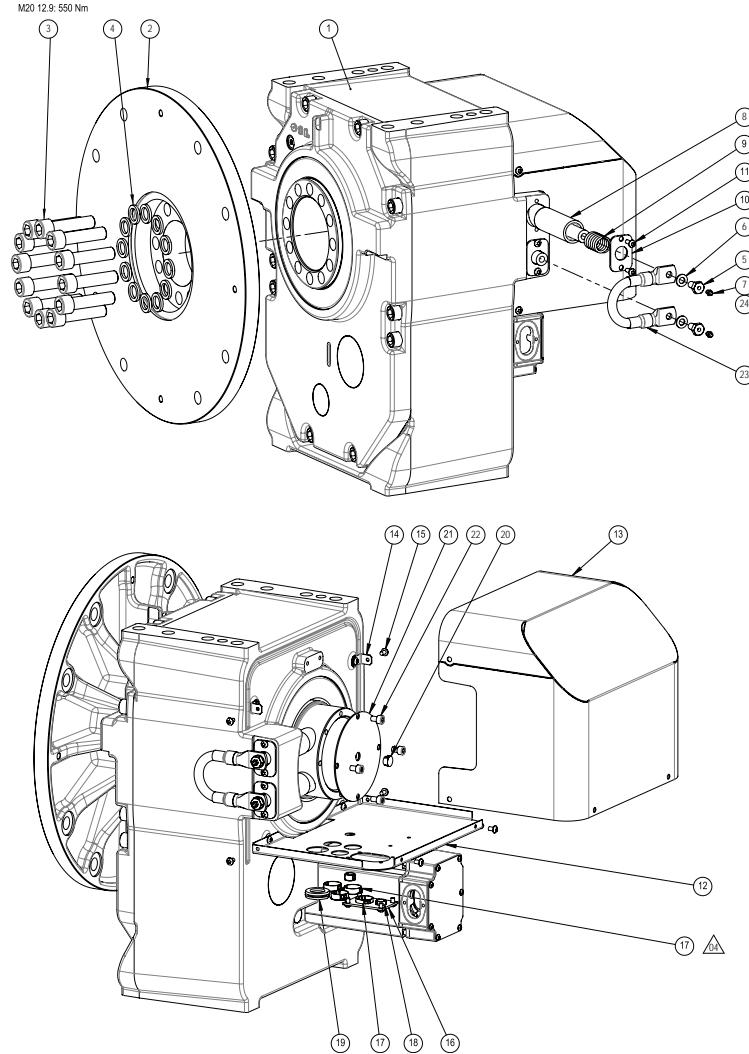
### 2.2 MTD 500/750

*Continued*

Item	Component	Description	Qty	Material, type, etc.	Dimension
59	9ADA629-57	Torx pan head roll. screw	1		
60	503883002	Cover elec. Swivel MTC 750	1		
61	3HAC032972-002	Slip ring capsule	1		
62	3HAC033459-002	Screw	3	Polyamide	M5x20
63	3HAC033458-001	Washer	3	Polyamide	5.3x10x1
64	9ADA267-5	Hexagon nut	3		

2.3 MTD 2000

Rotary unit MTD 2000



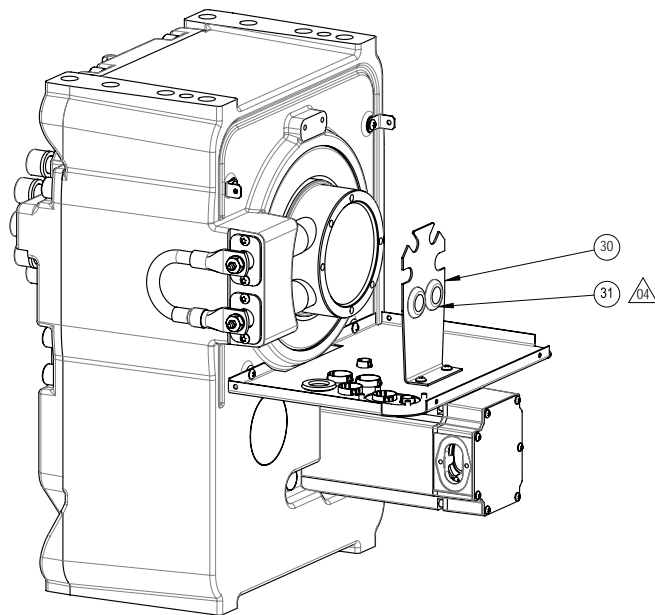
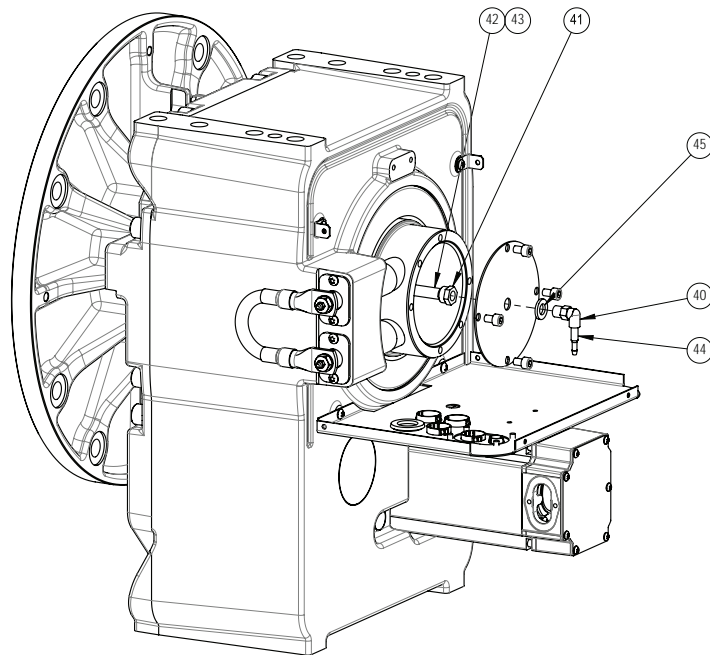
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## 2 Rotary units and supports

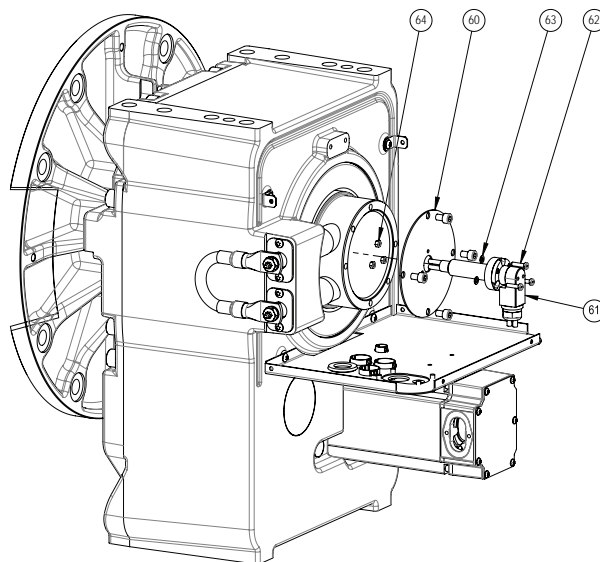
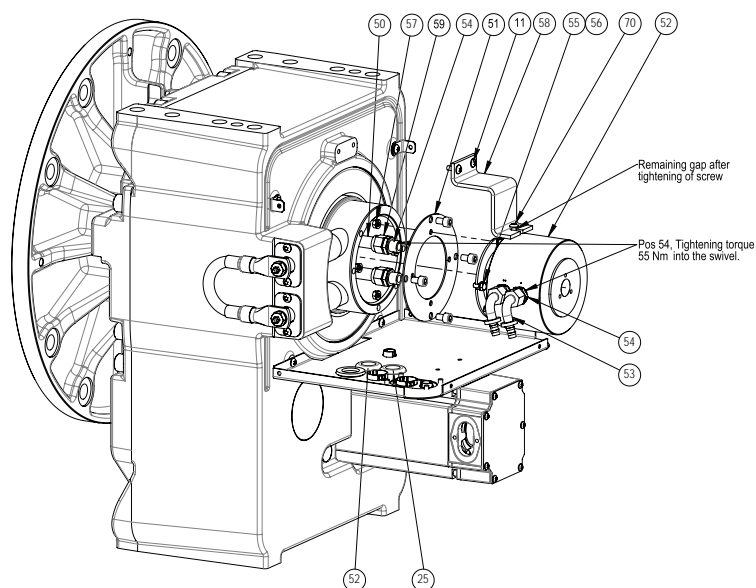
### 2.3 MTD 2000

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#### Gearbox with Motor



#### Note

Before ordering these components, make sure that they match the serial number of the positioner.

Item	Component	Description	Qty	Material, type, etc.	Dimension
1	3HAC035406-008	Gearbox MTD 2000, incl motor	1	Graphite White	
13	3HAC050326-001	Cover MTD 2000	1	Graphite White	

#### Other components

Item	Component	Description	Qty	Material, type, etc.	Dimension
2	3HAC032820-001	Rotary disc MTD 2000	1		

Continues on next page

## 2 Rotary units and supports

### 2.3 MTD 2000

Continued

Item	Component	Description	Qty	Material, type, etc.	Dimension
4	3HAC035525-001	Washer	12		21x31 T=4
5	503880001	Screw, Current Collector	2		
7	25452021-21	Lubricating nipple	2		AH M6
8	503854001	Contact Bar 2000	2	MTC 2000	
9	418554002	Spring 3x22x45	2		3X22X4
10	503857001	Washer MTC	2		
11	9ADA629-56	Torx pan head roll. screw	4		
12	3HAC036356-001	Bottom sheet MTD 2000	1		
14	503861001	Bracket	2		
15	9ADA629-54	Torx pan head roll. screw	14		
16	3HAC036336-001	Insulated connection plate	1		
17	3HAC029662-006	Blind Plug	2		D=28
18	3HAC029662-002	Blind Plug	4		D=16
19	504189010	Shelter plug D 32X40/3	1		D= 32X40/3
20	3HAC029662-001	Blind Plug	1		D=14
21	503839003	Cover MTC 2000	1		
23	504504890	Welding return cable 95mm <sup>2</sup>	1		0.15m
24	3HAC036806-001	Special grease	12	Type P 34	
30	3HAC036354-001	Cable bracket MTD 2000	1		
40	501728007	ROTATING COUPLING	1		
41	503882001	Nipple 1/4	1		
42	504478001	Hose 1/4	1		
43	193761002	HOSE CLAMP	1	D 13/7	
44	192200103	Hose Nipple	1	1/4" D4.25-4.4"	
45	3HAC028304-004	Washer	1		13/24
50	504478002	Hose	2		3/8 2.2 m
51	503873001	SVIVELADAPTER MTC 2000	1		
52	503876880	Swivel 2-K	1	D 75	
53	504475003	Nipple 90deg.	2		M18X1.5
54	504476003	Coupling	4		M16X1.5
55	9ADA120-21	Hexagon head screw	4		
56	9ADA312-6	Plain washer	8		
57	9ADA267-6	Hexagon nut	4		
58	503872001	Bar 2000	1		
59	504477003	Hose Nipple 3/8 M18X1.5	2		
60	503883003	Cover elec. Swivel MTC 2000	1		

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## 2 Rotary units and supports

2.3 MTD 2000

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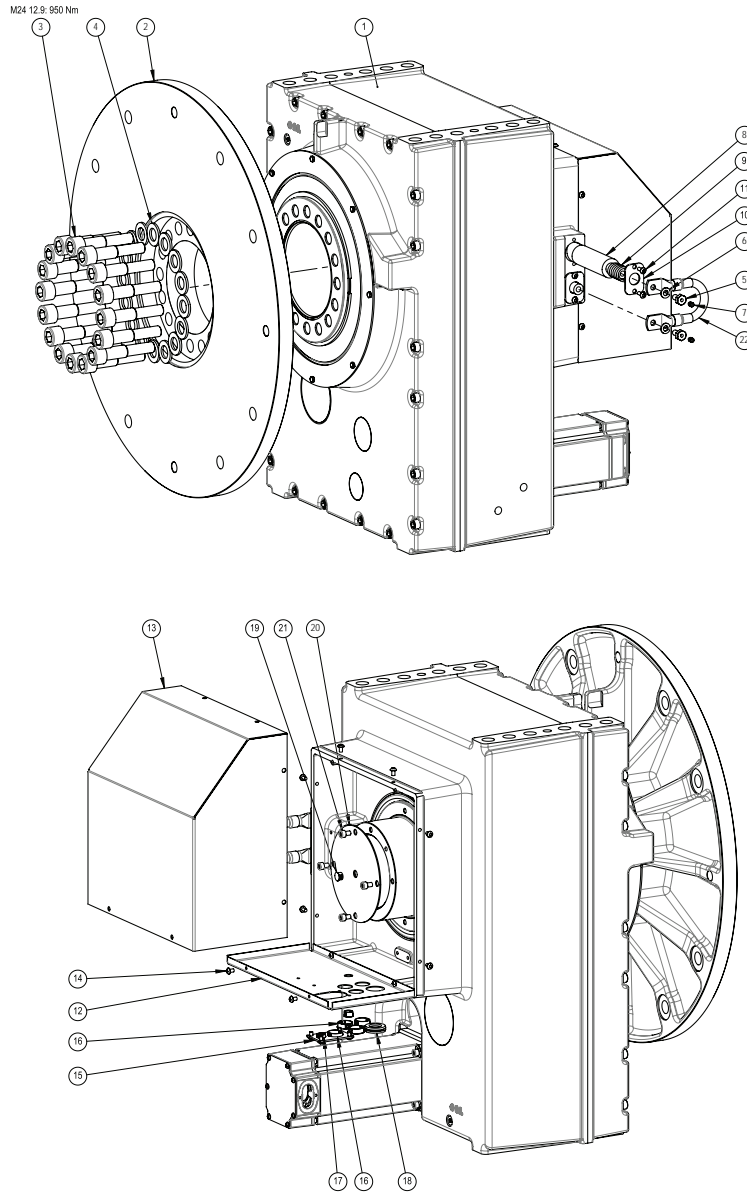
Item	Component	Description	Qty	Material, type, etc.	Dimension
61	3HAC032972-002	Slip ring capsule	1		
62	3HAC033459-002	Screw	3	Polyamide	M5x20
63	3HAC033458-001	Washer	3	Polyamide	5.3x10x1
64	9ADA267-5	Hexagon nut	3		
70	9ADA629-57	Torx pan head roll. screw	1		

## 2 Rotary units and supports

### 2.4 MTD 5000

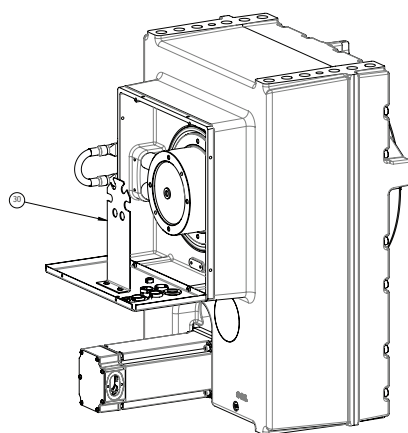
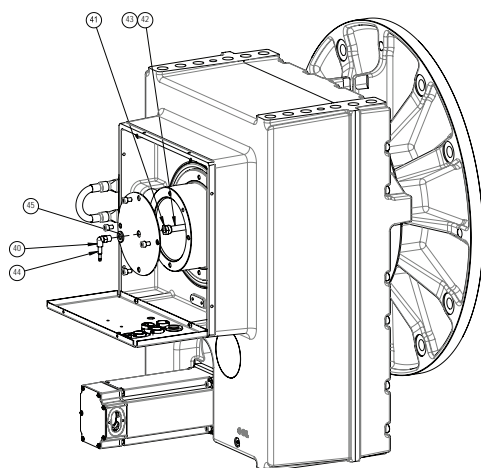
### 2.4 MTD 5000

#### Rotary unit MTD 5000



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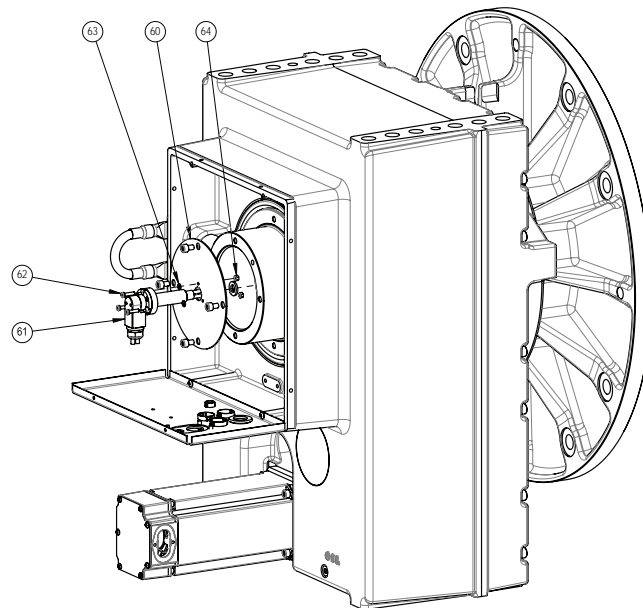
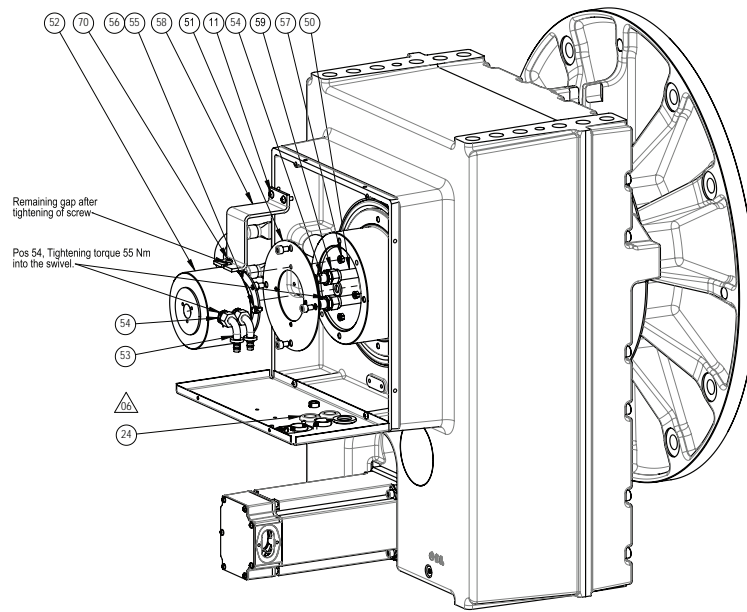


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## 2 Rotary units and supports

### 2.4 MTD 5000

Continued



xx100000174

#### Gearbox with Motor



#### Note

Before ordering these components, make sure that they match the serial number of the positioner.

Item	Component	Description	Qty	Material, type, etc.	Dimension
1	3HAC035444-004	Gearbox MTD 5000, incl motor	1	Graphite White	
13	3HAC050667-001	Cover MTC 5000	1	Graphite White	

Continues on next page

## 2 Rotary units and supports

2.4 MTD 5000

Continued

### Other components

Item	Component	Description	Qty	Material, type, etc.	Dimension
2	3HAC032821-001	Rotary disc MTD 5000	1		
4	3HAC028304-007	Washer 25/44	16		25 x 44 T=4
5	503880001	Screw, Current Collector	2		
7	25452021-21	Lubricating nipple	2		AH M6
8	503855001	Contact bar 5000	2		
9	418554002	Spring 3x22x45	2		3X22X4
10	503857001	Washer MTC	2		
11	9ADA629-56	Torx pan head roll. screw	4		
12	3HAC036361-001	Bottom sheet MTD 5000	1		
13	3HAC050667-001	Cover	1		
14	9ADA629-54	Torx pan head roll. screw	14		
15	3HAC036336-001	Insulated connection plate	1		
16	3HAC029662-006	Blind plug	2		D=28
17	3HAC029662-002	Blind plug	4		D=16
18	504189010	Shelter plug D 32X40/3	1		D= 32X40/3
19	3HAC029662-001	Blind plug	1		D=14
20	503839004	Welding return cable 95mm <sup>2</sup>	1		
21	9ADA183-48	Hex socket head cap screw	4		
22	504504890	Welding return cable 95mm <sup>2</sup>	1		0.15m
23	3HAC036806-001	Special grease	16	Type P 34	
30	3HAC036362-001	Cable bracket MTD 5000	1		
40	501728007	ROTATING COUPLING	1		
41	503882001	NIPPEL 1/4	1		
42	504478001	Hose 1/4			1.1 m
43	193761002	HOSE CLAMP	1		D 13/7
44	192200103	Hose Nipple	1		1/4", D4.25-4.4"
45	3HAC028304-004	Washer	1		D 13/24
50	504478002	Hose			3/8 2.2 m
51	503874001	SVIVELADAPTER MTC 5000	1		
52	503876880	Swivel 2-K	1		D 75
53	504475003	Nipple 90deg.	2		M18X1.5
54	504476003	Coupling	4		M16X1.5
55	9ADA120-21	Hexagon head screw	4		
56	9ADA312-6	Plain washer	8		
57	9ADA267-6	Hexagon nut	4		
58	503879001	STAG MTC 5000	1		

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## 2 Rotary units and supports

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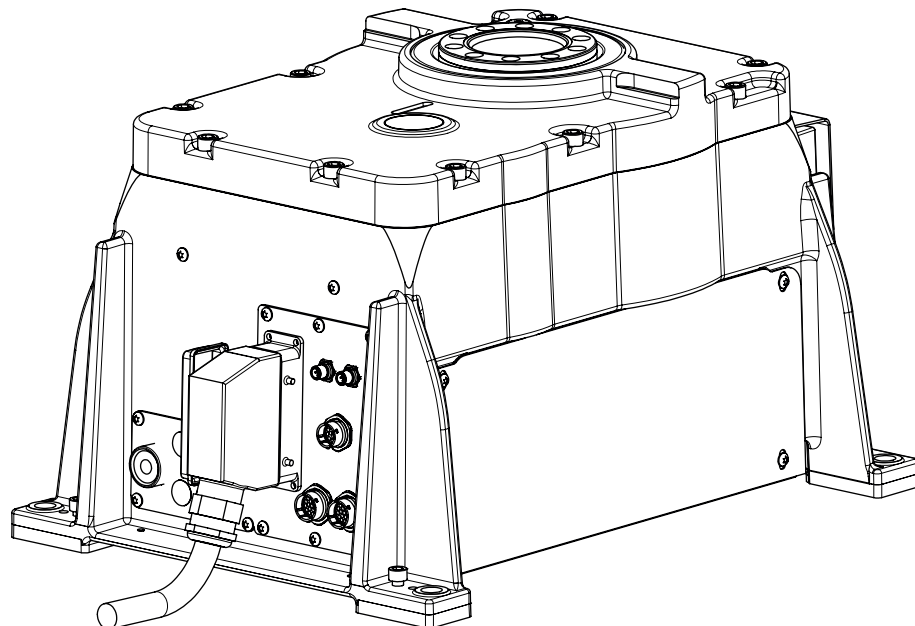
### 2.4 MTD 5000

*Continued*

Item	Component	Description	Qty	Material, type, etc.	Dimension
59	504477003	Hose Nipple 3/8 M18X1.5	2		
60	503883004	Cover elec. Swivel MTC 5000	1		
61	3HAC032972-002	Slip ring capsule	1		
62	3HAC033459-002	Screw	3	Polyamide	M5x20
63	3HAC033458-001	Washer	3	Polyamide	5.3x10x1
64	9ADA267-5	Hexagon nut	3		
70	9ADA629-57	Torx pan head roll. screw	1		

2.5 MID 1.1

Rotary unit MID 1.1



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Gearbox with Motor

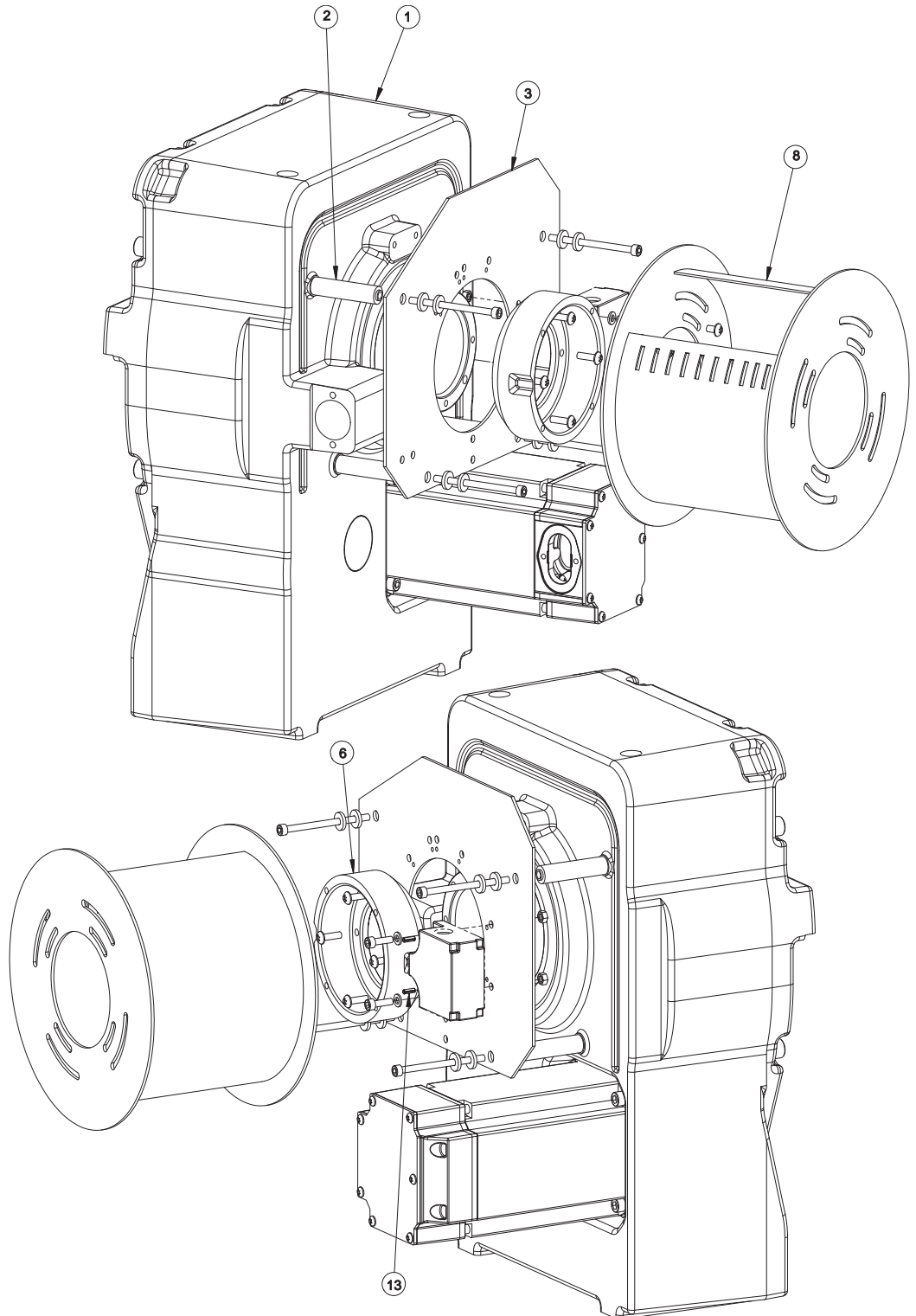
Item	Component	Description	Qty	Material, type, etc.	Dimension
1	3HAC035480-004	Gearbox MID 1.1, incl motor	1	Dark grey	

## 2 Rotary units and supports

### 2.6 MID 1.2

### 2.6 MID 1.2

#### Rotary unit MID 1.2



xx100000176

*Continues on next page*

### Gearbox with Motor

Item	Component	Description	Qty	Material, type, etc.	Dimension
1	3HAC035398-007	Gearbox MID 1.2, incl motor	1	Graphite White	

### Other components



#### Note

These components are valid for all serial numbers of the positioner.

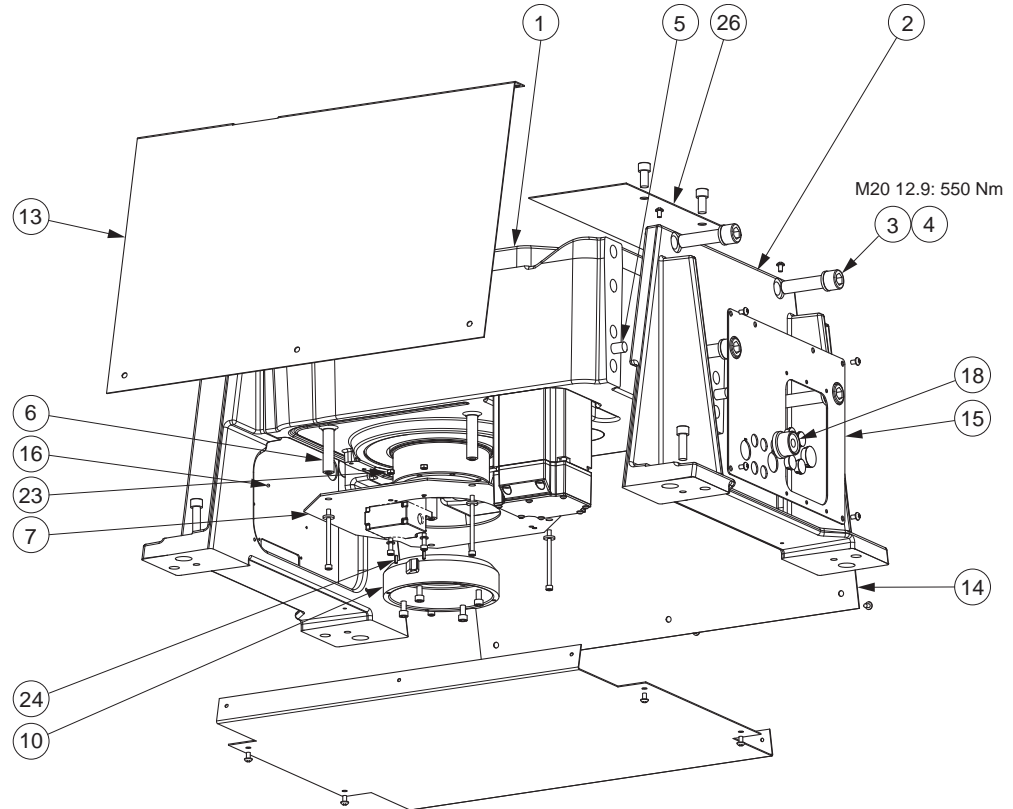
Item	Component	Description	Qty	Material, type, etc	Dimension
8	503865880	Cable drum MIC x.2	1		

## 2 Rotary units and supports

### 2.7 MID 2.1

### 2.7 MID 2.1

#### Rotary unit MID 2.1



xx100000175

#### Gearbox with Motor

Item	Component	Description	Qty	Material, type, etc.	Dimension
1	3HAC035406-007	Gearbox MID 2.1, incl motor	1	Graphite White	

#### Other components



#### Note

These components are valid for all serial numbers of the positioner.

Item	Component	Description	Qty	Material, type, etc.	Dimension
2	3HAC032646-001	Frame MID 2.1	2		
3	3HAB3409-217	Hex socket head cap screw	8	Steel 12.9 Gle 603+Geo500	M20x80
4	3HAC035525-001	Washer	8		21x31 T=4
5	3HEA418698-007	Guide pin	4		Ø16x40
13	3HAC035506-001	Side cover MID 2.1	1		
14	3HAC035507-001	Side cover MID 2.1	1		
15	3HAC035511-001	Connection plate MID 2.1	1		

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## 2 Rotary units and supports

2.7 MID 2.1

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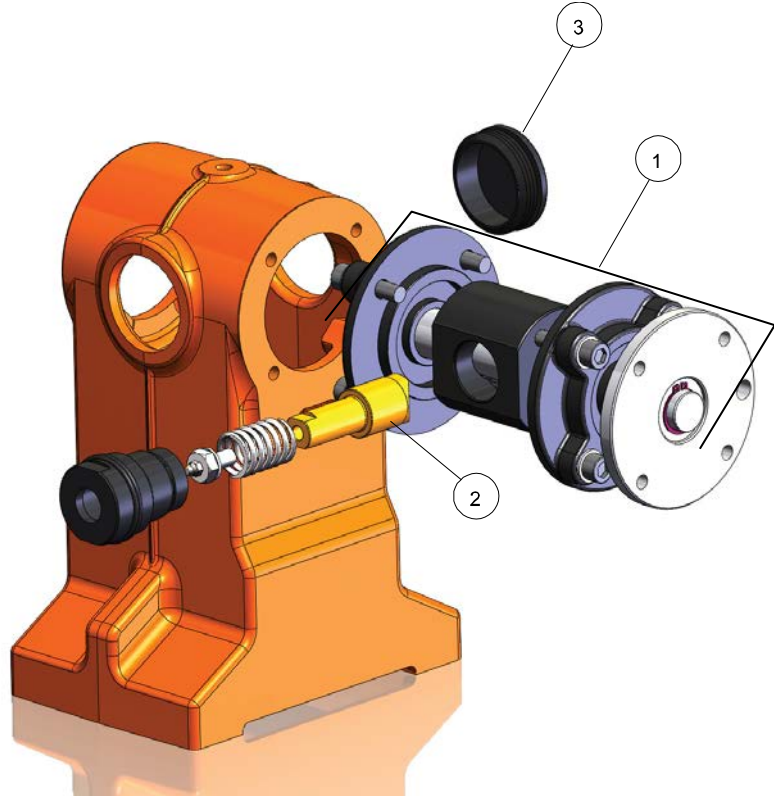
Item	Component	Description	Qty	Material, type, etc.	Dimension
16	3HAC035512-001	Connection plate MID 2.1	1		
18	160362881	Welding current term OKC 50	1	OKC50	
26	3HAC036531-001	Cover plate	1		T=1.5

## 2 Rotary units and supports

### 2.8 Support collar

### 2.8 Support collar

#### Support collar illustration



xx100000295

#### Support collar 250

Item	Component	Description	Qty	Material, type, etc	Dimension
1	504212880	SUPPORT BEARING MTC 250	1		
2	3HAC037002-001	Contact bar 250	1		
3	3HAC035520-001	Plug	1		

#### Support collar 500/750

Item	Component	Description	Qty	Material, type, etc	Dimension
1	504215880	SUPPORT BEARING MTC 750	1		
2	3HAC037005-001	Contact bar 500/750	1		
3	3HAC035520-001	Plug	1		

#### Support collar 2000

Item	Component	Description	Qty	Material, type, etc	Dimension
1	504581880	SUPPORT BEARING MTC 2000	1		
2	3HAC037007-001	Contact bar 2000	1		

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## 2 Rotary units and supports

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### 2.8 Support collar

*Continued*

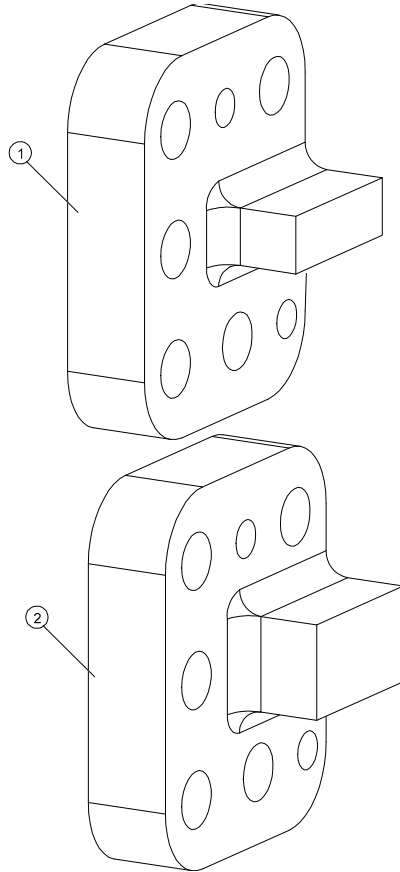
Item	Component	Description	Qty	Material, type, etc	Dimension
3	3HAC035520-001	Plug	1		

## 2 Rotary units and supports

### 2.9 Stop lug

### 2.9 Stop lug

#### Stop lug



xx100000297

Item	Component	Description	Qty	Material, type, etc.	Dimension
1	505387-001	Stop lug	1	MID 1	
2	505388-001	Stop lug	1	MID 2	

## 3 Motor units

### 3.1 Motor units for MTD 250

#### Motor units for MTD 250

Motor unit

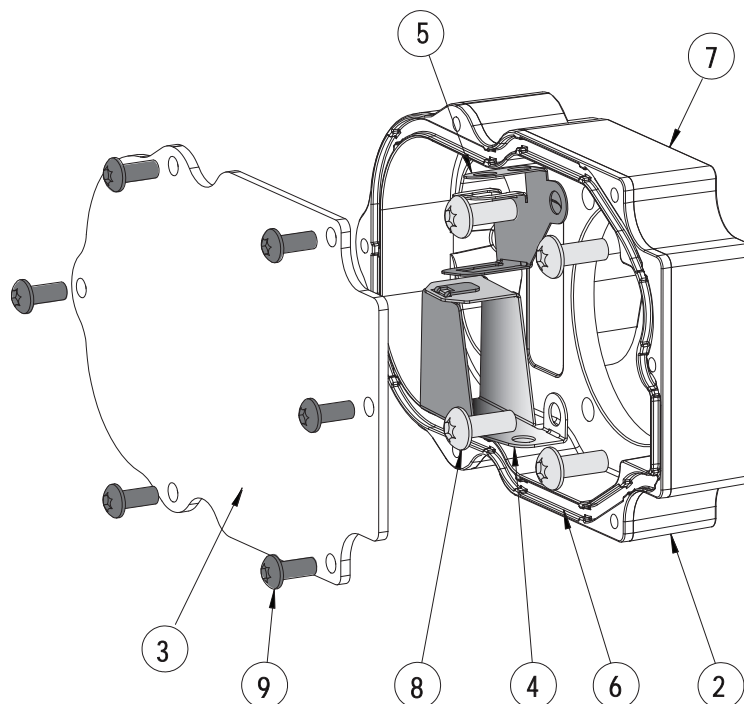


#### Note

Before ordering these components, make sure that they match the serial number of the positioner.

Item	Component	Description	Qty	Material, type, etc.	Note
1	3HAC038187-003	Motor unit for MTD 250	1	Graphite White	Complete

Spare part kit connection box, complete



xx1400002555

The spare part kit connection box complete contains:

Pos	Description	Qty.	Note
2	Connection box	1	
3	Cover	1	
4	Connector bracket MP	1	
5	Connector bracket 9p Dsub	1	
6	O-ring	1	Nitrile rubber, 150.0x2.0
7	O-ring	1	Nitrile rubber, D1=100 D2=2

*Continues on next page*

### 3 Motor units

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#### 3.1 Motor units for MTD 250

*Continued*

Pos	Description	Qty.	Note
8	Torx pan head screw	4	Steel 8.8-A2F / M6x16
9	Torx pan head screw	6	Steel 8.8-A2F / M5x12
	Surface treatment, Graphite White		

### 3.2 Motor unit for MTD 500-750

#### Motor units for MTD 500-750

##### Motor units



#### Note

Before ordering these components, make sure that they match the serial number of the positioner.

Item	Component	Description	Qty	Material, type, etc.	Note
1	3HAC038210-010	Motor unit for MTD 500-750	1	Graphite White	Complete

##### Seal and isolation kit



#### Note

These components are valid for all serial numbers of the positioner.

Spare part number	Description	Qty.	Note
3HAC038214-002	Seal and isolation kit	1	

The seal and isolation kit contains:

Pos	Description	Qty.	Note
11	O-ring	2	Nitrile Rubber D102x3
12	Insulating material	4	
13	Insulating tube	7	
14	Insulating material	4	
15	Washer	4	
16	Hex socket head cap screw	4	Steel 12.9 Gle. 603+Geo500 /M8x30

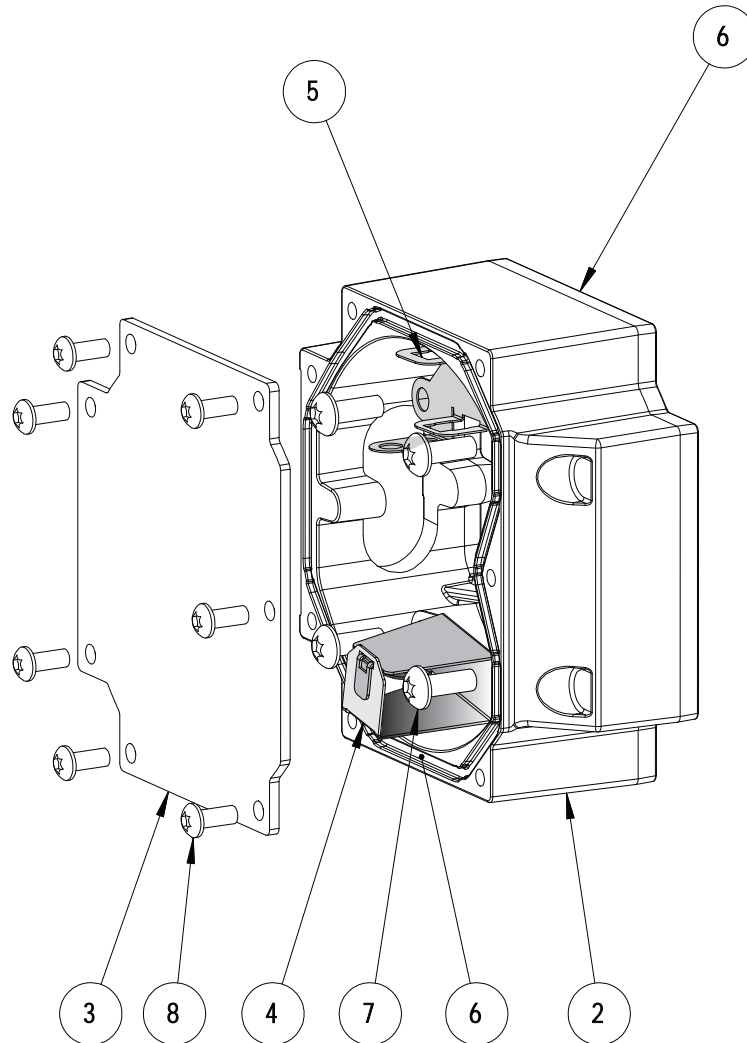
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### 3 Motor units

#### 3.2 Motor unit for MTD 500-750

Continued

Spare part kit connection box, complete



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The spare part kit connection box complete contains:

Pos	Description	Qty.	Note
2	Connection box FS130	1	
3	Cover box FS130	1	
4	Connector bracket MP	1	
5	Connector bracket 9p Dsub	1	
6	O-ring	2	Nitrile Rubber D119x3
7	Torx pan head screw	7	Steel 8.8-A2F M6x16
8	Torx pan head screw	4	Steel 8.8-A2F M5x12
-	Surface treatment, Graphite White	50 ml	



### 3.3 Motor units for MTD 2000

#### Motor units for MTD 2000

##### Motor units



#### Note

Before ordering these components, make sure that they match the serial number of the positioner.

Item	Component	Description	Qty	Material, type, etc.	Note
1	3HAC038210-009	Motor unit for MTD 2000	1	Graphite White	Complete

##### Seal and isolation kit



#### Note

These components are valid for all serial numbers of the positioner.

Spare part number	Qty.	Description	Note
3HAC038214-002	1	Seal and isolation kit	

The seal and isolation kit contains:



#### Note

These components are valid for all serial numbers of the positioner.

Pos	Description	Qty.	Note
11	O-ring	1	Nitrile Rubber D102x3
12	Insulating material	1	
13	Insulating tube	4	
14	Insulating material	4	
15	Washer	4	
16	Hex socket head cap screw	4	Steel 12.9 Gle. 603+Geo500 /M8x30

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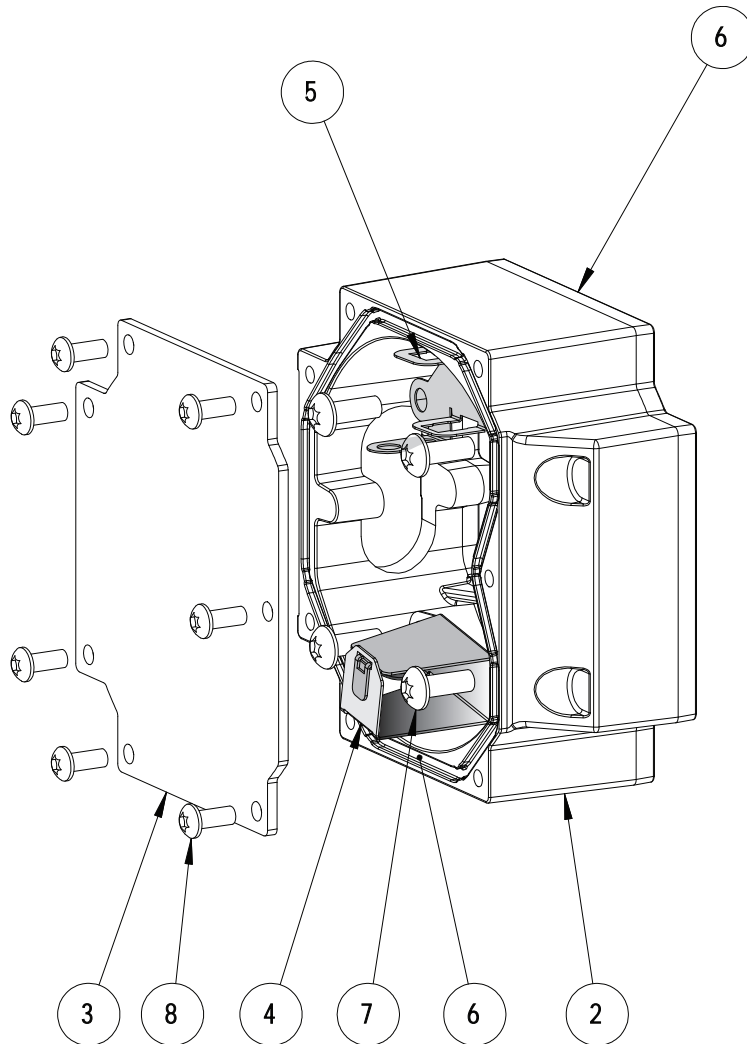
### 3 Motor units

#### 3.3 Motor units for MTD 2000

Continued

#### Spare part kit connection box complete

The spare part kit connection box complete, contains:



xx1400002556

Pos	Description	Qty.	Note
1	Connection box FS130	1	
2	Cover box FS130	1	
3	Connector bracket MP	1	
4	Connector bracket 9p Dsub	1	
5	O-ring	2	Nitrile Rubber D119x3
6	Torx pan head screw	4	Steel 8.8-A2F M6x16
7	Torx pan head screw	4	Steel 8.8-A2F M5x12
8	Surface treatment Graphite White		Color delivered, depends on which connection box is ordered.

### 3.4 Motor units for MTD 5000

#### Motor units for MTD 5000

##### Motor units



#### Note

Before ordering these components, make sure that they match the serial number of the positioner.

Item	Component	Description	Qty	Material, type, etc.	Note
1	3HAC038212-003	Motor unit for MTD 5000	1	Graphite White	Complete

##### Seal and isolation kit

Spare part number	Description	Qty.	Note
3HAC038215-002	Seal and isolation kit	1	

The seal and isolation kit contains:



#### Note

These components are valid for all serial numbers of the positioner.

Pos	Description	Qty.	Note
13	Insulating tube	4	
14	Insulating material	4	
15	Washer	4	
16	Hex socket head cap screw	4	Steel 12.9 Gle603+Geo500

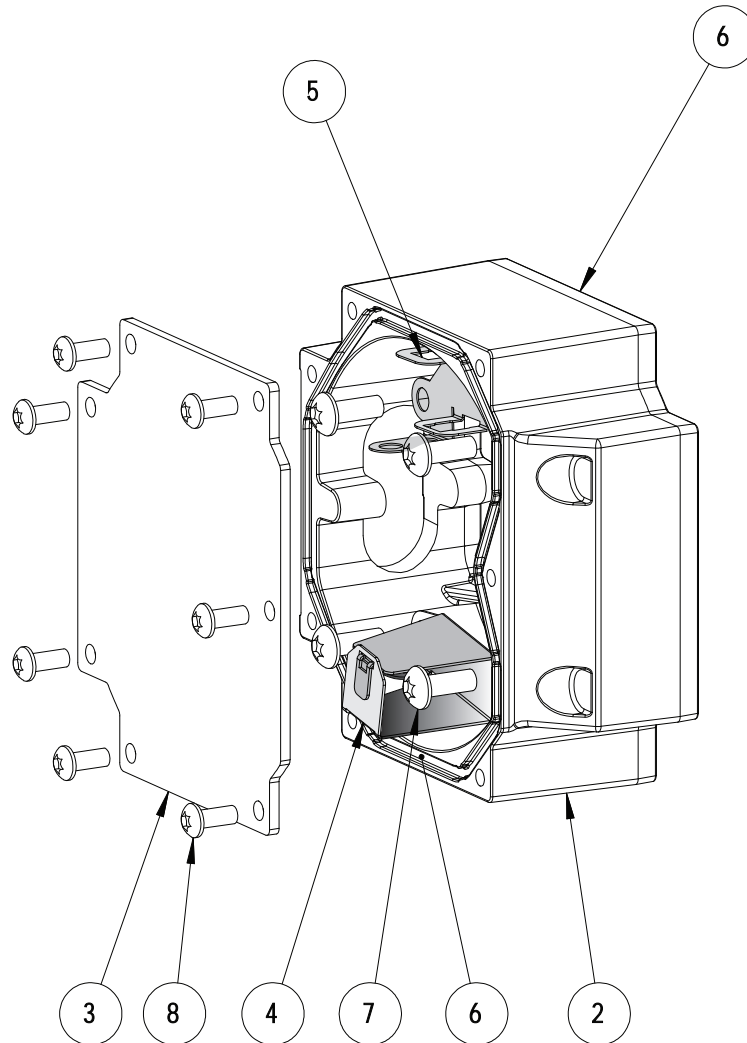
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### 3 Motor units

#### 3.4 Motor units for MTD 5000

Continued

#### Spare part kit connection box, complete



xx1400002556

The spare part kit connection box complete contains:

Pos	Description	Qty.	Note
2	Connection box FS130	1	
3	Cover box FS130	1	
4	Connector bracket MP	1	
5	Connector bracket 9p Dsub	1	
6	O-ring	2	Nitrile Rubber D119x3
7	Torx pan head screw	7	Steel 8.8-A2F M6x16
8	Torx pan head screw	4	Steel 8.8-A2F M5x12
-	Surface treatment, Graphite White	50 ml	Color depends on which spare part kit is ordered.

### 3.5 Motor unit for MID 1.2

#### Motor units for MID 1.2

##### Motor units



#### Note

Before ordering these components, make sure that they match the serial number of the positioner.

Item	Component	Description	Qty	Material, type, etc.	Note
1	3HAC038210-007	Motor unit for MID 1.2	1	Graphite White	Complete

#### Seal and isolation kit 3HAC038214-002



#### Note

These components are valid for all serial numbers of the positioner.

Pos	Spare parts	Qty.	Description	Note
11	3HAB3772-107	2	O-ring	Nitrile Rubber D102x3
12	3HAC034268-001	4	Insulating material	
13	3HAC036835-002	7	Insulating tube	
14	3HAC037222-001	4	Insulating material	
15	3HAC037202-001	4	Washer	
16	3HAB3409-38	4	Hex socket head cap screw	Steel 12.9 Gle. 603+Geo500 /M8x30

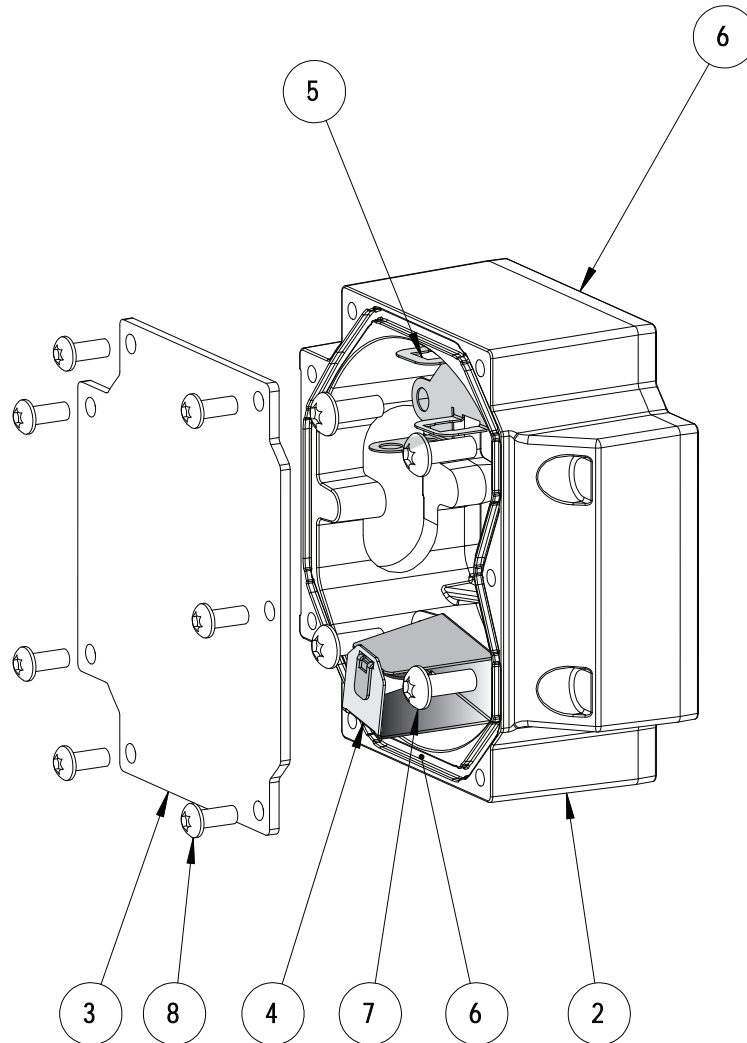
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### 3 Motor units

#### 3.5 Motor unit for MID 1.2

Continued

#### Spare part kit connection boxes



xx1400002556

The spare part kit connection box complete, contains:

Pos	Qty.	Description	Note
2	1	Connection box FS130	
3	1	Cover box FS130	
4	1	Connector bracket MP	
5	1	Connector bracket 9p Dsub	
6	2	O-ring	Nitrile Rubber D119x3
7	7	Torx pan head screw	Steel 8.8-A2F M6x16
8	4	Torx pan head screw	Steel 8.8-A2F M5x12
		Surface treatment, Graphite White	Color depends on which spare part kit is ordered.

### 3.6 Motor unit for MID 2.1-2.2

#### Motor units for MID 2.1 - 2.2

##### Motor units



#### Note

Before ordering these components, make sure that they match the serial number of the positioner.

Item	Component	Description	Qty	Material, type, etc.	Note
1	3HAC038210-008	Motor unit for MID 2.1-2-2	1	Graphite White	Complete

#### Seal and isolation kit 3HAC038214-002

Spare parts	Qty.	Description	Note
3HAC038214-002	1	O-ring	Nitrile Rubber D102x3

The seal and isolation kit contains:



#### Note

These components are valid for all serial numbers of the positioner.

Pos	Qty.	Description	Note
11	2	O-ring	Nitrile Rubber D102x3
12	4	Insulating material	
13	7	Insulating tube	
14	4	Insulating material	
15	4	Washer	
16	4	Hex socket head cap screw	Steel 12.9 Gle. 603+Geo500 /M8x30

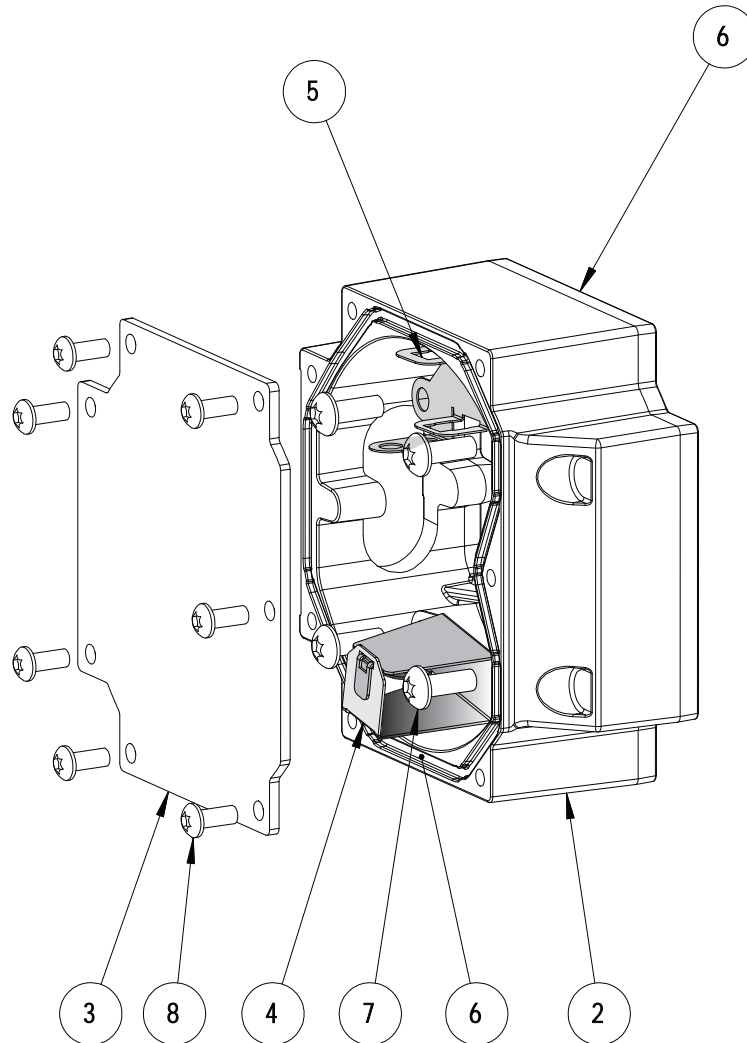
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### 3 Motor units

#### 3.6 Motor unit for MID 2.1-2.2

Continued

#### Spare part kit connection box complete



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The spare part kit connection box complete, contains:

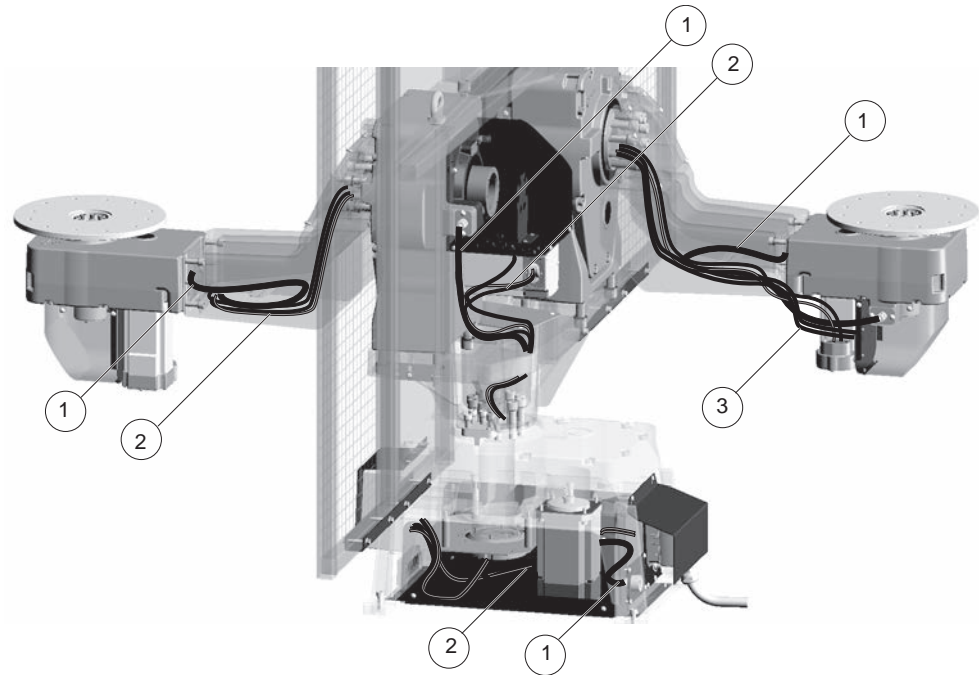
Pos	Qty.	Description	Note
2	1	Connection box FS130	
3	1	Cover box FS130	
4	1	Connector bracket MP	
5	1	Connector bracket 9p Dsub	
6	2	O-ring	Nitrile Rubber D119x3
7	7	Torx pan head screw	Steel 8.8-A2F M6x16
8	4	Torx pan head screw	Steel 8.8-A2F M5x12
		Surface treatment, Graphite White	Color depends on which spare part kit is ordered.



## 4 Electrical spare parts

### 4.1 Cable harnesses

#### Overview



xx2400001207

1	Current collector cable
2	<a href="#">Cable harness on page 58</a>
3	<a href="#">Cable slipping (option) on page 59</a>

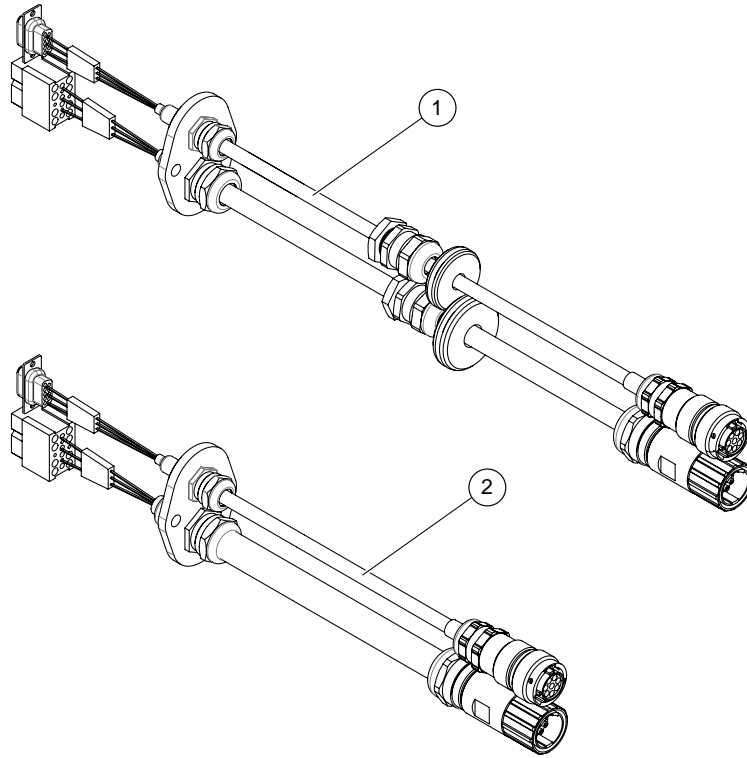
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## 4 Electrical spare parts

### 4.1 Cable harnesses

*Continued*

#### Cable harness

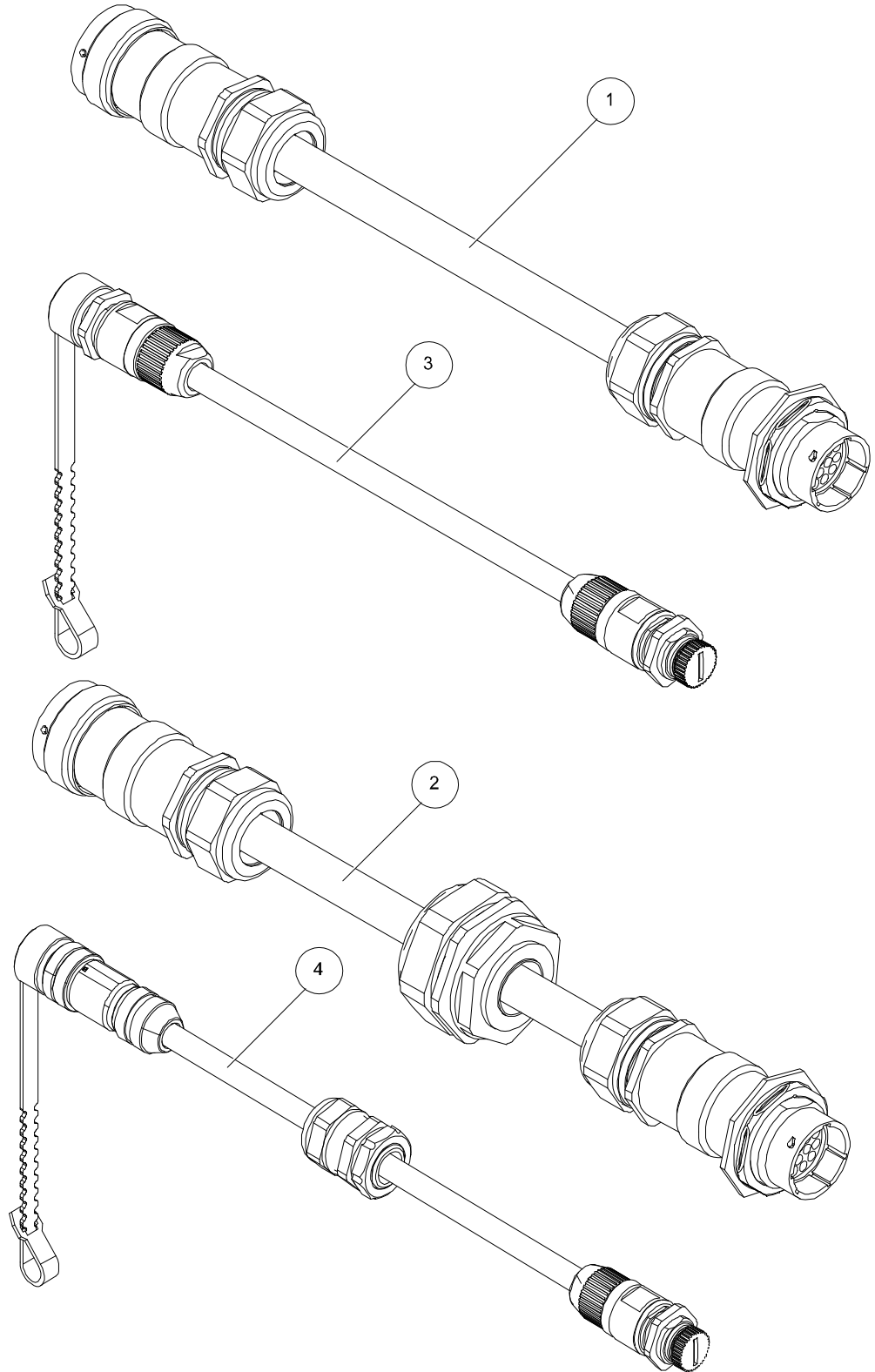


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Pos.	Spare part	Description	Note
1	3HAC087040-001	Cable harness MTD, Complete	Length=3.3 m
1	3HAC087040-002	Cable harness MTD, Complete	Length=4.3 m
1	3HAC087040-003	Cable harness MTD, Complete	Length=6.1 m
2	3HAC087042-001	Cable set int. IRP A/B	Length=6.3 m
2	3HAC087042-002	Cable set int. IRP A/B	Length=7.2 m

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#### Cable sliping (option)



xx100000290

Pos.	Spare part	Description	Note
1	3HAC035339-001	Cable sliping WCP1/WCP2	L=0.8m

*Continues on next page*

## 4 Electrical spare parts

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### 4.1 Cable harnesses

*Continued*

Pos.	Spare part	Description	Note
1	3HAC035339-002	Cable slipring WCP1/WCP2	L=2.6m
1	3HAC035339-003	Cable slipring WCP1/WCP2	L=3.2m
1	3HAC035339-004	Cable slipring WCP1/WCP2	L=3.7m
2	3HAC035708-001	Cable WCP3/WCP4	L=2m
2	3HAC035708-002	Cable WCP3/WCP4	L=3.7m
3	3HAC035370-001	Cable WCS1/WCS2	L=0.8m
3	3HAC035370-002	Cable WCS1/WCS2	L=2.6m
3	3HAC035370-003	Cable WCS1/WCS2	L=3.2m
3	3HAC035370-004	Cable WCS1/WCS2	L=3.7m
4	3HAC035881-001	Cable slipring WCS3/WCS4	L=2m
4	3HAC035881-002	Cable slipring WCS3/WCS4	L=3.7m
	3HAC035432-001	Connector set CP/CS	





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