



Operating Instructions

Translation of original operating instructions

Pillar Swing Crane

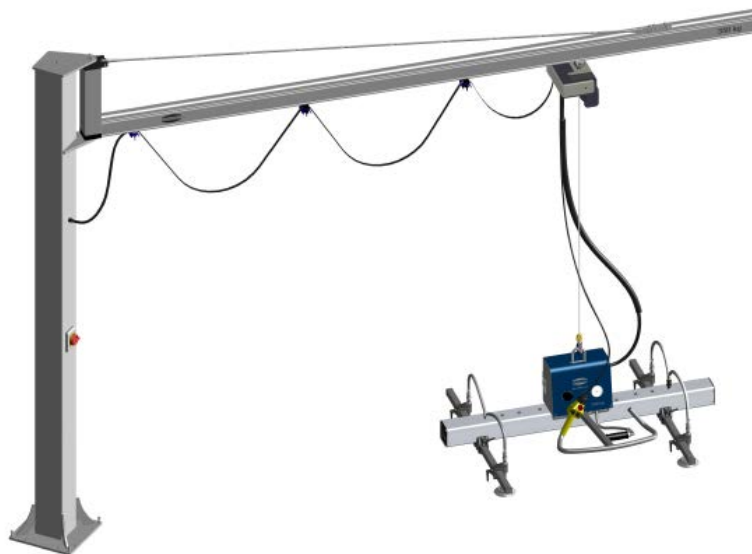
AWSK 150-5



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Please note that the product may not be used / put into operation without these operating instructions in the national language. If you did not receive operating instructions in your national language with the delivery of the product, please contact us. In countries of the EU / EFTA we will send them to you free of charge. For countries outside the EU / EFTA, we will be pleased to provide you with an offer for an operating manual in the national language if the translation cannot be organised by the dealer/importer.

Column-mounted slewing crane with aluminum jib



Wall-mounted slewing crane with aluminum jib



EN

Original operating instructions
This document must be kept in a safe place for future reference.

CE

CE

Warning

These operating instructions contain important
safety instructions
and must always be read
before the start of operations and use
of the pillar-mounted or wall-mounted slewing crane

General safety instructions can be found on page 5

The right to make changes due to technical improvements is reserved.

Operating Instructions

PILLAR SWING CRANE

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Special design

The slewing crane offers the following special design feature(s):

.....

(See appendix for special operating instructions or spare parts lists.)

If the special design requires a different spare/wearing parts list, the parts list in the "Spare parts" chapter is invalid.

1 Safety

1.1 Instructions for the operating company

The slewing crane is state-of-the-art and operationally reliable. However, there are still risks:

- ⇒ if it is not used by trained or at least instructed staff,
- ⇒ if it is not used for its intended purpose (see 1.5).

In these circumstances, there is a risk of danger to:

- the life and limb of the user and third parties
- the crane system and other property of the operator.

1.2 Instructions for installation, maintenance and operating staff

The slewing crane should be installed and maintained by qualified specialist personnel, mechanics and electricians only. Work on electrical equipment may be carried out only by qualified electrical specialists.

Everybody in the company of the operator responsible for setting up, starting operations, operating, maintaining and repairing the slewing crane must have read and understood the operating instructions, in particular the "Safety" chapter.

The company of the user must take internal measures to ensure that:

- ⇒ the users of the device are trained
- ⇒ they have read and understood the operating instructions
- ⇒ the operating instructions are accessible to them at all times.

The responsibilities for the various tasks on the slewing crane must be clearly specified and observed. Responsibilities must be clear.

1.3 Safety instructions in this manual

The safety instructions in this manual are identified as follows:



Danger

Identifies an immediate hazard. Death or serious injury may result if disregarded.



Caution

Identifies a potentially dangerous situation. Can result in slight or minor injuries if disregarded.

1.4 Installation location requirements

The slewing crane may not be operated outdoors or in rooms where there is a risk of explosion.

The ambient temperature must be between +0°C and +40°C (please consult the manufacturer before operating at temperatures outside of this temperature range).

Provide internal instructions and make checks to ensure that the vicinity of the workplace is always clean and tidy.

1.5 Intended use

The slewing crane is intended exclusively for the lifting and transporting of loads. The loads are raised via special load-bearing devices (e.g. Jumbo tube lifter or VacuMaster lifting device).

The slewing crane is designed for stress group H2/B2

(see DIN 15018 for more information).

⇒ Load-bearing devices may only be used when hanging from the suspension bolt on the carrying hook.



Danger

No people or animals may be carried with the slewing crane or with the load-bearing device.

⇒ For safety reasons, modifications or changes without approval are forbidden.

⇒ The operating, maintenance and servicing conditions prescribed in these operating instructions must be observed.

⇒ The maximum permissible load must not be exceeded.

1.6 Workplaces

The user's workplace is at the control device of the load suspension.

1.7 Instructions for users of the slewing crane

Users must be trained before using the slewing crane for the first time. You must have read and understood the operating instructions, in particular the "Safety" chapter.

Ensure that only authorized personnel work with the slewing crane. You are responsible for third parties in the working area of the slewing crane.

Local safety regulations apply. In Germany, this includes, but is not limited to BGR 500.

Other safety instructions in this manual do not replace these – they are to be considered as additions.

1.8 Personal protective equipment

When operating the slewing crane, always wear:

⇒ protective work shoes (with steel toe caps)

1.9 What to do in an emergency

An emergency may occur:



Danger

⇒ **if there is a sudden loss of power to the load suspension.**

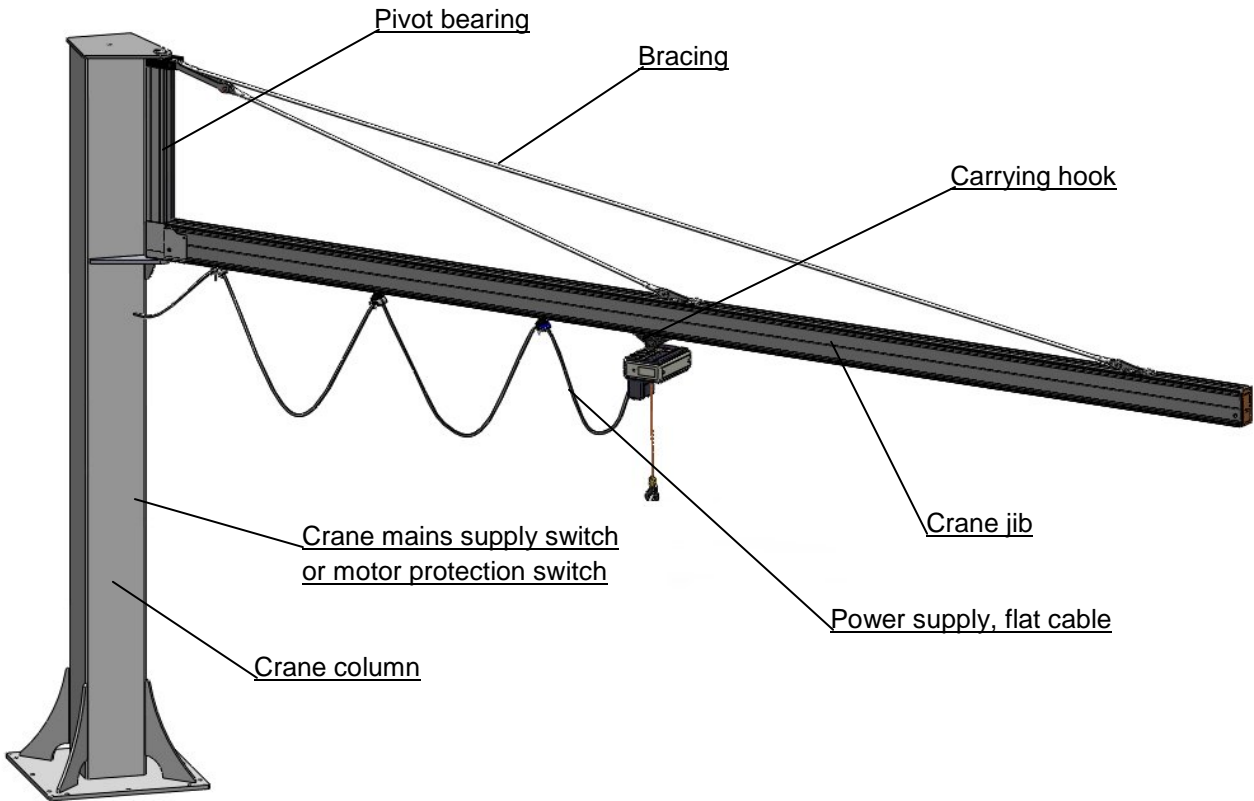
Take action as described in "What to do in an emergency" for your load suspension.

Rectify any faults before restarting the slewing crane.

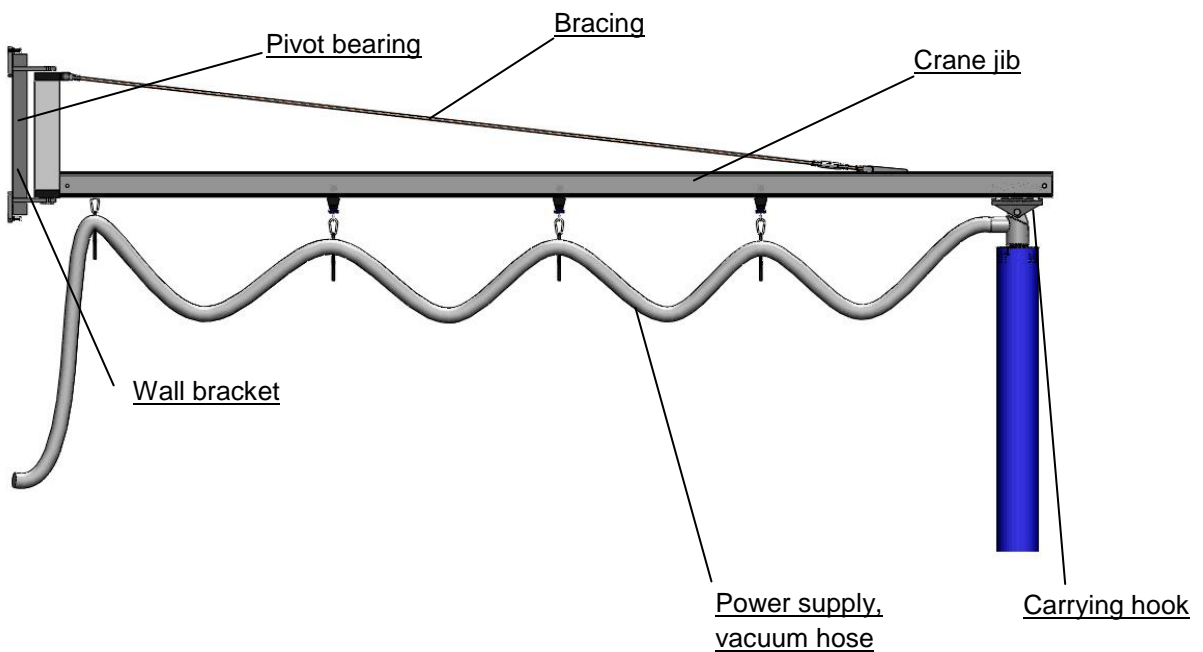
Should faults occur during operation, switch the slewing crane off and rectify the faults.

2 Description

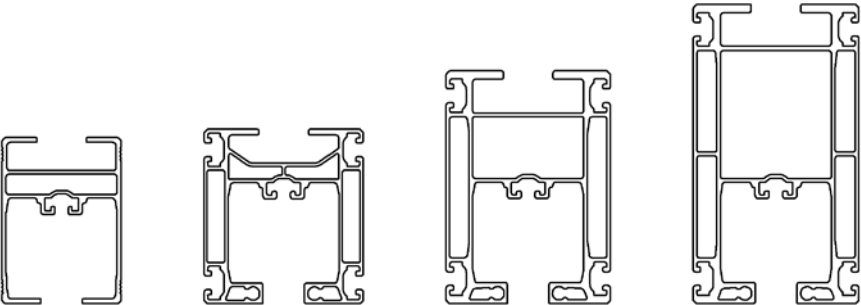
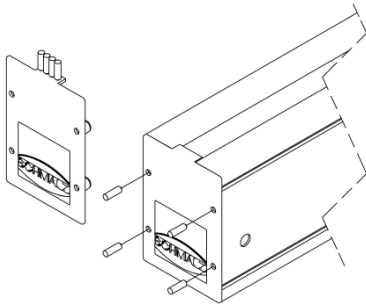
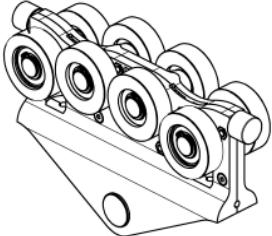
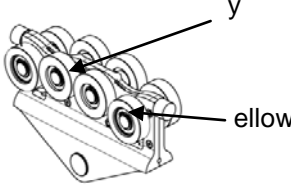
2.1 Column-mounted slewing crane

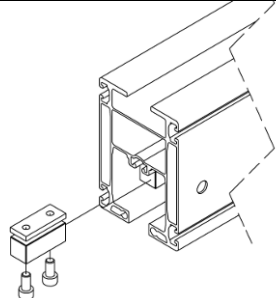
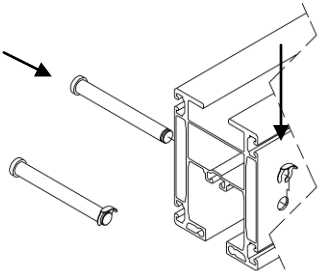
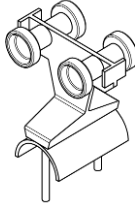

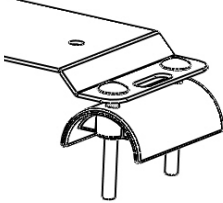



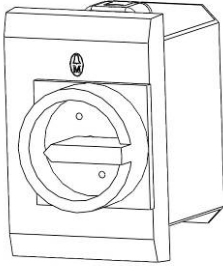
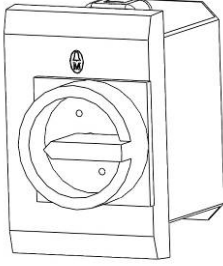
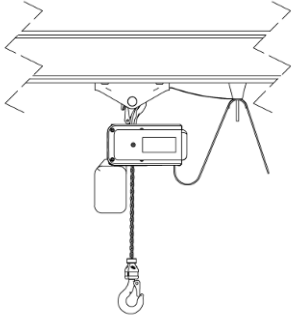
2.2 Wall-mounted slewing crane



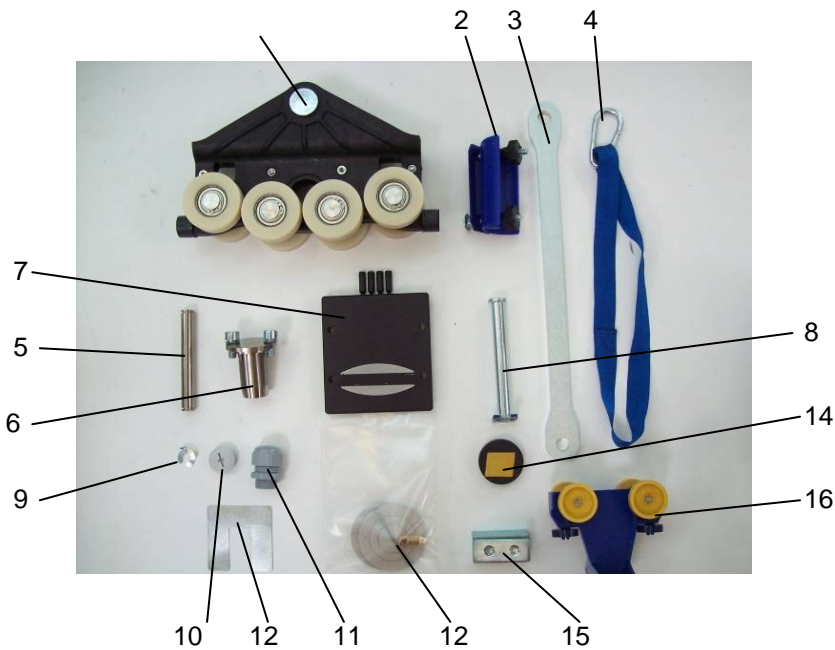
2.3 Description of main components

Component	Description, function
Crane rail	<p>Aluminum crane section for the jib. There are 4 section sizes: SRA 100, SRA 105, SRA 140, SRA 180. The section size is selected depending on the maximum bearing capacity and the jib length.</p>
	 <p style="text-align: center;">SRA 100 SRA 105 SRA 140 SRA 180</p>
Sealing plate	<p>Sealing of the jib. Prevents dirt from entering from the side.</p>
	
Carrying hook, fork	<p>Connecting component between the jib and the load suspension, optimally designed for the direct connection (without shackle) of a chain hoist with VacuMaster lifting device or Jumbo tube lifter, etc.</p> <p>Maximum load: Plastic carrying hook: 300 kg Aluminum carrying hook: 750 kg</p>
	
Roller for carrying hook	<p>Plastic carrying hook: 8-piece transport roller in white, max. load 300 kg</p> <p>Aluminum carrying hook: 8-piece transport roller in white, max. load 500 kg</p> <p>4 rollers in yellow / outer/lower installation. 4 rollers in white / inner/upper installation. max. load 750 kg</p>
	

Component	Description, function	
<p>Travel limiter</p>	<p>Limit stop, secured in the inner section groove Serves all carrying hooks as a variably adjustable limit stop. Line/hose trolleys can travel through under the travel limiter, the terminal clamps here serve as a limit stop. <u>Note:</u> does not replace the end stop</p>	
<p>End stop</p>	<p>Bolts on both sides at the end of the jib serve as a secured end stop for the carrying hook.</p>	
<p>Cable trolley, flat cable</p>	<p>Cable trolley for the flat cable, serves as power supply for chain hoist and lifting device.</p>	
<p>Cable trolley, hose</p>	<p>Cable trolley for the supply hose of the Jumbo tube lifter.</p>	
<p>Terminal clamp, flat cable</p>	<p>Limits the travel area of the flat cable at the end of the jib. Serves simultaneously as a limit stop cable trolley.</p>	
<p>Terminal clamp, hose</p>	<p>Limits the travel area of the supply hose on the jib. Also serves as a limit stop for the cable trolley.</p>	

Component	Description, function	
Crane mains supply switch	<p>The crane mains supply switch serves to separate the power supply of electrical components (chain hoist, lifting device, etc.). The crane mains supply switch does not contain any protective elements.</p>	
Motor protection switch	<p>A motor protection switch is used when a vacuum blower or a vacuum pump is used. The motor protection switch serves to switch off the vacuum generator and simultaneously protects it. The motor protection switch is designed for the connected vacuum generator. No further consuming devices may be connected to the outlet of the motor protection switch.</p>	
Strain relief for chain hoist supply cable	<p>Connection of carrying hook to first cable trolley for the flat cable, thereby avoiding tension on the flat cable and ensuring optimal strain relief.</p>	

2.4 Description of component parts



1. Carrying hook
2. Terminal clamp for flat cable/hose
3. Bracket for inner bracing
4. Snap hook and strap for the vacuum supply
5. Bolt for bracing
6. Upper bolt with screws for the pivot bearing
7. Plastic cover plate with fastening pins
8. End stop (long bolt)
9. Safety washer for bolt
10. Plug
11. Cable screw union
12. Bearing plate
13. Plumb line
14. Crane buffer
15. Variable limit stop
16. Cable trolley

Quantity of individual components

Jib length up to	2 m	3 m	4 m	5 m	6 m
Carrying hook (1)	1	1	1	1	1
Terminal clamp (2)	1	1	1	1	1
Bracket (3)	-	-	-	2x for 2 bracings	
Snap hook and strap (4)	2	3	4	4	5
Bolt for bracing (5)	1	1	1	1	1
Bolt for pivot bearing (6)	1	1	1	1	1
Cover plate (7)	1	1	1	1	1
End stop (long bolt) (8)	2	2	2	2	2
Safety washer for bolt (9)	var.	var.	var.	var.	var.
Plug (10)	var.	var.	var.	var.	var.
Cable screw union (11)	var.	var.	var.	var.	var.
Bearing plate (12)	var.	var.	var.	var.	var.
Plumb line (13)	1	1	1	1	1
Crane buffer (14)	2	2	2	2	2
Variable limit stop (15)	2	2	2	2	2
Cable trolley (16)	1	2	3	3	4

3 Installation Instructions and Start of Operations

3.1 General instructions

Start of operations

The slewing crane should be installed and maintained by qualified specialist personnel, mechanics and electricians only. Work on electrical equipment may be carried out only by qualified electrical specialists.

Note:

there must be at least 100 mm spacing on all sides from the slewing crane to on-site obstructions. Ensure that the slewing crane remains easily accessible for subsequent maintenance and inspection.

3.2 Removing the packaging

Delivery condition

Generally, the scope of delivery consists of:

- the crane column (for column-mounted slewing crane)/the wall bracket (for wall-mounted slewing crane)
- the crane jib (crane rail and pivot bearing)
- a box with small parts
- Do not take the parts out of the packaging until you are ready to begin installation (to protect against physical damage).
- Remove the packaging from the aluminum section.
- Lay the sections on a base, e.g. cardboard, so that they cannot be damaged.
- Avoid undertaking any other mechanical tasks in the area of the sections, otherwise there is a danger that chips and dirt can get into the section grooves.
- Dispose of the packaging in accordance with the regulations applicable to you.

Removing the packaging

3.3 Identifying parts

- For identification purposes, please keep the illustrated list from section 2.4 to hand.

3.4 Tool list (on-site)

- 1x open-ended wrench 10, 13, 14, 19 (depending on size for WK, 24, 36, 46)
- 1x hexagon socket wrench set
- 1x spirit level
- 1x torque wrench
- 1x Phillips head PH2x100
- 1x flat screwdriver
- 1x pliers
- 1x carpet cutter
- 1x wire cutter
- 1x plumb line with centering disks (*included in scope of delivery*)

3.5 Electrical installation

Installation or maintenance work on electrical components of the crane system must be carried only by an electrician or an electrical specialist.



Applies to the version with motor protection switch:

The motor protection switch is designed for the connected vacuum generator.
No further consuming devices may be connected to the outlet of the motor protection switch.

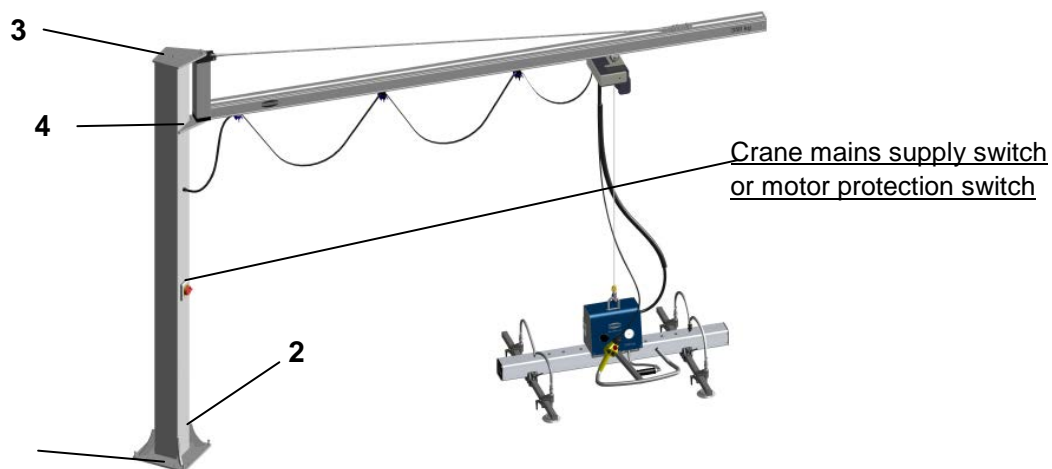


Applies to the version with mains supply switch in combination with chain hoist and vacuum lifting device:

The electrical connection must be downstream from the crane mains connection switch and upstream from the EMERGENCY STOP switch of the chain hoist. The vacuum of the lifting device may not be deactivated when the EMERGENCY STOP is activated, as this could result in hazardous situations.

Installation of electrical supply lines

The electrical supply line can be fed at three points on the crane column to the crane mains connection switch or motor protection switch. A flexible connection line (not included in scope of delivery) with a diameter suited to the capacity of the consuming device (usually 5 x 2.5 mm²) must be used.



[1] Ground supply from below

Before erecting the crane column, the line must be fed through the base plate to the hole for the switch. When erecting the crane column, the line must not be pinched or cut at any point.

[2] Ground supply from the side

Before erecting the crane column, the line must be pulled through the cable screw connection and hole into the crane column and fed through to the switch. Secure and tighten the cable screw union. The cable screw union provides strain relief for the cable.

[3] Top cover supply

The line must be pulled from above through the cable screw union and hole into the pillar's top plate and fed through to the switch. This task can also be carried out after erecting the crane column. Secure and tighten the cable screw union. The cable screw union provides strain relief for the cable.

[4] Installation of electrical outgoing line to consuming device

The outgoing line must be pulled through the cable screw union and hole on the underside of the crane jib and fed through to the switch. This task can also be carried out after erecting the crane column. Secure and tighten the cable screw union. The cable screw union provides strain relief for the cable.

**Installation instructions
for the motor protection switch in the
crane column**



**Scope of delivery of the mounting kit for
the motor protection switch in the crane
column**



Mounting frame with installation material and cover
Cable clamp 2x
Neutral terminal 1x
Ground cable for connection to crane column 1x
Motor protection switch 1x



Caution

The following assembly steps may be carried out only by qualified electrical specialists.

Installation steps

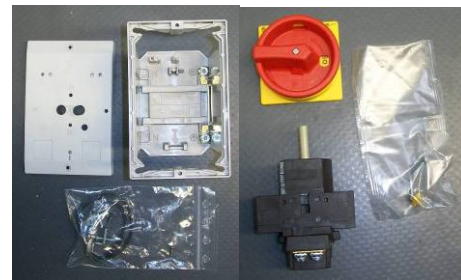
1. Attach the ground cable to the inner side of the crane column using nuts and the washers that are included with the crane column.



**Installation instructions
for crane mains supply switch**



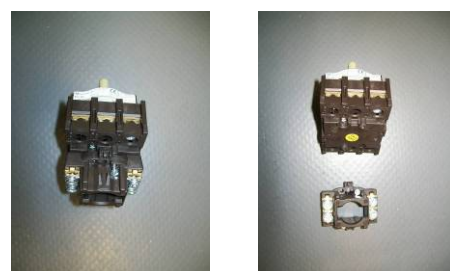
**Scope of delivery of the mounting kit for
the main switch in the crane column**



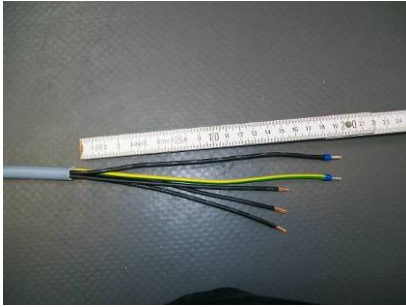
Mounting frame with installation material and cover
Cable clamp 2x
Neutral terminal 1x
Ground cable for connection to crane column 1x
Main switch 1x
Main switch identification plate 1x

Installation steps

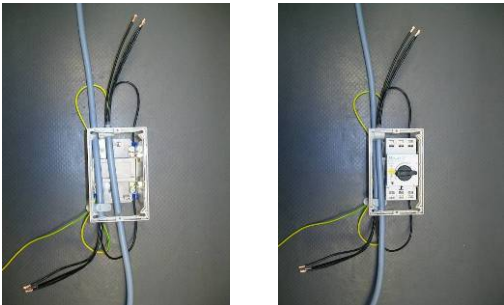
1. Remove the additional terminal block for the neutral and ground connection from the switch (no longer required).



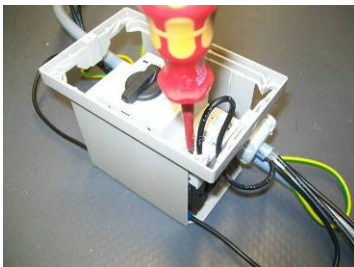
2. Pull the cables through the opening and prepare them for connection Stripping around 7.87 in of the cables is recommended.



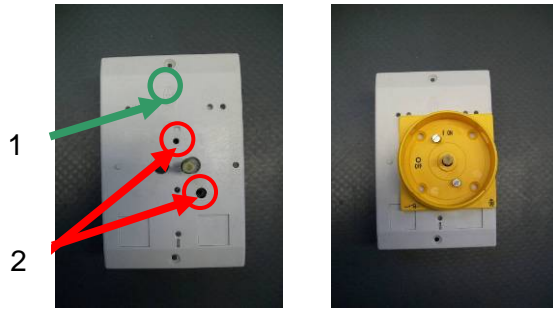
3. Connect the neutral and ground cables to the mounting frame and affix the cable clamps to the cables. They function as strain relief once installation is complete. Arrange the cables on top of each other on the conductor terminal side, then press the motor protection switch into the mounting frame.



4. The motor protection switch has spring terminals. Use a small screwdriver for these, as shown in the illustration. The terminal opens when pressed down, and the cable can be inserted into this opening.



2. Screw the mounting frame cover onto the switch. Screw through the yellow mounting plate of the main switch. Use the marked holes (2) in the cover for this. The Glöckner Möller logo (1) can be used as an orientation aid.



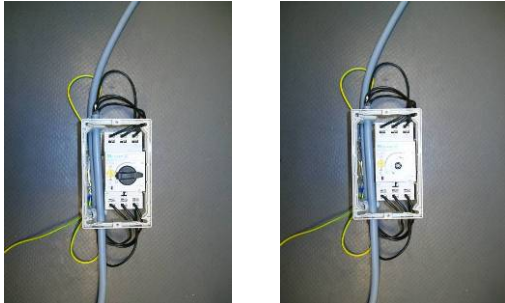
3. Screw on the red rotary knob and attach the indicating signs to the front and back.



4. Attach the ground cable to the inner side of the crane column using nuts and the washers that are included with the crane column.



5. Remove the black knob from the motor protection switch. To do this, carefully place a small screwdriver under the knob and lever it off.



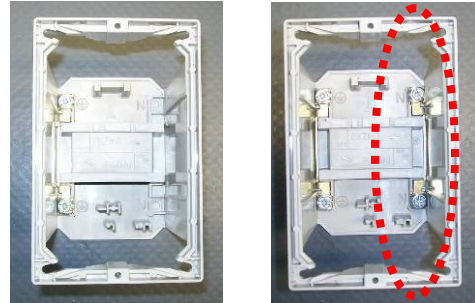
6. Push the cables back through into the pillar and place the mounting frame into the crane column. Then screw the mounting frame to the pillar using the clips that are provided.



7. Place the cover onto the mounting frame and screw it on.



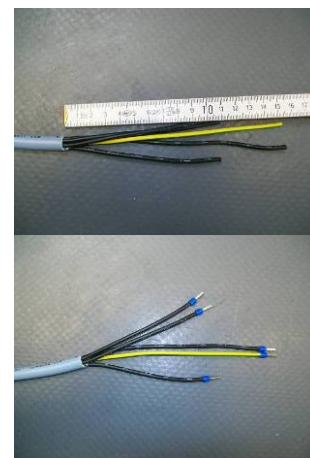
5. Install additional neutral terminal on mounting frame. As with the grounding terminal, this terminal is just pressed in from the side.



6. Insert the mounting frame into the crane column and lead the cables out before the frame is permanently fastened. Screw the mounting frame to the pillar using the clips that are provided and then install the sealing.



7. Prepare the cable for connection. Stripping around 15 cm of the cables is recommended.



8. Connect the neutral and ground cables to the mounting frame and affix the cable clamps to the cables. They function as strain relief once installation is complete.



9. For simple installation, connect the cables together using a cable tie as in the picture. Then push the cables back into the pillar, place the cover onto the mounting frame and screw tight.



3.6 Mechanical installation

Note

- ⇒ Adhere to the applicable safety regulations during all your activities
- ⇒ All screws should be tightened with a torque wrench

Tightening torques

	M8	M12	M16	M24	M30
Standard screws, standard nuts	23 Nm	80 Nm	194 Nm	725 Nm	1,450 Nm
Anchor bolts	-	80 Nm	-	-	-
Anchors	-	40 Nm	-	-	-

3.7 Erecting the crane column

3.7.1 Erecting the crane column with shear connectors

Installing the crane column with shear connectors (highbond anchor FHB dynamic)

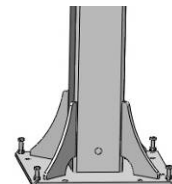
- The dimensions of the base plates on the crane are designed for shear connectors (Fischer FHB M12x100 dynamic) with mortar cartridges (**shear connectors from other manufacturers must have the same properties as the ones specified here**).
- These shear connectors are designed for dynamic loads with more than 2×10^6 load cycles.
- The shear connectors have high holding forces for chasing tools between M12 and M24 in cracked and non-cracked concrete. **The anchoring base must be concrete with a strength class of $\geq B 25$ or $\geq C 20/25$.**
- **The concrete depth must be at least 200 mm, otherwise the variant option with anchor bolts must be implemented.**
- The hardening of the reaction resin depends on the temperature in the anchoring base. For this reason, adhere to the following waiting times between the setting and securing of the attachment part as well as putting stress on the anchor:

Temperature in borehole	Waiting time in minutes
> +20°C	25 min
+10°C to +20°C	30 min
0°C to +10°C	60 min

- Further instructions regarding installation of the shear connectors can be found on their packaging.

Aligning the crane pillar

To align the crane column; screws are provided in the base plate, with which the pillar can be set up exactly. To make sure that no cavities appear at the anchor locations, the gap created between the ground and the plate, before using the anchors, must be leveled out using the bearing plates included in delivery.

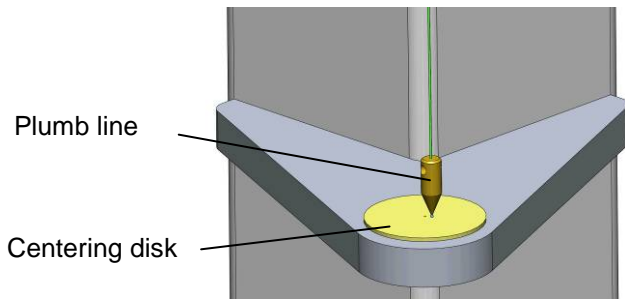
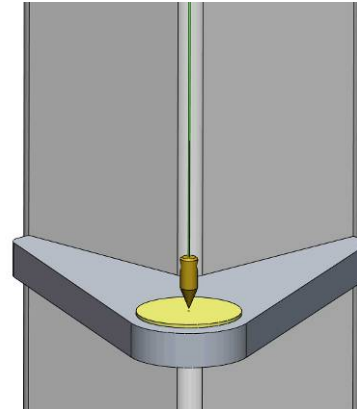
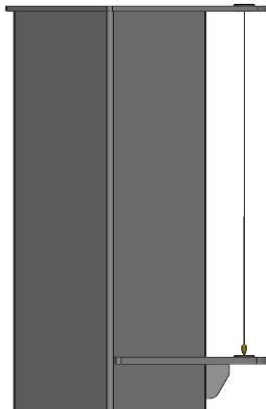


The best order when several bearing plates are stacked

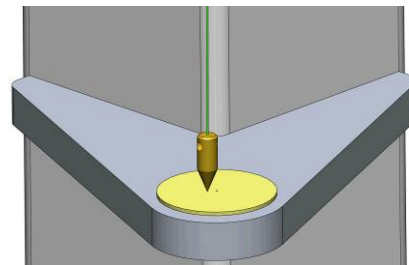


**Aligning the crane
column using a
plumb line and
centering disks**

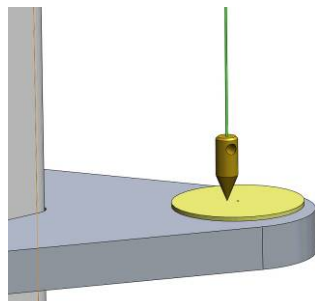
To guarantee the best performance characteristics from the SRA slewing crane, the crane column has to be aligned correctly. This must be carried out with great care.



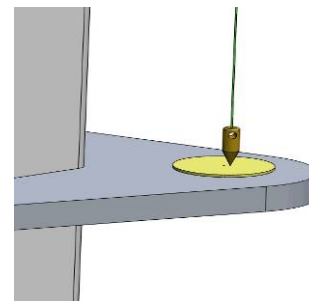
Pillar leaning to right, i.e.
raise base plate on the right



Pillar leaning to left, i.e.
raise base plate on the left



Pillar leaning backwards, i.e.
raise base plate from the back

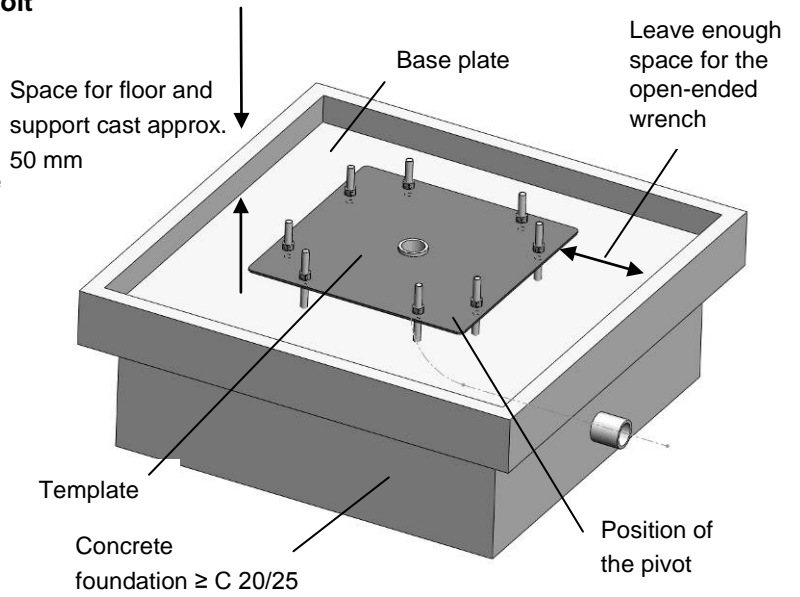


Pillar leaning forwards, i.e.
raise base plate from the front

3.7.2 Installing the crane column on anchor bolt

Mounting the crane column on anchor bolts

The number and order of the anchor bolts depends upon the size of the crane and is given by the template (included in product range)

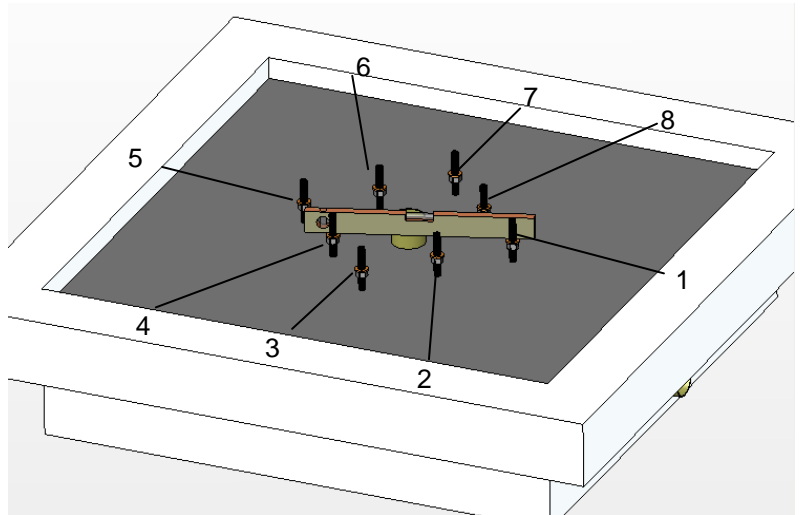


After the concrete has hardened (for example, C 20/25 = 28 days), the upper nuts, washers and the template are removed.

Aligning the aligning nuts

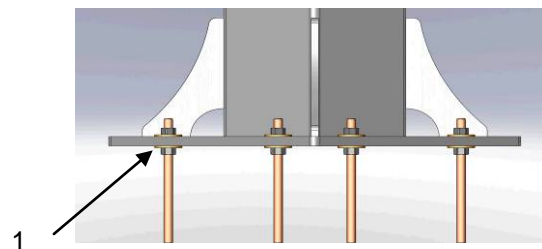
horizontal aligning of the nuts using a spirit level

- 1 → 2
- 1 → 3
- 1 → 4
- etc.



Placing the crane column on anchor bolts

and securing with the washers and nuts

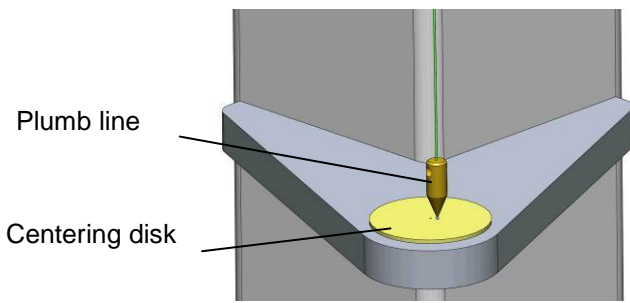
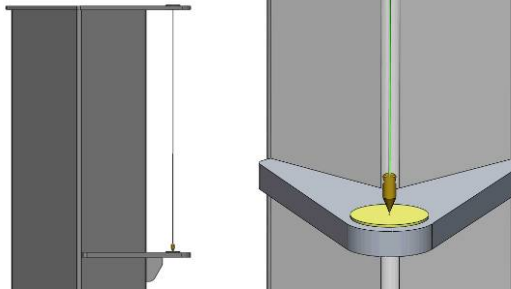


To align the crane column using the plumb line, the lower nuts (1) are adjusted so that all nuts on the base plate fit without play.

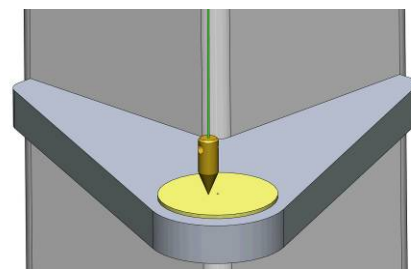
PILLAR SWING CRANE

Aligning the crane column using a plumb line and centering disks

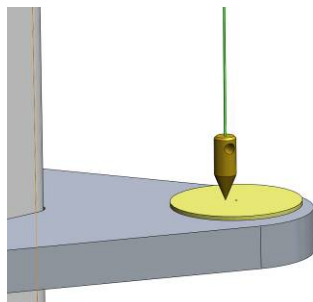
To guarantee the best performance characteristics from the SRA slewing crane, the crane column has to be aligned correctly. This must be carried out with great care.



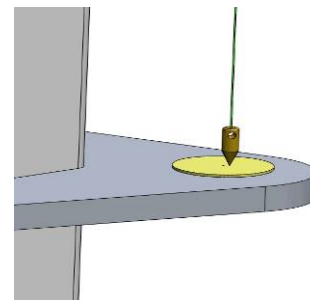
Pillar leaning to right, i.e. raise base plate on the right



Pillar leaning to left, i.e. raise base plate on the left



Pillar leaning backwards, i.e. raise base plate from the back

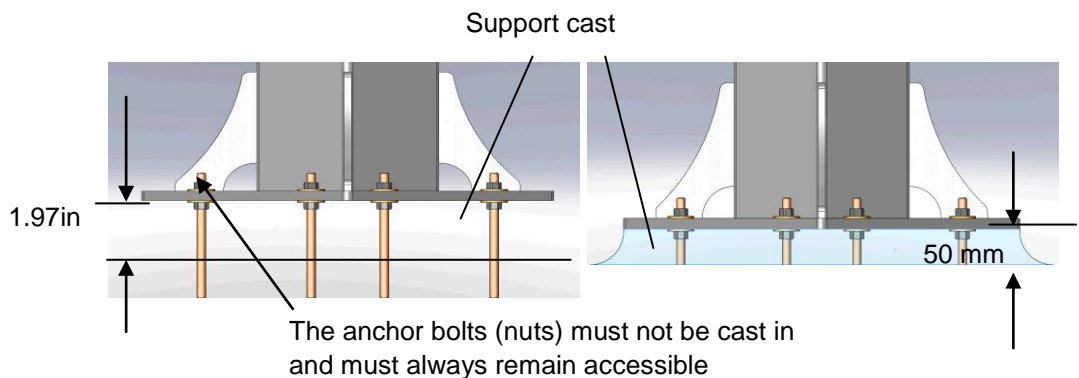


Pillar leaning forwards, i.e. raise base plate from the front

Filling the crane column after alignment

Lower edge = upper edge of base plate

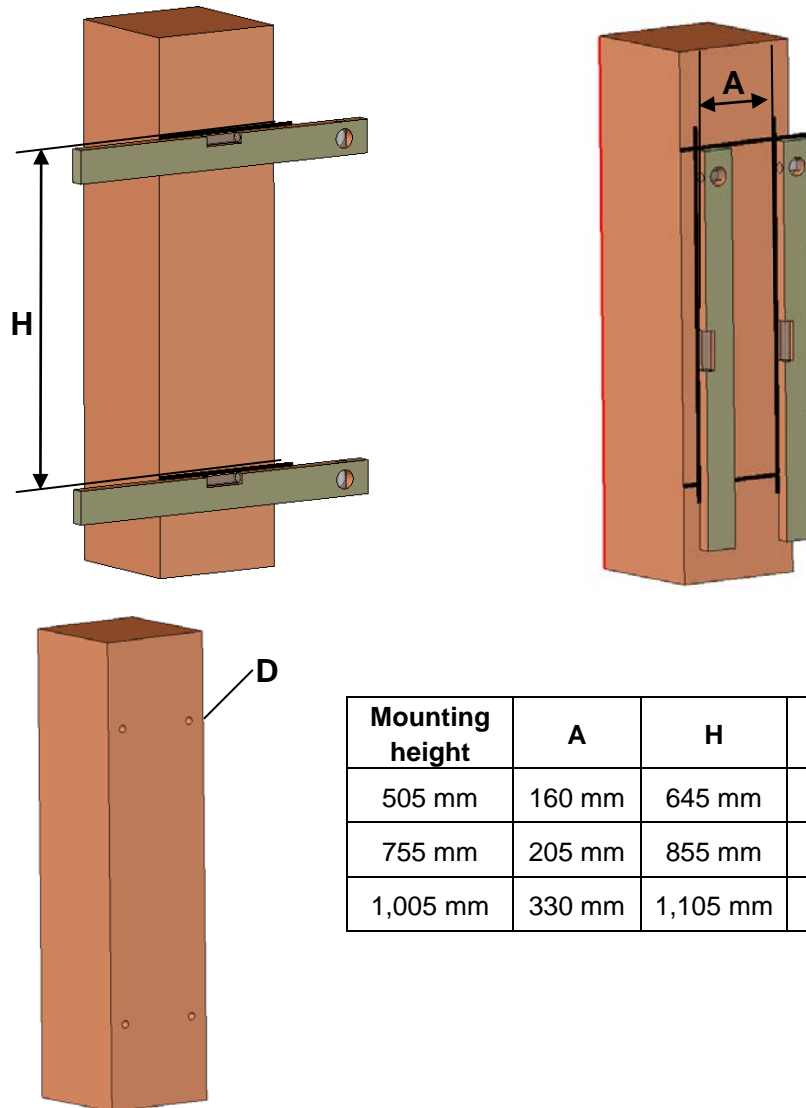
Foundation upper edge = base plate



3.7.3 Installing the crane column with the mobile base plate (see section 4)

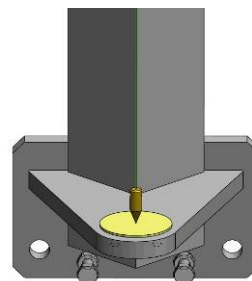
3.8 Mounting the wall bracket

Secure with
securing screws

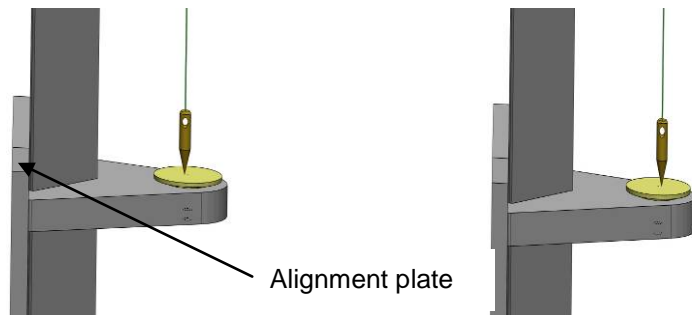
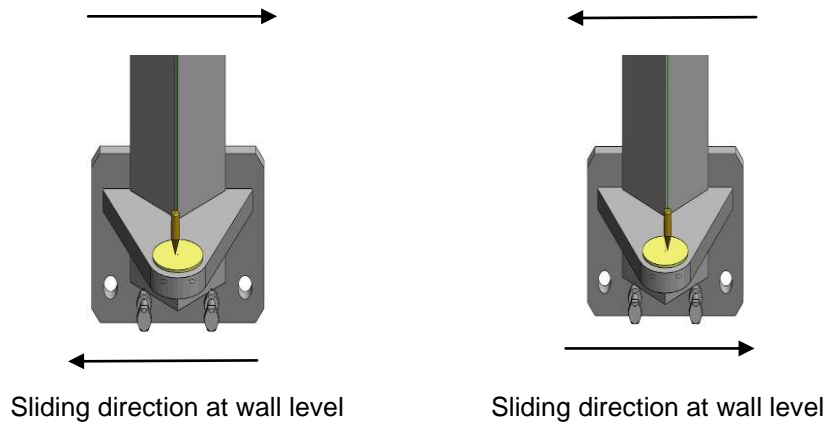


Mounting height	A	H	D	Drill diameter
505 mm	160 mm	645 mm	M16	14 mm
755 mm	205 mm	855 mm	M24	21 mm
1,005 mm	330 mm	1,105 mm	M30	26.5 mm

Aligning the bracket using a plumb line and centering disks To guarantee the best performance characteristics from the SRA slewing crane, the bracket has to be aligned correctly. This must be carried out with great care.



**Alignment of wall and clasp
bracket**



Aligning the bracket with alignment
plates

Aligning the bracket with alignment
plates

3.9 Installing the wall-mounted slewing crane with shear connectors

Please consult the manufacturer before installing the wall-mounted slewing crane with shear connectors.

3.10 Installing the clasp bracket (for the WK wall-mounted slewing crane)

Clamp the two plates (1) and (2) with both threaded rods (3) and nuts (4).

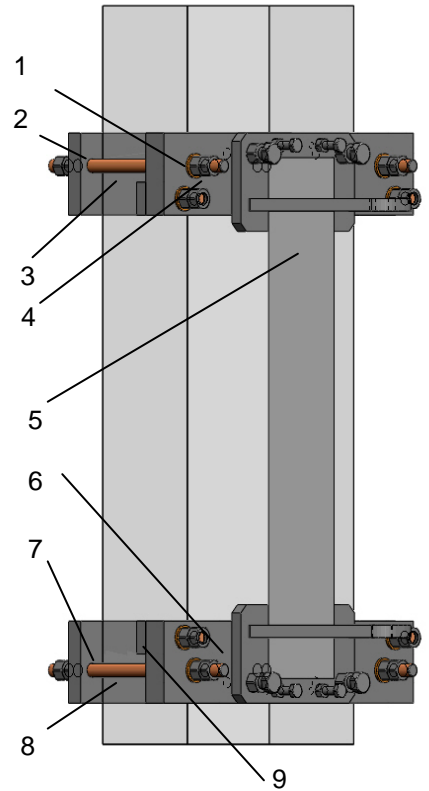
Screw the wall bracket (5) to the plate (1). Next, screw the lower clamp plate (6) to the wall bracket. Install the rear clamp plate (7) with both threaded rods (8) and nuts.

After aligning the wall bracket (5) the side plates (9) must be slid on to the beam and tightened until they are without play.

The screws must be tightened with the respective torque (see section 3.6).

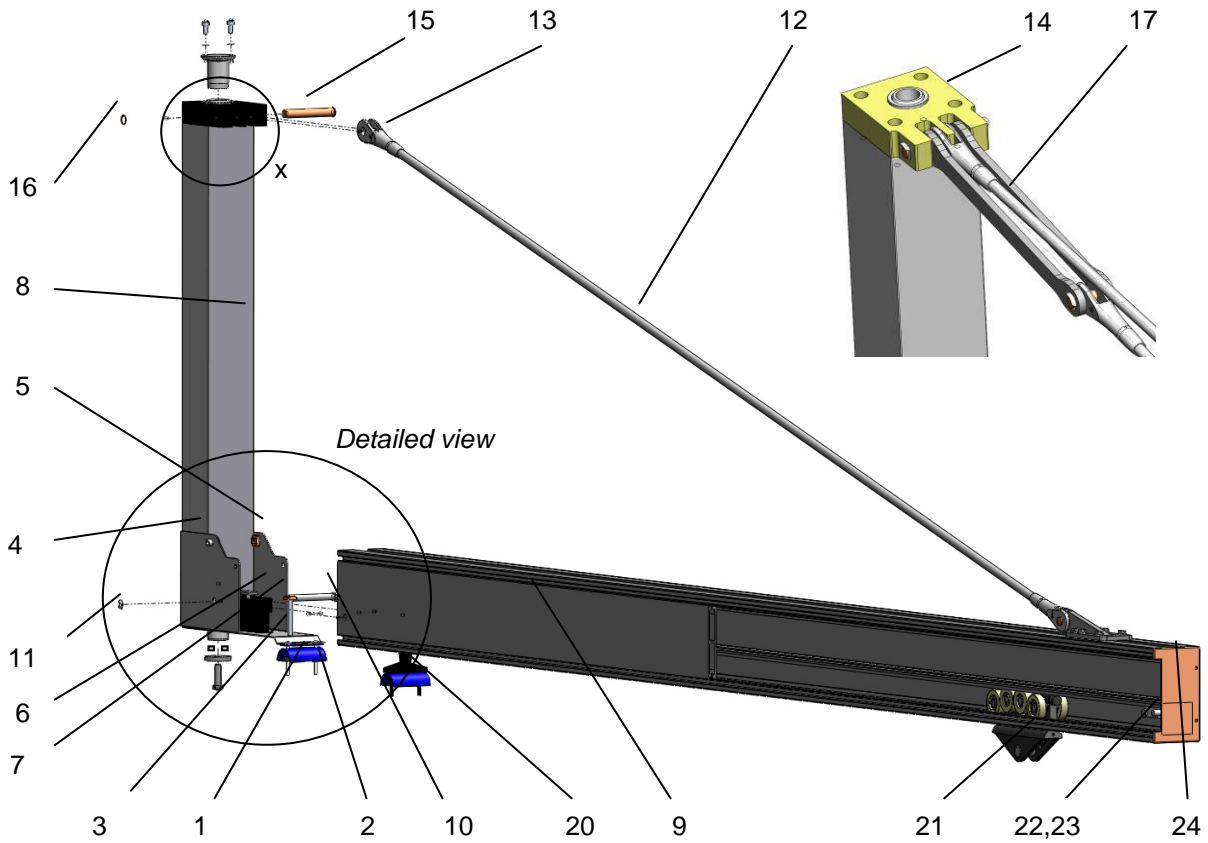


The customer must provide a suitable construction for the securing of the crane against vertical slipping.



3.11 Pre-assembly of crane jib

⇒ Check parts for completeness.

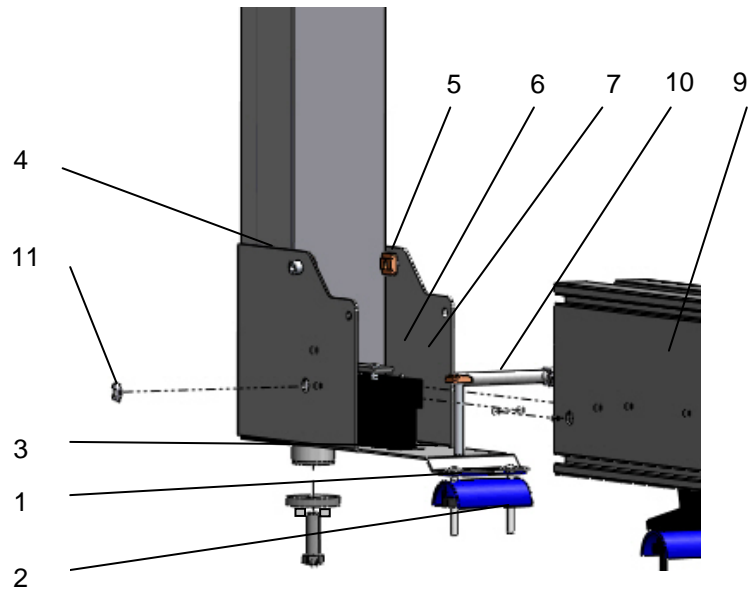


**Jib rail
SRA100/SRA105**

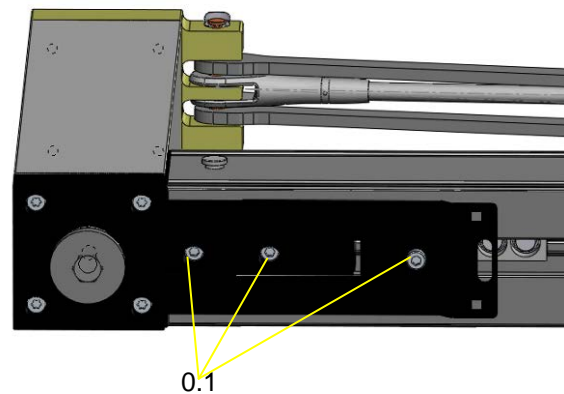


Jib rail
SRA140/SRA180

Detailed view

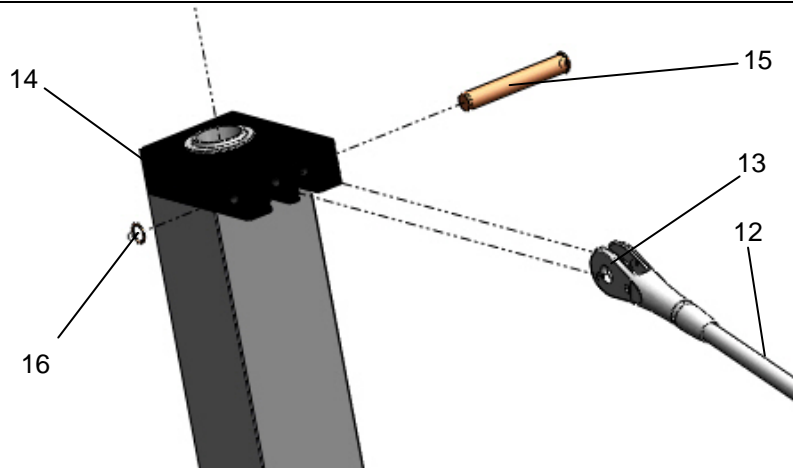


Assembly/startup

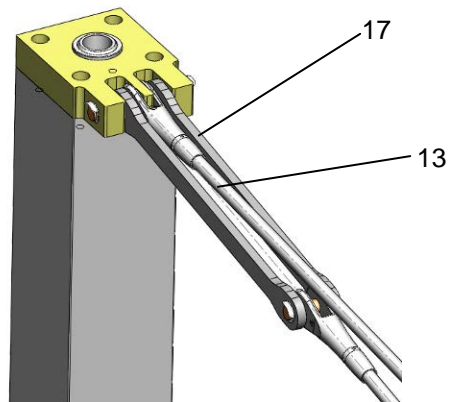


- ⇒ Screw on the terminal clamp (1) for the flat cable to the plate (3) with the screws (2).
- ⇒ Loosen the screws (4, 4a) on the T-slot nut (5, 6, 7), then attach the pivot bearing (8) onto the aluminum rail (9) as far as the limit.
- ⇒ Push the securing bolts (10) through the holes and secure with the safety washers (11).
- ⇒ Lightly screw on the screws (4, 4a) for the T-slot nut.

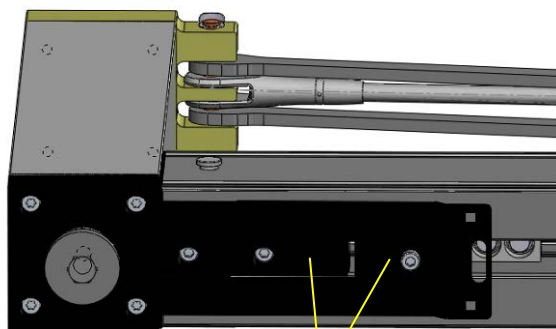
Section 3
Assembly/startup



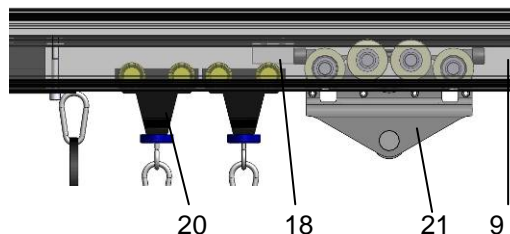
- ⇒ Lift the pre-assembled bracing (12) with the forked head (13) up to the center of the top bearing plate (14), push the securing bolt (15) through the hole and secure with the safety washers (16).



- ⇒ For two bracings, the brackets (17) are positioned to the left and right of the forked head (13).
⇒ Tighten the screws (4) on the T-slot nut (see section 3.6).



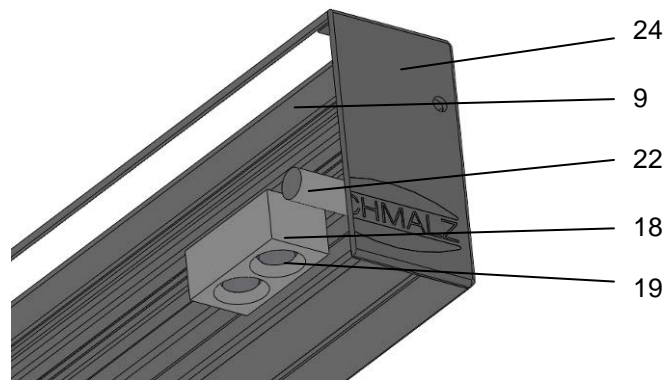
- ⇒ Tighten the screws (4a) for the long T-slot nut using a torque wrench (see section 3.6).



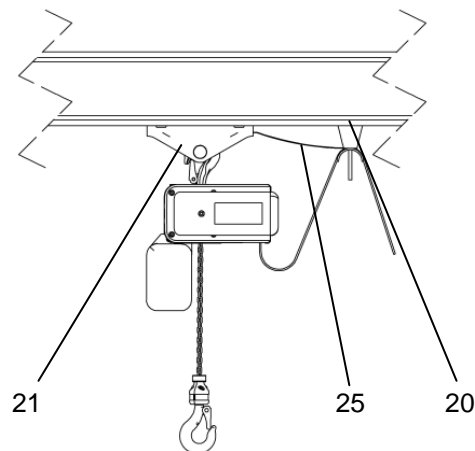
Section 3

Assembly/startup

- ⇒ Insert the cable trolley (20) for the flat cable or hose into the aluminum crane rail (9). Number according to scope of delivery.
- ⇒ Slide a variable travel limiter (18) into the groove of the aluminum crane rail (9).
- ⇒ Insert the carrying hook (21) into the aluminum crane rail (9).
- ⇒ Slide all of the cable trolleys (20) and the carrying hook (21) as well as the variable travel limiter (18) to the end of the crane rail (9) next to the pivot bearing (8). Fasten the variable travel limiter (18) between the last cable trolley (19) and the carrying hook (21) with the screws (19). Set up the variable travel limiter in such a way that the cable trolleys cannot be damaged by the carrying hook (21).

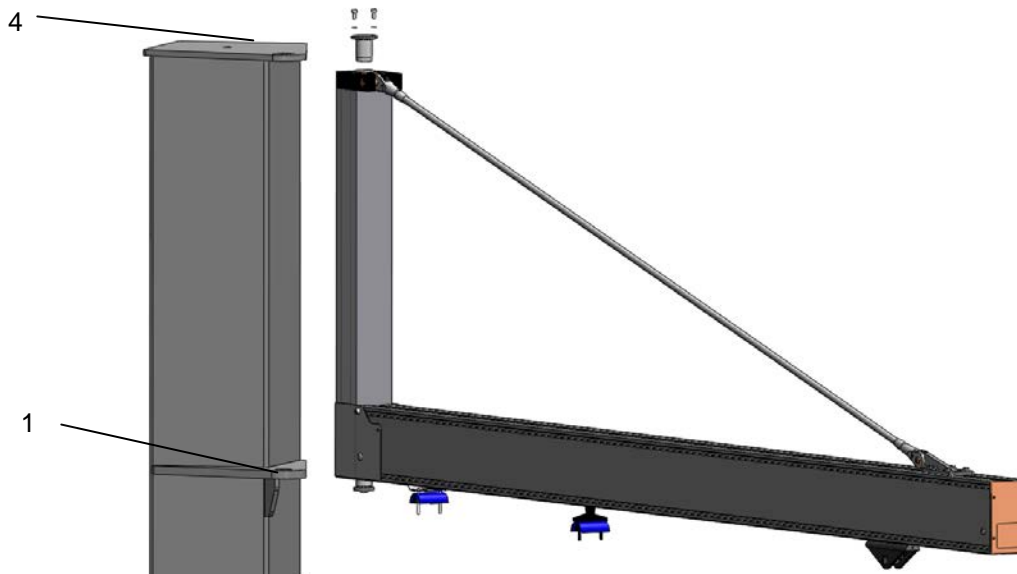


- ⇒ Slide a second variable travel limiter (18) into the groove of the aluminum crane rail (9).
- ⇒ Put the short end stop (10) into the designated borehole of the aluminum crane rail (22) and secure with lock washer (23).
- ⇒ Slide the second variable travel limiter (18) into the groove of the aluminum crane rail (9) against the short end stop (22) and fasten with screws (19).
- ⇒ Put the sealing plate (24) onto the face of the aluminum crane rail (9) and secure with the molded pins.



- ⇒ Install the strain relief device (25), only with power supply (flat cable), between the last cable trolley (20) and the carrying hook (21).

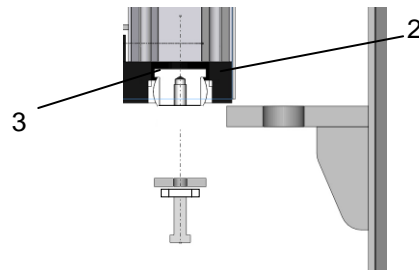
3.12 Mounting the crane jib on the crane column or wall bracket



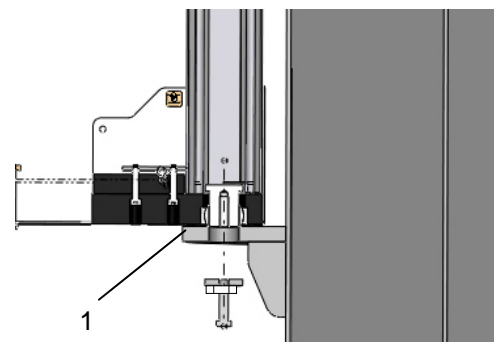
Installing on the crane column

Raise crane jib with hoist to the height of the lower bearing plate (1).

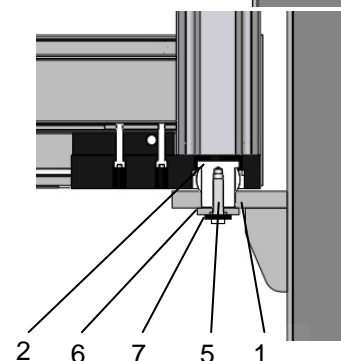
Push the bolt (2) on the lower bearing (3) back until the bolt underside is flush with the underside of the bearing.



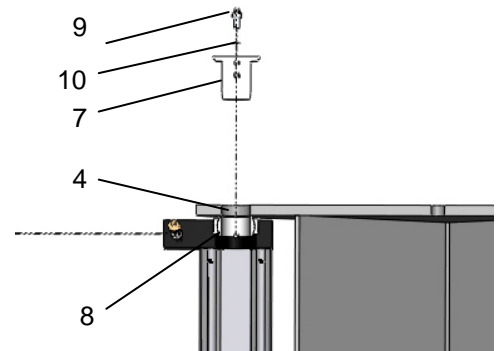
Insert the crane jib horizontally between the bearing plates (1 and 4).



Remove the bolt (2) with the screw (5), washer (6) and conical spring washer (7) through the hole in the lower bearing plate (1). Tighten the screw after aligning the crane jib.

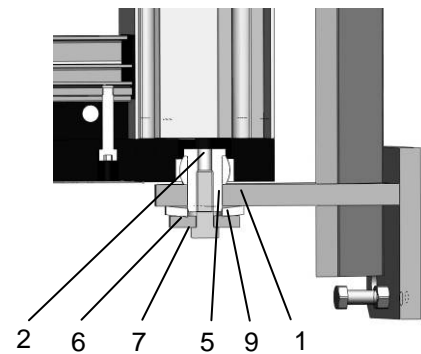


Insert the upper bolt (7) through the hole in the upper bearing plate (4) and through the bearing (8) in the pivot bearing.
Screw on the securing screws (9) with Schnorr safety washers (10) and tighten with the torque wrench.

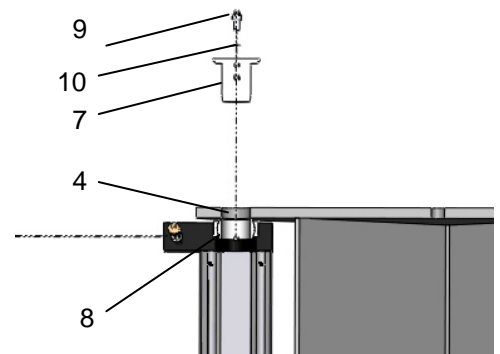


**Mounting on the wall
bracket**

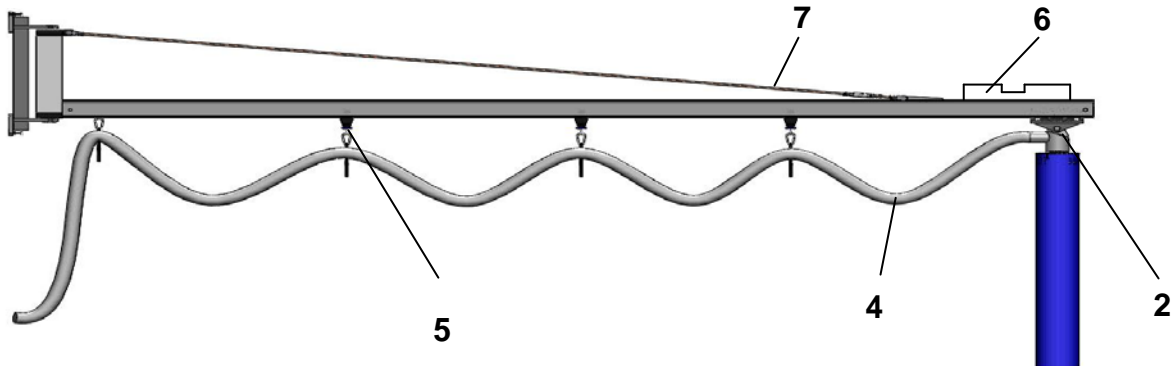
Remove the bolt (2) with the screw (5), washer (6) and conical spring washer (7) through the hole in the lower bearing plate (1).
Install the additional washer (9) for bearing heights 755 mm and 505 mm (not necessary for bearing height of 1,005 mm).
Tighten the screw after aligning the crane jib.



Insert the upper bolt (7) through the hole in the upper bearing plate (4) and through the bearing (8) in the pivot bearing.
Screw on the securing screws (9) with Schnorr safety washers (10) and tighten with the torque wrench.

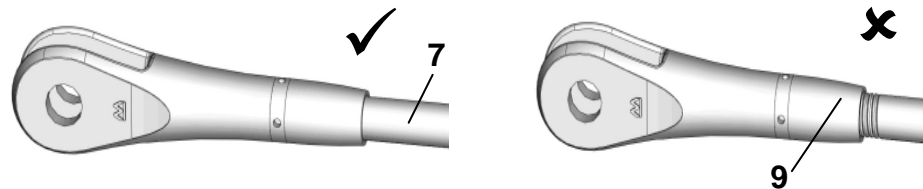


3.13 Crane jib alignment with pillar-mounted or wall-mounted slewing crane

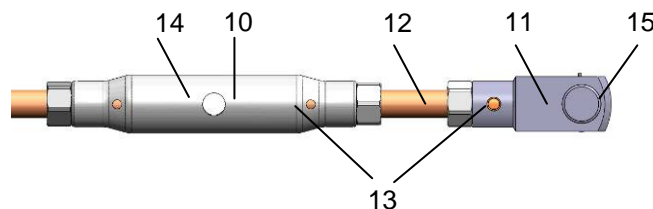


- Insert chain hoist and VacuMaster or Jumbo into the carrying hook (2).
- Hang the flat cable or hose (4) in the cable trolley (5) in such a way that large enough loops are available (guideline for Jumbo \varnothing approx. 800 mm/guideline for JumboFlex \varnothing approx. 500 mm)
- Lay precision spirit level (6) by the outer bracing (7) on the jib.
- Align aluminum section horizontally with the hexagonal mid section of the bracing (7) using the open-ended wrench.
- For 2 bracings, repeat the process on the second.
- Put the lock nut (9) on the fork head and tighten with a drift punch or hook wrench and check to see if the thread is no longer visible.

Design with tie bar



Design with spanner nut



- Loosen both nuts (10 and 11) on the spanner nut (12) and turn them back far enough.
- Set the length of the bracing (7) using the spanner nut (12).
- Check whether the threaded rods (14 and 15) are visible in the holes (13).

Note:

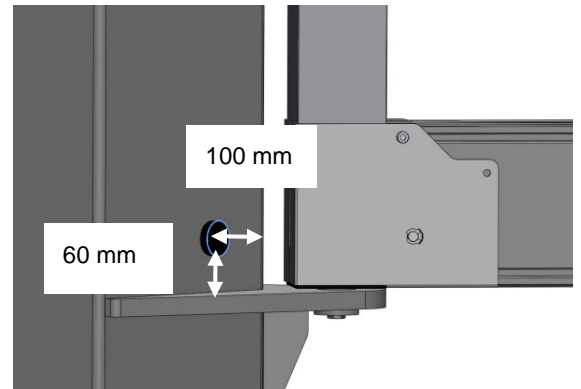
An exact alignment of the crane boom is required for optimal usage properties of the slewing crane.

After aligning the crane jib, the screws on the pivot bearing need to be retightened with a torque wrench (see section 3.6).

3.14 Installing the crane buffer

Preparing the load suspension

- Attach the self-adhesive crane buffer to the pillar to the left and right of the pivot bearing.
- Bring the crane buffer to the limit stop angle by using a swivel angle limit.



3.15 Mounting load-bearing devices

Preparing the load suspension

- Ensure that the suspension of the load suspension is suitably set up for transport with the carrying hook; consultation of the load suspension manufacturer may be required.

Mounting the load suspension

- Insert load suspension into the designated carrying hook. Use U-shaped metal clamps for plastic designs (included in product range).
- Secure with securing bolts.
- If it is not possible to insert the load suspension directly into the carrying hook, shackles approved for the corresponding load-bearing capacity should be used. In this case the U-shaped metal clamp must likewise be in the carrying hook.

3.16 Installing the power supply

3.16.1 Vacuum power supply

Please note the number of cable trolleys in the parts list, these are specifically designated for the crane jib.

Vacuum hose, terminal clamps and cable trolley

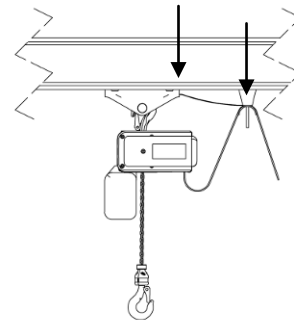
- Prepare the vacuum supply hose in accordance with the specifications of the load suspension manufacturer, e.g. band sling around the supply hose, attach band with karabiner, note the distance between band slings.
- Insert the cable trolley as specified in the parts list into the aluminum crane rail. A variable end clamp must be properly installed at the ends of the crane rail.
- Insert snap hooks on the hose into the clip bolts of the cable trolley and terminal clamp.

3.16.2 Electrical power supply

Please note the number of cable trolleys in the parts list, these are specifically designated for the crane jib.

Cable trolley, terminal clamp for rail/support, carrying hook terminal clamp

- Insert the cable trolley as specified in the parts list into the aluminum crane rail. A variable end clamp must be properly installed at the ends of the crane rail.
- Attach the strain relief device for the chain hoist supply line to the carrying hook and the first cable trolley.



- Insert and secure flat cable, ensure an even spacing.

Electrical connection

Connecting the flat conductor to the crane mains connection switch (see "Electrical Installation" section)



➔ **This work may be carried out only by a qualified electrical specialist.**

With chain hoist:

Connecting the flat cable to the mains supply switch.

With tube lifter:

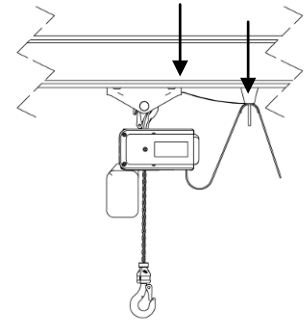
Connecting the blower to the motor protection switch

The customer's power supply is to be connected to this component with flexible cables.

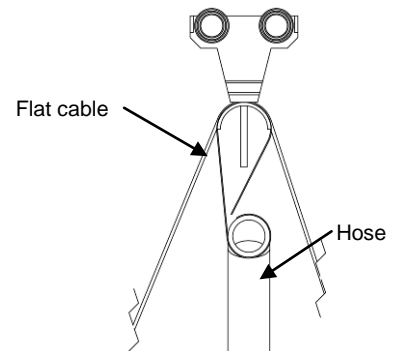
3.16.3 Power and vacuum supply

Cable trolley, terminal clamp for rail/support, carrying hook terminal clamp

- Insert and secure flat cable, ensure an even spacing.
- Insert the cable trolley as specified in the parts list into the aluminum crane rail. A terminal clamp is to be installed appropriately between the cable trolley and the end of the rail or support in each case.
- Attach the strain relief device for the chain hoist supply line to the carrying hook and the first cable trolley.




- At the same time, lay the flat cable and the double loops around the vacuum hose over one another and secure, taking care to space evenly.



Electrical connection

Connecting the flat conductor to the crane mains connection switch (see "Electrical Installation" section)

	➔ This work may be carried out only by a qualified electrical specialist.
Danger	

3.17 Determining readiness for operation

Check

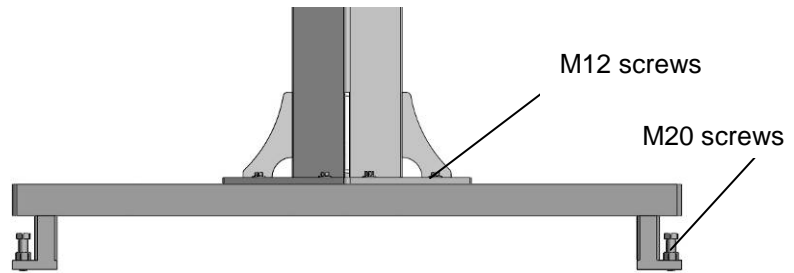
- **Have all mechanical connection elements been correctly attached and secured, have all screws been tightened in accordance with torque specifications?**
- **Have all components been used?**

Function Test

- Manually slide load suspension of the slewing crane.
- Are the media lines functional and laid correctly? (Are loops and spacings even?)
- Load suspension must travel evenly and easily within the entire travel area.
- Rotation through the entire area must occur with consistent ease.
- The aluminum crane jib must stop in every swivel position.

4 Installing Accessories

4.1 Mounting the crane column on base plate



- Place the base plate in the intended location and adjust with a spirit level
- Place the crane column on the base plate and fasten with the M12 screws in the appropriate holes. Note the position of the axis of rotation.
- Align the crane column (see section 3.7).
- Align the crane column using the M20 screws.

Repositioning to a different location

- To position the crane in another location, no workpiece may be attached to any lifting device.
- Move the lifting device to the crane column and secure to the pillar.
- Swivel the crane jib to an end position and secure from unintentional swinging (a lock for the jib is available in the range of accessories).
- Remove all power supplies that lead to the crane
- Transport the base plate to the new location using a suitable transporter (lift truck, fork lift truck, etc.). In doing this, consult the regulations for the relevant transporter manufacturer.
- Once positioned in the new location, the crane has to be aligned again.
- Remove the fastening for the crane jib and the lifting device.
- Align the base plate with the M20 screws so that the crane jib and lifting device remain still in every angle and position respectively.
- Attach the power supplies according to regulations.

4.2 Installing the swivel angle limit

- Unscrew and remove the screw in the lower bearing bolt.
- Hold the clamp plate under the bracket plate and fasten with the screw included (M12x70 for bolt diameter of 25 mm, M12x55 for bolt diameter for 40 mm) and the washer.
- Align the clamp plate with the column or wall bracket so that the surfaces fit.
- Tighten the M12 screw with the torque wrench (80 Nm).
- The clamp plate also has to be fastened to the bracket plate with screws, washers and nuts. On the side of the stop for single-sided swivel limit; on both sides for double-sided swivel limit.
- Attach the crane buffer (1) to the limit stop angle.
- Swivel the jib (3) to an end position.
- Slide the limit stop angle onto the jib and clamp tight.
- Swivel the jib to the other end position and repeat the procedure.

5 Operation

5.1 Work safety instructions

Local safety regulations apply. In Germany, this includes, but is not limited to BGR 500.

The following work safety instructions do not replace these – they are to be considered as additions:

- ⇒ Wear protective work shoes.
- ⇒ Never exceed the load-bearing capacity of the slewing crane.
- ⇒ Observe the specifications on the ultimate load plate.
- ⇒ Do not stand under the load. Always remain outside the danger zone of the load.
- ⇒ Never transport people or animals using the slewing crane.
- ⇒ Do not work unless you have a good view of the entire working area. Pay attention to other people in the working area.
- ⇒ Never transport the load over people.

5.2 Operation

The slewing crane enables load suspensions to be deployed within the working area of the crane.

- Load-bearing devices that have been designed for use on cranes are to be operated in accordance with the instructions of the load suspension's manufacturer with observance of section 5.1.
- Always carry loads on the jib.
- Never leave loads unattended on the jib.

6 Troubleshooting

Troubleshooting, solutions

The slewing crane should be installed and maintained by qualified specialist personnel, mechanics and electricians only. Work on electrical equipment may be carried out only by an electrician or electrical specialist.

After repair and maintenance work, always check safety equipment as set out in the "Safety" operating instructions.

Problem	Cause	Solution
Trolleys only roll with great difficulty or loudly on the rails	Overloading	Check whether overloading has possibly occurred now or previously, and replace the affected trolley if necessary
	Dirt	Check the bearing surfaces of the sections for dirt, remove any dirt with a cloth
		Check the bearing surfaces of the rollers for dirt, remove any trapped foreign bodies, replace rollers if required
Load suspension runs incorrectly Tube lifter runs incorrectly despite exact alignment of rail/support No power for tube lifter, chain hoist or lifting device	Crane jib not aligned exactly horizontally	Align rail exactly
	Supply hose is pulling on the tube lifter (in the direction of the hose station)	Increase the length of the supply hose
	Vacuum supply line not working	Check hose length, replace entire hose, check spacing between cable trolleys, use additional ones if required
	Compressed air supply line not working	Check hose length, replace entire hose, check spacing between cable trolleys, use additional ones if required
Blower does not start No power for lifting device or chain hoist	Power supply line not working	Check cable length, replace entire cable, check spacings between cable trolleys, use additional ones if required
	Motor protection switch triggered	Turn on motor protection switch again Refer to the blower operating manual if this reoccurs
	Connection line interruption or fault	Check connection lines for mechanical damage and electrical voltage, and replace if necessary
	Connection line interruption or fault	Check connection lines for mechanical damage and electrical voltage, and replace if necessary
	Flat conductor not working	Check flat conductor for mechanical damage and replace if necessary

7 Maintenance

7.1 General notes The slewing crane should be installed and maintained by qualified specialist personnel, mechanics and electricians only. Work on electrical equipment may be carried out only by qualified electrical specialists.

Use cleaning solvents (not petroleum ether or corrosive liquids) to clean the slewing crane.

After repair and maintenance work, always check safety equipment as set out in the "Safety" chapter.

7.2 Maintenance schedule

	Interval				
	Daily	Weekly	Monthly	Every 6 months	Annual check
Check all load-bearing parts (e.g. pivot bearing) for correct fastening, deformation, wear or other damage.					X
Testing of trolleys for wear (rollers, bolts, area of load suspension)				X	X
Testing of trolleys for ease of movement and noise level during travel					X
With vacuum media line: Is the vacuum hose in good condition (not brittle, not kinked, no worn sections and no leaks)? Are all connections secure, hose clamps, etc.?			X		X
With compressed air media line: Is the vacuum hose in good condition (not brittle, not kinked, no worn sections and no leaks)? Are all connections secure, hose clamps, etc.?			X		X
Electrical installation of lines Are the connection lines and the flat cable in good condition (not brittle, not kinked, no worn sections)? Is the strain relief device for the cable screw unions still secure?			X		X
Are the type plate and ultimate load plate still attached to the slewing crane?					X
Is the operating manual still available and are workers familiar with it?					X
Has the test label been updated?					X
General condition of the slewing crane					X

7.3 Expert approval

Recurring tests in accordance with the BG [German workmen's compensation] regulation D6 §26 must be carried out.

The employer must ensure that cranes are tested according to the conditions of use and operating conditions by an expert when required, and at any rate at least once a year. In this case, the manufacturer's inspection instructions in the operating manuals are to be followed.

As a special service within Germany, Probst GmbH offers an inspection contract for an annual test with a certificate from an expert. Contact us at: +49 (0)7144-3309-0.

8 Type Plate

Notes on the type plate

The type plate contains important information regarding the device. The type plate is attached to the slewing crane.

The type plate contains the following information:



Danger

The slewing crane type, slewing crane number and year of construction are important information for identifying the slewing crane. They must always be specified when ordering spare parts, making warranty claims and other queries.

The maximum load-bearing capacity indicates the maximum load for which the slewing crane is designed. This maximum load must not be exceeded.

9 Warranty, Spare Parts and Wearing Parts

We offer a warranty on this slewing crane in accordance with our general terms of sale and delivery. The same applies for spare parts, provided that these are original parts supplied by us.

We are not liable for any damage resulting from the use of non-original spare parts or accessories.

Wearing parts are not covered by the warranty.

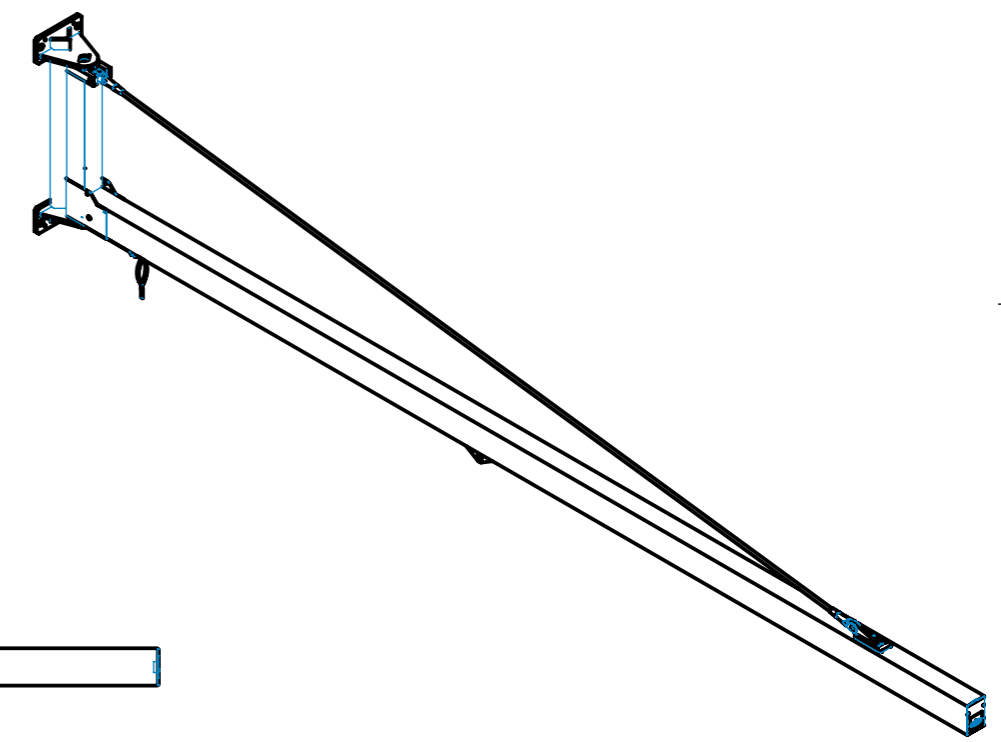
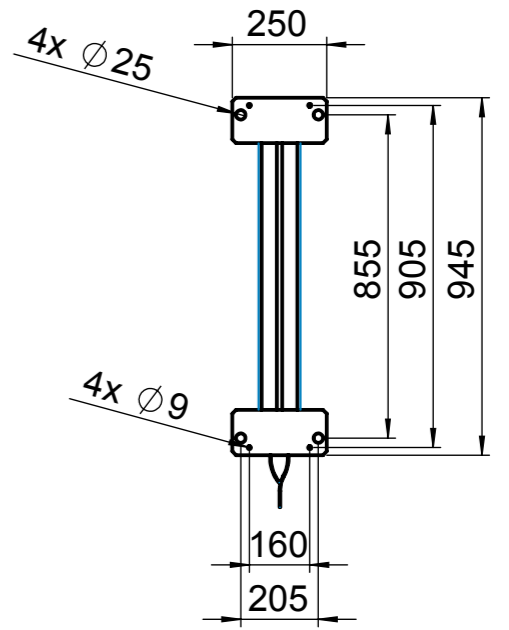
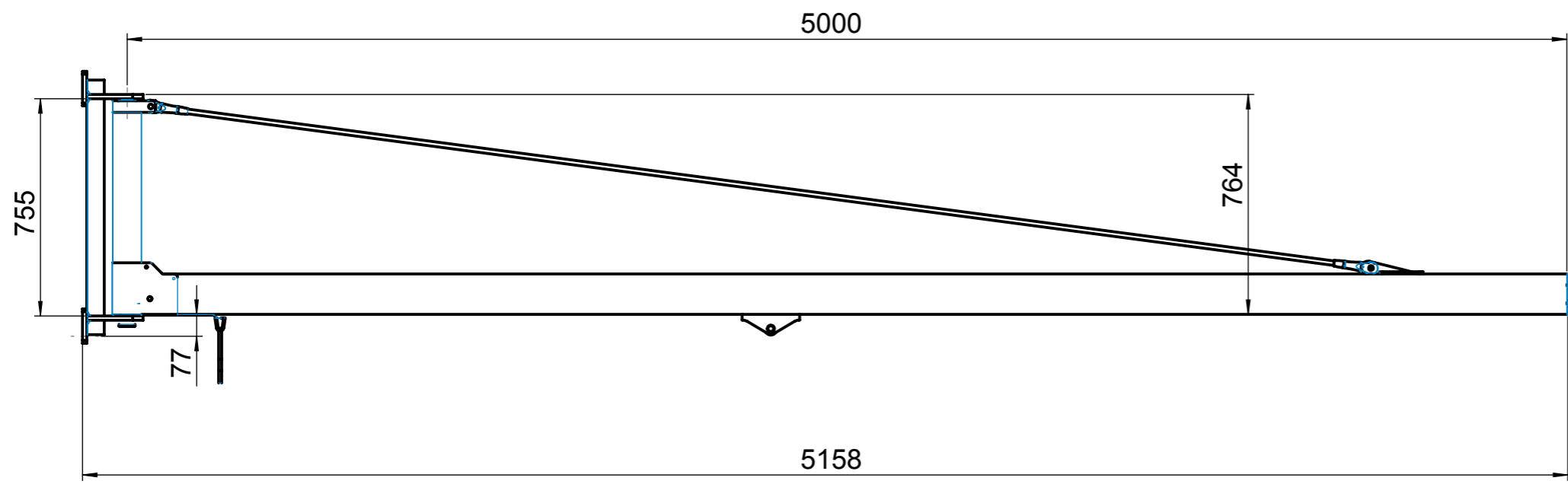
The following list contains the primary spare and wearing parts.

Key:	- Spare part	= E
	- Wearing part	= V
	- Wearing part assembly, contains wearing parts	= VB

All item numbers are listed in the delivery parts list. We can serve you particularly quickly as necessary if you specify the required item directly to us with its associated item number.

Item	Product name	Note	Item number	Legend
1	Carrying hook, fork, various		See order confirmation	VB
6	Transport roller for heavy loads	Yellow	14.01.02.00046	V
7	Transport roller for light loads	White	14.01.02.00047	V
8	Round rubber buffer	2 per carrying hook	14.01.02.00048	V
9	Bolt pin for transport roller	(mounted)	14.01.02.00049	V
10	Bolt pin for fork carrying hook	(mounted)	14.01.02.00050	V
13	Flat cable 4 x 1.5 mm ²	All VacuMaster	21.04.03.00003	V
15	Vacuum supply hose		See order confirmation	V
16	Hose clamp		See order confirmation	V
17	Cable trolley flat cable		14.01.02.00034	E
19	Band (for hose suspension)		14.04.02.10002	E
20	Karabiner		14.04.02.10003	E
	Crane mains supply switch	Column-mounted slewing crane	See order confirmation	E
	Crane mains supply switch	Wall-mounted slewing crane	See order confirmation	E
	Motor protection switch		See order confirmation	E
	Rubber buffer	Swivel limit stop	14.02.07.00448	V

We reserve the right to make technical changes. No responsibility is taken for printing or other types of errors.



Tragfähigkeit 150 kg / load capacity 330 lb

Allgemeintoleranzen nach DIN ISO 2768c		Oberflächen nach DIN ISO 1302		allgemeiner Biegehalbmesser = Blechstärke	
		Bei Änderungen Rücksprache mit TB !			
		Oberflächenbehandlung	Format	Maßstab: 1:20 1:30	Gewicht: 80,0 kg
		A3		Schutzvermerk nach DIN 34 beachten! Nachdruck nur mit unserer Genehmigung!	
		Datum	Name	Benennung	
		Erst. 17.8.2011	Michael.Wunder	Wandschwenkkran AWSK 150-5 für Schlauchheber Jumbo Tragkraft 150 kg, Ausleger 5m	
		WA:		Artikelnummer/Zeichnungsnummer	
		Kunde:		D42000127	
Zust.	Änderungstext	Datum	Von	Urspr.	Ers. f. / Ers. d.
					Blatt 1 von 1

EC-Declaration of Conformity / UKCA-Declaration of Conformity

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www.probst-handling.com



Importer: Probst Ltd
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Telford Shropshire TF3 3DG, United Kingdom
www.probst-handling.co.uk
sales@probst-handling.co.uk



The machine described above complies with the relevant requirements of the following EU directives:
The object of the declaration described above is in conformity with the relevant UK-Regulations and UK-Guidelines:

EC-machinery directive 2006/42/EC (Reference: OJ L 157, 09.06.2006)

UK-Regulation: Supply of Machinery (Safety) Regulations 2008 (SI 2008 No. 1597)

2014/30/EU (Electromagnetic compatibility) / (Reference: OJ L 96, 29.03.2014)

UK-Regulation: Electromagnetic Compatibility Regulations 2016 (SI 2016 No. 1091)

The following standards and technical specifications were used:

DIN EN ISO 12100

Safety of machinery - General principles for design - Risk assessment and risk reduction

UK-Regulation: BS EN ISO 12100-1:2003+A1:2009

DIN EN ISO 13857

Safety of machinery - safety distances to prevent hazard zones being reached by upper and lower limbs.

UK-Regulation: BS EN ISO 13857:2019

2014/30/EU (Electromagnetic compatibility) / (Reference: OJ L 96, 29.03.2014)

UK-Regulation: Electromagnetic Compatibility Regulations 2016 (SI 2016 No. 1091)

DIN EN 60204-1 (IEC 60204-1)

Safety of machinery, electrical equipment of industrial machines. Part 1: General requirements.

UK-Regulation: BS EN 60204-1:2018

Authorized person for EC-documentation:

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Authorized person for UK-documentation:

Name: Nigel Hughes

Address: Probst Ltd ; Unit 2 Fletcher House; Stafford Park 17; Telford Shropshire TF3 3DG, United Kingdom

Signature, information to the subscriber:



Erdmannhausen, 02.08.2021.....

(Eric Wilhelm, Managing director)

