

ROBOTICS

# Product manual, spare parts

## IRB 360



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Workspace 22B version a2  
Checked in 2022-05-24  
Skribenta version 5.5.019

## **Product manual, spare parts**

**IRB 360 - 1/800**

**IRB 360 - 1/1130**

**IRB 360 - 1/1600**

**IRB 360 - 3/1130**

**IRB 360 - 6/1600**

**IRB 360 - 8/1130**

**IRC5, OmniCore**

**Document ID: 3HAC049101-001**

**Revision: G**

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Original instructions.

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# Overview of this manual

## About this manual

This manual contains spare parts for:

- IRB 360 and all its variants.

## Usage

This manual shall be used as a complement to the product manual for IRB 360 during:

- maintenance work
- repair work.

## Who should read this manual?

This manual is intended for:

- maintenance personnel
- repair personnel.

## Prerequisites

Maintenance/repair/installation personnel working with an ABB Robot must:

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

## References

Reference	Document ID
<i>Product manual - IRB 360</i>	<i>3HAC030005-001</i>
<i>Circuit diagram - IRB 360</i>	<i>3HAC028647-009</i>

## Revisions

Revision	Description
-	First edition
A	This revision includes the following updates: <ul style="list-style-type: none"> <li>• Spare parts with color Graphite White are added to the spare part lists.</li> </ul>
B	This revision includes the following updates: <ul style="list-style-type: none"> <li>• Spare part number for Movable plate and ball bearing updated.</li> <li>• Minor corrections</li> <li>• Changes regarding SMB units.</li> <li>• Generally modified due to update of BOL</li> </ul>
C	This revision includes the following updates: <ul style="list-style-type: none"> <li>• Corrections due to updates in terminology.</li> </ul>
D	This revision includes the following updates: <ul style="list-style-type: none"> <li>• Sealing ring (V-ring) added to spare part list, movable plate.</li> </ul>
E	Published in release R17.2. The following updates are done in this revision: <ul style="list-style-type: none"> <li>• Updated figure of gear unit axis 4</li> <li>• Updated spare part number on oil plug (is 3HAC048968-001, 1 pcs; was 3HAC9353-1 2 pcs)</li> </ul>

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## Overview of this manual

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Revision	Description
F	Published in release 21A. The following updates are done in this revision: <ul style="list-style-type: none"><li>• Floor cables added added to spare part list, floor cables.</li><li>• New spare part numbers for Spring unit. See <i>Spare parts - parallel arm system</i>.</li></ul>
G	Published in release 22B. The following updates are done in this revision: <ul style="list-style-type: none"><li>• Assembly kit with Sealing ring and mounting washer added to spare parts - base list.</li><li>• Removed the ejector unit from the spare part lists.</li></ul>



# Product documentation

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## Categories for user documentation from ABB Robotics

The user documentation from ABB Robotics is divided into a number of categories. This listing is based on the type of information in the documents, regardless of whether the products are standard or optional.



### Tip

All documents can be found via myABB Business Portal, [www.abb.com/myABB](http://www.abb.com/myABB).

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## Product manuals

Manipulators, controllers, DressPack/SpotPack, and most other hardware is delivered with a **Product manual** that generally contains:

- Safety information.
  - Installation and commissioning (descriptions of mechanical installation or electrical connections).
  - Maintenance (descriptions of all required preventive maintenance procedures including intervals and expected life time of parts).
  - Repair (descriptions of all recommended repair procedures including spare parts).
  - Calibration.
  - Decommissioning.
  - Reference information (safety standards, unit conversions, screw joints, lists of tools).
  - Spare parts list with corresponding figures (or references to separate spare parts lists).
  - References to circuit diagrams.
- 

## Technical reference manuals

The technical reference manuals describe reference information for robotics products, for example lubrication, the RAPID language, and system parameters.

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## Application manuals

Specific applications (for example software or hardware options) are described in **Application manuals**. An application manual can describe one or several applications.

An application manual generally contains information about:

- The purpose of the application (what it does and when it is useful).
- What is included (for example cables, I/O boards, RAPID instructions, system parameters, software).
- How to install included or required hardware.
- How to use the application.
- Examples of how to use the application.

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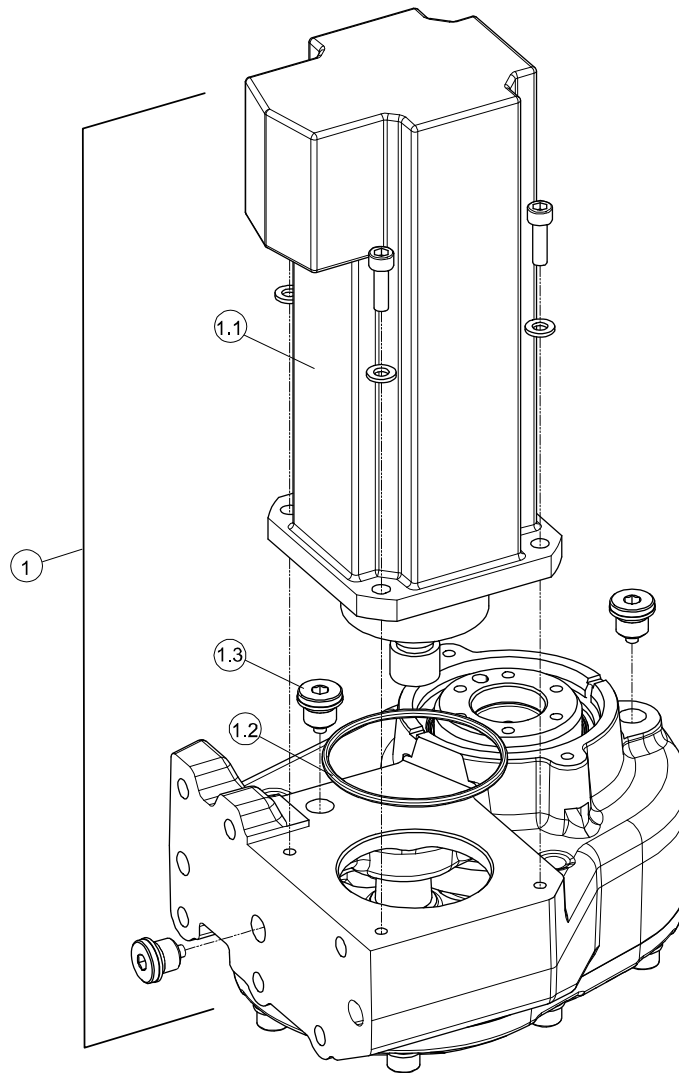
### Operating manuals

The operating manuals describe hands-on handling of the products. The manuals are aimed at those having first-hand operational contact with the product, that is production cell operators, programmers, and troubleshooters.

# 1 Spare parts in robot base

## 1.1 Spare parts - gearbox axes 1- 3

Illustration



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Spare part list

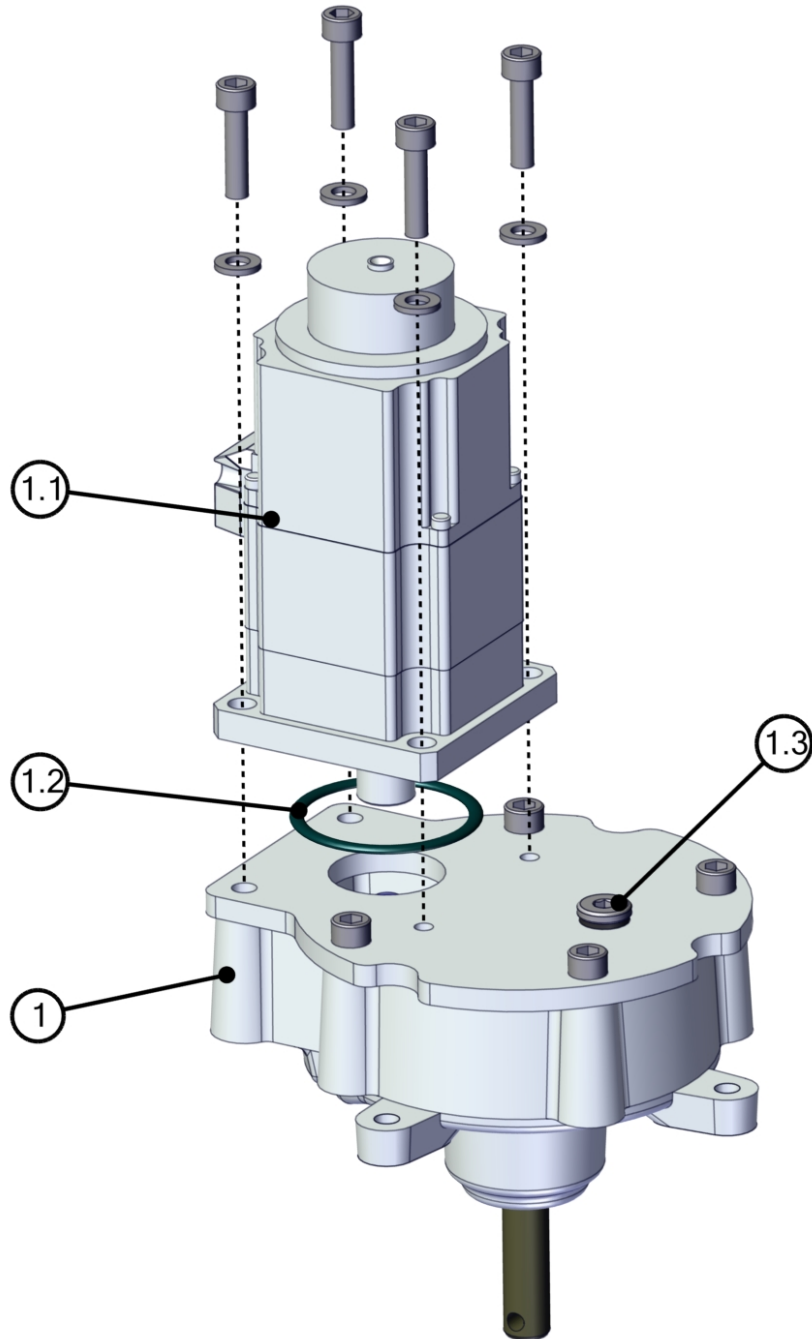
Part	Description	Spare part no.	Note/Qty
1	Gearbox with motor	3HAC028017-003	3 pcs
1.1	Motor with pinion ax1-3	3HAC026110-001	3 pcs
1.2	O-ring 67,5x3,0	3HAB3772-22	3 pcs
1.3	Magnetic plug	3HAC037925-001	9 pcs

# 1 Spare parts in robot base

## 1.2 Spare parts - gear unit axis 4

## 1.2 Spare parts - gear unit axis 4

### Illustration



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### Spare part list

Part	Description	Spare part no.	Note/Qty
1	Motor and gearbox unit ax 4	3HAC028018-003	1 pcs

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## 1 Spare parts in robot base

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### 1.2 Spare parts - gear unit axis 4

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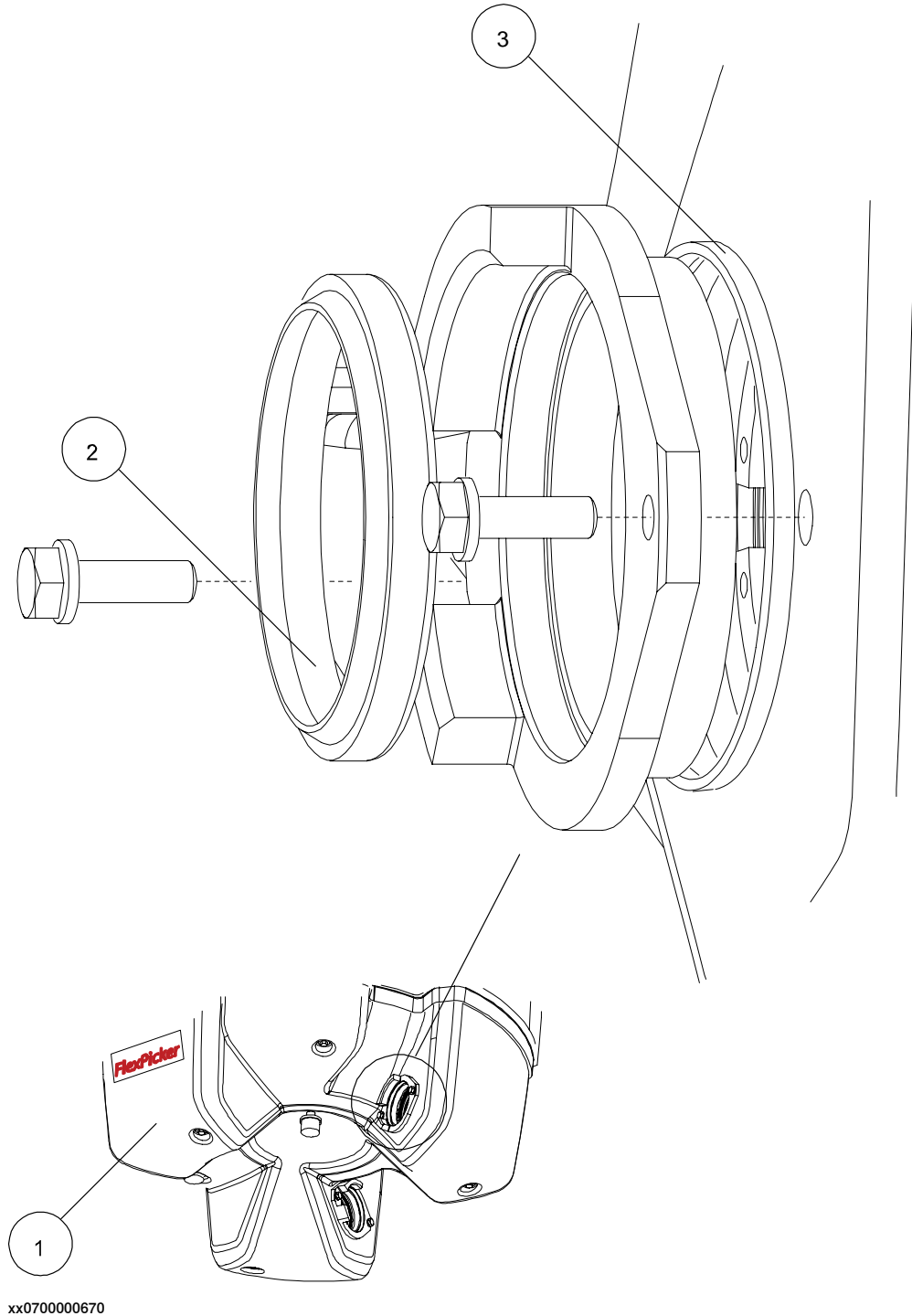
Part	Description	Spare part no.	Note/Qty
1.1	Motor with pinion ax 4	3HAC021799-003	1 pcs
1.2	O-ring	3HAB3772-81	1 pcs
1.3	Sealing plug	3HAC048968-001	1 pcs

# 1 Spare parts in robot base

## 1.3 Spare parts - transmission cover

### 1.3 Spare parts - transmission cover

#### Illustration



#### Spare part list

Parts	Description	Spare part no.	Note/Qty
1	Transmission cover	3HAC028899-001	Without labels, 1 pcs

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## 1 Spare parts in robot base

### 1.3 Spare parts - transmission cover

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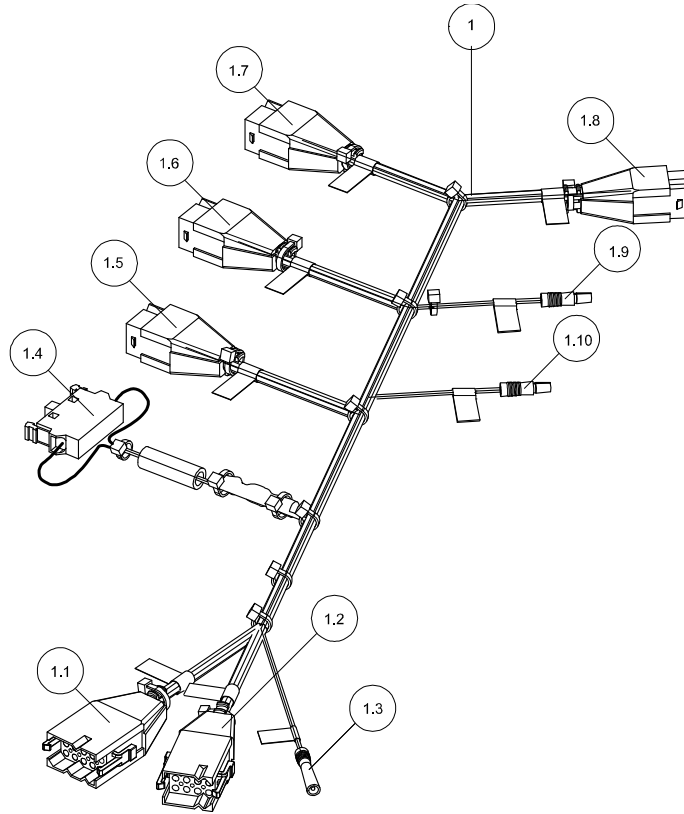
Parts	Description	Spare part no.	Note/Qty
2	Sealing ring	3HAC3934-1	3 pcs Not applicable to protection Clean Room and Stainless Clean Room.
2	Sealing ring	3HAC031586-002	Applicable for protection Clean Room and Stainless Clean Room.
3	Flange gasket ax.1-3	3HAC4309-1	3 pcs

# 1 Spare parts in robot base

## 1.4 Spare parts - cable harness

### 1.4 Spare parts - cable harness

#### Illustration power cable



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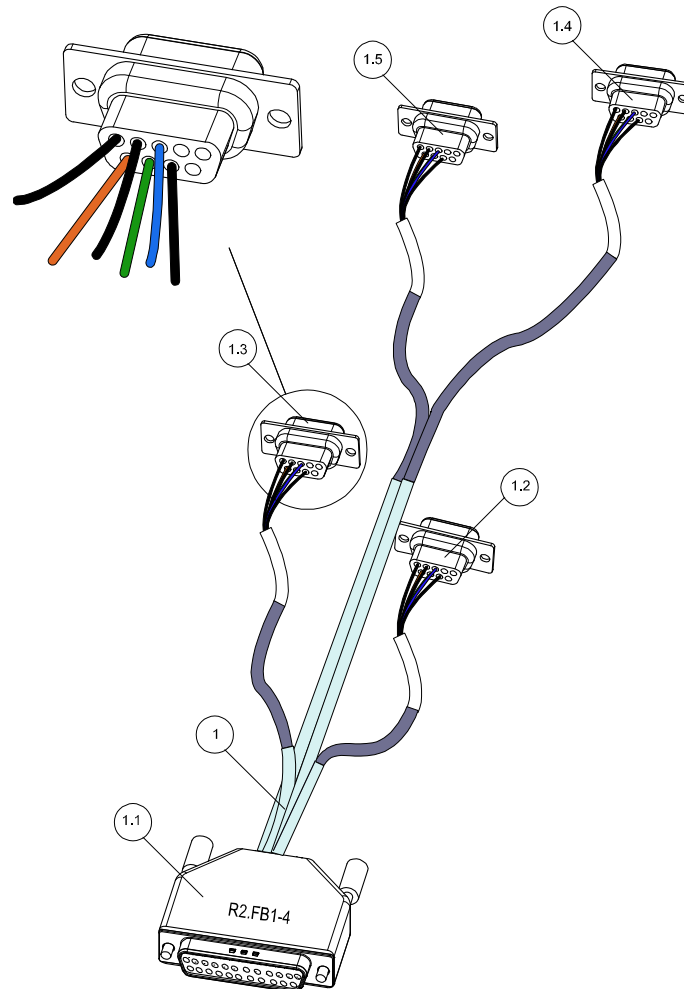
#### Spare part list power cable

Part	Description	Spare part no.	Note
1	Cable harness power IRB 360	3HAC029695-001	
1.1	R1.MP1-3		Motor power
1.2	R1.MP4-6		Motor power
1.3	R1.H1		Signal lamp (Option)
1.4	S1		Brake release
1.5	R3.MP1		Motor power
1.6	R3.MP3		Motor power
1.7	R3.MP4		Motor power
1.8	R3.MP2		Motor power
1.9	R3.H1		Signal lamp (Option)
1.10	R3.H2		Signal lamp (Option)

Continues on next page



### Illustration signal cable



xx070000673

### Spare part list signal cable

Part	Description	Spare part no.	Note
1	Cable harness signal IRB 360	3HAC1762-1	
1.1	R2.FB1-4		
1.2	R3.FB2		
1.3	R3.FB4		
1.4	R3.FB3		
1.5	R3.FB1		

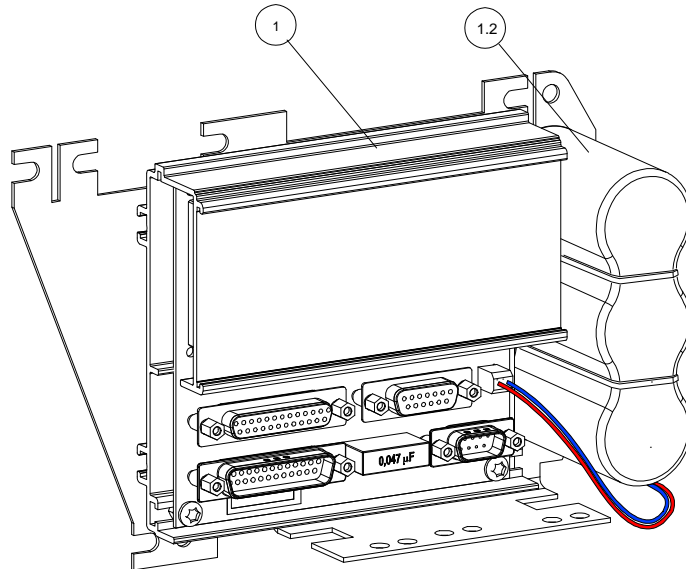
# 1 Spare parts in robot base

## 1.5 Spare parts - SMB unit

### 1.5 Spare parts - SMB unit

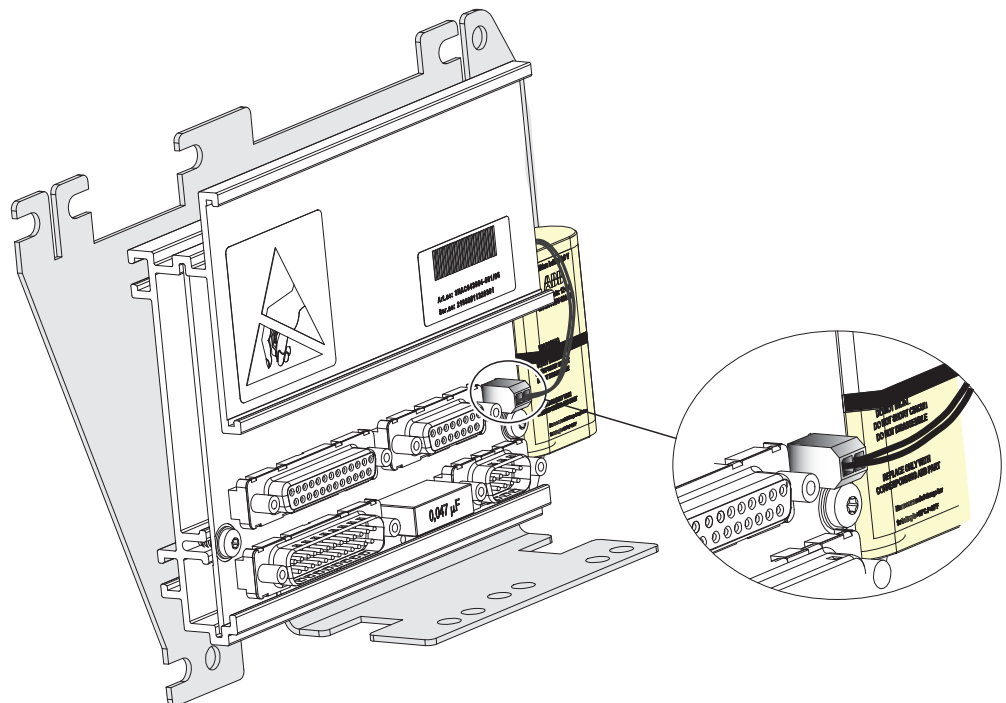
#### Illustration

DSQC 633A



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RMU 101



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# 1 Spare parts in robot base

## 1.5 Spare parts - SMB unit

*Continued*

### Spare part list

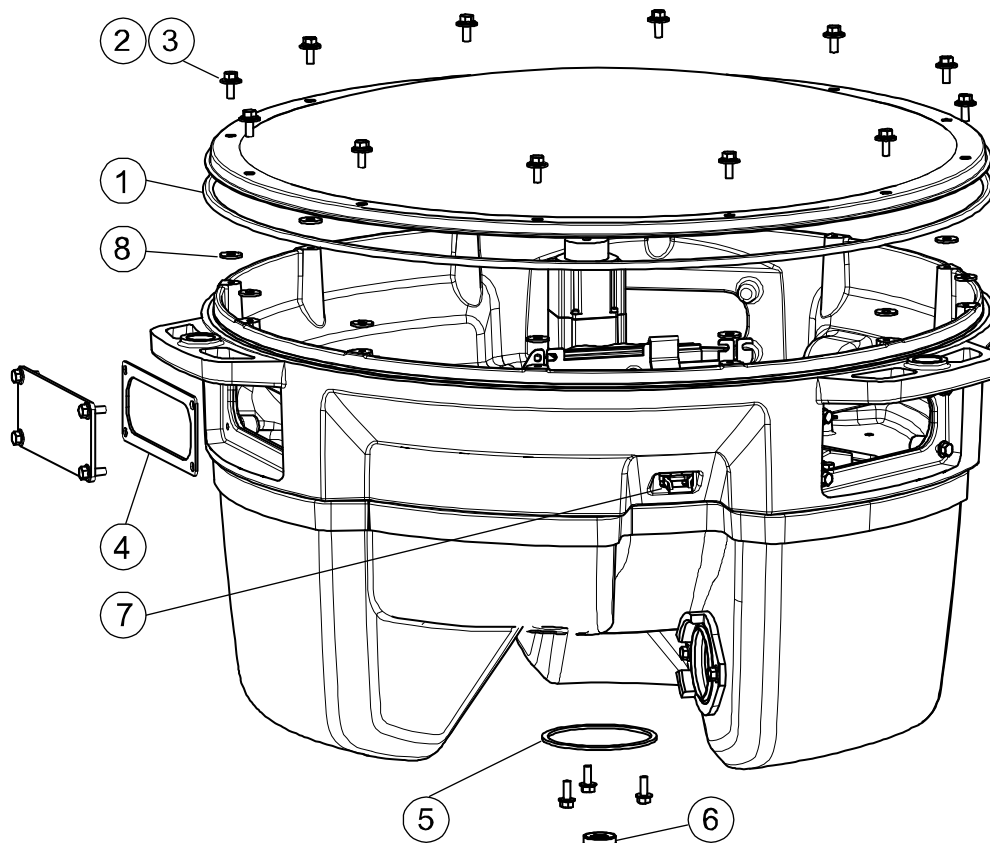
Part	Description	Spare part no.	Note
1	Serial measurement unit	3HAC046277-001	Contains serial measurement board 3HAC044168-001 and battery unit 3HAC044075-001.
1	Serial measurement board	3HAC044168-001	RMU 101
1.2	Battery pack (2-pole battery contact)	3HAC16831-1	Lithium 34x102x63 Does not fit SMB unit 3HAC046277-001.
1.2	Battery unit (3-pole battery contact)	3HAC044075-001	RMU Lithium 7.2V 3.6Ah Can only be used with SMB unit 3HAC046277-001 containing SMB board 3HAC044168-001.
-	SMB replacement set	3HAC046686-001	Contains all parts needed if SMB unit 3HAC17396-1 shall be replaced with SMB unit 3HAC046277-001.

# 1 Spare parts in robot base

## 1.6 Spare parts - base

## 1.6 Spare parts - base

### Illustration



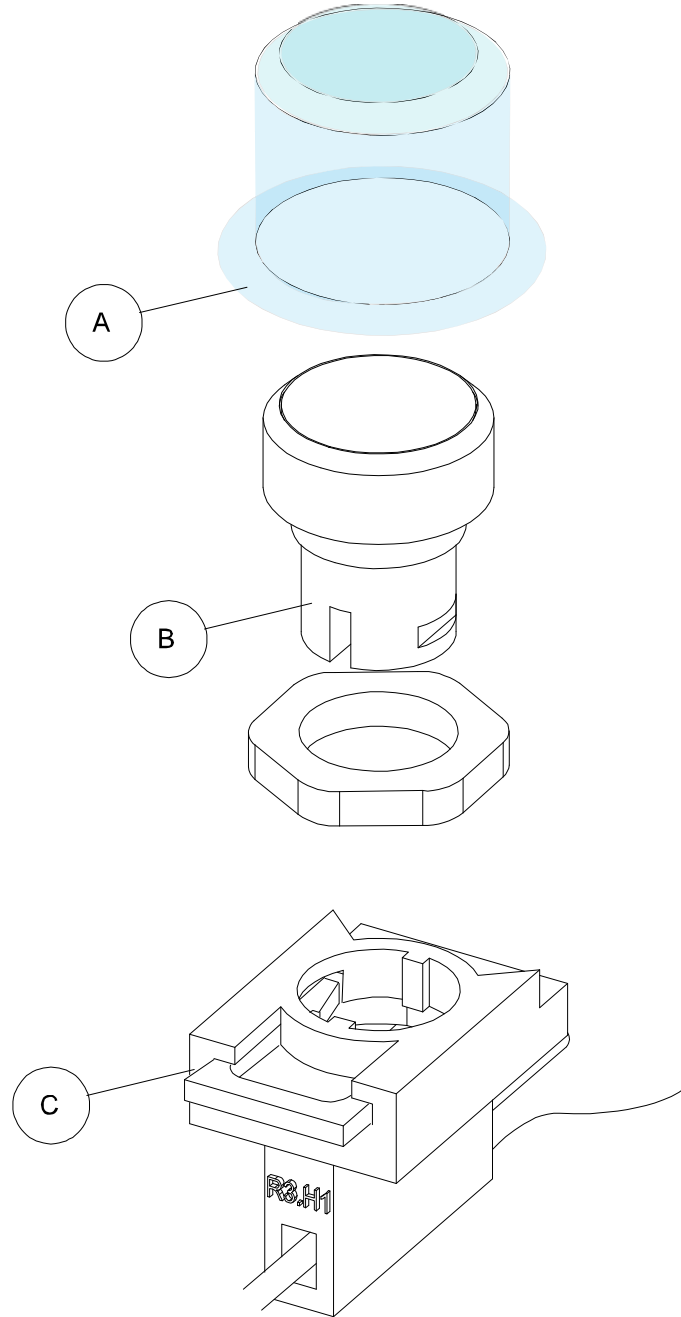
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### Spare part list

Part	Description	Spare part no.	Note/Qty
1	Hollow o-ring (base cover)	3HAC029556-007	1 pcs
2	Screw	3HAC029879-002	M6x20, 12 pcs
3	Washer	3HAC029877-001	Nylon, 12 pcs
4	Gasket	3HAC028972-001	3 pcs
5	Flange gasket	3HAC028959-001	1 pcs
6	Sealing ring	3HAB3701-27	1 pcs (not in 3D version)
7	Calibration mark	3HAC029997-001	3 pcs
8	Gasket	3HAC038185-001	12 pcs
-	Assembly kit	3HAC082058-001	1 pcs

1.7 Spare parts - brake release button

Illustration



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Spare part list, brake release button

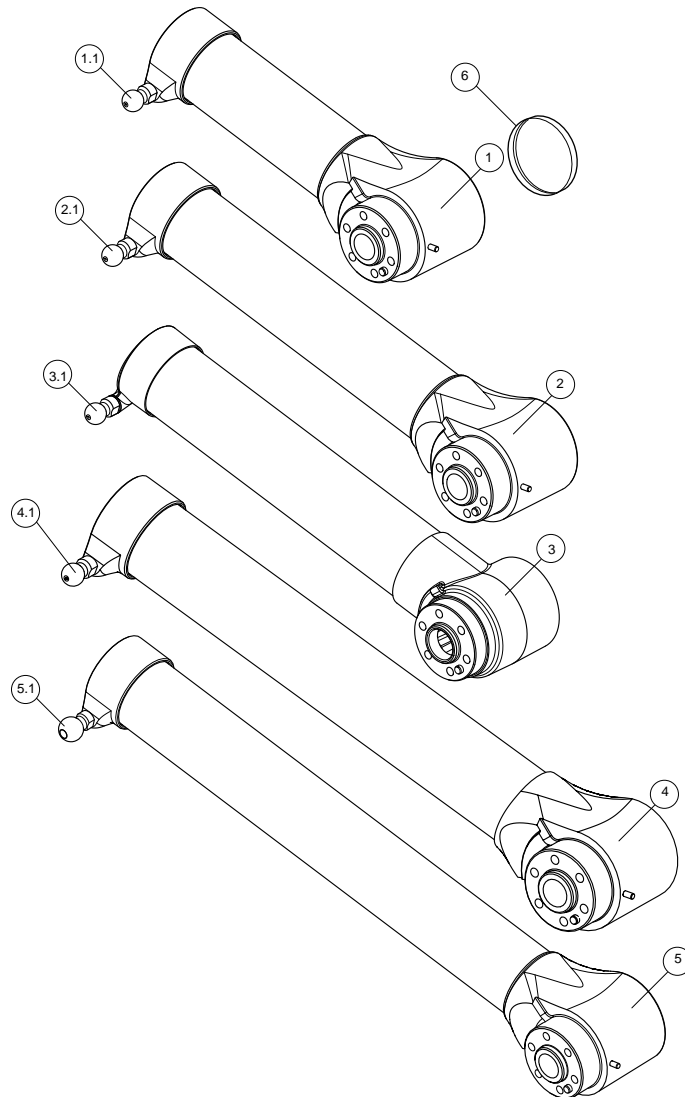
Part	Description	Spare part no.	Note/Qty
A	Membrane	SK615503-2	1 pcs
B	Push button	1SFA611100R1006	1 pcs
C	Holder	1SFA611605R1100	1 pcs

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## 2 Spare parts arm system

### 2.1 Spare parts - upper arm, IRB 360

Illustration



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Spare part list

Part	Description	Spare part no.	Note/Qty
1	Upper arm	3HAC029743-001	For robot version IRB 360 - 1/800. 3 pcs
1.1	Joint ball	3HAC5176-1	6 pcs

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## 2 Spare parts arm system

### 2.1 Spare parts - upper arm, IRB 360

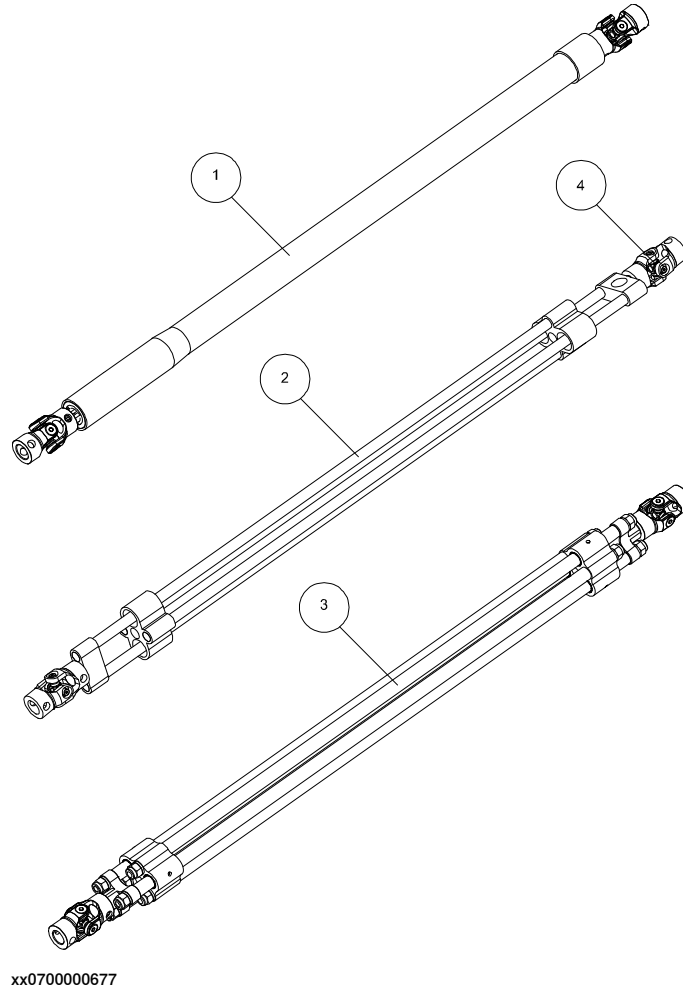
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Part	Description	Spare part no.	Note/Qty
2	Upper arm	3HAC021121-001	For robot versions IRB 360 - 1/1130 and IRB 360 - 3/1130. 3 pcs
		3HAC046644-001	For robot version IRB 360 - 8/1130. 3 pcs
2.1	Joint ball	3HAC5176-1	For robot versions IRB 360 - 1/1130 and IRB 360 - 3/1130. 6 pcs
		3HAC045216-001	For robot version IRB 360 - 8/1130. 6 pcs
3	Upper arm	3HAC029454-001	For Stainless robot versions IRB 360 - 1/1130 and IRB 360 - 3/1130 (WDS). 3 pcs
3.1	Joint ball	3HAC028080-001	12 pcs
4	Upper arm	3HAC034599-001	For robot version IRB 360 - 1/1600.
4.1	Joint ball	3HAC5176-1	6 pcs
5	Upper arm	3HAC047079-001	For robot version IRB 360 - 6/1600.
5.1	Joint ball	3HAC045216-001	For robot version IRB 360 - 6/1600. 6 pcs
6	VK-cover	3HAA2166-21	3 pcs



## 2.2 Spare parts - telescopic shafts

### Illustration



### Spare part list

Part	Description	Spare part no.	Note
1	Telescopic shaft	3HAC029293-003	For robot versions IRB 360 - 1/1130, IRB 360 - 3/1130, IRB 360 - 1/800. 1 pc. (Without joints.)
		3HAC046430-002	For robot version IRB 360 - 8/1130. 1 pc. (Without joints.)
		3HAC034174-003	For robot version IRB 360 - 1/1600. 1 pc. (Without joints.)
		3HAC047082-003	For robot version IRB 360 - 6/1600. 1 pc. (Without joints.)
2	Telescopic shaft	3HAC029425-001	(WDS) 1 pc. (Without joints.)
3	Telescopic shaft	3HAC030013-001	(WD) 1 pc. (Without joints.)

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## 2 Spare parts arm system

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### 2.2 Spare parts - telescopic shafts

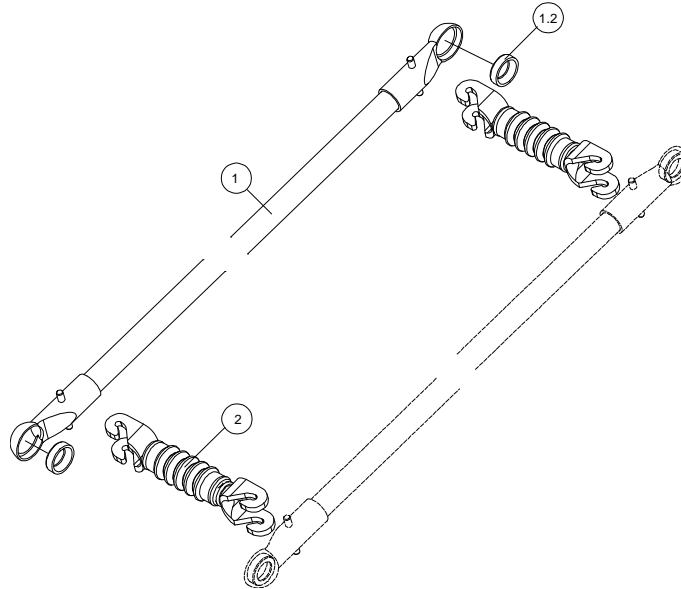
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Part	Description	Spare part no.	Note
4	Universal joint	3HAC046664-001	(Standard) 2 pcs.
		3HAC030512-001	(WDS, WD) 2 pcs.
	Set screw	3HAC12846-2	For robot versions IRB 360 - 1/1130, IRB 360 - 3/1130, IRB 360 - 1/800, IRB 360 - 1/1600. 4 pcs.
		3HAC12846-3	For robot versions IRB 360 - 8/1130, IRB 360 - 6/1600. 4 pcs.

### 2.3 Spare parts - parallel arm system, IRB 360

IRB 360 - 1/1130, IRB 360 - 3/1130, IRB 360 - 1/800, IRB 360 - 1/1600

Illustration



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Spare part list

Part	Description	Spare part no.	Note/Qty
1	Bar	3HAC029024-001	6 pcs (800/1130)
1	Bar	3HAC029893-001	6 pcs (WDS)
1	Bar	3HAC034172-001	6 pcs (1600)
1.2 <sup>i</sup>	Bearing ring	3HAC028087-001 <sup>ii</sup>	12 pcs
1.2 <sup>i</sup>	Bearing ring	3HAC2091-1 <sup>iii</sup>	12 pcs
2	Spring unit	3HAC078707-001	6 pcs

<sup>i</sup> Only one type of bearing ring is needed. Read more about the difference in *Maintenance - Bar system - Different versions of bearings.* in *Product manual - IRB 360*

<sup>ii</sup> Bearing ring 3HAC028087-001 is maintenance-free.

<sup>iii</sup> Bearing ring 3HAC2091-1 needs to be lubricated according to maintenance schedule.

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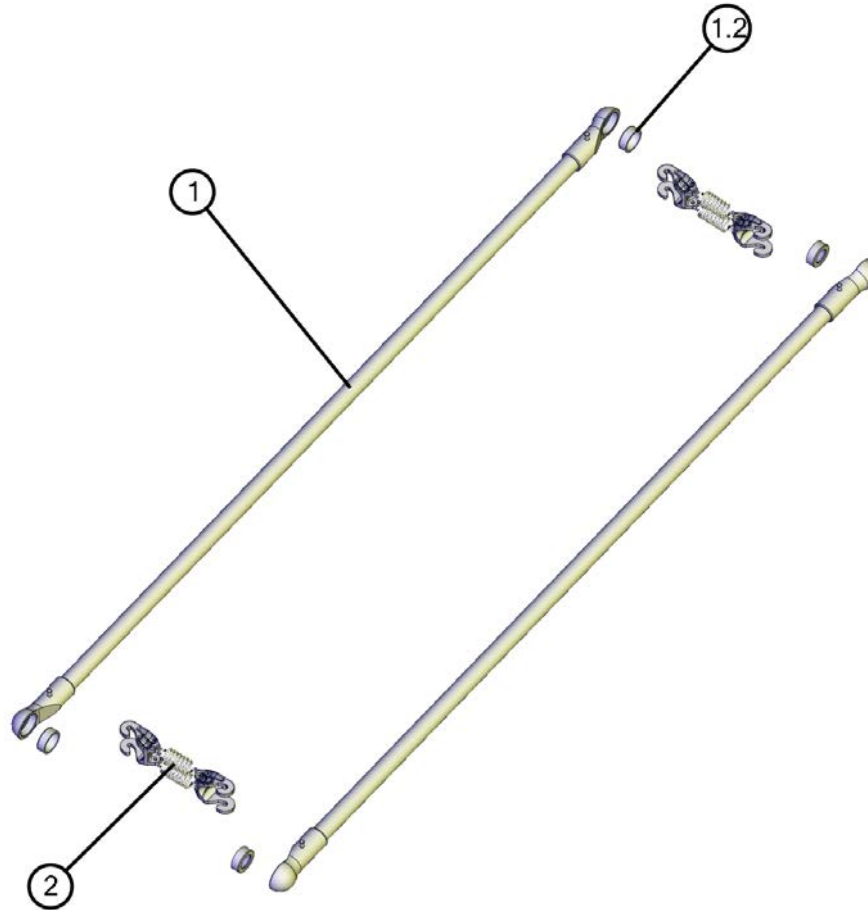
## 2 Spare parts arm system

### 2.3 Spare parts - parallel arm system, IRB 360

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IRB 360 - 8/1130, IRB 360 - 6/1600

Illustration



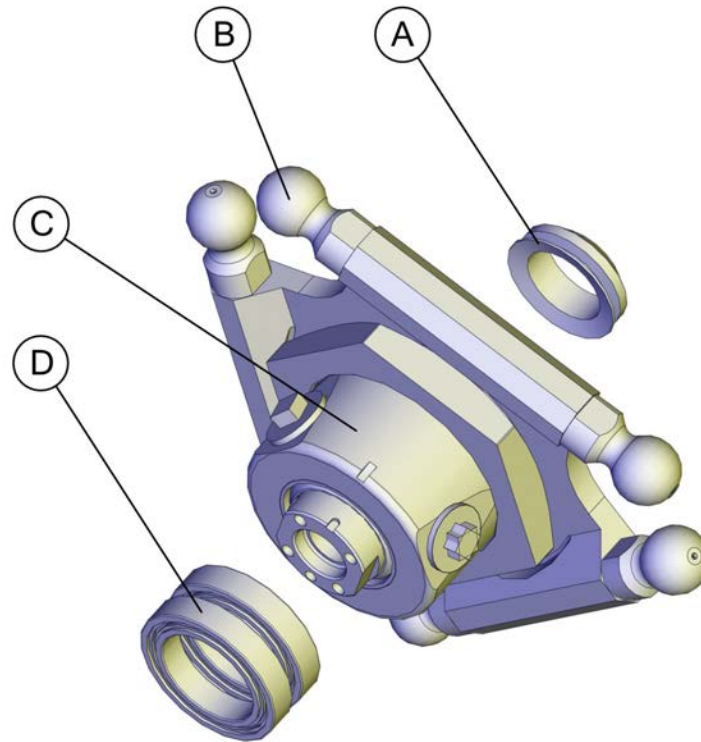
Spare part list

Part	Description	Spare part no.	Note/Qty
1	Bar	3HAC046196-001	For robot version IRB 360 - 8/1130. 6 pcs
		3HAC046197-001	For robot version IRB 360 - 6/1600. 6 pcs
1.2	Bearing ring	3HAC045215-001	12 pcs
2	Spring unit	3HAC078709-001	6 pcs

#### 2.4 Spare parts - movable plate

IRB 360 - 1/1130, IRB 360 - 3/1130, IRB 360 - 1/800, IRB 360 - 1/1600 (With swivel)

Illustration



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#### Spare part list

Part	Description	Spare part no.	Note/Qty
A	Sealing ring (V-ring)	3HAB3732-16	1 pc
B	Joint ball	3HAC5176-1	6 pcs
	Joint ball, stainless	3HAC028080-001	6 pcs
C	Movable plate with swivel (Std.)	3HAC028021-003	1 pc
	Movable plate with swivel (WDS/Stainless)	3HAC029423-003	1 pc
D	Ball bearing	3HAC056902-001	2 pcs

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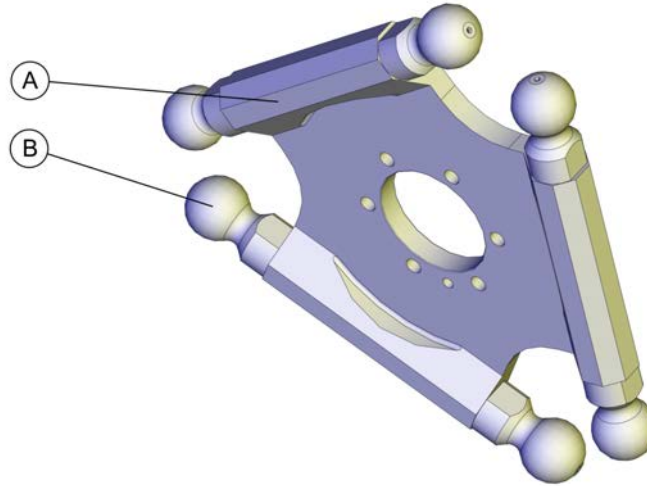
## 2 Spare parts arm system

### 2.4 Spare parts - movable plate

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IRB 360 - 1/1130, IRB 360 - 3/1130, IRB 360 - 1/800, IRB 360 - 1/1600 (3 DOF)

Illustration



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Spare part list

Part	Description	Spare part no.	Note/Qty
A	Movable plate (3 DOF)	3HAC029745-001	1 pc
B	Joint ball	3HAC5176-1	6 pcs

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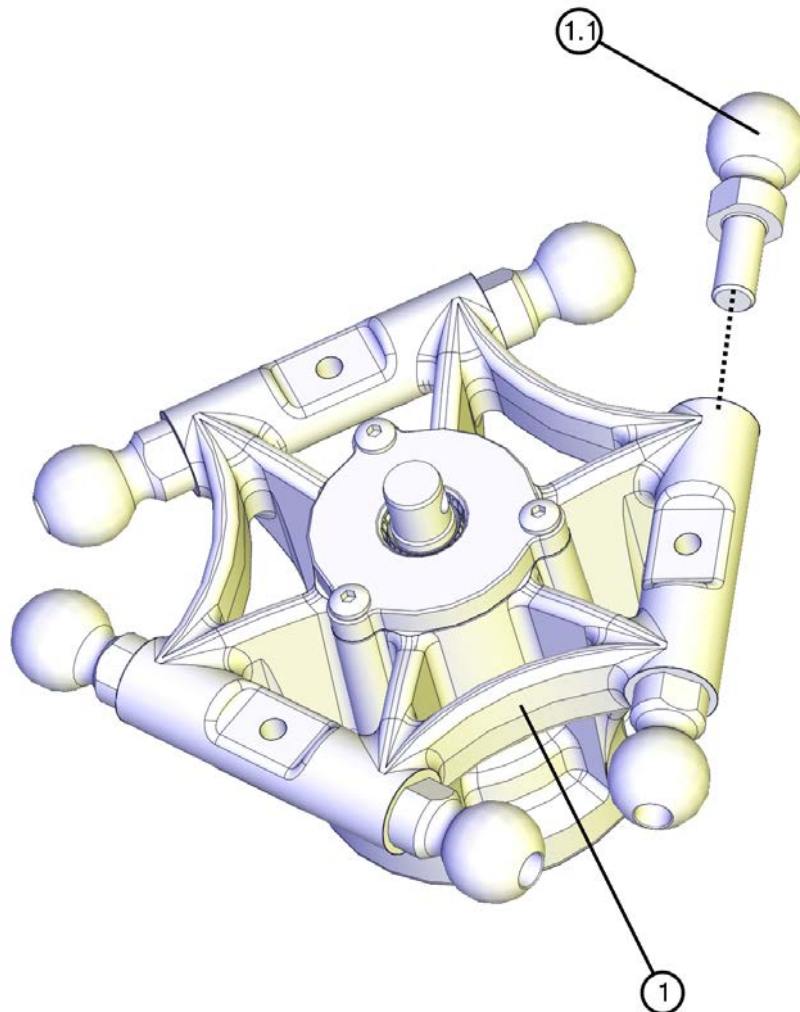
## 2 Spare parts arm system

### 2.4 Spare parts - movable plate

*Continued*

IRB 360 - 8/1130, IRB 360 - 6/1600

Illustration



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#### Spare part list

Part	Description	Spare part no.	Note/Qty
1	Movable plate	3HAC046233-003	1 pc
1.1	Joint ball	3HAC045216-001	6 pcs

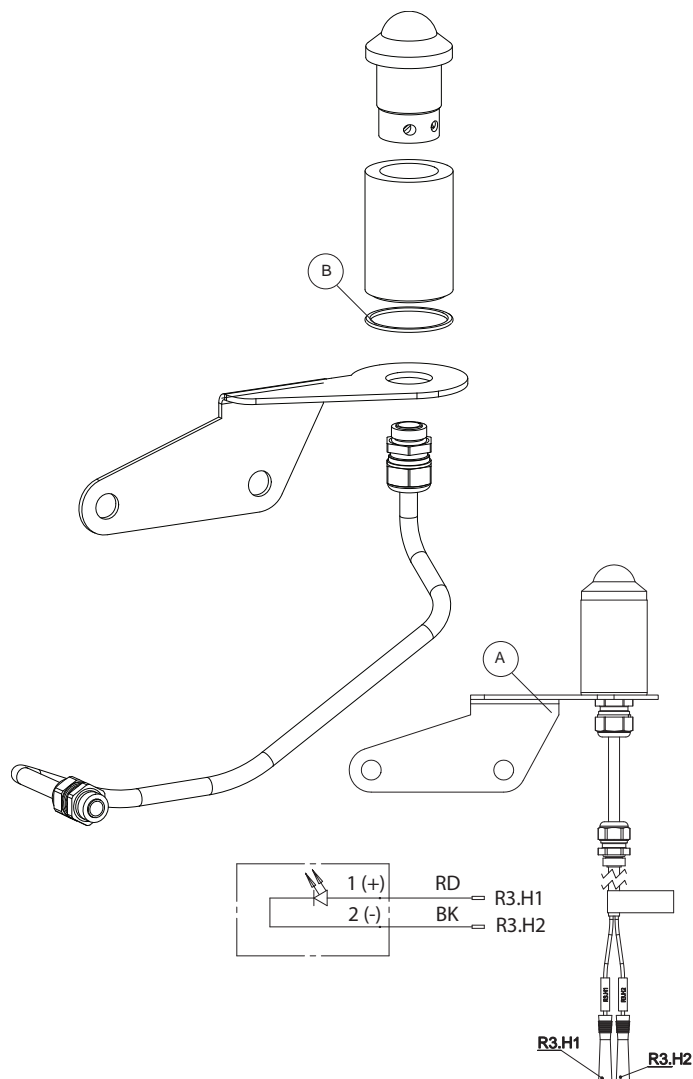
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## 3 Spare parts, customer options

### 3.1 Spare parts - customer options signal lamp IRB 360

#### Illustration



#### Spare part list

Part	Description	Spare part no.	Note/Qty
A	Lamp unit (complete)	3HAC050417-001	1 pcs
B	O-ring	3HAB3772-21	1 pcs
	Cover, signal lamp/ ax 7	3HAC028966-006	1 pcs
	Cover gasket	3HAC028972-001	
	Locking plug with o-ring M25, for Ax7	3HAC022881-007	1 pcs

### 3 Spare parts, customer options

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#### 3.2 Spare parts - option 864-1 (Axis 7)

#### 3.2 Spare parts - option 864-1 (Axis 7)

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##### Spare part list

Part	Description	Spare part no.	Note/Qty
	Cover, signal lamp/ ax 7	3HAC028966-006	1 pcs
	Cover gasket	3HAC028972-001	
	Locking plug with o-ring M10, for signal lamp	3HAC022881-003	1 pcs

## 4 Spare parts, floor cables

### 4.1 Floor cable, IRC5

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**Spare part list**

These cables are sold in pair, including both one robot cable power, and one robot cable signal.

Part	Description	Spare part no.	Note/Qty
	Robot control cable 3 m	3HAC029903-001	
	Robot control cable 7 m	3HAC029903-002	
	Robot control cable 15 m	3HAC029903-003	
	Robot control cable 22 m	3HAC029903-004	
	Robot control cable 30 m	3HAC029903-005	

## 4 Spare parts, floor cables

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### 4.2 Floor cable, OmniCore

### 4.2 Floor cable, OmniCore

---

#### Spare part list

These cables are sold in pair, including both one robot cable power, and one robot cable signal.

Part	Description	Spare part no.	Note/Qty
	Robot control cable 3 m	3HAC062959-003	
	Robot control cable 7 m	3HAC062959-004	
	Robot control cable 15 m	3HAC062959-005	
	Robot control cable 22 m	3HAC062959-006	
	Robot control cable 30 m	3HAC062959-007	

## 5 Upgrade set

### Upgrade set 6kg

Equipment	Qty	Art. no.	Note
Upgrade set 6kg	1	3HAC047623-001	
Movable plate	1		
Bearing ring	12		
Spring unit	6		
Set screw, dog point	4		
Bar	6		
Telescopic Shaft	1		
Upper arm, 1600	3		
Universal joint	2		
Locking liquid	5 ml		

### Upgrade set 8kg

Equipment	Qty	Art. no.	Note
Upgrade set 8kg	1	3HAC047406-001	
Movable plate	1		
Bearing ring	12		
Spring unit	6		
Set screw, dog point	4		
Bar	6		
Telescopic Shaft	1		
Upper arm	3		
Universal joint	2		
Locking liquid	5 ml		







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