ROBOTICS

Product manual, spare parts

IRB 1200

Trace back information:
Workspace 23D version a14
Checked in 2023-12-12
Skribenta version 5.5.019

Product manual, spare parts

IRB 1200-5/0.9
IRB 1200-5/0.9 type A
IRB 1200-5/0.9 type B
IRB 1200-7/0.7
IRB 1200-7/0.7 type A
IRB 1200-7/0.7 type B
IRB 1200-7/0.9

IRC5, OmniCore

Document ID: 3HAC046984-001

Revision: Q

© Copyright 2014 - 2023 ABB. All rights reserved.
Specifications subject to change without notice.

The information in this manual is subject to change without notice and should not be construed as a commitment by ABB. ABB assumes no responsibility for any errors that may appear in this manual.

Except as may be expressly stated anywhere in this manual, nothing herein shall be construed as any kind of guarantee or warranty by ABB for losses, damage to persons or property, fitness for a specific purpose or the like.

In no event shall ABB be liable for incidental or consequential damages arising from use of this manual and products described herein.

This manual and parts thereof must not be reproduced or copied without ABB's written permission.

Keep for future reference.

Additional copies of this manual may be obtained from ABB.

Original instructions.

© Copyright 2014 - 2023 ABB. All rights reserved.
Specifications subject to change without notice.

Table of contents

Overview of this manual 7
Product documentation 10

1 Spare parts and exploded views 13

1.1 Spare parts - electrical parts 13
1.2 Spare parts - base 23
1.3 Spare parts - swing 26
1.4 Spare parts - housing 32
1.5 Spare parts - housing extender unit 35
1.6 Spare parts - lower arm 37
1.7 Spare parts - tubular 41
1.8 Spare parts - tilt unit parts 44
1.9 Spare parts - motors 46
1.9.1 Spare parts - axis-1 motor 46
1.9.2 Spare parts - axis-2 motor 47
1.9.3 Spare parts - axis-3 motor 48
1.9.4 Spare parts - axis-4 motor 49
1.9.5 Spare parts - axis-5 motor 51
1.9.6 Spare parts - axis-6 motor 53
1.10 Spare parts - gears 54
1.10.1 Spare parts - axis-1 gear unit 54
1.10.2 Spare parts - axis-2 drive unit 55
1.10.3 Spare parts - axis-3 drive unit 57
1.10.4 Spare parts - axis-4 gearbox 59
1.10.5 Spare parts - axis-5 and axis-6 drive unit 60
1.11 Spare parts - information labels 62
1.12 Spare parts - Axis Calibration items 66
1.13 Spare parts - options 69

2 Robot description 71

2.1 Introduction 71
2.2 Type A of IRB 1200 75
2.3 Type B of IRB 1200 76
2.4 Description of spare part versions 77
2.4.1 Spare part versions for the base on IP40/IP67 robots 77
2.4.2 Spare part versions for the swing on IP40/IP67 robots 78
2.4.3 Spare part versions for the axis-1 sealing ring on IP40/IP67 robots 80
2.4.4 Spare part versions for the housing on Type A robots 82
2.4.5 Spare part versions for the tubular on Type A robots 83
2.4.6 Spare part versions for the tubular cover on Clean Room robots 84

Index 85

© Copyright 2014 - 2023 ABB. All rights reserved.

This page is intentionally left blank

Overview of this manual

About this manual

This manual contains spare parts for:

- IRB 1200 and all its variants.

Usage

This manual shall be used as a complement to the product manual for IRB 1200 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.

Organization of chapters

The manual is organized in the following chapters:

Chapter	Contents
1 Spare parts and exploded view	Complete spare part list and complete list of robot components shown in exploded views.

References

Reference	Document ID
Product manual - IRB 1200	*3HAC046983-001*
Circuit diagram - IRB 1200	*3HAC046307-003*

Revisions

Revision	Description
-	First edition
A	The following updates are made in this revision: • The spare part numbers for the battery pack and the axis-4 FPC unit are changed.
B	The following updates are made in this revision: • The spare part numbers for the base, the swing and some of the sealings between the base and swing are updated. • Spare parts with food grade lubrication added. • Spare part numbers for several gaskets (IP67) updated.

Continues on next page

© Copyright 2014 - 2023 ABB. All rights reserved.

Continued

Revision	Description
C	Published in release R16.2. The following updates are done in this revision: • Spare part illustration updated, in *Spare parts - base on page 23*, *Spare parts - swing on page 26*, and *Spare parts - information labels on page 62*. • Spare parts that are affected by Axis Calibration and Foundry Plus are updated. • Spare part items that belong to the standard calibration method (Axis Calibration) added. See *Spare parts - Axis Calibration items on page 66*. • Protection plug for the calibration hole in the swing added, see *Spare parts - swing on page 26*.
D	Published in release R17.1. The following updates are done in this revision: • V-ring on axis-1 sealing ring version 3HAC058568-001 added as a spare part. • Notes added for spare part versions. See *Description of spare part versions on page 77*. • Spare part items that belong to SafeMove 2 added. • Spare part lists restructured based on options. • Plug on base added to options IP67 and Foundry Plus.
E	Published in release R18.1. The following updates are done in this revision: • Spare part number of axis-4 gearbox shaft changed from 3HAC049631-001 to 3HAC044692-001.
F	Published in release R18.2. The following updates are done in this revision: • Spare part information about axis-2 drive unit and axis-3 drive unit updated.
G	Published in release 19B. The following updates are made in this revision: • Minor editorial changes. • Figure of protection plug for busing, clean room and food grade lubrication updated.
H	Published in release 19D. The following updates are made in this revision: • Spare part version of axis-1 sealing ring updated. See *Spare part versions for the axis-1 sealing ring on IP40/IP67 robots on page 80*. • Compatibility between cable harness and axis-1 sealing ring added. See *Spare part versions for the axis-1 sealing ring on IP40/IP67 robots on page 80*.
J	Published in release 21C. The following updates are done in this revision: • Spare parts for the Hygienic option added. • Spare part numbers for several gaskets updated.
K	Published in release 22A. The following updates are done in this revision: • IRB 1200 Hygienic supported working with OmniCore C line controllers. See *Manipulator description on page 71*.
L	Published in release 22B. The following updates are done in this revision: • IRB 1200 Hygienic supported working with OmniCore E line controllers. See *Manipulator description on page 71*. • Updated spare part article numbers of main cable harnesses for IRB 1200 Type B.
M	Published in release 22C. The following updates are done in this revision: • Updated spare part article numbers for swing, axis-2 sealing ring and axis-3 sealing ring. • Added robot description for new appearance design.

Continues on next page

© Copyright 2014 - 2023 ABB. All rights reserved.

Revision	Description
N	Published in release 23B. The following updates are done in this revision: • Added spare part Swing bracket transfer 3HAC044925-001. • Updated spare part article numbers of gasket on process hub, gasket for tubular cover and gasket for tubular cable housing cover.
P	Published in release 23C. The following updates are done in this revision: • Updated the supported protection types for M2 variseal sealing used on the tubular because it is not used for IP40 robot.
Q	Published in release 23D. The following updates are done in this revision: • Added new robot variant IRB 1200-7/0.9.

© Copyright 2014 - 2023 ABB. All rights reserved.

Product documentation

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*.

Product manuals

Manipulators, controllers, DressPack, 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.
- Troubleshooting.
- 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.

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.

Continues on next page

© Copyright 2014 - 2023 ABB. All rights reserved.

- Examples of how to use the application.

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.

© Copyright 2014 - 2023 ABB. All rights reserved.

This page is intentionally left blank

1 Spare parts and exploded views

1.1 Spare parts - electrical parts

Manipulator cable harness

Spare part list - IRB 1200 (no type specified) and IRB 1200 Type A

	Spare part number	Description	Standard (IP40)	IP67	Foundry Plus	Clean Room	Food Grade lubrication	Hygienic
A	3HAC059673-001	Manipulator cable harness with Ethernet (rear interface)	X	X	X			
	3HAC059674-001	Manipulator cable harness without Ethernet (rear interface)	X	X	X			
	3HAC056219-001	Manipulator cable harness with Ethernet (rear interface), Clean Room Manipulator cable harness with Ethernet (rear interface), food grade lubrication				X	X	
	3HAC056220-001	Manipulator cable harness without Ethernet (rear interface), Clean Room Manipulator cable harness without Ethernet (rear interface), food grade lubrication				X	X	
B	3HAC051415-001	Manipulator cable harness with Ethernet (bottom interface)	X	X	X	X	X	
	3HAC051416-001	Manipulator cable harness without Ethernet (bottom interface)	X	X	X	X	X	

Continues on next page

© Copyright 2014 - 2023 ABB. All rights reserved.

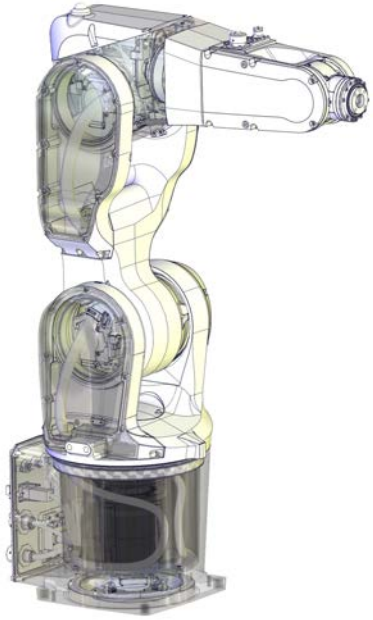
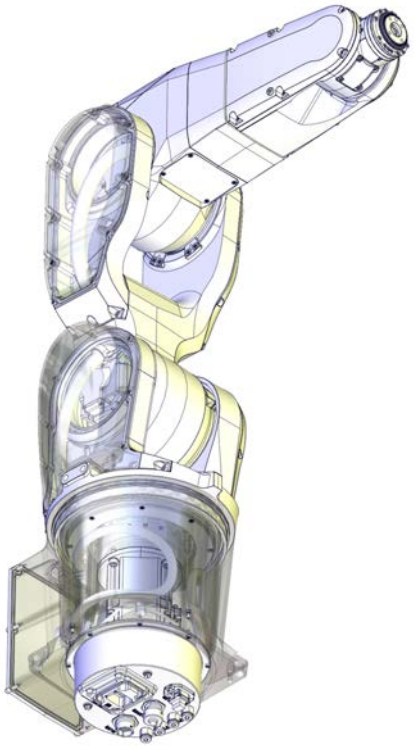
Spare part list - IRB 1200 Type B

	Spare part number	Description	Standard (IP40)	IP67	Foundry Plus	Clean Room	Food Grade lubrication	Hygienic
A	3HAC084083-001	Manipulator cable harness with Ethernet (rear interface), SafeMove 2-supported	X	X	X			
	3HAC084086-001	Manipulator cable harness without Ethernet (rear interface), SafeMove 2-supported	X	X	X			
	3HAC084084-001	Manipulator cable harness with Ethernet (rear interface), Clean Room and SafeMove 2-supported Manipulator cable harness with Ethernet (rear interface), food grade lubrication and SafeMove 2-supported Manipulator cable harness with Ethernet (rear interface), Hygienic				X	X	X
	3HAC084087-001	Manipulator cable harness without Ethernet (rear interface), Clean Room and SafeMove 2-supported Manipulator cable harness without Ethernet (rear interface), food grade lubrication and SafeMove 2-supported Manipulator cable harness without Ethernet (rear interface), Hygienic				X	X	X
B	3HAC0084082-001	Manipulator cable harness with Ethernet (bottom interface), SafeMove 2-supported Manipulator cable harness with Ethernet (bottom interface), Hygienic.	X	X	X	X	X	X
	3HAC084085-001	Manipulator cable harness without Ethernet (bottom interface), SafeMove 2-supported Manipulator cable harness without Ethernet (bottom interface), Hygienic.	X	X	X	X	X	X

Continues on next page

© Copyright 2014 - 2023 ABB. All rights reserved.

Spare part illustration

A: Manipulator harness with rear interface (standard)	B: Manipulator harness with bottom interface (option)
 xx1300002414	 xx1400000410

Manipulator cable harness parts

Spare part list

	Spare part number	Description	Note	Standard (IP40)	IP67	Foundry Plus	Clean Room	Food Grade lubrication	Hygienic
A	3HAC049664-001	Air connector set with Ethernet hole in flange	Includes tubular flange, air connectors and seal bolts. Replace if damaged.	X	X	X	X	X	
	3HAC049665-001	Air connector set without Ethernet hole in flange	Includes tubular flange, air connectors and seal bolts. Replace if damaged.	X	X	X	X	X	
B	3HAC080708-001	Gasket			X	X			
C	3HAC044906-001	One-way valve			X	X	X	X	X
D	3HAC049667-001	Base bottom cover (standard configuration)		X	X	X	X	X	X
E	3HAC058566-001 / 3HAC080710-001 i	Gasket for rear base cover			X	X	X	X	X
F	3HAC082235-001	FPC unit, axis 4		X	X	X	X	X	X

Continues on next page

© Copyright 2014 - 2023 ABB. All rights reserved.

1.1 Spare parts - electrical parts

Continued

	Spare part number	Description	Note	Standard (IP40)	IP67	Foundry Plus	Clean Room	Food Grade lubrication	Hygienic
G	3HAC045743-001	FPC unit, axis 5		X	X	X	X	X	X
H	3HAC059675-001	Base rear cover, without connector interface		X	X	X			
	3HAC056147-001	Base rear cover, without connector interface, Clean Room Base rear cover, without connector interface, food grade lubrication Base rear cover, without connector interface, Hygienic					X	X	X
J	3HEA800897-002	Dust cap		X	X	X	X	X	X
K	3HAC047543-001	M12 protector		X	X	X	X	X	
L	3HAC058350-001	Protection bracket for CP/CS connectors				X			
M	3HAC079691-001	Plate with connector set	Used with protection type Hygienic. Includes Ethernet connector, air connectors, CP/CS connector and gasket (3HAC078804-001).						X
N	3HAC078804-001	Gasket							X
P	3HAC078810-001	Plate without connector set	Used with protection type Hygienic. Includes gasket (3HAC078804-001).						X
-	3HAC049663-001	Cable harness material set	Includes brackets, sheets, distance screws, plastics, cable clamp, seal bolts and air protection in tubular.	X	X	X	X	X	X
-	3HAC032296-001	Cable harness CP/CS		X	X	X	X	X	X
-	3HAC037038-001	R1.CP/CS connector set		X	X	X	X	X	X
-	3HAC037070-001	R3.CP/CS connector set		X	X	X	X	X	X
-	3HAB3772-141	O-ring		X	X	X	X	X	X
-	3HAC047542-001	M12 plug (CP/CS)		X	X	X	X	X	X
-	3HAC047538-001	RJ 45 plug (CP/CS)		X	X	X	X	X	X
-	3HAC047540-001	Ethernet cable harness for upper arm		X	X	X	X	X	X
-	3HAB3772-19	O-ring		X	X	X	X	X	X

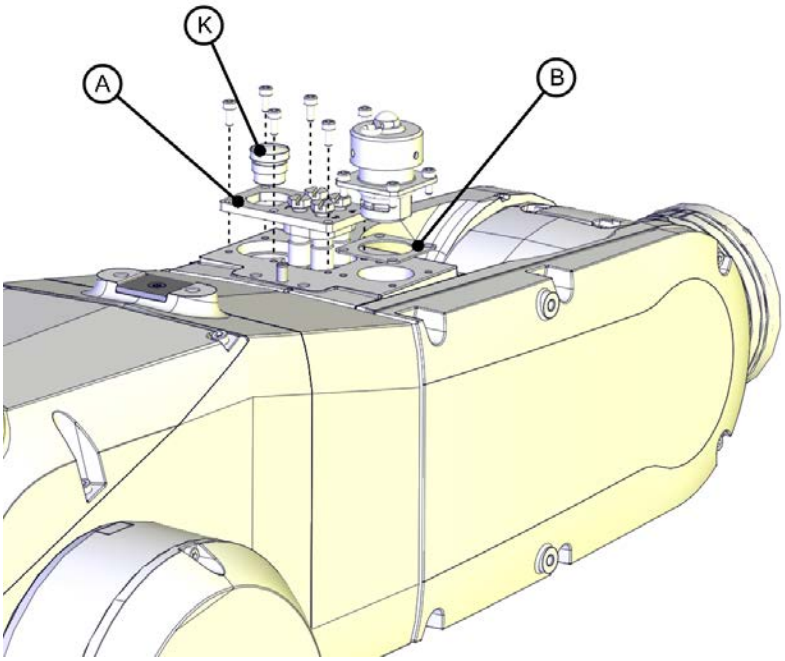
i For robots with protection class IP67, with protection types Foundry Plus and Clean Room, and with food grade lubration, order with the number 3HAC058566-001.

For robots with protection type Hygienic, order with the number 3HAC080710-001.

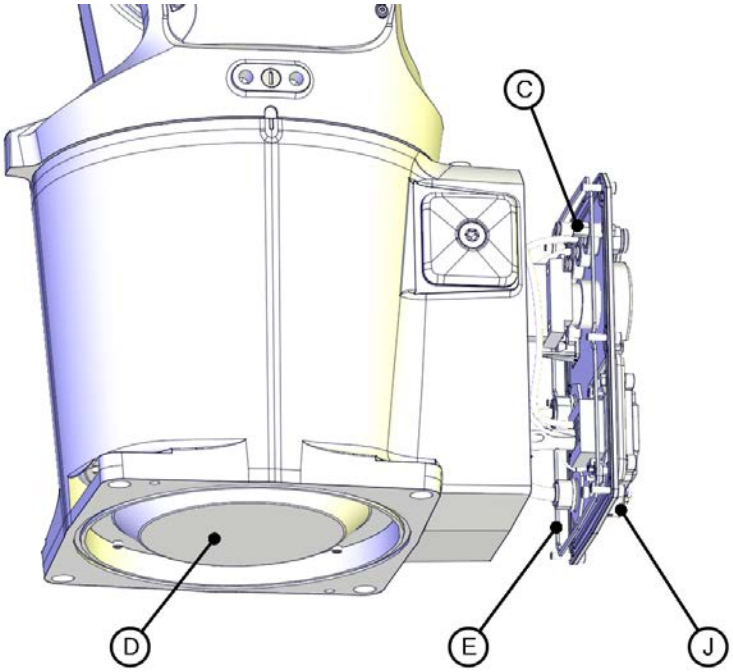
Continues on next page

© Copyright 2014 - 2023 ABB. All rights reserved.

Spare part illustration



xx1400000653



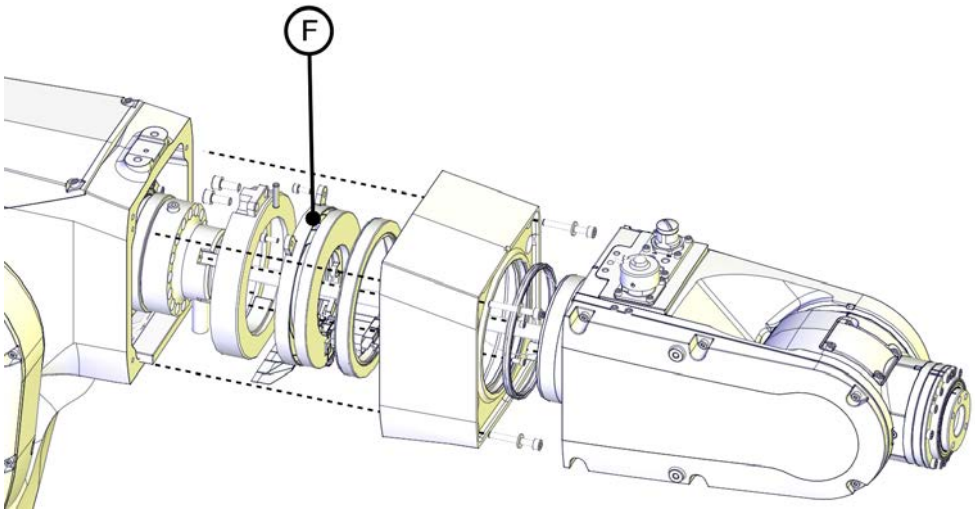
xx1400000675

Continues on next page

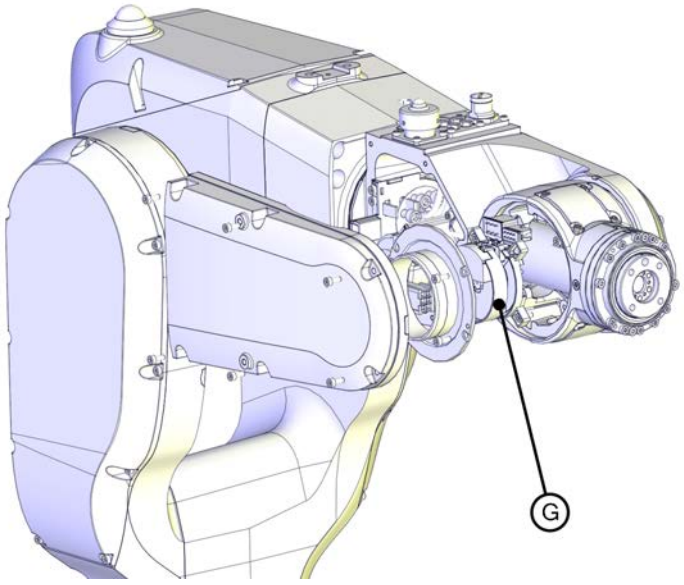
© Copyright 2014 - 2023 ABB. All rights reserved.

1.1 Spare parts - electrical parts

Continued



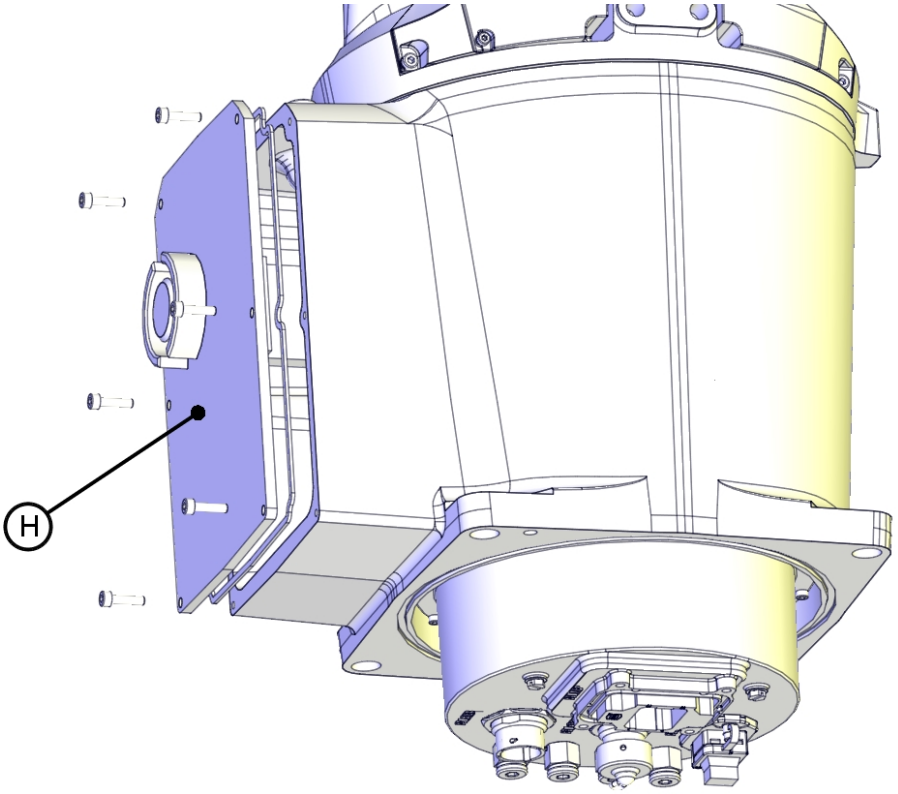
xx1400000824



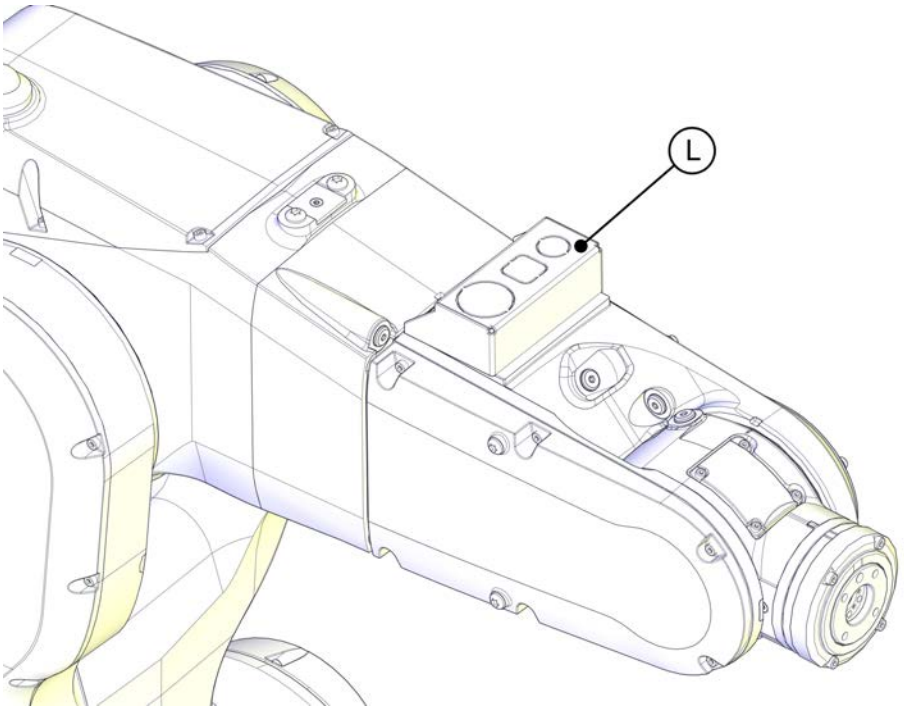
xx1400000830

Continues on next page

© Copyright 2014 - 2023 ABB. All rights reserved.



xx1400000832



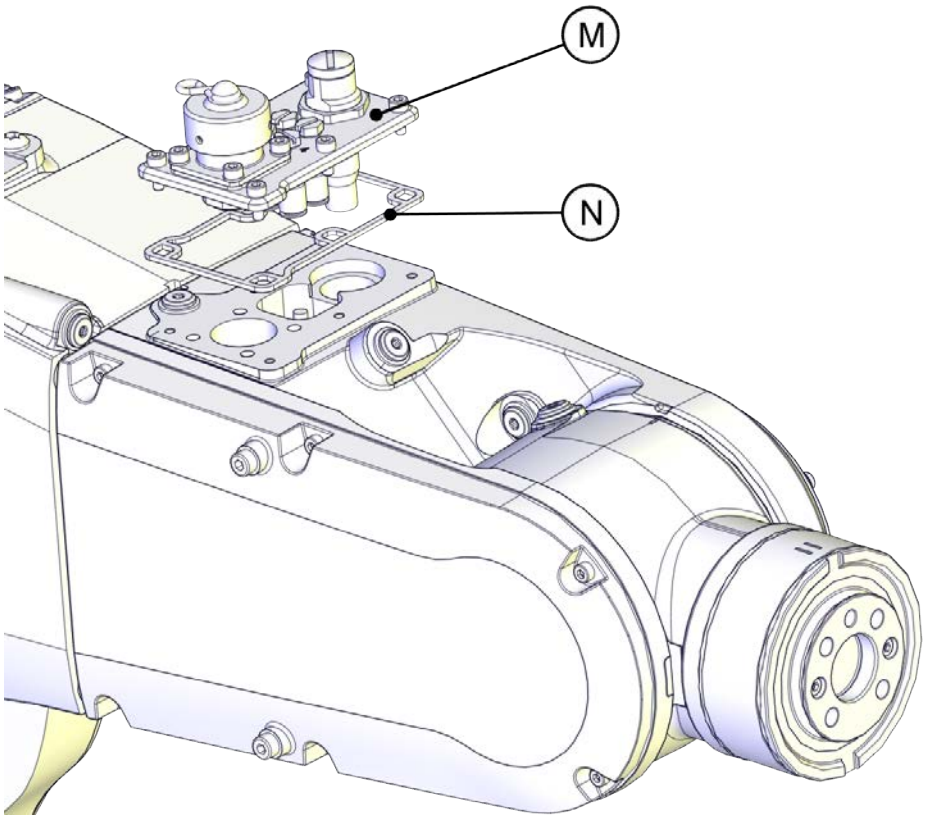
xx1600001040

Continues on next page

© Copyright 2014 - 2023 ABB. All rights reserved.

1.1 Spare parts - electrical parts

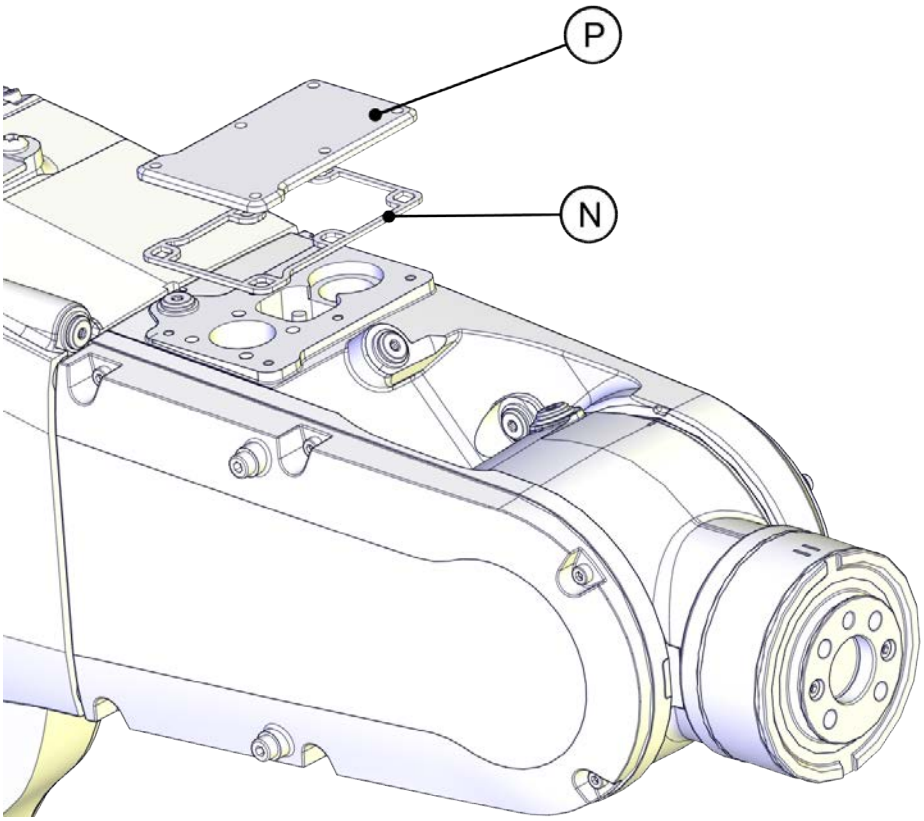
Continued



xx2100001152

Continues on next page

© Copyright 2014 - 2023 ABB. All rights reserved.



xx2100001153

EIB unit parts - IRB 1200 (no type specified) and IRB 1200 Type A

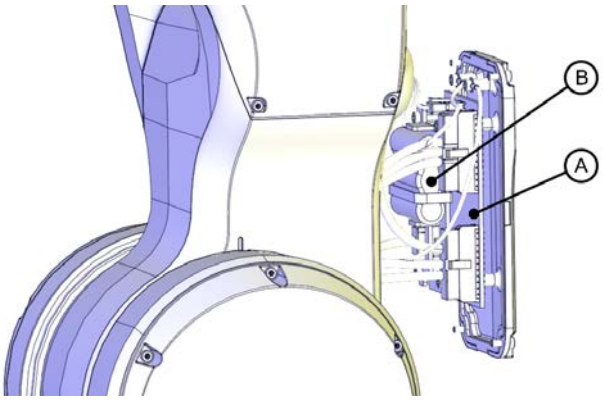
Spare part list

	Spare part number	Description	Note	Standard (IP40)	IP67	Foundry Plus	Clean Room	Food Grade lubrication	Hygienic
A	3HAC045759-001	EIB unit		X	X	X	X	X	
B	3HAC051036-001	Battery pack	Battery includes protection circuits. Only replace with a specified spare part or an ABB-approved equivalent.	X	X	X	X	X	

Continues on next page

© Copyright 2014 - 2023 ABB. All rights reserved.

Spare part illustration



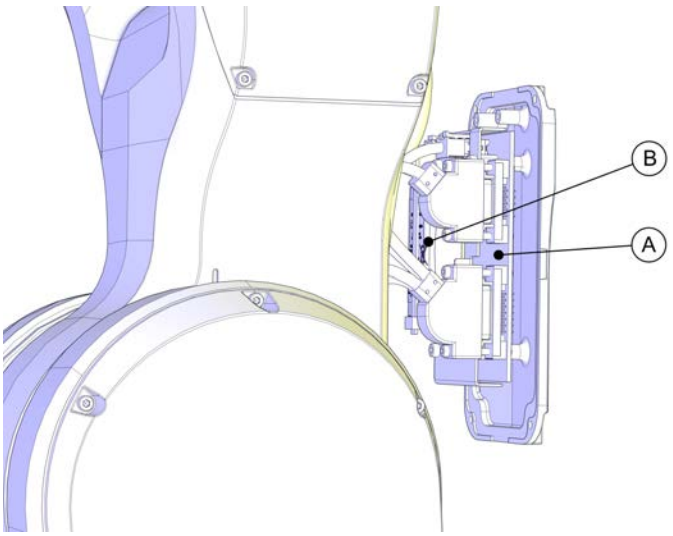
xx1400000676

SMB unit parts - IRB 1200 Type B

Spare part list

	Spare part number	Description	Note	Standard (IP40)	IP67	Foundry Plus	Clean Room	Food Grade lubrication	Hygienic
A	3HAC059122-001	SMB unit		X	X	X	X	X	X
B	3HAC044075-001	Battery pack, SafeMove 2-supported Battery pack, Hygienic	Used for IRB 1200 Type B. See *Type B of IRB 1200 on page 76*. For robots with protection type Hygienic Battery includes protection circuits. Only replace with a specified spare part or an ABB-approved equivalent.	X	X	X	X	X	X

Spare part illustration



xx1600002099

© Copyright 2014 - 2023 ABB. All rights reserved.

1.2 Spare parts - base

Base

Spare part list - IRB 1200 (no type specified) and IRB 1200 Type A

The base spare part for IRB 1200 (no type specified) and IRB 1200 Type A includes base machining, axis-1 gear unit and axis-1 AC motor with encoder interface.

	Spare part number	Description	Standard (IP40)	IP67	Foundry Plus	Clean Room	Food Grade lubrication	Hygienic
A	3HAC059553-001	Base[i]	X	X	X			
	3HAC059699-001	Base, Clean Room				X		
	3HAC057906-001	Base, food grade lubrication					X	

[i] Incompatible with swing 3HAC049632-001. See *Spare part versions for the base on IP40/IP67 robots on page 77*.

Spare part list - IRB 1200 Type B

The base spare part for IRB 1200 Type B includes base machining, axis-1 gear unit and axis-1 AC motor with resolver interface.

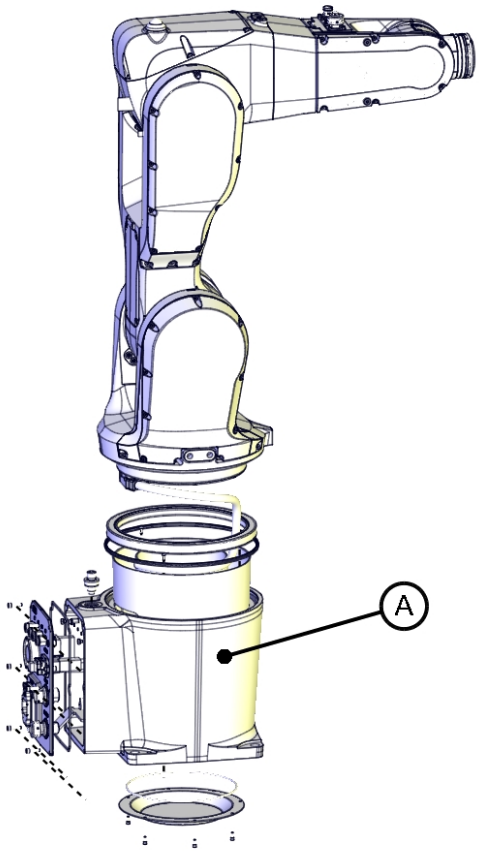
	Spare part number	Description	Standard (IP40)	IP67	Foundry Plus	Clean Room	Food Grade lubrication	Hygienic
A	3HAC061270-001	Base, SafeMove 2-supported	X	X	X			
	3HAC061271-001	Base, Clean Room and SafeMove 2-supported				X		
	3HAC061272-001	Base, food grade lubrication and Safe-Move 2-supported Base, Hygienic					X	X

Continues on next page

© Copyright 2014 - 2023 ABB. All rights reserved.

1.2 Spare parts - base
Continued

Spare part illustration



xx1400000654

Base parts

Spare part list

	Spare part number	Description	Note	Standard (IP40)	IP67	Foundry Plus	Clean Room	Food Grade lubrication	Hygienic
A	3HAB3701-47	Radial sealing with dust lip			X	X	X	X	X
-	3HAC044641-002	M2 variseal sealing	Used with protection class IP67. Used only on base 3HAC049628-001. See *Spare part versions for the base on IP40/IP67 robots on page 77*. Replace if damaged.		X				
C	3HAC044690-001	Cable protection sleeve inside base		X	X	X	X	X	X
D	3HAB3772-86	O-ring			X	X	X	X	X
E	3HAC049667-001	Base bottom cover (standard configuration)		X	X	X	X	X	X

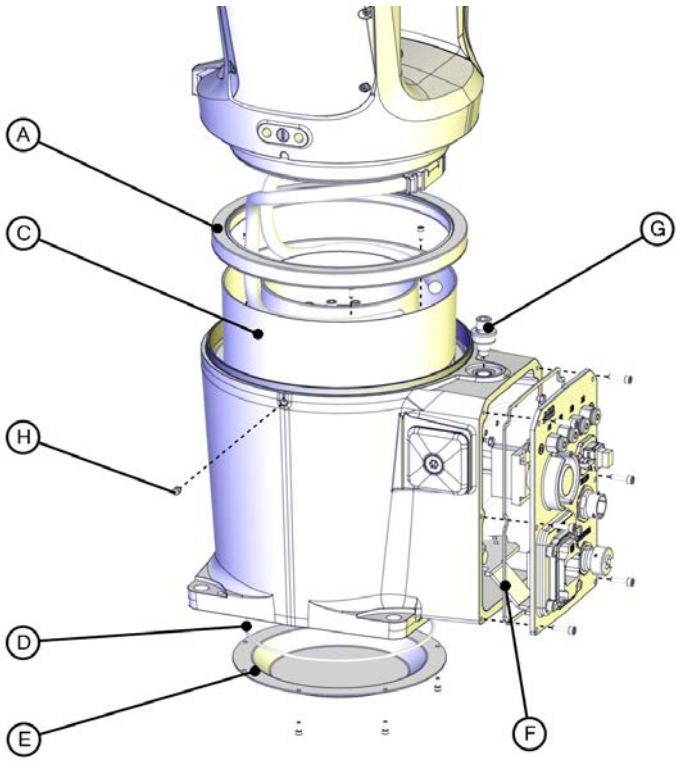
Continues on next page

© Copyright 2014 - 2023 ABB. All rights reserved.

	Spare part number	Description	Note	Standard (IP40)	IP67	Foundry Plus	Clean Room	Food Grade lubrication	Hygienic
-	3HAC059675-001	Base rear cover, without connector interface		X	X	X			
	3HAC056147-001	Base rear cover, without connector interface, Clean Room Base rear cover, without connector interface, food grade lubrication Base rear cover, without connector interface, Hygienic					X	X	X
F	3HAC058566-001 / 3HAC080710-001 [i]	Gasket for rear base cover			X	X	X	X	X
G	3HAC049630-001	Mechanical stop set, axis 1		X	X	X	X	X	X
H	3HAC056483-001	Plug		X	X	X	X	X	X

[i] For robots with protection class IP67, with protection types Foundry Plus and Clean Room, and with food grade lubration, order with the number 3HAC058566-001.
For robots with protection type Hygienic, order with the number 3HAC080710-001.

Spare part illustration



xx1400000655

© Copyright 2014 - 2023 ABB. All rights reserved.

1.3 Spare parts - swing

Swing

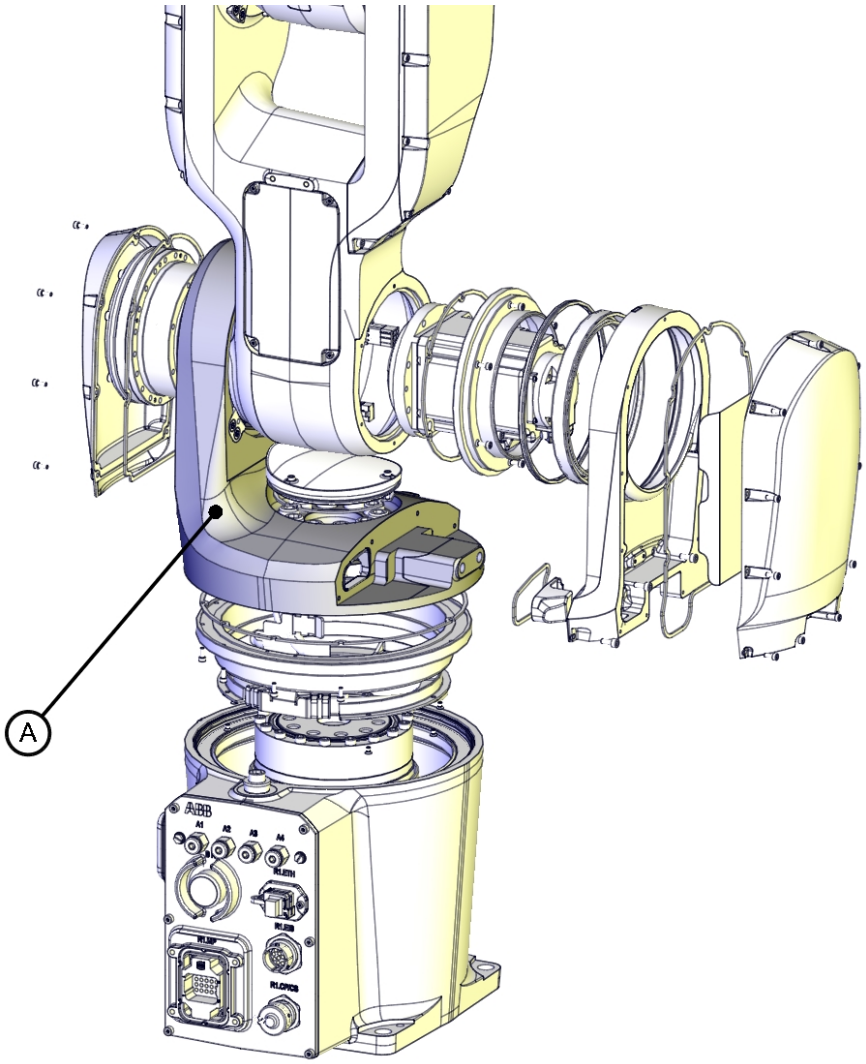
Spare part list

	Spare part number	Description	Note	Standard (IP40)	IP67	Foundry Plus	Clean Room	Food Grade lubrication	Hygienic
A	3HAC059554-001	Swing	Used with protection classes IP40, IP67 and protection type Foundry Plus. If the swing 3HAC049632-001 or 3HAC058000-001 is previously installed on the robot, also a new sealing ring and, for IP67 and Foundry Plus, a gasket and a V-ring is required. See *Spare part versions for the swing on IP40/IP67 robots on page 78*.	X	X	X			
	3HAC082506-001	Swing	Used with protection classes IP40, IP67 and protection type Foundry Plus. Swing 3HAC082506-001 is valid for robots with axis calibration. See *Appearance description on page 71* for its difference with swing 3HAC059554-001.	X	X	X			
	3HAC059700-001	Swing, Clean Room Swing, food grade lubrication Swing, Hygienic					X	X	X

Continues on next page

© Copyright 2014 - 2023 ABB. All rights reserved.

Spare part illustration



xx1400000821

Swing parts

Spare part list

	Spare part number	Description	Note	Standard (IP40)	IP67	Foundry Plus	Clean Room	Food Grade lubrication	Hygienic
A	3HAC059676-001	Swing cover		X	X	X			
	3HAC056215-001	Swing cover, Clean Room Swing cover, food grade lubrication Swing cover, Hygienic					X	X	X
B	3HAC056727-001 / 3HAC080705-001 i	Gasket on swing cover			X	X	X	X	X

Continues on next page

© Copyright 2014 - 2023 ABB. All rights reserved.

1.3 Spare parts - swing
Continued

	Spare part number	Description	Note	Standard (IP40)	IP67	Foundry Plus	Clean Room	Food Grade lubrication	Hygienic
D	3HAC045688-001 / 3HAC080697-001 [ii]	Gasket of axis-2 sealing ring			X	X	X	X	X
E	3HAC081398-001	Axis-2 sealing ring		X					
	3HAC044677-001	Axis-2 sealing ring			X	X	X	X	X
F	3HAC044641-004	M2 variseal sealing			X	X			
G	3HAB3701-41	Radial sealing with dust lip			X	X	X	X	X
H	3HAC059677-001	Cable housing of the swing		X	X	X			
	3HAC056213-001	Cable housing of the swing, Clean Room Cable housing of the swing, food grade lubrication Cable housing of the swing, Hygienic					X	X	X
J	3HAC056726-001 / 3HAC080704-001 [iii]	Gasket on cable housing cover			X	X	X	X	X
K	3HAC044660-001	PTFE film on cable housing cover		X	X	X	X	X	X
L	3HAC059678-001	Cable housing cover of the swing		X	X	X			
	3HAC056214-001	Cable housing cover of the swing, Clean Room Cable housing cover of the swing, food grade lubrication Cable housing cover of the swing, Hygienic					X	X	X
M	3HAC044894-001 / 3HAC080695-001 [iv]	Gasket of plastic plate			X	X	X	X	X
N	Included in Cable harness material set: 3HAC049663-001	Plastic cable protection plate		X	X	X	X	X	X
O	3HAC059679-001	Cover on top of swing		X	X	X			
	3HAC056133-001	Cover on top of swing, Clean Room Cover on top of swing, food grade lubrication Cover on top of swing, Hygienic					X	X	X
P	3HAC056696-001 / 3HAC080698-001 [v]	Gasket on top swing cover			X	X	X	X	X
Q	3HAC044925-001	Cable bracket on swing		X	X	X	X	X	X

Continues on next page

© Copyright 2014 - 2023 ABB. All rights reserved.

	Spare part number	Description	Note	Standard (IP40) IP67	Foundry Plus	Clean Room	Food Grade lubrication	Hygienic
-	3HAC045685-001	Axis-1 sealing ring gasket	Used with protection class IP67. Only on axis-1 sealing ring version 3HAC044676-001. See *Spare part versions for the axis-1 sealing ring on IP40/IP67 robots on page 80*. Replace if damaged.		X				
	3HAC058349-001 / 3HAC080707-001 [vi]	Axis-1 sealing ring gasket	Not used with protection class IP40. Only on axis-1 sealing ring version 3HAC058568-001 or 3HAC068107-001. See *Spare part versions for the axis-1 sealing ring on IP40/IP67 robots on page 80*. Replace if damaged.		X	X	X	X	X
R	3HAC044676-001 / 3HAC068107-001 [vii]	Axis-1 sealing ring		X	X	X	X	X	X
	3HAC059791-001	Sealing ring, gasket and V-ring			X				
-	3HAB3732-34	V-ring	Used with protection class IP67. Used with protection type Foundry Plus. Only on swing version 3HAC058000-001, 3HAC059554-001 and 3HAC082506-001. See *Spare part versions for the swing on IP40/IP67 robots on page 78*. Replace if damaged.		X	X			
S	3HAC044691-001	Cable protection		X	X	X	X	X	X
T	3HAC044641-003	M2 variseal sealing			X	X			
U	3HAC053687-001	Swing sealing plug					X	X	X
V	3HAC4836-24	Protection plug for lifting holes				X			
W	3HAC051199-001	Protection plug	Protection plug for the calibration hole in the swing (the hole is used during calibration of axis 1 with the manual calibration method). Replace if damaged.	X	X	X	X	X	X

i For robots with protection class IP67, with protection types Foundry Plus and Clean Room, and with food grade lubration, order with the number 3HAC056727-001.
For robots with protection type Hygienic, order with the number 3HAC080705-001.

ii For robots with protection class IP67, with protection types Foundry Plus and Clean Room, and with food grade lubration, order with the number 3HAC045688-001.
For robots with protection type Hygienic, order with the number 3HAC080697-001.

Continues on next page

© Copyright 2014 - 2023 ABB. All rights reserved.

iii For robots with protection class IP67, with protection types Foundry Plus and Clean Room, and with food grade lubration, order with the number 3HAC056726-001.
For robots with protection type Hygienic, order with the number 3HAC080704-001.

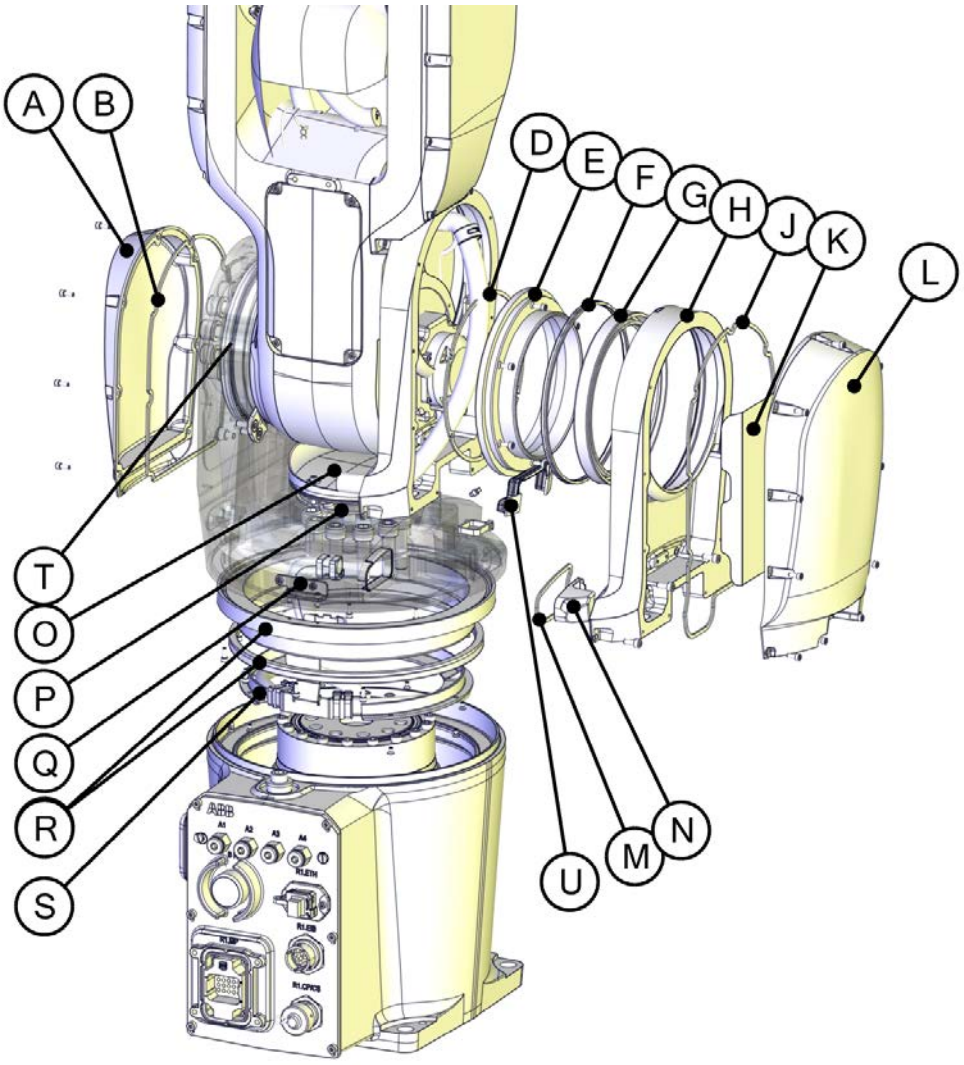
iv For robots with protection class IP67, with protection types Foundry Plus and Clean Room, and with food grade lubration, order with the number 3HAC044894-001.
For robots with protection type Hygienic, order with the number 3HAC080695-001.

v For robots with protection class IP67, with protection types Foundry Plus and Clean Room, and with food grade lubration, order with the number 3HAC056696-001.
For robots with protection type Hygienic, order with the number 3HAC080698-001.

vi For robots with protection class IP67, with protection types Foundry Plus and Clean Room, and with food grade lubration, order with the number 3HAC058349-001.
For robots with protection type Hygienic, order with the number 3HAC080707-001.

vii For information on which sealing ring to be ordered, see *Spare part versions for the axis-1 sealing ring on IP40/IP67 robots on page 80*.

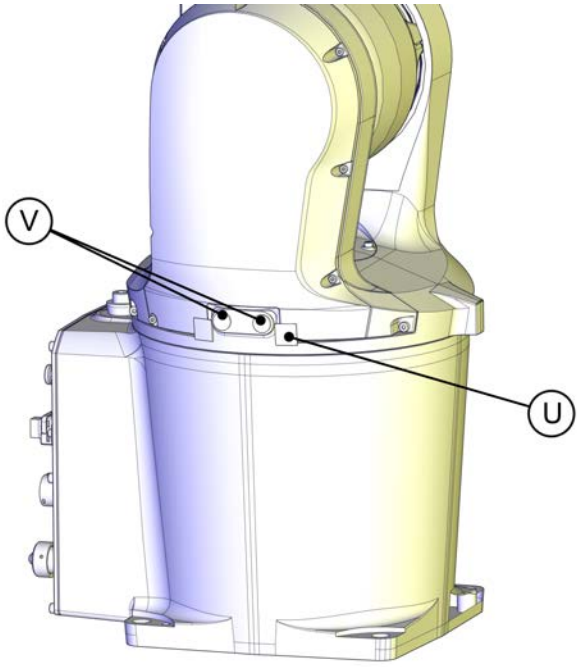
Spare part illustration



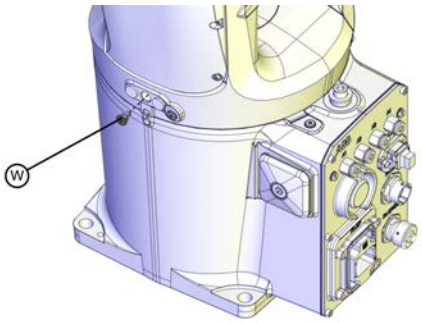
xx1400000656

Continues on next page

© Copyright 2014 - 2023 ABB. All rights reserved.



xx1600000270



xx1600001281

© Copyright 2014 - 2023 ABB. All rights reserved.

1.4 Spare parts - housing

Housing

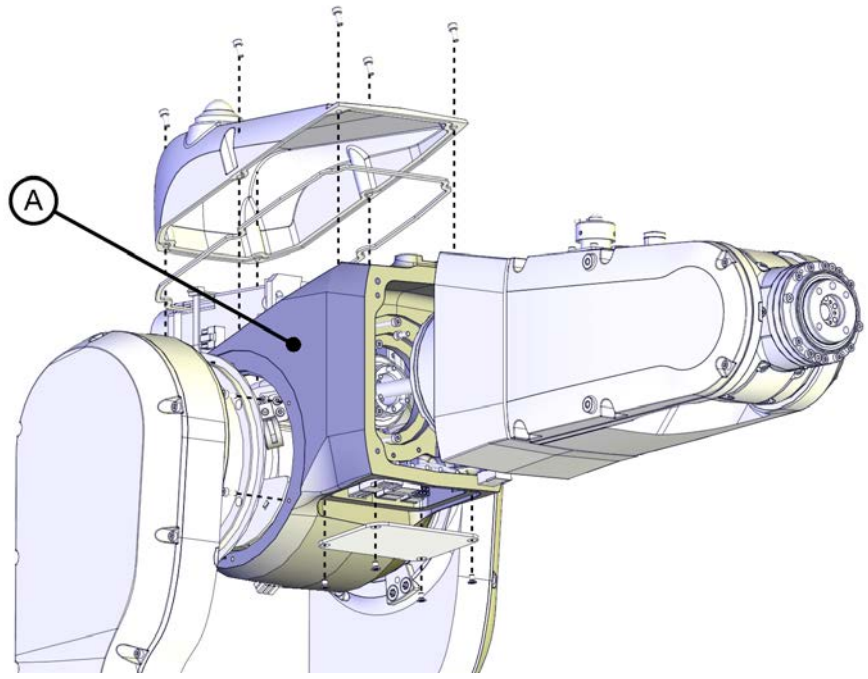
Spare part list

	Spare part number	Description	Standard (IP40)	IP67	Foundry Plus	Clean Room	Food Grade lubrication	Hygienic
A	3HAC059680-001 / 3HAC059721-001 [i]	Housing (IRB 1200-7/0.7)	X	X	X			
	3HAC059681-001 / 3HAC059722-001 [ii]	Housing (IRB 1200-5/0.9 and IRB 1200-7/0.9)	X	X	X			
	3HAC059701-001	Housing, Clean Room (IRB 1200-7/0.7) Housing, food grade lubrication (IRB 1200-7/0.7) Housing, Hygienic (IRB 1200-7/0.7)				X	X	X
	3HAC059702-001	Housing, Clean Room (IRB 1200-5/0.9 and IRB 1200-7/0.9) Housing, food grade lubrication (IRB 1200-5/0.9) Housing, Hygienic (IRB 1200-5/0.9)				X	X	X

i For information on which housing (IRB 1200-7/0.7) to be ordered, see *Spare part versions for the housing on Type A robots on page 82*.

ii For information on which housing to be ordered, see *Spare part versions for the housing on Type A robots on page 82*.

Spare part illustration



xx1400000823

Continues on next page

© Copyright 2014 - 2023 ABB. All rights reserved.

Housing parts

Spare part list

	Spare part number	Description	Standard (IP40)	IP67	Foundry Plus	Clean Room	Food Grade lubrication	Hygienic
A	3HAC081399-001	Axis-3 sealing ring	X					
	3HAC044678-001	Axis-3 sealing ring		X	X	X	X	X
B	3HAC059682-001	Housing cover (IRB 1200-7/0.7)	X	X	X			
	3HAC059683-001	Housing cover (IRB 1200-5/0.9 and IRB 1200-7/0.9)	X	X	X			
	3HAC056141-001	Housing cover, Clean Room (IRB 1200-7/0.7) Housing cover, food grade lubrication (IRB 1200-7/0.7) Housing cover, Hygienic (IRB 1200-7/0.7)				X	X	X
	3HAC056140-001	Housing cover, Clean Room (IRB 1200-5/0.9 and IRB 1200-7/0.9) Housing cover, food grade lubrication (IRB 1200-5/0.9) Housing cover, Hygienic (IRB 1200-5/0.9)				X	X	X
C	3HAC056698-001 / 3HAC080700-001 [i]	Housing cover gasket (IRB 1200-7/0.7)		X	X	X	X	X
	3HAC056697-001 / 3HAC080699-001 [ii]	Housing cover gasket (IRB 1200-5/0.9 and IRB 1200-7/0.9)		X	X	X	X	X
D	3HAC059684-001	Housing small cover	X	X	X			
	3HAC056142-001	Housing small cover, Clean Room Housing small cover, food grade lubrication Housing small cover, Hygienic				X	X	X

[i] For robots with protection class IP67, with protection types Foundry Plus and Clean Room, and with food grade lubration, order with the number 3HAC056698-001.
For robots with protection type Hygienic, order with the number 3HAC080700-001.

[ii] For robots with protection class IP67, with protection types Foundry Plus and Clean Room, and with food grade lubration, order with the number 3HAC056697-001.
For robots with protection type Hygienic, order with the number 3HAC080699-001.

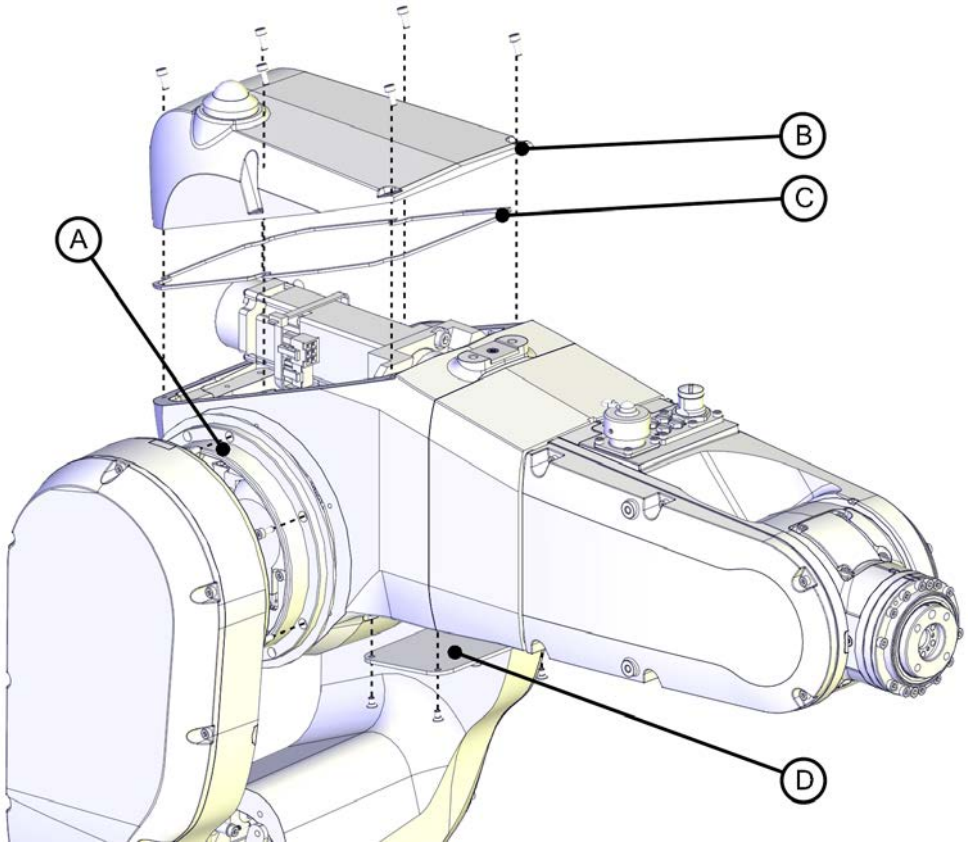
Continues on next page

© Copyright 2014 - 2023 ABB. All rights reserved.

1.4 Spare parts - housing

Continued

Spare part illustration



xx1400000657

© Copyright 2014 - 2023 ABB. All rights reserved.

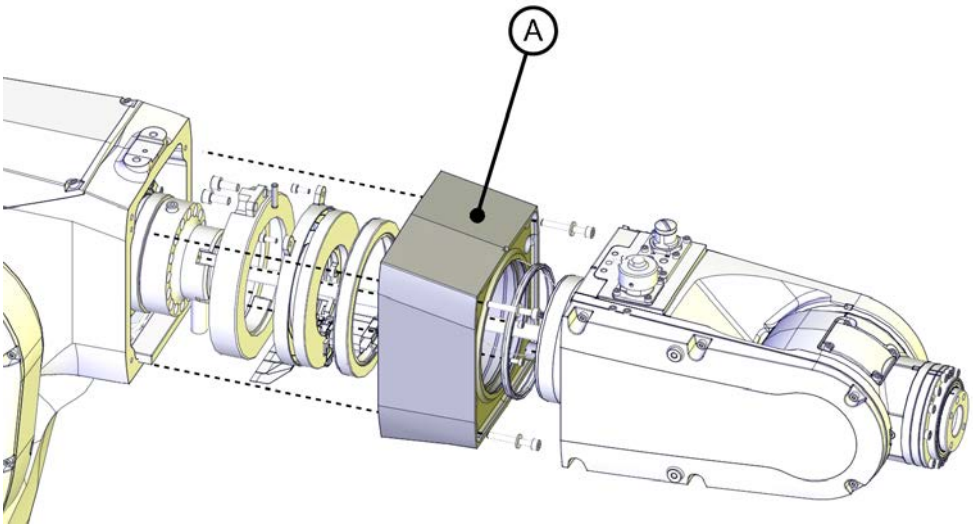
1.5 Spare parts - housing extender unit

Housing extender unit

Spare part list

	Spare part number	Description	Standard (IP40)	IP67	Foundry Plus	Clean Room	Food Grade lubrication	Hygienic
A	3HAC059686-001	Housing extender unit	X	X	X			
	3HAC059703-001	Housing extender unit, Clean Room Housing extender unit, food grade lubrication Housing extender unit, Hygienic				X	X	X

Spare part illustration



xx1400000825

Housing extender unit parts

Spare part list

	Spare part number	Description	Standard (IP40)	IP67	Foundry Plus	Clean Room	Food Grade lubrication	Hygienic
A	3HAC049652-001	Mechanical stop set	X	X	X	X	X	X
B	3HAC082235-001	FPC unit, axis 4	X	X	X	X	X	X
C	3HAB3701-48	Radial sealing with dust lip		X	X	X	X	X
D	3HAC044641-007	M2 variseal sealing		X	X			
E	3HAC053685-001	Screw sealing plug			X	X	X	X

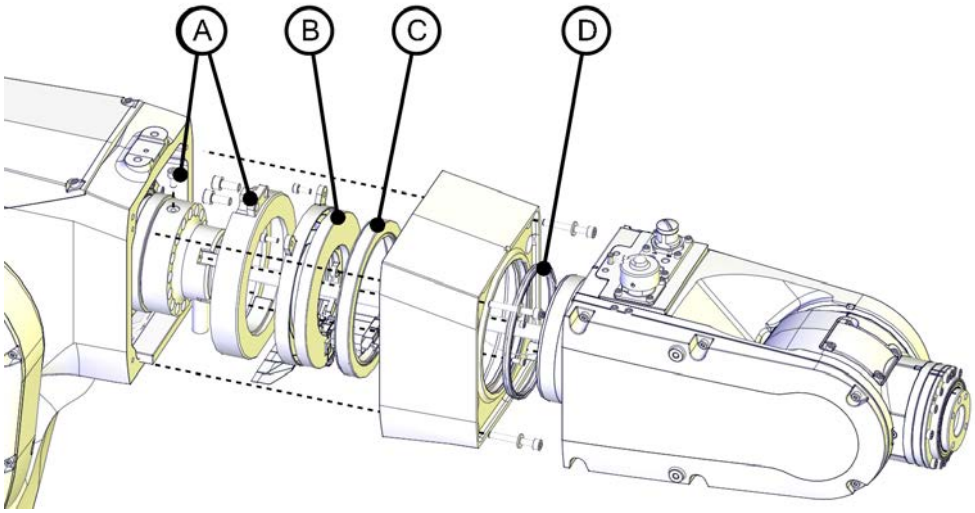
Continues on next page

© Copyright 2014 - 2023 ABB. All rights reserved.

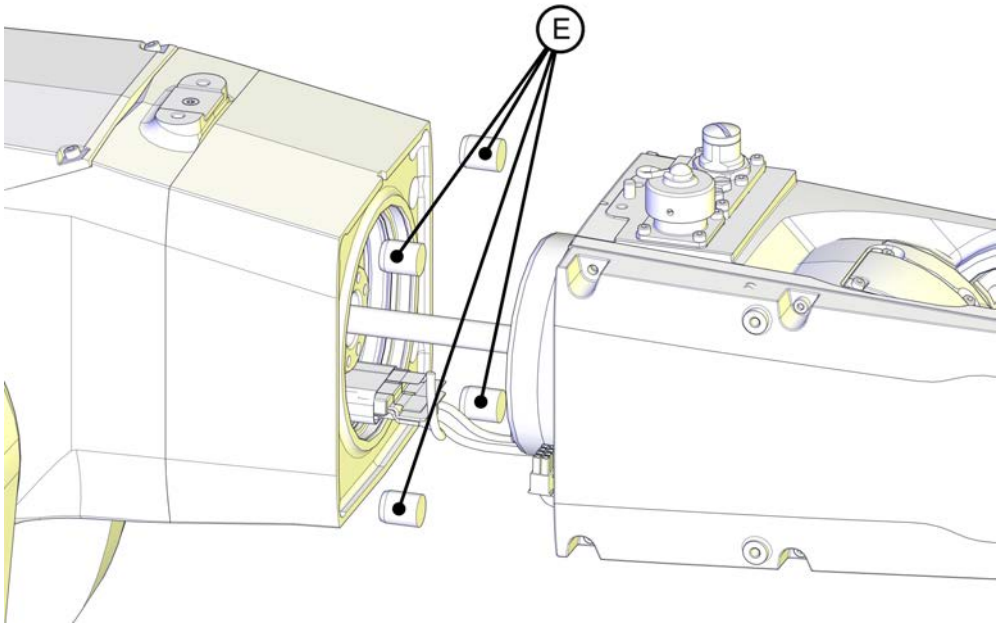
1.5 Spare parts - housing extender unit

Continued

Spare part illustration



xx1400000658



xx1600000271

© Copyright 2014 - 2023 ABB. All rights reserved.

1.6 Spare parts - lower arm

Lower arm

Spare part list

The lower arm spare part includes a guide pin.

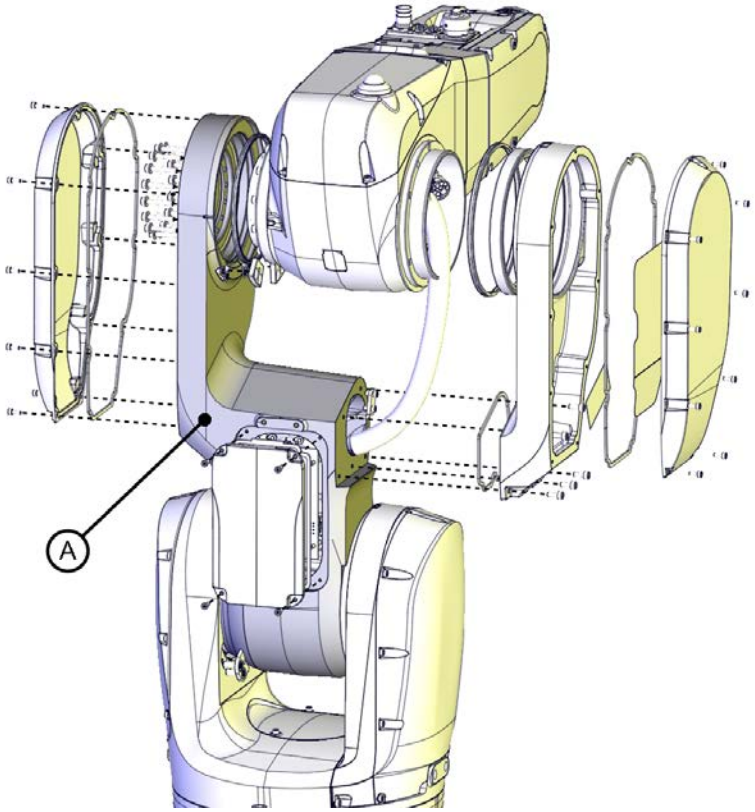
	Spare part number	Description	Standard (IP40)	IP67	Foundry Plus	Clean Room	Food Grade lubrication	Hygienic
A	3HAC059687-001	Lower arm (IRB 1200-7/0.7)	X	X	X			
	3HAC059688-001	Lower arm (IRB 1200-5/0.9 and IRB 1200-7/0.9)	X	X	X			
	3HAC059704-001	Lower arm, Clean Room (IRB 1200-7/0.7) Lower arm, food grade lubrication (IRB 1200-7/0.7) Lower arm, Hygienic (IRB 1200-7/0.7)				X	X	X
	3HAC059705-001	Lower arm, Clean Room (IRB 1200-5/0.9 and IRB 1200-7/0.9) Lower arm, food grade lubrication (IRB 1200-5/0.9) Lower arm, Hygienic (IRB 1200-5/0.9)				X	X	X

Continues on next page

© Copyright 2014 - 2023 ABB. All rights reserved.

1.6 Spare parts - lower arm
Continued

Spare part illustration



xx1400000826

Lower arm parts

Spare part list

	Spare part number	Description	Standard (IP40)	IP67	Foundry Plus	Clean Room	Food Grade lubrication	Hygienic
A	3HAC059689-001	Lower arm cover	X	X	X			
	3HAC056136-001	Lower arm cover, Clean Room Lower arm cover, food grade lubrication Lower arm cover, Hygienic				X	X	X
B	3HAC056725-001 / 3HAC080703-001 i	Gasket on lower arm cover		X	X	X	X	X
C	3HAC044641-005	M2 variseal sealing		X	X			
D	3HAC044641-006	M2 variseal sealing		X	X			
E	3HAC024865-001	Radial sealing		X	X	X	X	X

Continues on next page

© Copyright 2014 - 2023 ABB. All rights reserved.

	Spare part number	Description	Standard (IP40)	IP67	Foundry Plus	Clean Room	Food Grade lubrication	Hygienic
F	3HAC059690-001	Cable housing of the lower arm	X	X	X			
	3HAC056135-001	Cable housing of the lower arm, Clean Room Cable housing of the lower arm, food grade lubrication Cable housing of the lower arm, Hygienic				X	X	X
G	3HAC056724-001 / 3HAC080702-001 [ii]	Gasket on cable housing cover		X	X	X	X	X
H	3HAC059691-001	Cable housing cover of the lower arm	X	X	X			
	3HAC056217-001	Cable housing cover of the lower arm, Clean Room Cable housing cover of the lower arm, food grade lubrication Cable housing cover of the lower arm, Hygienic				X	X	X
J	3HAC049644-001	Mechanical stop set, axis 3	X	X	X	X	X	X
K	3HAC044895-001 / 3HAC080696-001 [iii]	Gasket on lower arm cable housing		X	X	X	X	X
L	3HAC044710-001	PTFE film on lower arm cable housing	X	X	X	X	X	X
M	3HAC044660-001	PTFE film on cable housing cover	X	X	X	X	X	X
N	3HAC056728-001 / 3HAC080706-001 [iv]	Gasket on EIB/SMB cover		X	X	X	X	X
O	3HAC059692-001	EIB/SMB cover	X	X	X			
	3HAC056137-001	EIB/SMB cover, Clean Room EIB/SMB cover, food grade lubrication EIB/SMB cover, Hygienic				X	X	X
P	3HAC049637-001	Mechanical stop set, axis 2	X	X	X	X	X	X

[i] For robots with protection class IP67, with protection types Foundry Plus and Clean Room, and with food grade lubration, order with the number 3HAC056725-001.
For robots with protection type Hygienic, order with the number 3HAC080703-001.

[ii] For robots with protection class IP67, with protection types Foundry Plus and Clean Room, and with food grade lubration, order with the number 3HAC056724-001.
For robots with protection type Hygienic, order with the number 3HAC080702-001.

[iii] For robots with protection class IP67, with protection types Foundry Plus and Clean Room, and with food grade lubration, order with the number 3HAC044895-001.
For robots with protection type Hygienic, order with the number 3HAC080696-001.

[iv] For robots with protection class IP67, with protection types Foundry Plus and Clean Room, and with food grade lubration, order with the number 3HAC056728-001.
For robots with protection type Hygienic, order with the number 3HAC080706-001.

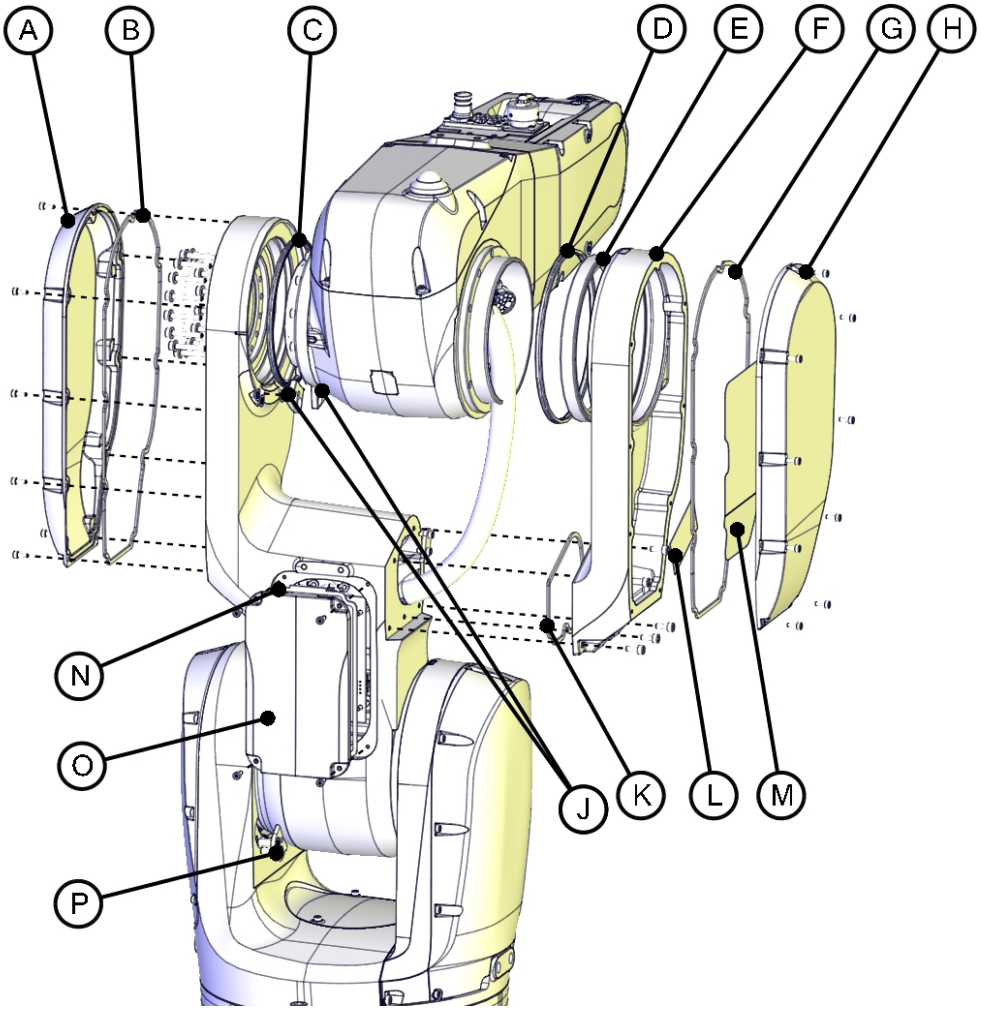
Continues on next page

© Copyright 2014 - 2023 ABB. All rights reserved.

1.6 Spare parts - lower arm

Continued

Spare part illustration



xx1400000659

© Copyright 2014 - 2023 ABB. All rights reserved.

1.7 Spare parts - tubular

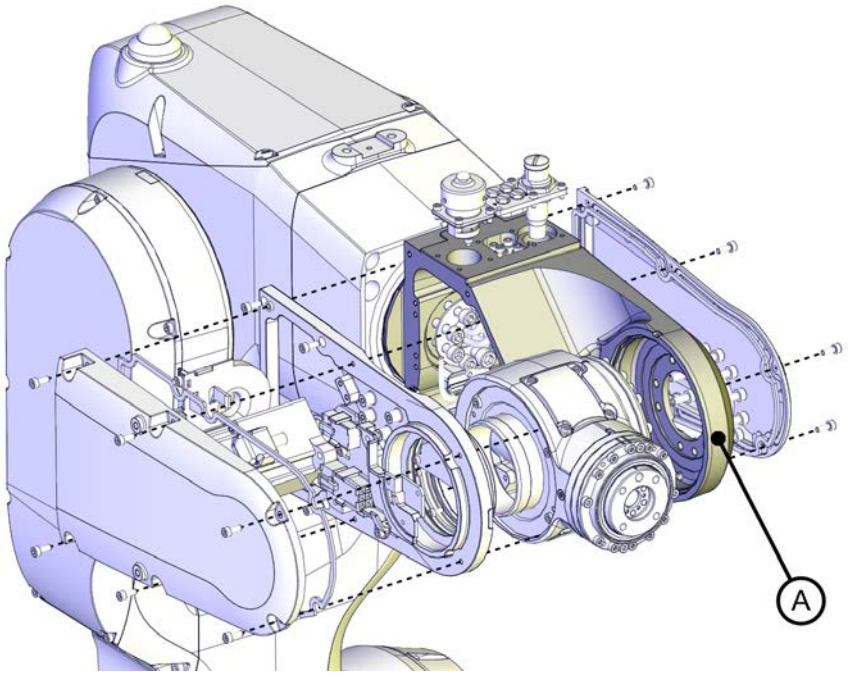
Tubular

Spare part list

	Spare part number	Description	Standard (IP40)	IP67	Foundry Plus	Clean Room	Food Grade lubrication	Hygienic
A	3HAC059693-001 / 3HAC059723-001 [i]	Tubular with sleeve	X	X	X			
	3HAC059706-001	Tubular with sleeve, Clean Room Tubular with sleeve, food grade lubrication				X	X	
	3HAC079693-001	Tubular with sleeve, Hygienic						X

[i] For information on which tubular to be ordered, see *Spare part versions for the tubular on Type A robots on page 83*.

Spare part illustration



xx1400000829

Continues on next page

© Copyright 2014 - 2023 ABB. All rights reserved.

Tubular parts

Spare part list

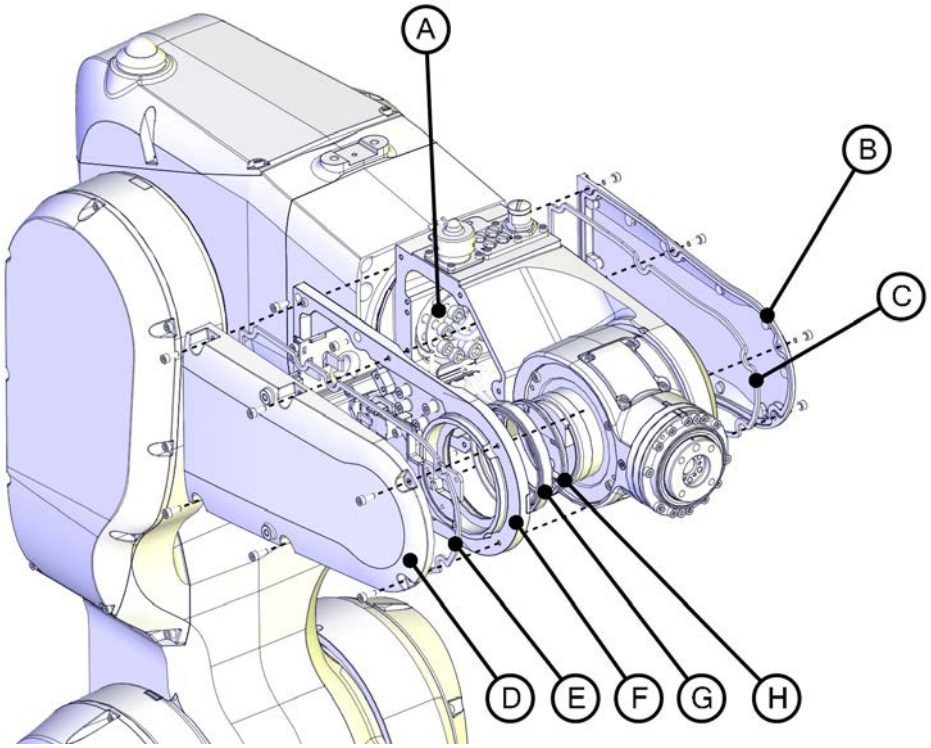
	Spare part number	Description	Standard (IP40)	IP67	Foundry Plus	Clean Room	Food Grade lubrication	Hygienic
A	3HAC044869-001	Washer	X	X	X	X	X	X
B	3HAC049656-001	Tubular cover	X					
	3HAC059555-001	Tubular cover		X	X			
	3HAC056144-001 / 3HAC059708-001 [i]	Tubular cover, Clean Room Tubular cover, food grade lubrication				X	X	
	3HAC079689-001	Tubular cover, Hygienic						X
C	3HAC080709-001	Gasket for tubular cover		X	X	X	X	X
D	3HAC059694-001	Tubular cable housing cover	X	X	X			
	3HAC056145-001	Tubular cable housing cover, Clean Room Tubular cable housing cover, food grade lubrication				X	X	
	3HAC079690-001	Tubular cable housing cover, Hygienic						X
E	3HAC080701-001	Gasket for tubular cable housing cover		X	X	X	X	X
F	3HAC059695-001	Tubular cable housing	X	X	X			
	3HAC056143-001	Tubular cable housing, Clean Room Tubular cable housing, food grade lubrication				X	X	
	3HAC079692-001	Tubular cable housing, Hygienic						X
G	3HAB3701-42	Radial sealing		X	X	X	X	
H	3HAC044641-009	M2 variseal sealing		X	X			

[i] For information on which tubular cover for Clean Room robots to be ordered, see *Spare part versions for the tubular cover on Clean Room robots on page 84*.

Continues on next page

© Copyright 2014 - 2023 ABB. All rights reserved.

Spare part illustration



xx1400000660

© Copyright 2014 - 2023 ABB. All rights reserved.

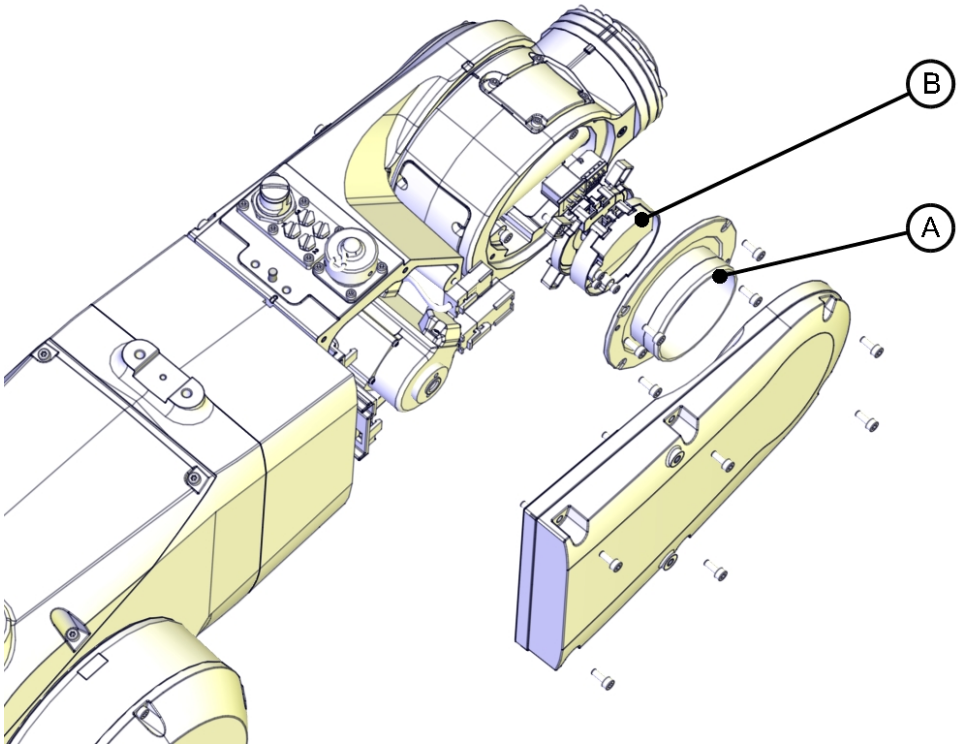
1.8 Spare parts - tilt unit parts

Tilt unit parts

Spare part list

	Spare part number	Description	Standard (IP40)	IP67	Foundry Plus	Clean Room	Food Grade lubrication	Hygienic
A	3HAC044661-001	Sleeve	X	X	X	X	X	X
B	3HAC045743-001	FPC unit, axis 5	X	X	X	X	X	X
C	3HAC044641-012	T40 variseal sealing			X			
D	3HAC044666-001	Protection cover for axis-6 turning disk			X			
E	3HAC078798-001	Gasket, axis 6, Hygienic						X
F	3HAC079688-001	Seal ring unit **Note** The seal ring unit is wear part.						X
G	3HAC077509-001	Stainless shaft						X
H	3HAC034160-003	Sealing washer						X
J	3HAC053686-001	Stainless screws						X

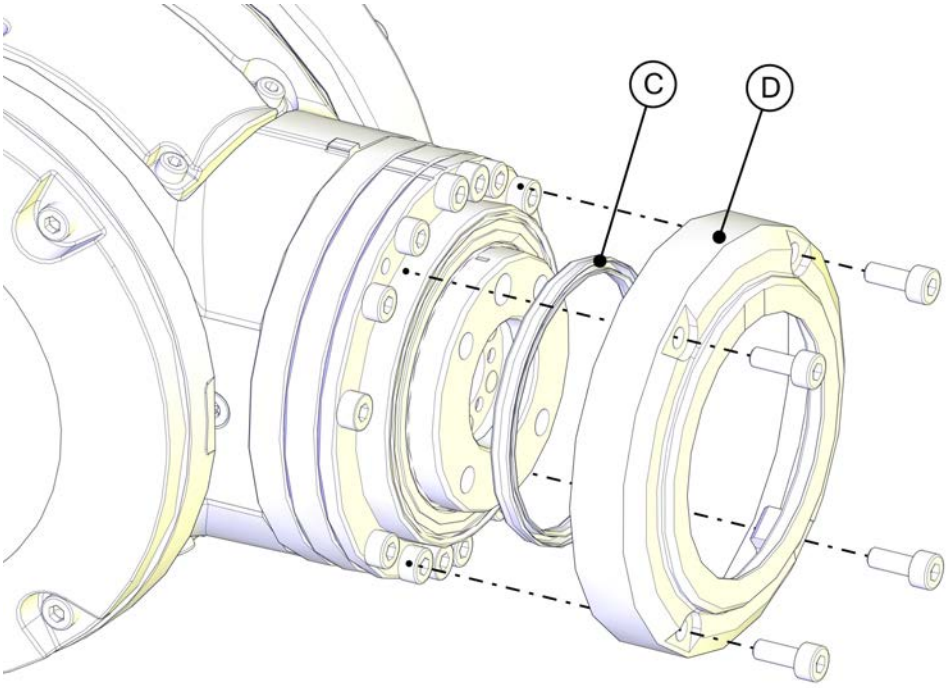
Spare part illustration



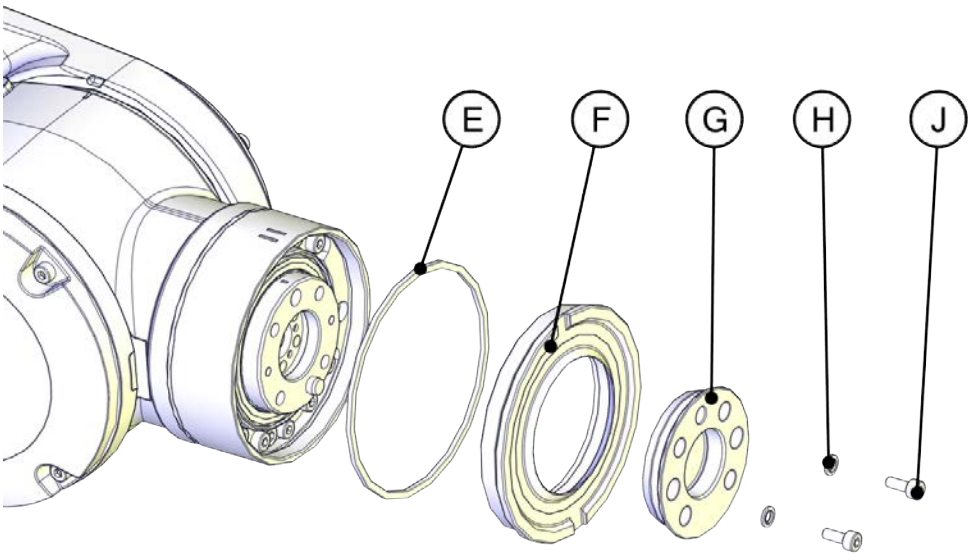
xx1400000661

Continues on next page

© Copyright 2014 - 2023 ABB. All rights reserved.



xx1600001041



xx2100001149

© Copyright 2014 - 2023 ABB. All rights reserved.

1.9 Spare parts - motors

1.9.1 Spare parts - axis-1 motor

Axis-1 motor

The axis-1 gear unit and axis-1 motor is part of the complete base spare part assembly, see *Spare parts - base on page 23*.

© Copyright 2014 - 2023 ABB. All rights reserved.

1.9.2 Spare parts - axis-2 motor

Axis-2 motor

The axis-2 motor is part of the complete axis-2 drive unit spare part assembly, see *Spare parts - axis-2 drive unit on page 55*.

© Copyright 2014 - 2023 ABB. All rights reserved.

1.9.3 Spare parts - axis-3 motor

Axis-3 motor

The axis-3 motor is part of the complete axis-3 drive unit spare part assembly, see *Spare parts - axis-3 drive unit on page 57*.

© Copyright 2014 - 2023 ABB. All rights reserved.

1.9.4 Spare parts - axis-4 motor

Axis-4 motor (including pulley)

Spare part list - IRB 1200 (no type specified) and IRB 1200 Type A

	Spare part number	Description	Standard (IP40)	IP67	Foundry Plus	Clean Room	Food Grade lubrication	Hygienic
A	3HAC045827-001	Motor with pulley	X	X	X	X	X	

Spare part list - IRB 1200 Type B

	Spare part number	Description	Standard (IP40)	IP67	Foundry Plus	Clean Room	Food Grade lubrication	Hygienic
A	3HAC061277-001	Motor with pulley, SafeMove 2-supported. Motor with pulley, Hygienic	X	X	X	X	X	X

Spare part list - axis-4 motor parts

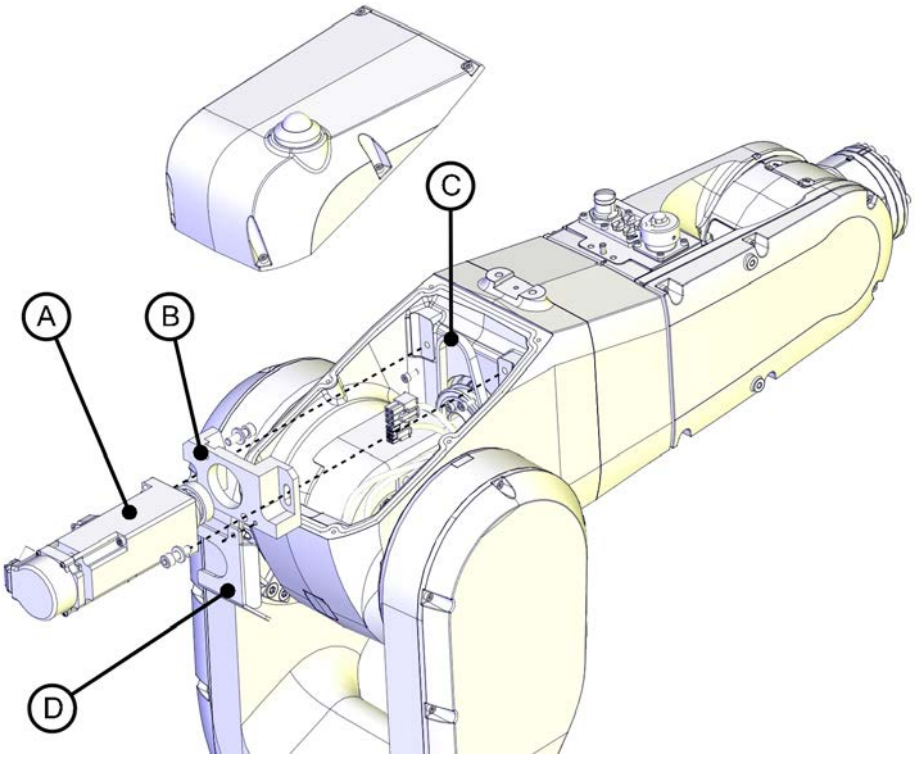
	Spare part number	Description	Standard (IP40)	IP67	Foundry Plus	Clean Room	Food Grade lubrication	Hygienic
B	3HAC047479-001	Motor flange	X	X	X	X	X	X
C	3HAC044694-001	Timing belt	X	X	X	X	X	X
D	3HAC044689-001	Motor bracket	X	X	X	X	X	X

Continues on next page

© Copyright 2014 - 2023 ABB. All rights reserved.

1.9.4 Spare parts - axis-4 motor
Continued

Spare part illustration



© Copyright 2014 - 2023 ABB. All rights reserved.

1.9.5 Spare parts - axis-5 motor

Axis-5 motor (including pulley)

Spare part list - IRB 1200 (no type specified) and IRB 1200 Type A

	Spare part number	Description	Standard (IP40)	IP67	Foundry Plus	Clean Room	Food Grade lubrication	Hygienic
A	3HAC045978-001	Motor with pulley	X	X	X	X	X	

Spare part list - IRB 1200 Type B

	Spare part number	Description	Standard (IP40)	IP67	Foundry Plus	Clean Room	Food Grade lubrication	Hygienic
A	3HAC061278-001	Motor with pulley, SafeMove 2-supported. Motor with pulley, Hygienic	X	X	X	X	X	X

Spare part list - axis-5 motor parts

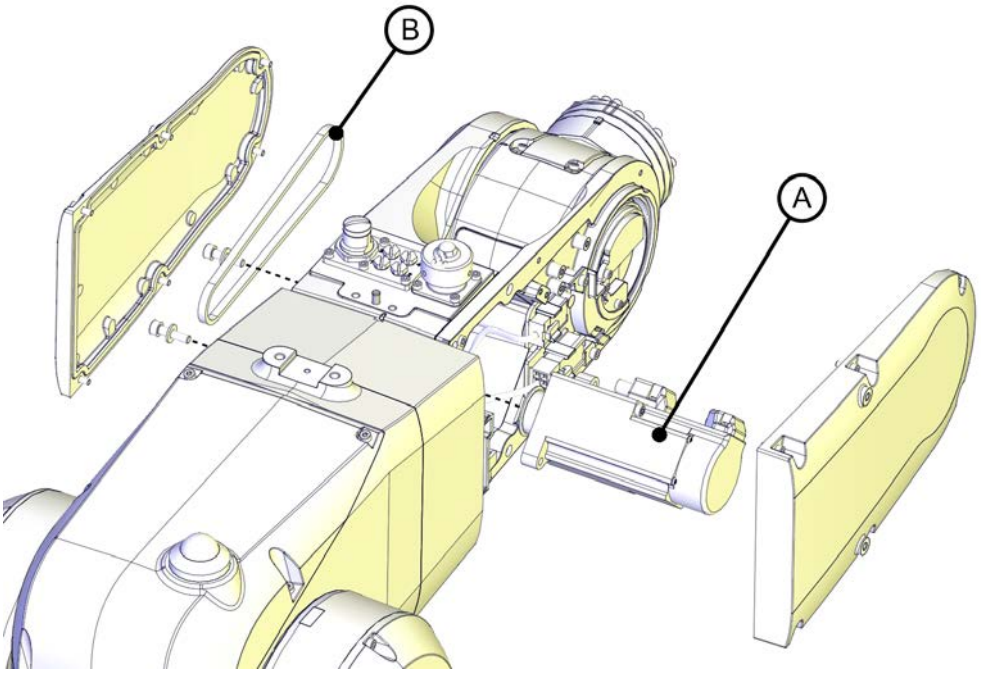
	Spare part number	Description	Standard (IP40)	IP67	Foundry Plus	Clean Room	Food Grade lubrication	Hygienic
B	3HAC044657-001	Timing belt	X	X	X	X	X	X

Continues on next page

© Copyright 2014 - 2023 ABB. All rights reserved.

1.9.5 Spare parts - axis-5 motor
Continued

Spare part illustration



xx1400000666

© Copyright 2014 - 2023 ABB. All rights reserved.

1.9.6 Spare parts - axis-6 motor

Axis-6 motor

The axis-6 motor is part of the complete axis-5 and axis-6 drive unit spare part assembly, see *Spare parts - axis-5 and axis-6 drive unit on page 60*.

© Copyright 2014 - 2023 ABB. All rights reserved.

1.10 Spare parts - gears

1.10.1 Spare parts - axis-1 gear unit

Axis-1 gear unit

The axis-1 gear unit and axis-1 motor is part of the complete base spare part assembly, see *Spare parts - base on page 23*.

© Copyright 2014 - 2023 ABB. All rights reserved.

1.10.2 Spare parts - axis-2 drive unit

Axis-2 gearbox

Spare part list - IRB 1200 (no type specified) and IRB 1200 Type A

The axis-2 drive unit spare part for IRB 1200 (no type specified) and IRB 1200 Type A includes axis-2 gearbox, motor, motor adapter and O-ring (3HAC048939-001).

	Spare part number	Description	Standard (IP40)	IP67	Foundry Plus	Clean Room	Food Grade lubrication	Hygienic
A	3HAC049645-001	Drive unit	X	X	X	X		
	3HAC057903-001	Drive unit, food grade lubrication					X	

Spare part list - IRB 1200 Type B

The axis-2 drive unit spare part for IRB 1200 Type B includes axis-2 gearbox, AC motor with resolver interface, motor adapter and O-ring (3HAC048939-001).

	Spare part number	Description	Standard (IP40)	IP67	Foundry Plus	Clean Room	Food Grade lubrication	Hygienic
A	3HAC061273-001	Drive unit, SafeMove 2-supported	X	X	X	X		
	3HAC061274-001	Drive unit, food grade lubrication and SafeMove 2-supported Drive unit, Hygienic					X	X

Spare part list - axis-2 drive unit parts

	Spare part number	Description	Standard (IP40)	IP67	Foundry Plus	Clean Room	Food Grade lubrication	Hygienic
B	3HAC048939-001	O-ring	X	X	X	X	X	X

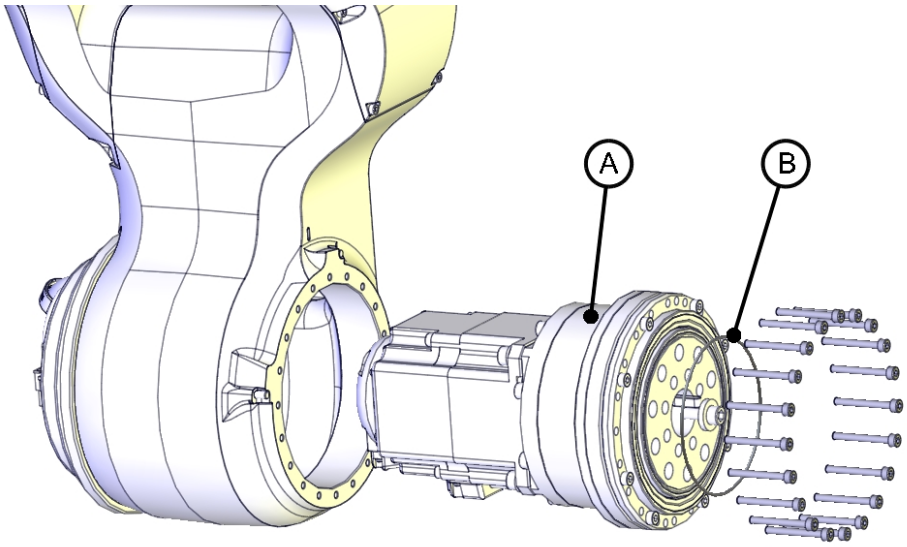
Continues on next page

© Copyright 2014 - 2023 ABB. All rights reserved.

1.10.2 Spare parts - axis-2 drive unit

Continued

Spare part illustration



xx1400000669

© Copyright 2014 - 2023 ABB. All rights reserved.

1.10.3 Spare parts - axis-3 drive unit

Axis-3 gearbox

Spare part list - IRB 1200 (no type specified) and IRB 1200 Type A

The axis-3 drive unit spare part for IRB 1200 (no type specified) and IRB 1200 Type A includes axis-3 gearbox, motor, motor adapter and O-ring (3HAC048939-002).

	Spare part number	Description	Standard (IP40)	IP67	Foundry Plus	Clean Room	Food Grade lubrication	Hygienic
A	3HAC061403-001	Drive unit	X	X	X	X		
	3HAC057905-001	Drive unit, food grade lubrication					X	

Spare part list - IRB 1200 Type B

The axis-3 drive unit spare part for IRB 1200 Type B includes axis-3 gearbox, AC motor with resolver interface, motor adapter and O-ring (3HAC048939-002).

	Spare part number	Description	Standard (IP40)	IP67	Foundry Plus	Clean Room	Food Grade lubrication	Hygienic
A	3HAC061275-001	Drive unit, SafeMove 2-supported	X	X	X	X		
	3HAC061276-001	Drive unit, food grade lubrication and SafeMove 2-supported. Drive unit, Hygienic					X	X

Spare part list - axis-3 drive unit parts

	Spare part number	Description	Standard (IP40)	IP67	Foundry Plus	Clean Room	Food Grade lubrication	Hygienic
B	3HAC048939-002	O-ring	X	X	X	X	X	X

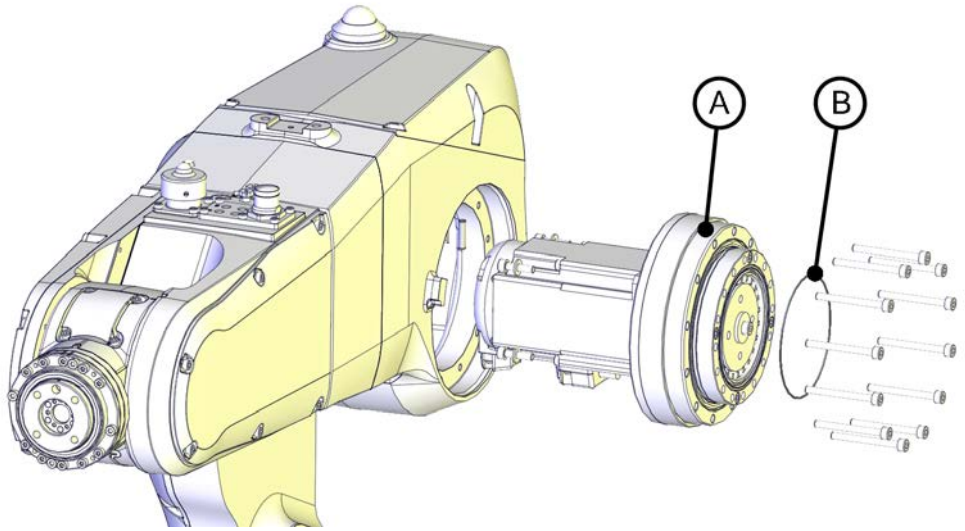
Continues on next page

© Copyright 2014 - 2023 ABB. All rights reserved.

1.10.3 Spare parts - axis-3 drive unit

Continued

Spare part illustration



xx1400000670

© Copyright 2014 - 2023 ABB. All rights reserved.

1.10.4 Spare parts - axis-4 gearbox

Axis-4 gearbox

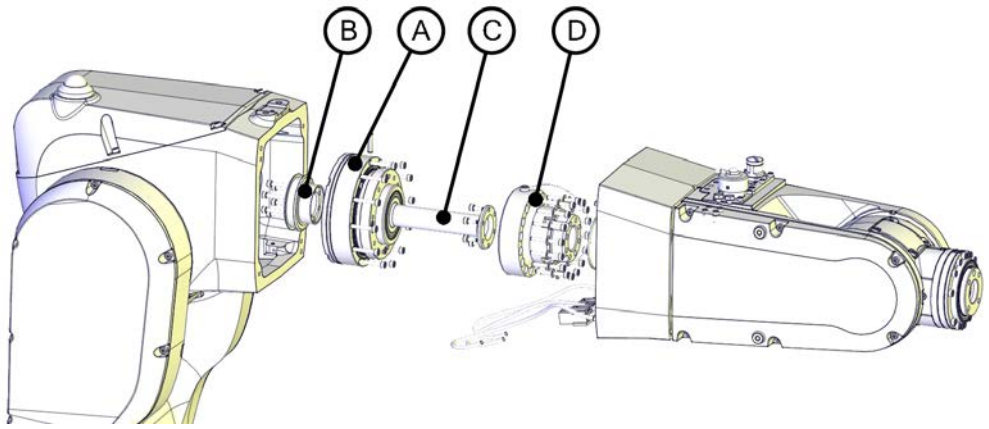
Spare part list - axis-4 gearbox

	Spare part number	Description	Standard (IP40)	IP67	Foundry Plus	Clean Room	Food Grade lubrication	Hygienic
A	3HAC049629-001	Gearbox	X	X	X	X		
	3HAC057904-001	Gearbox, food grade lubrication Gearbox, Hygienic					X	X

Spare part list - axis-4 gearbox parts

	Spare part number	Description	Standard (IP40)	IP67	Foundry Plus	Clean Room	Food Grade lubrication	Hygienic
B	3HAC044687-001	Pulley	X	X	X	X	X	X
C	3HAC044685-001	Gearbox sleeve	X	X	X	X	X	X
D	3HAC044692-001	Shaft	X	X	X	X	X	X

Spare part illustration



xx1400000671

© Copyright 2014 - 2023 ABB. All rights reserved.

1.10.5 Spare parts - axis-5 and axis-6 drive unit

Axis-5 and axis-6 drive unit

Spare part list - IRB 1200 (no type specified) and IRB 1200 Type A

The axis-5 and axis-6 drive unit spare part for IRB 1200 (no type specified) and IRB 1200 Type A includes axis-5 gear unit and axis-6 drive train unit.

	Spare part number	Description	Standard (IP40)	IP67	Foundry Plus	Clean Room	Food Grade lubrication	Hygienic
A	3HAC059696-001	Drive unit	X	X	X			
	3HAC059707-001	Drive unit, Clean Room				X		
	3HAC057907-001	Drive unit, food grade lubrication					X	

Spare part list - IRB 1200 Type B

The axis-5 and axis-6 drive unit spare part for IRB 1200 Type B includes axis-5 gear unit and axis-6 drive train unit.

	Spare part number	Description	Standard (IP40)	IP67	Foundry Plus	Clean Room	Food Grade lubrication	Hygienic
A	3HAC061279-001	Drive unit, SafeMove 2-supported	X	X	X			
	3HAC061280-001	Drive unit, Clean Room and SafeMove 2-supported				X		
	3HAC061281-001	Drive unit, food grade lubrication and SafeMove 2-supported					X	

Spare part list - IRB 1200 with protection type Hygienic

The axis-5 and axis-6 drive unit spare part for IRB 1200 with protection type Hygienic includes axis-5 gear unit and axis-6 drive train unit.

	Spare part number	Description	Standard (IP40)	IP67	Foundry Plus	Clean Room	Food Grade lubrication	Hygienic
C	3HAC079694-001	Drive unit, Hygienic						X

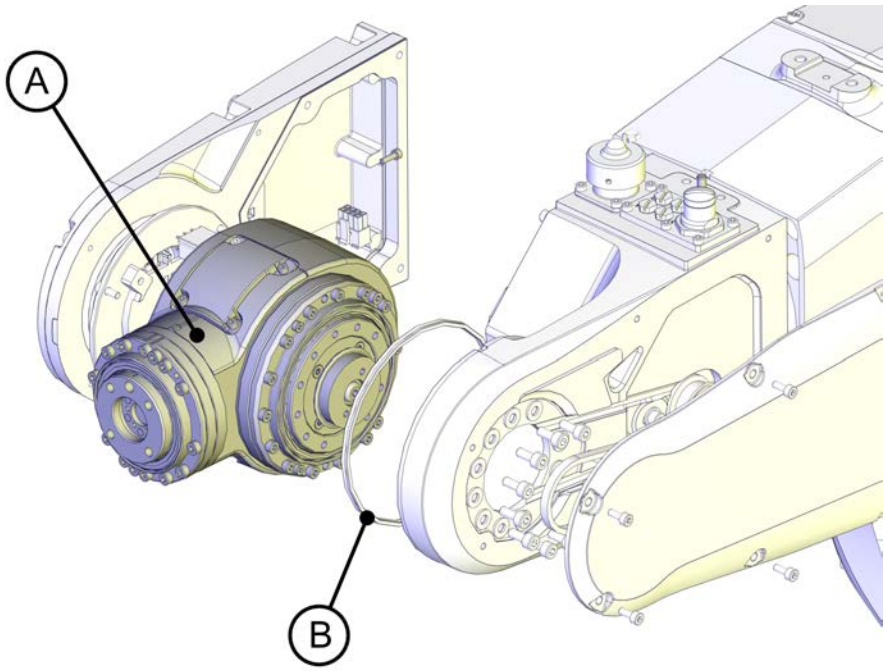
Spare part list - axis-5 and axis-6 drive unit parts

	Spare part number	Description	Standard (IP40)	IP67	Foundry Plus	Clean Room	Food Grade lubrication	Hygienic
B	3HAC044641-008	M2 variseal sealing		X	X			

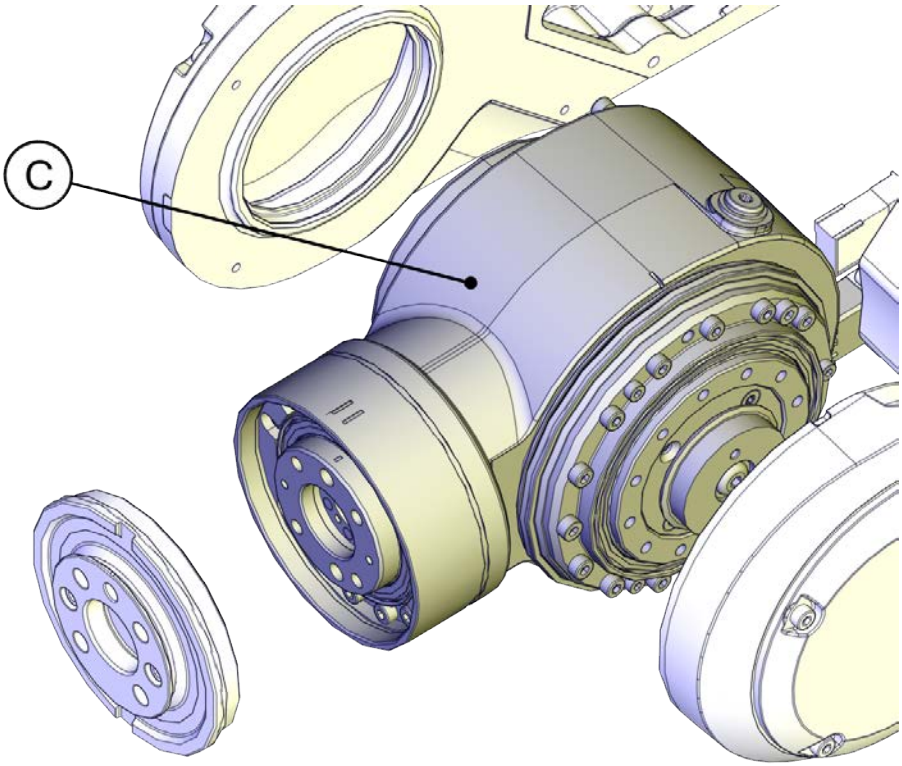
Continues on next page

© Copyright 2014 - 2023 ABB. All rights reserved.

Spare part illustration



xx1400000673



xx2100001163

© Copyright 2014 - 2023 ABB. All rights reserved.

1.11 Spare parts - information labels

Information labels

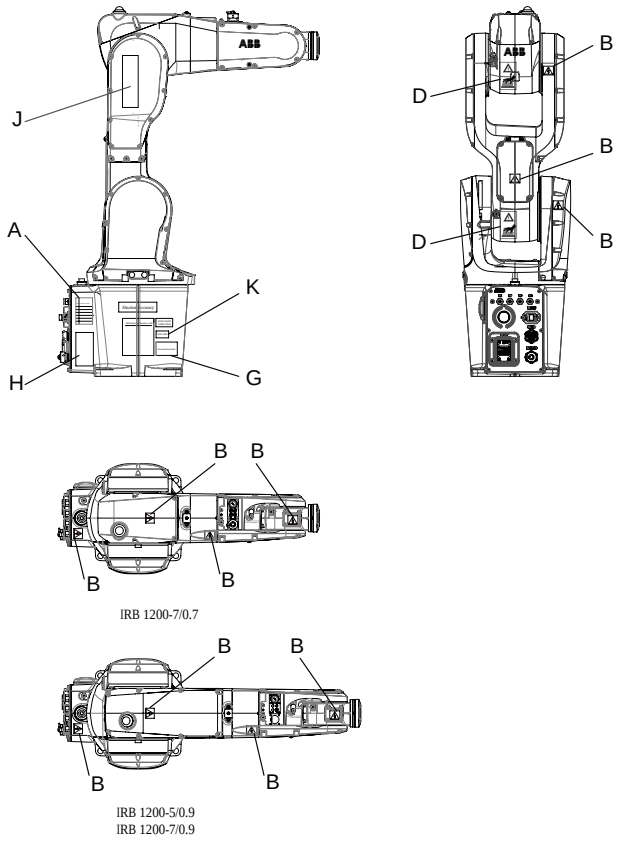
Spare part list

	Spare part number	Description	Standard (IP40)	IP67	Foundry Plus	Clean Room	Food Grade lubrication	Hygienic
-	3HAC051417-001	Labels and plate set	X	X	X	X	X	

Spare part illustration

The figures show all labels included in the labels and plate set.

Illustration 1 of 2

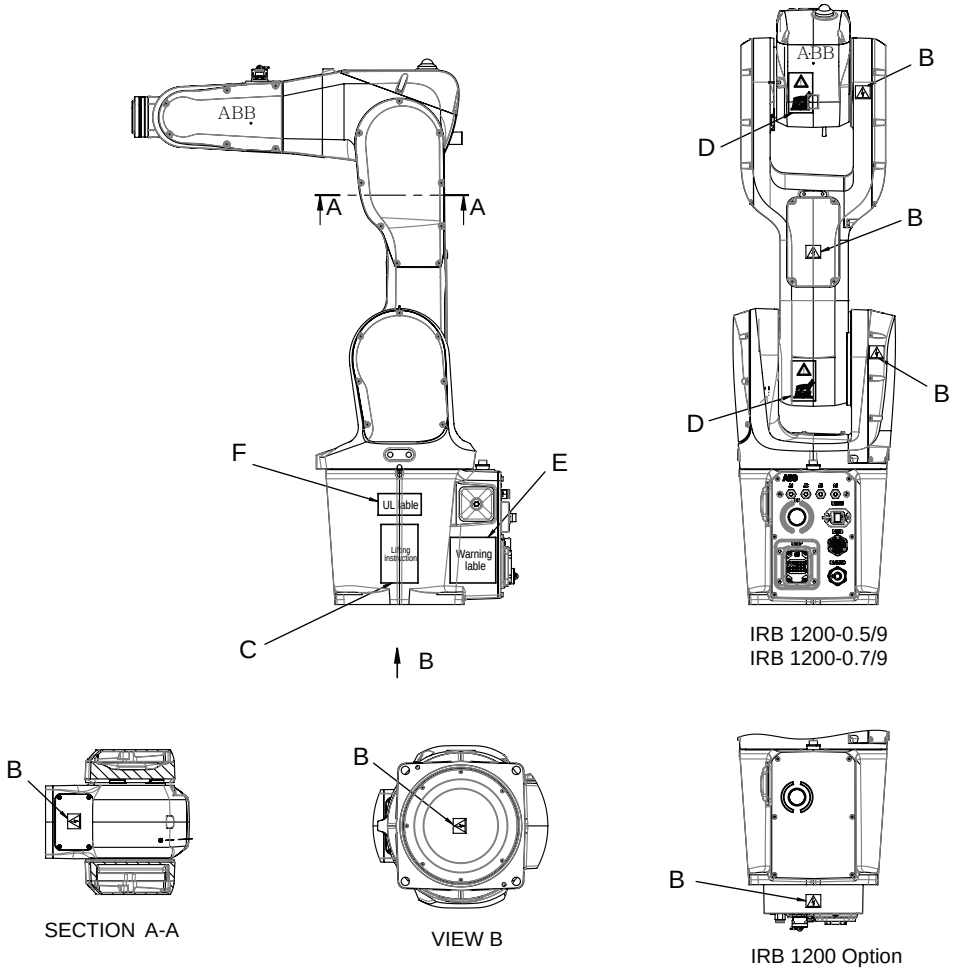


xx1400000520

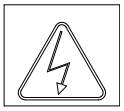
Continues on next page

© Copyright 2014 - 2023 ABB. All rights reserved.

Illustration 2 of 2



xx1400000521

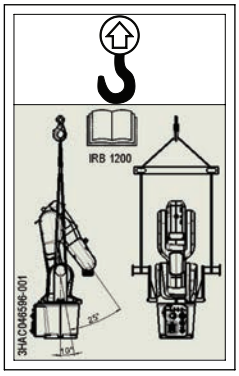
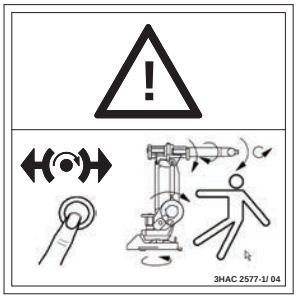
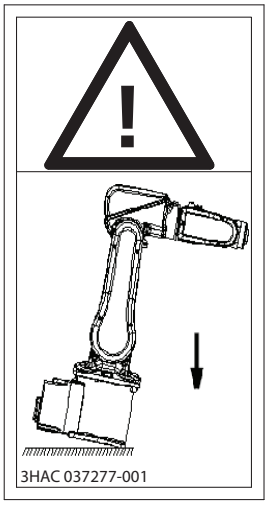
	Description	Illustration
A	Calibration label	
B	Warning label Flash	 xx1300001091

Continues on next page

© Copyright 2014 - 2023 ABB. All rights reserved.

1.11 Spare parts - information labels

Continued

C	Instruction label Lifting of robot	 xx1400000518
D	Warning label **Heat**	 xx1300001087
E	Instruction label **Brake release** **Moving robot** **Brake release buttons**	 xx1400000519
F	UL label	
G	Rating label	
H	Warning label **Tip risk when loosening bolts**	 xx1400000527

Continues on next page

© Copyright 2014 - 2023 ABB. All rights reserved.

J	Clean Room label	xx1600001074
	Foundry Plus label	xx1600001075
K	Type A label	xx1600002136
	Type B label	xx1600002137

© Copyright 2014 - 2023 ABB. All rights reserved.

1.12 Spare parts - Axis Calibration items

Axis Calibration items

Spare part list

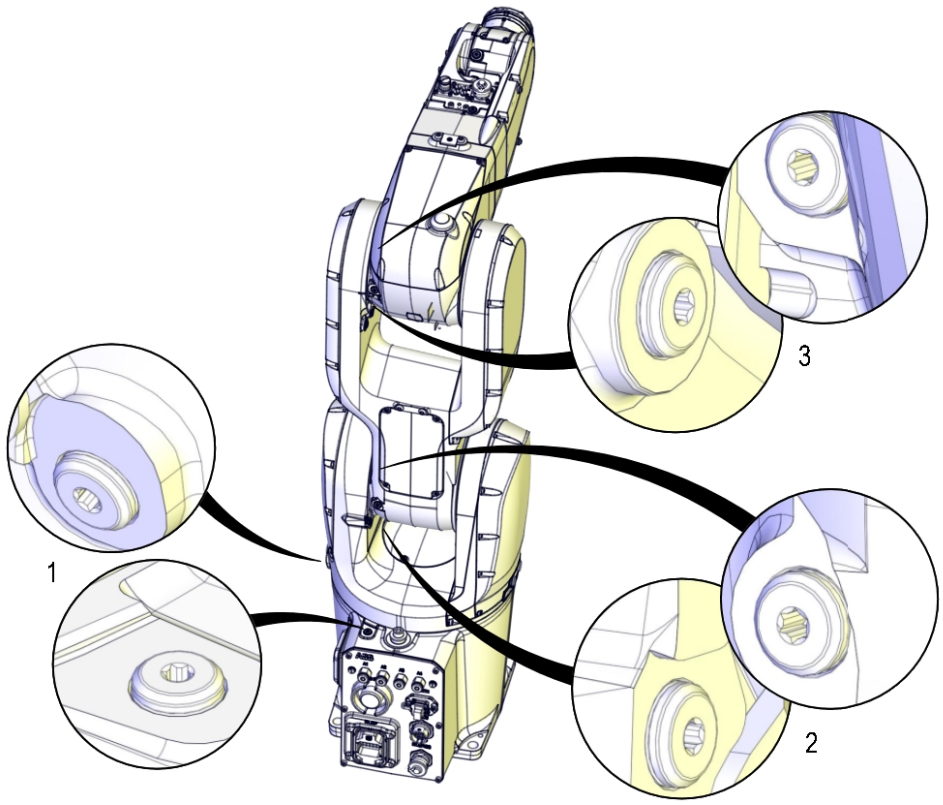
	Spare part number	Description	Figure	Standard (IP40)	IP67	Foundry Plus	Clean Room	Food Grade lubrication	Hygienic
-	3HAC059556-001	Protective plug for bushing	xx1600001042	X	X	X			
-	3HAC059557-001	Protective plug for bushing, Clean Room Protective plug for bushing, food grade lubrication Protective plug for bushing, Hygienic	xx1600001043				X	X	X

Continues on next page

© Copyright 2014 - 2023 ABB. All rights reserved.

Spare part illustration

The protective plugs are installed in the bushings used for the calibration tools for Axis Calibration method. There are two bushings each on axes 1, 2, 3, 4 and 5. Axis 6 has only one bushing.

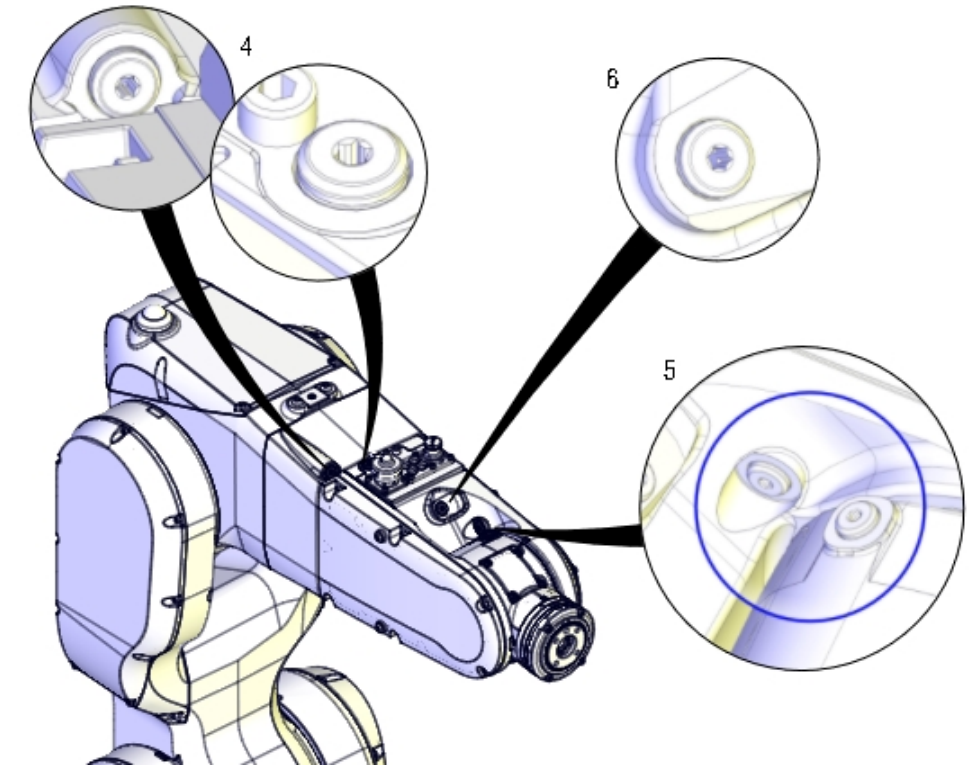


xx1600001035

Continues on next page

© Copyright 2014 - 2023 ABB. All rights reserved.

1.12 Spare parts - Axis Calibration items
Continued



xx1600001044

© Copyright 2014 - 2023 ABB. All rights reserved.

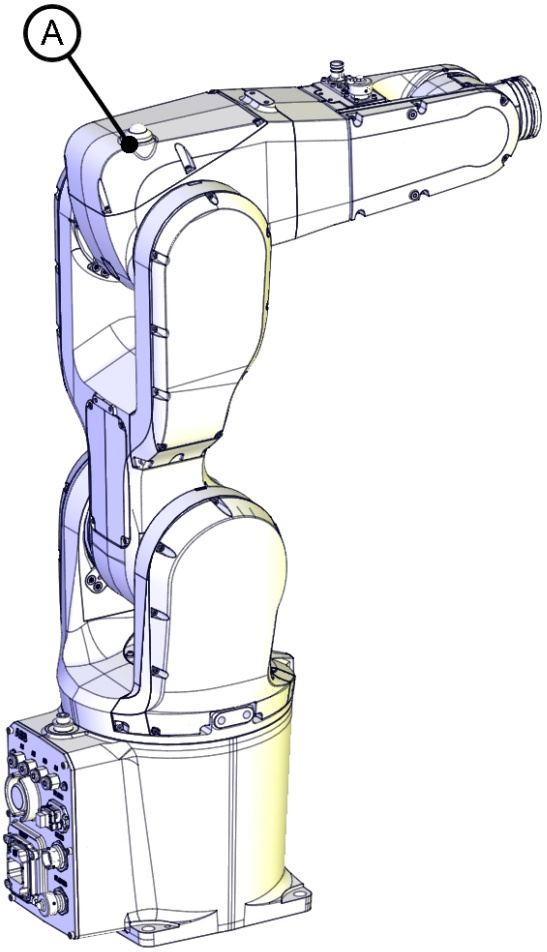
1.13 Spare parts - options

Options

Spare part list

	Spare part number	Description	Standard (IP40)	IP67	Foundry Plus	Clean Room	Food Grade lubrication	Hygienic
A	3HAC16738-1	Signal lamp	X	X	X	X	X	X

Spare part illustration



xx1400000667

© Copyright 2014 - 2023 ABB. All rights reserved.

This page is intentionally left blank

2 Robot description

2.1 Introduction

Manipulator description

IRB 1200 is one of ABB 6-axis industrial robots, with multiple variants designed to work in various environments. Different IRB 1200 variant supports to work with either IRC5/IRC5C controller or OmniCore controller, or both. This section describes the relationship among robot variants, protection classes/types and supported controller type. For details, see *Product specification - IRB 1200*.

Supported controller type for different IRB 1200 variants

Protection	Controller type			
	IRC5	IRC5C	OmniCore C line	OmniCore E line
IRB 1200-5/0.9	X	X	X	X
IRB 1200-7/0.7	X	X	X	X
IRB 1200-7/0.9				X

Supported protection classes/types for different IRB 1200 variants

Protection	Robot variant		
	IRB 1200-5/0.9	IRB 1200-7/0.7	IRB 1200-7/0.9
Standard, IP40	X	X	X
Standard, IP67	X	X	X
Clean Room	X	X	X
Food grade lubrication	X	X	
Foundry plus	X	X	X
Hygienic	X	X	

Supported controller type for IRB 1200 in different protection classes/types

Protection	Controller type			
	IRC5	IRC5C	OmniCore C line	OmniCore E line
Standard, IP40	X	X	X	X
Standard, IP67	X	X	X	X
Clean Room	X	X	X	X
Food grade lubrication	X	X		
Foundry plus	X	X	X	X
Hygienic	X	X	X	X

Appearance description

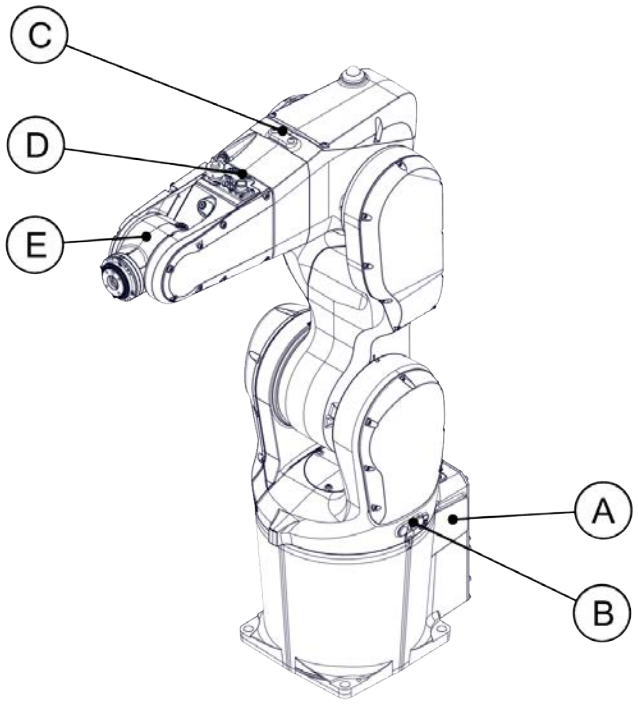
Appearance of IRB 1200 differs according to the actual order time, while robot functions remain the same.

Continues on next page

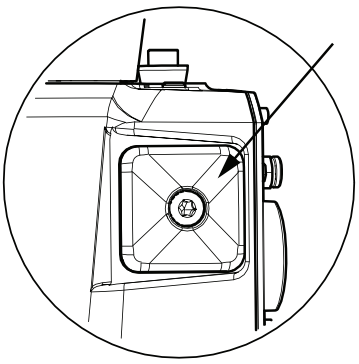
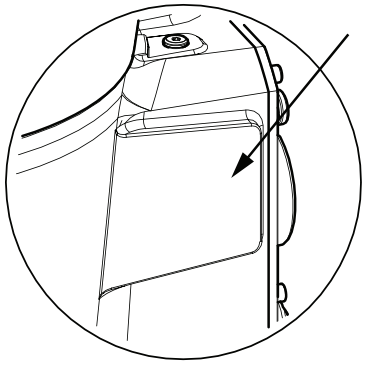
© Copyright 2014 - 2023 ABB. All rights reserved.

Please note, figures throughout this product manual mainly show the original appearance design. If any installation, maintenance or replacement procedure is not required for the robots with new design, such as those related to tilt covers, skip related steps and proceed to following actions.

Refer to the following figure and table for detailed differences between original and new appearance design.

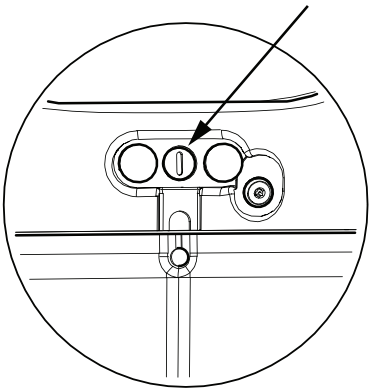
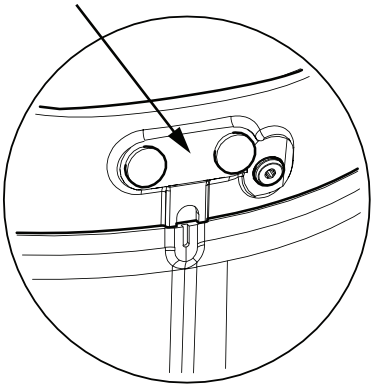
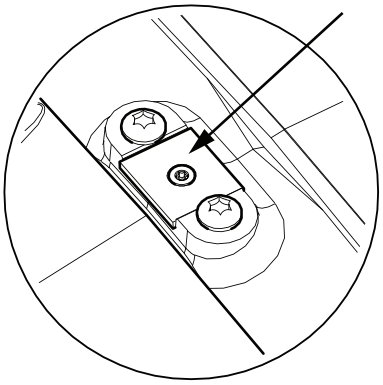
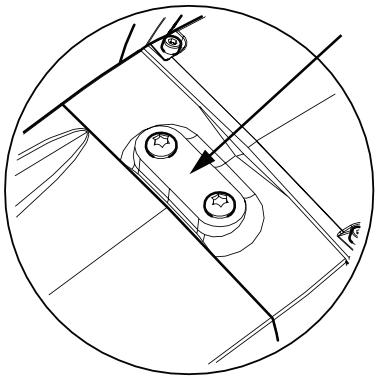
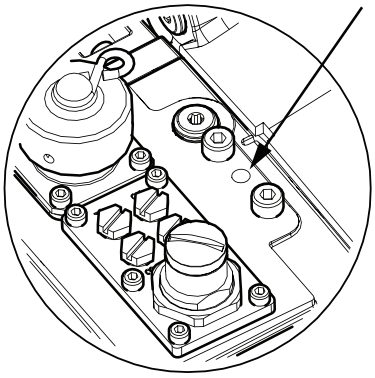
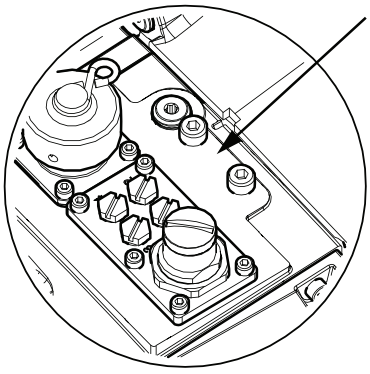


xx2200001263

Item	Location	Original appearance design	New appearance design
A	Base	 xx2200001264	 xx2200001265

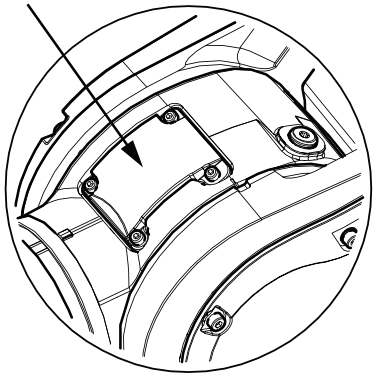
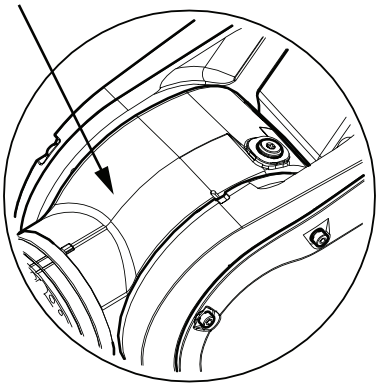
Continues on next page

© Copyright 2014 - 2023 ABB. All rights reserved.

Item	Location	Original appearance design	New appearance design
B	Swing	 xx2200001266	 xx2200001267
C	Housing	 xx2200001268	 xx2200001269
D	Connector set on tubular	 xx2200001270	 xx2200001271

Continues on next page

© Copyright 2014 - 2023 ABB. All rights reserved.

Item	Location	Original appearance design	New appearance design
E	Tilt unit	 xx2200001272	 xx2200001273

© Copyright 2014 - 2023 ABB. All rights reserved.

2.2 Type A of IRB 1200

Type A - Axis Calibration

The difference between IRB 1200 and IRB 1200 Type A is that the Type A is calibrated with Axis Calibration. On each axis there are bushings for installation of calibration tools.

As a result of this, the castings differ between IRB 1200 and IRB 1200 Type A.

Note

IRB 1200 Type B is designed based on IRB 1200 Type A so that Type B has the bushings for installation of calibration tools too.

The difference between IRB 1200 Type A and IRB 1200 Type B is that Type B also supports SafeMove 2. See *Type B of IRB 1200 on page 76*.

How to know which type the robot is?

The type label on the base of the robot tells if the robot is calibrated with Axis Calibration.

Those robots are named IRB 1200 Type A.

Note

If no type label attached on the robot, use the bushings on each axis to identify a robot calibrated with Axis Calibration.

Those robots which are not equipped for Axis Calibration are simply named IRB 1200 (no type specified).

© Copyright 2014 - 2023 ABB. All rights reserved.

2.3 Type B of IRB 1200

Type B - SafeMove 2

> **Note**
>
> IRB 1200 working with OmniCore E10 does not support SafeMove 2.

The difference between IRB 1200 Type B and other IRB 1200 versions is that the Type B supports SafeMove 2.

As a result of this, the following parts differ from other versions:

- Base
- Drive unit, axis 2, axis 3, axis 5 and axis 6
- Motor with pulley, axis 4 and axis 5
- Manipulator cable harness
- Battery pack
- SMB unit (replacing EIB unit)

IRB 1200 Type B is designed based on IRB 1200 Type A so that Type B has the bushings for installation of calibration tools too.

How to know which type the robot is?

The type label on the base of the robot tells if the robot supports SafeMove 2.

Those robots are named IRB 1200 Type B.

© Copyright 2014 - 2023 ABB. All rights reserved.

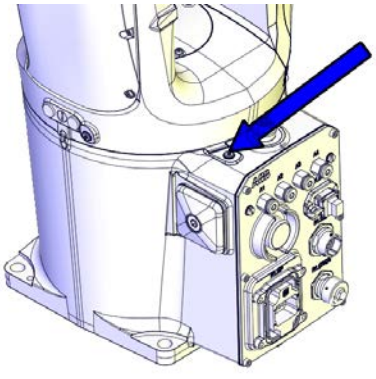
2.4 Description of spare part versions

2.4.1 Spare part versions for the base on IP40/IP67 robots

Spare part versions for the base on IP40/IP67 robots

Note

IRB 1200 has different base versions that are not compatible with each other. Always use the following list as a reference to check the base installed on robot and order the correct spare parts.

Base installed on robot (spare part number)	Article number in WebConfig	What to order	How to see which version is installed on robot
3HAC049628-001	3HAC044533-001	Order: • base 3HAC059553-001 • swing 3HAC059554-001 or 3HAC082506-001 (depends on the calibration method used) • IP40: sealing ring 3HAC068107-001 • IP67: sealing ring + gasket + V-ring 3HAC059791-001	Look on the outside of the base. Base 3HAC049628-001 has no hole on the side of the base. xx1600000124
3HAC057999-001	3HAC056657-001	Order: • base 3HAC059553-001	Base 3HAC057999-001 has a hole on the side of the base. xx1600000051
3HAC059553-001	3HAC058386-001	Order: • base 3HAC059553-001	Base 3HAC059553-001 has a bushing for fitting calibration tool for Axis Calibration.  xx1600001037

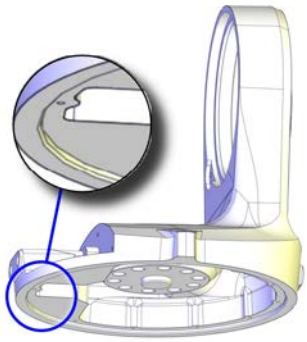
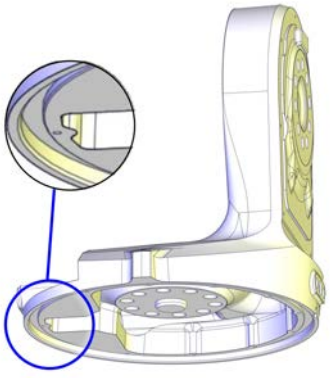
© Copyright 2014 - 2023 ABB. All rights reserved.

2.4.2 Spare part versions for the swing on IP40/IP67 robots

Spare part versions for the swing on IP40/IP67 robots

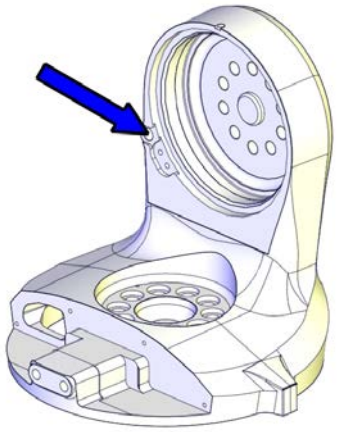
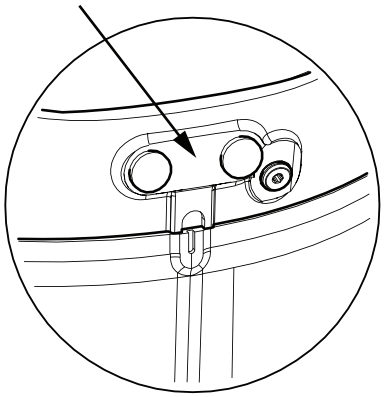
Note

IRB 1200 has different swing versions that are not compatible with each other. Always use the following list as a reference to check the swing installed on robot and order the correct spare parts.

Swing installed on robot (spare part number)	Article number in WebConfig	What to order	How to see which version is installed on robot
3HAC049632-001	3HAC044534-001	Order: • swing 3HAC059554-001 • IP67: sealing ring + gasket + V-ring 3HAC059791-001	Look underneath the swing, the surface is flat.  xx1600000052
3HAC058000-001	3HAC056656-001	Order: • swing 3HAC059554-001	Look underneath the swing, there is a groove.  xx1600000053

Continues on next page

© Copyright 2014 - 2023 ABB. All rights reserved.

Swing installed on robot (spare part number)	Article number in WebConfig	What to order	How to see which version is installed on robot
3HAC059554-001	3HAC058387-001	Order: • swing 3HAC082506-001	The swing has a bushing for fitting calibration tool for Axis Calibration.  xx1600001038
3HAC082506-001	3HAC081401-001	Order: • swing 3HAC082506-001	The swing removes the hole for fixing the manual calibration pin.  xx2200001267

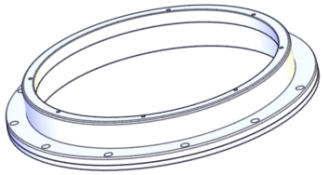
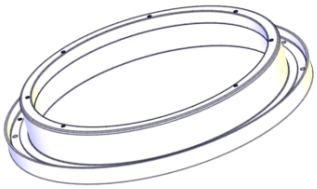
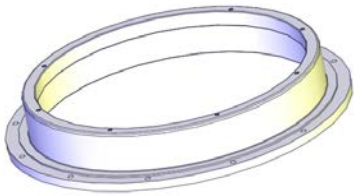
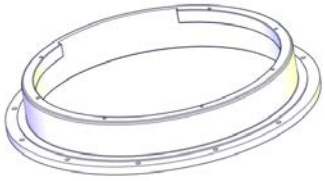
© Copyright 2014 - 2023 ABB. All rights reserved.

2.4.3 Spare part versions for the axis-1 sealing ring on IP40/IP67 robots

Spare part versions for the axis-1 sealing ring on IP40/IP67 robots

Note

IRB 1200 has different axis-1 sealing ring versions that are not compatible with each other. Always use the following list as a reference to check the sealing ring installed on robot and order the correct spare parts.

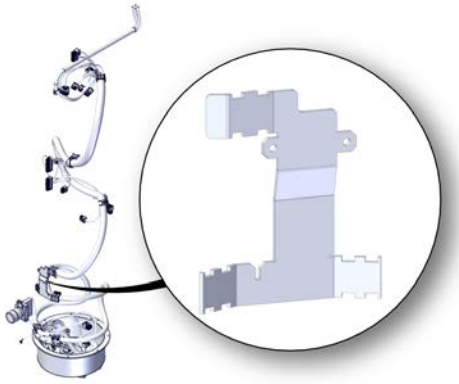
Sealing ring installed on robot (spare part number)	Article number in WebConfig	What to order	How to see which version is installed on robot
3HAC044676-001	3HAC044676-001	Order: • sealing ring 3HAC044676-001	The sealing ring is flat.  xx1600000125
3HAC056658-001	3HAC056658-001	Order: • IP40: sealing ring 3HAC068107-001 • IP67: sealing ring + gasket + V-ring 3HAC059791-001	The sealing ring has one folded wall on both sides.  xx1600000126
3HAC058568-001	3HAC058568-001	Order: • sealing ring 3HAC068107-001	The sealing ring is flat and the edge is thinner.  xx1600001039
3HAC068107-001	3HAC068107-001	Order: • sealing ring 3HAC068107-001	The sealing ring has a gap in the inner side.  xx1900001603

Continues on next page

© Copyright 2014 - 2023 ABB. All rights reserved.

Compatibility between cable harness and axis-1 sealing ring on IP40/IP67 robots

The manipulator cable harness is designed with different cable brackets that are compatible with different spare part versions of the axis-1 sealing ring. Always use the following list as a reference to check the cable harness installed on robot and order the correct spare parts.

How to see which kind of cable harness is installed on robot	What to order
 xx1900001602	Order: • corresponding cable harness. See "Manipulator cable harness" in *Product manual, spare parts - IRB 1200* for spare part numbers. • sealing ring 3HAC068107-001
 xx1900001601	Order: • corresponding cable harness. See "Manipulator cable harness" in *Product manual, spare parts - IRB 1200* for spare part numbers.

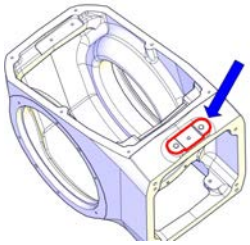
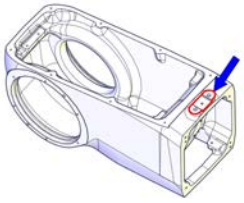
© Copyright 2014 - 2023 ABB. All rights reserved.

2.4.4 Spare part versions for the housing on Type A robots

Spare part versions for the housing on Type A robots

Note

IRB 1200 and IRB 1200 Type A have different housing versions that are not compatible with each other. Always use the following list as a reference to check the housing installed on robot and to order the correct spare parts.

Robot variant	Housing installed on robot (spare part number)	Article number in WebConfig	What to order	How to see which version is installed on robot
IRB 1200-7/0.7	3HAC059680-001	3HAC044544-001	Order: • housing (IRB 1200-7/0.7): 3HAC059680-001	The plane (encircled in the figure) on housing 3HAC059680-001 has no painting, while that on housing 3HAC059721-001 is painted.  xx1600001127
	3HAC059721-001	3HAC058389-001 / 3HAC081402-001	Order: • housing (IRB 1200-7/0.7): 3HAC059721-001	
IRB 1200-5/0.9	3HAC059681-001	3HAC044556-001	Order: • housing (IRB 1200-5/0.9): 3HAC059681-001	The plane (encircled in the figure) on housing 3HAC059681-001 has no painting, while that on housing 3HAC059722-001 is painted.  xx1600001129
	3HAC059722-001	3HAC058393-001 / 3HAC081405-001	Order: • housing (IRB 1200-5/0.9 and IRB 1200-7/0.9): 3HAC059722-001	
IRB 1200-7/0.9	3HAC059722-001	3HAC081405-001	Order: • housing (IRB 1200-5/0.9 and IRB 1200-7/0.9): 3HAC059722-001	

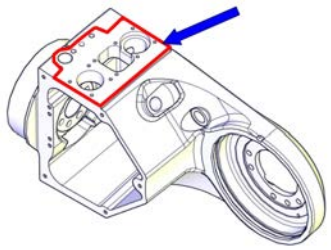
© Copyright 2014 - 2023 ABB. All rights reserved.

2.4.5 Spare part versions for the tubular on Type A robots

Spare part versions for the tubular on Type A robots

Note

IRB 1200 and IRB 1200 Type A have different tubular versions that are not compatible with each other. Always use the following list as a reference to check the tubular installed on robot and to order the correct spare parts.

Tubular installed on robot (spare part number)	Article number in WebConfig	What to order	How to see which version is installed on robot
3HAC059693-001	3HAC044548-001	Order: • tubular with sleeve: 3HAC059693-001	The plane (encircled in the figure) on tubular 3HAC059693-001 has no painting, while that on tubular 3HAC059723-001 is painted.  xx1600001128
3HAC059723-001	3HAC058390-001	Order: • tubular with sleeve: 3HAC059723-001	

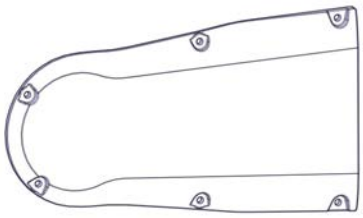
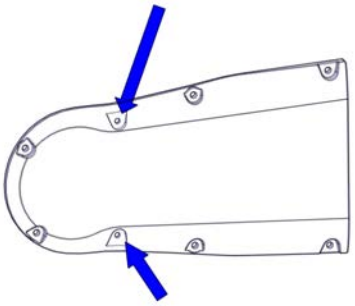
© Copyright 2014 - 2023 ABB. All rights reserved.

2.4.6 Spare part versions for the tubular cover on Clean Room robots

Spare part versions for the tubular cover on Clean Room robots

Note

IRB 1200 with protection type Clean Room has different tubular cover versions that are not compatible with each other. Always use the following list as a reference to check the tubular cover installed on robot and to order the correct spare parts.

Tubular cover installed on Clean Room robots (spare part number)	Article number in WebConfig	What to order	How to see which version is installed on robot
3HAC056144-001	3HAC044550-001	Order: • tubular cover, clean room: 3HAC056144-001	Tubular cover 3HAC056144-001 has six screw holes.  xx1600001117
3HAC059708-001	3HAC058929-001	Order: • tubular cover, clean room: 3HAC059708-001	Tubular cover 3HAC059708-001 has eight screw holes.  xx1600001118

© Copyright 2014 - 2023 ABB. All rights reserved.

Index

T
type A, 75
type B, 76

© Copyright 2014 - 2023 ABB. All rights reserved.

ABB AB
Robotics & Discrete Automation
S-721 68 VÄSTERÅS, Sweden
Telephone +46 10-732 50 00

ABB AS
Robotics & Discrete Automation
Nordlysvegen 7, N-4340 BRYNE, Norway
Box 265, N-4349 BRYNE, Norway
Telephone: +47 22 87 2000

ABB Engineering (Shanghai) Ltd.
Robotics & Discrete Automation
No. 4528 Kangxin Highway
PuDong New District
SHANGHAI 201319, China
Telephone: +86 21 6105 6666

ABB Inc.
Robotics & Discrete Automation
1250 Brown Road
Auburn Hills, MI 48326
USA
Telephone: +1 248 391 9000

abb.com/robotics

3HAC046984-001, Rev Q, en

© Copyright 2014 - 2023 ABB. All rights reserved.
Specifications subject to change without notice.