

USER MANUAL

FULL-ROTATION PILLAR JIB CRANE



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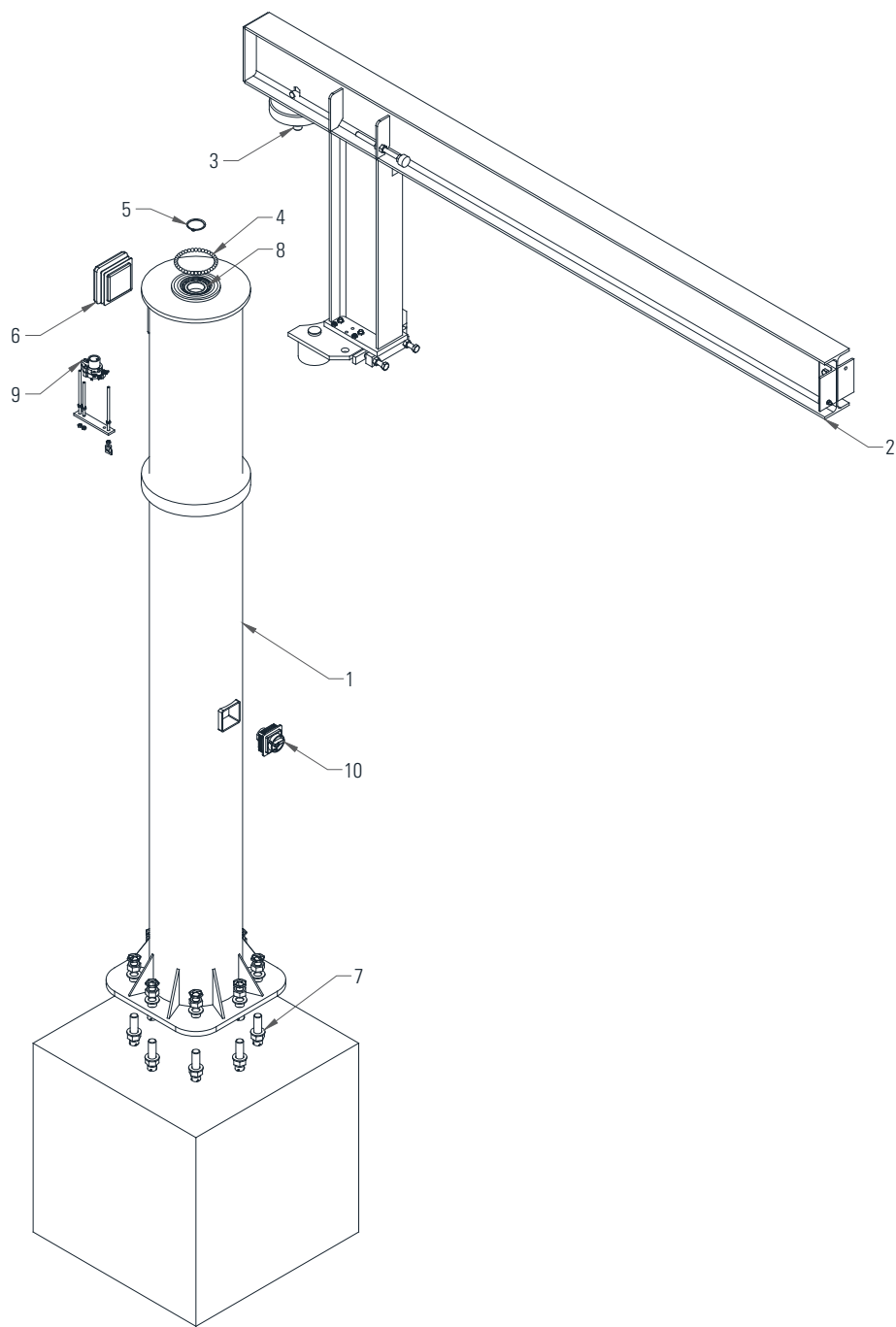
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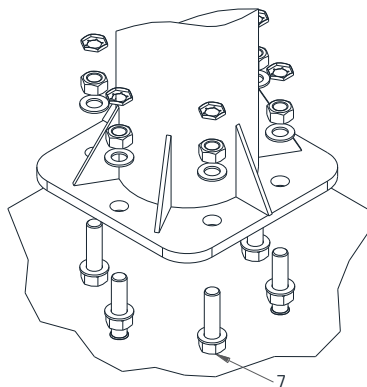
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ASSEMBLY INSTRUCTIONS

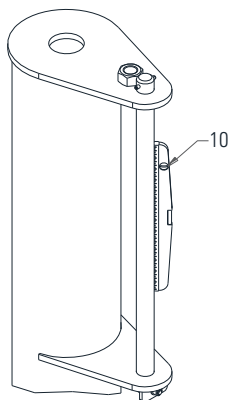
FULL-ROTATION JIB CRANES 360°



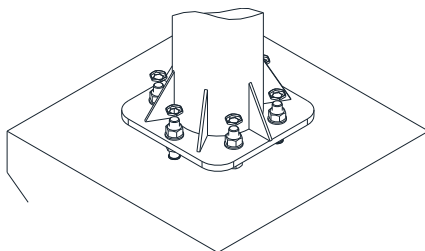
1. Erect the pillar ❶ of the jib crane on the anchor rods laying the bottom of the base plate on a row of nuts M27 ❷ provided with rods.



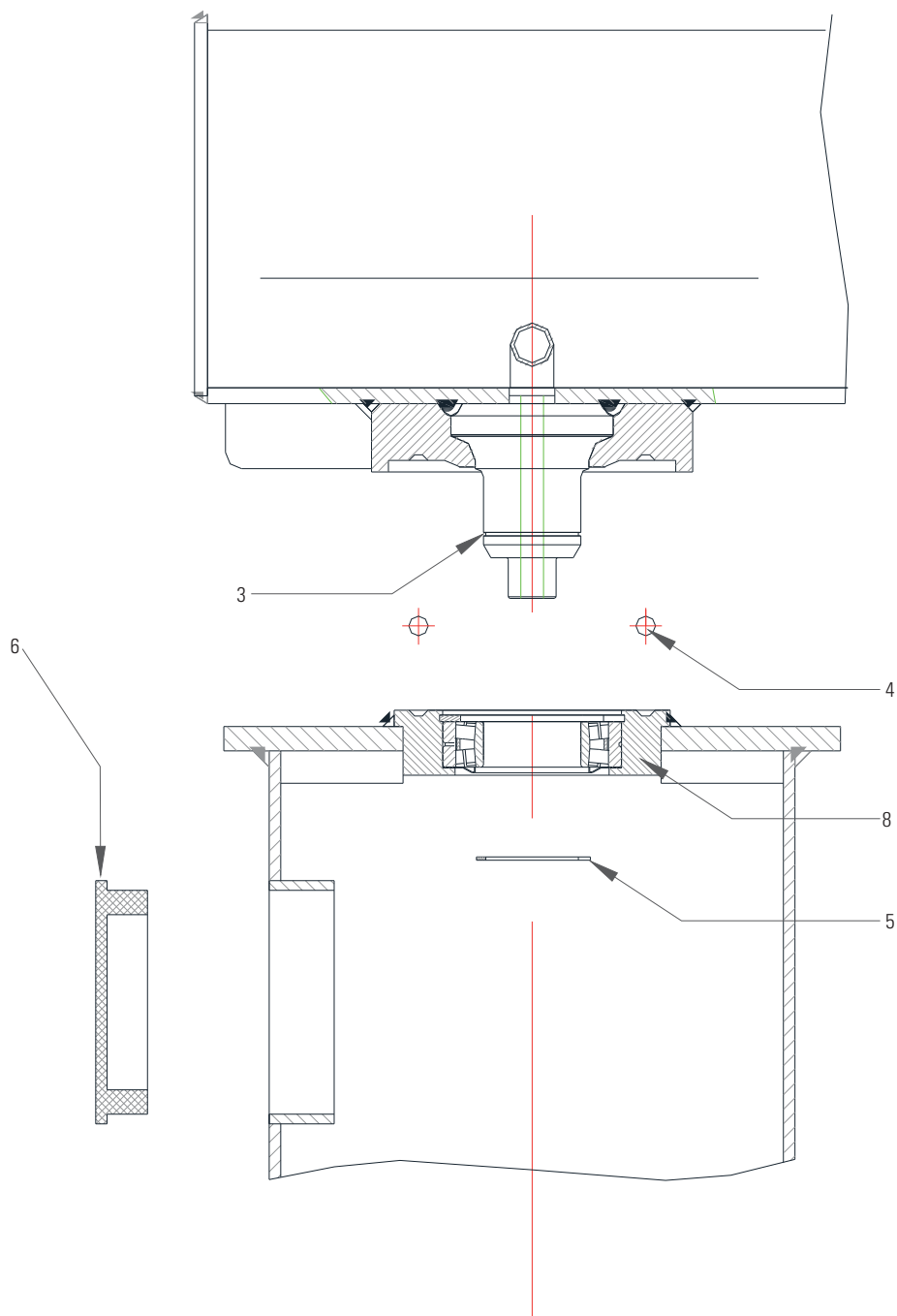
Insert washers and nuts M27 on the upper part of the base plate. With a level ❶, check plumb on different positions around the pillar, adjust the vertical with the lower nuts and lock nuts to a torque of 80 daN.m. Screw the safety nuts provided.



Other fixation system does not engage our responsibility and is not subject to the recommendation of this manual.



2. (See drawing on pagepage 4) Place the balls Ø12 mm ❹ in the circular throat provided for this purpose on the upper part of the pillar (depending on models). Sufficient oil the balls (depending on models) and the bearing (on all models).



3. Remove the elastic ring anti uprising ❸ located on the axis of rotation ❸ of the jib crane.
4. Lift the arm ❷ using an appropriate means of lifting and engage the axis of rotation in the internal cage of roller bearing ❸, taking care not to swing this bearing cage, the rollers may go out of their cage. Lower the arm to lay on the bearing, or the balls (depending on model).
5. Replace the elastic ring anti uprising ❸ located on the axis of rotation ❸ of the jib crane through the hole located in the upper part of the pillar.
6. Depending on options, mount the collector ❹, the switches ❿, the motoreductor, the rotation stops and limit switches (see specific instructions).

MAINTENANCE

There is no particular maintenance procedure to apply on this type of crane, but it's appropriate to:

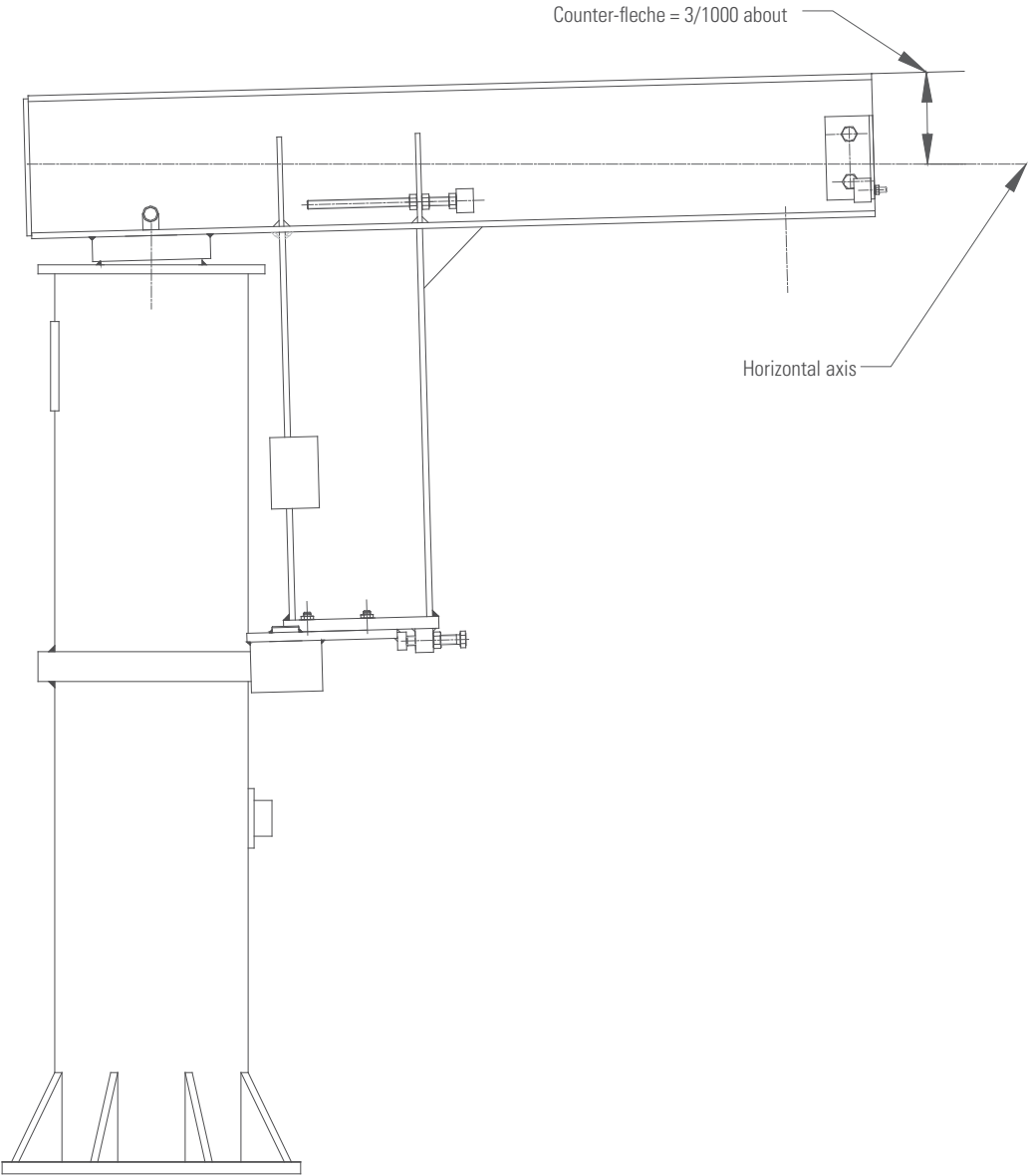
- Re-insert clean grease at regular intervals into the row of balls and bearing at the top of the pillar.
- Once a year check that the pillar M27 fastening rods, nuts and lock nuts are sufficiently tightened.
- For motor-powered jib cranes, check the oil level in the motoreductor, topping up if necessary.

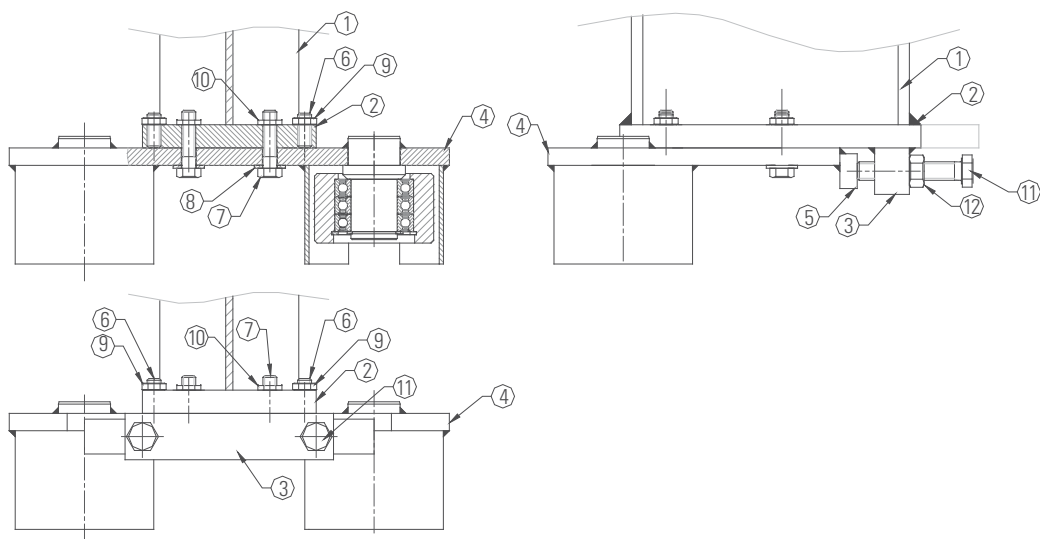
REMINDER

All lifting appliance must be receipted by a notified body before starting up.
It's strictly forbidden to use any lifting device with the aim of transporting persons.

ADJUSTMENT OF THE DEFLEXION

FULL-ROTATION JIB CRANES 360°





The following is the order of the steps to adjust the deflection

1. Loosen the fastening screws of the roller box and strut (7, 8 & 10) so that they are free to slide.

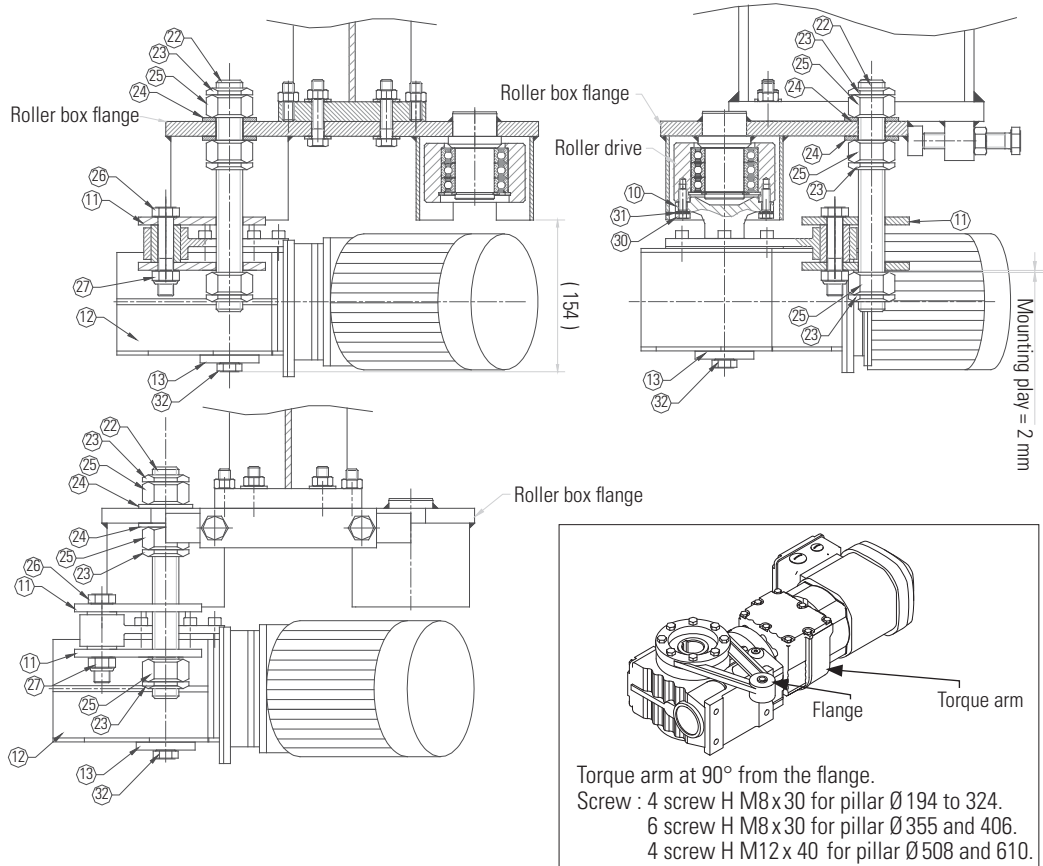
Take particular care not to touch the support screws 6 and nuts 9 for adjusting the squareness, since this has already been done in the factory.

2. Tighten or loosen screws 11 situated on the deflection adjustment plate 3 until the required camber is obtained, in the order of 3/1000.
3. Lock the deflection now adjusted by tightening nuts 12.
4. Re-tighten the roller box fastening screws 7 and lock the flexible sheet-plate nuts (PAL) 10.

ASSEMBLY INSTRUCTIONS

MANUAL MOTORISATION FROM THE BOTTOM

FULL-ROTATION JIB CRANES 360°



The mounting operation can be carried out with the crane either laid on the ground, or erected.

The following is the order of the steps to install the motoreducer

1. Fit the roller drive piece **10** to the roller drive provided with the tapped holes and assemble it using screws **31** and washers **30**.
2. Insert the motoreducer **12** on the roller drive piece **10** and lock it into position by means of screws **13** and washers **32**.
3. Insert the threaded rod **22** + washers **24** + top nuts **25** + top lock nuts **23** into the roller support flange hole and lock them together hard.
4. Insert the reaction arm relay links **11** on the threaded rod **22** and align the reaction arm hole with the holes drilled in the reaction arm relay link.
5. Fit the bottom nut **25** and lock nut **23**

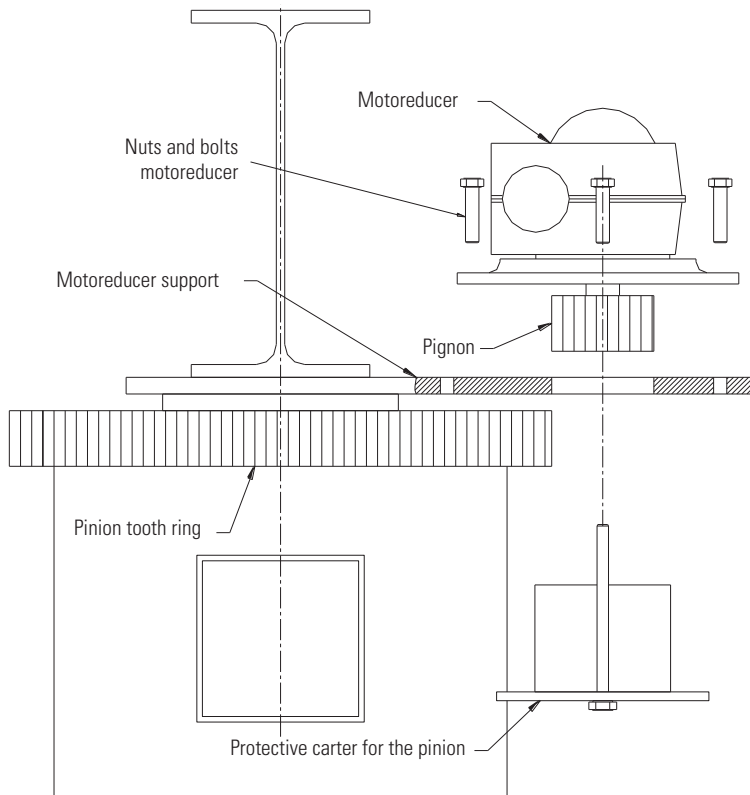
IMPORTANT: Allow a 2 mm mounting play between the lower part of the reaction arm relay link **11** and the bottom nut **25** + lock nut **23** on the threaded rod.

6. Connect up to the power supply and carry out the test procedure.

ASSEMBLY INSTRUCTIONS

MANUAL MOTORISATION FROM THE TOP

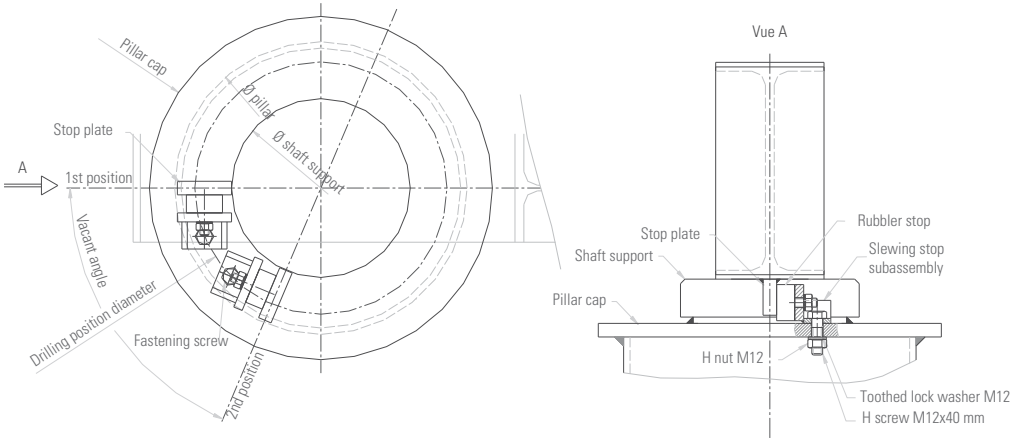
FULL-ROTATION JIB CRANES 360°



Mount the reducer according to the drawing using the following steps

1. After the mounting of the jib crane, insert the reducer into the holder (motor parallel to the arm of the jib crane).
2. Insert the screws and tighten vigorously.
3. Grease plenty pinion and gear (with gear grease).
4. Install the pinion protection.
5. Insert the chain in the handwheel.

MECHANICAL SLEWING MOVEMENT STOPS



The following is the order of the steps to install the slewing stops

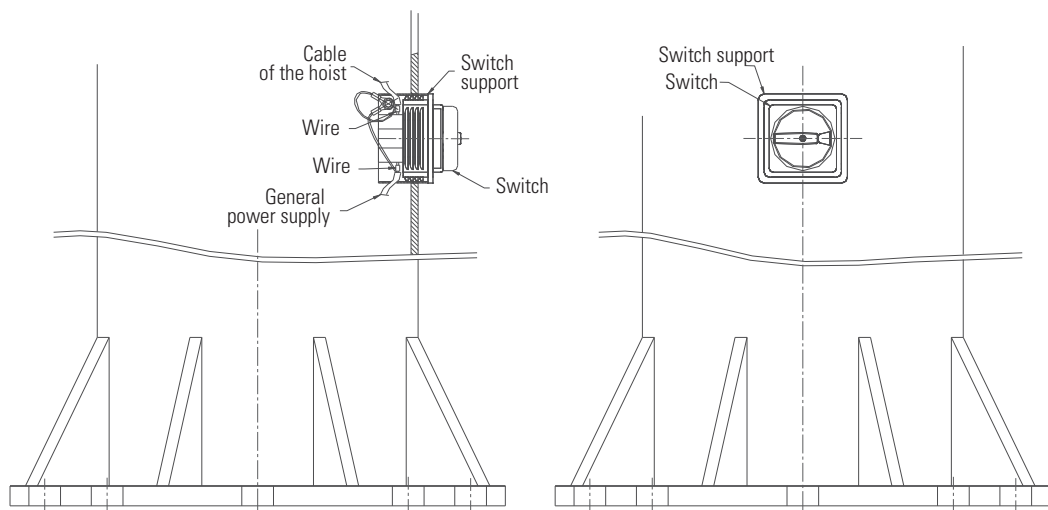
1. Pivot the jib crane boom in order to adjust the first rotation setting of the stop.
2. Bring the plate of the embarked stop into contact with the jib crane arm and fit one of the slewing movement stop provided against it.
3. Weld the slewing movement stop onto the pillar cap or counter-drill in the pillar cap (use M12 bolts to secure it).
4. Pivot the jib crane boom in order to adjust the second rotation setting of the stop.
5. Bring the plate of the embarked stop into contact with the jib crane boom and fit the second slewing movement stop against it.
6. Weld the slewing movement stop onto the pillar cap, or counter-drill in the pillar cap (use M12 bolts to secure it).
 - Slewing movement stops can't be drilled with a pillar of 194 mm diameter.
 - In the case of counter-drilling of the slewing movement stops, take into consideration the inner diameter of the pillar to enable the passage of the stop fastening nut.

Maximum pitch circle diameter for drilling slewing movement stops (in mm) / pillar diameter						
Ø194	Ø245	Ø324	Ø355	Ø406	Ø508	Ø610
	Ø209	Ø279	Ø312.5	Ø355	Ø457 (ext)	Ø550 (ext)
Maximum angle rotation with slewing movement stops (mechanical stops)						
Ø194	Ø245	Ø324	Ø355	Ø406	Ø508	Ø610
315°	290°	293°	297°	305°	308°	319°

Nota: if an angle of rotation higher than the angles indicated in the above table is needed, it isn't possible to use dismountable slewing movement stop subassemblies: cut them to keep the stops support plates, and weld them directly onto the pillar cap.

ASSEMBLY INSTRUCTIONS

SWITCH

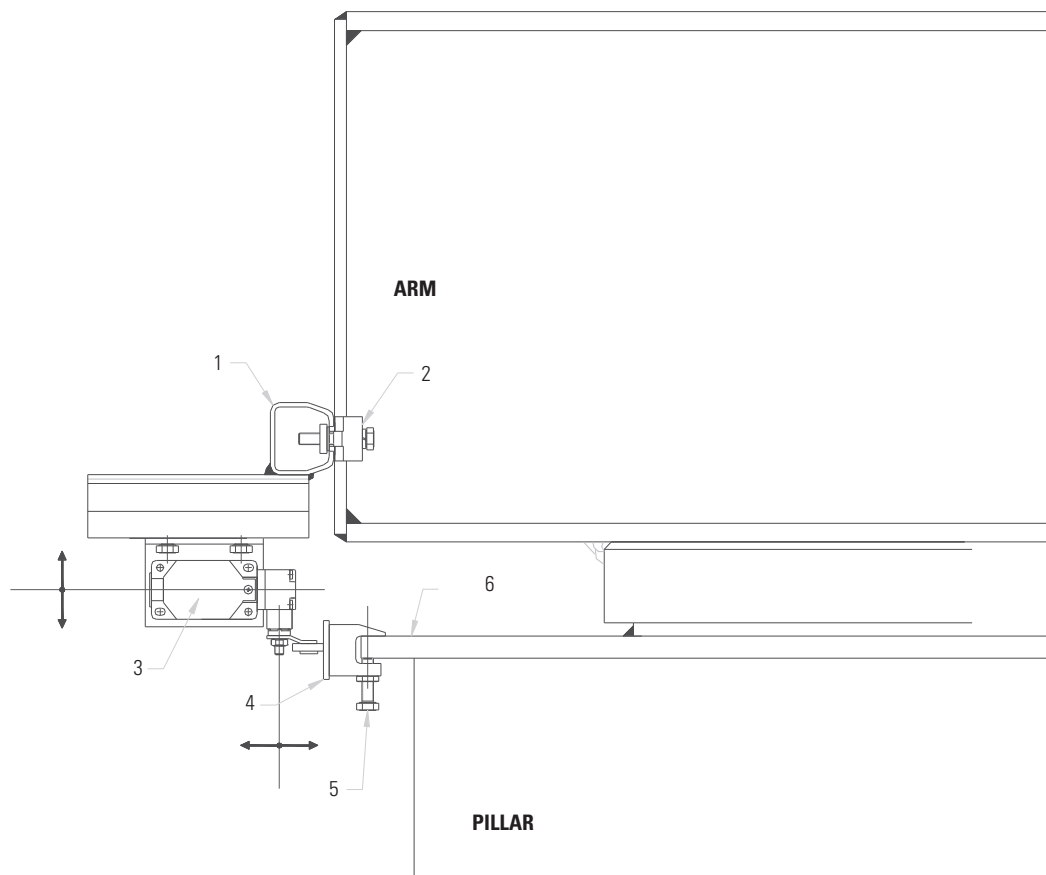


Assembly drawing of the lockable switch

Order of installation of the switch

1. Pull the main power cable.
2. Put the main power cable through the hole of the switch support, then crimp the ends of the wire provided.
3. Connect the 3 phases of the main power on terminals 1, 3 and 5.
4. Crimp the ground on one of the round lugs provided.
5. Pull the cable of the power supply of the hoist.
6. Put the feeding line of the hoist through the hole of the switch support, then crimp the ends of the wire provided.
7. Connect the 3 phases of the main power on terminals 2, 4 and 6.
8. Crimp the ground on the 2nd round lugs provided.
9. Insert the slotted screw in the hole of the switch support, set up the two terminals and the ground together and block with the nut.
10. Place the switch and attach it to its support using the two hex screws and star washers provided.

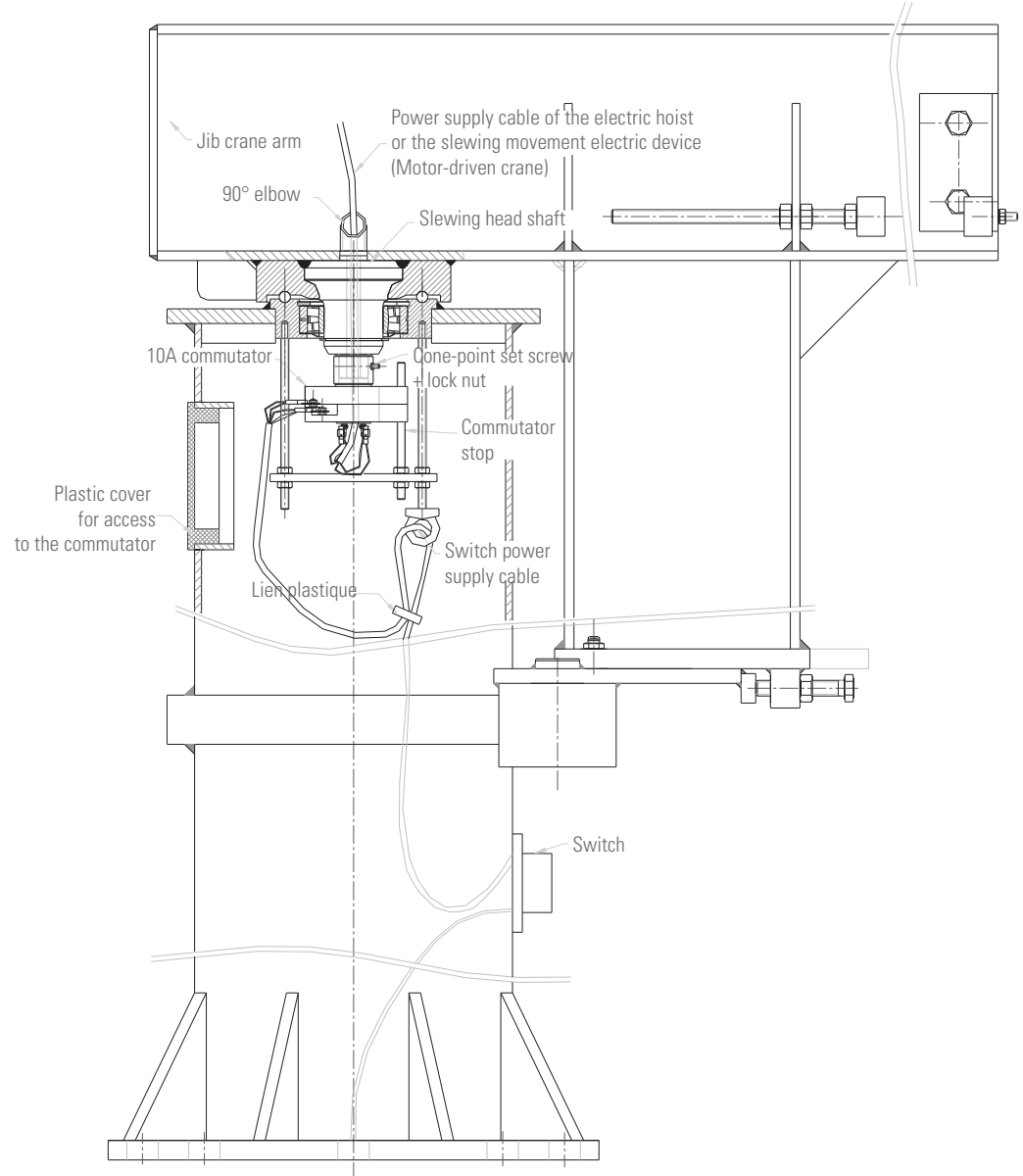
SLEWING MOVEMENT LIMIT SWITCH SENSOR FOR BOTTOM - MOUNTED MOTORIZATION INSTALLATION PROCEDURE



1. Position the support **1** to the back of the jib crane arm.
2. Insert the clamps **2**.
3. Adjust the height of the limit switch roller piece **3** so that the roller median plan would be aligned with the one of the pillar cap **6**.
4. Select the necessary angle of rotation.
5. Position the detection set **4**. Take the necessary stop slewing stroke of the crane arm into account to position detection sets. Then screw up the screws **5** so that the triggering track would be parallel with the pillar **6**.
6. Longitudinally adjust the limit switch roller **3** until sensor contact actuates.
7. Carry out the test procedure.

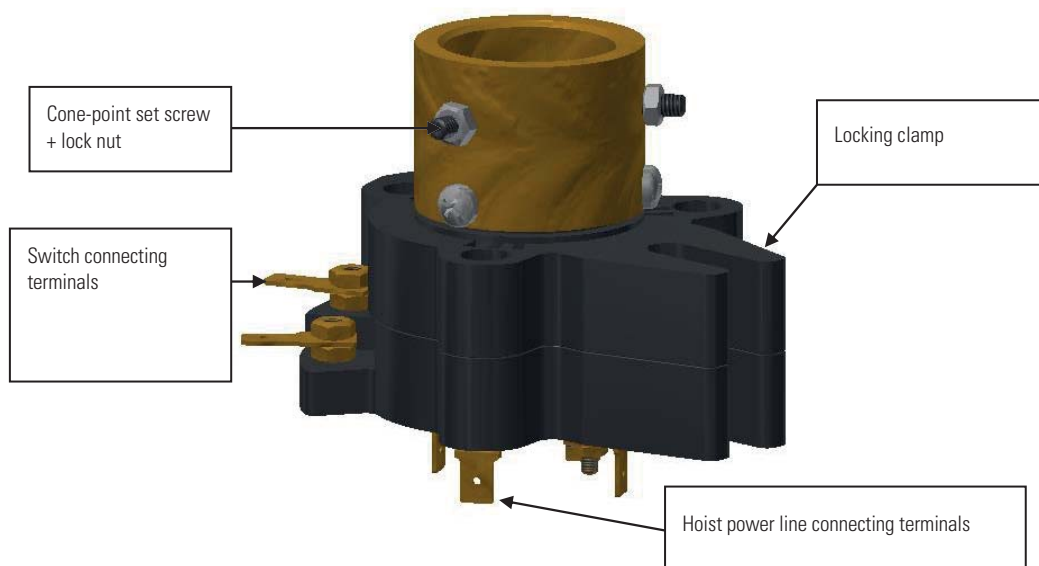
If you want a maximum angle of rotation, it results of installing one detection set only.

COMMUTATOR INSTALLATION PROCEDURE



The following is the order of the steps to install the commutator

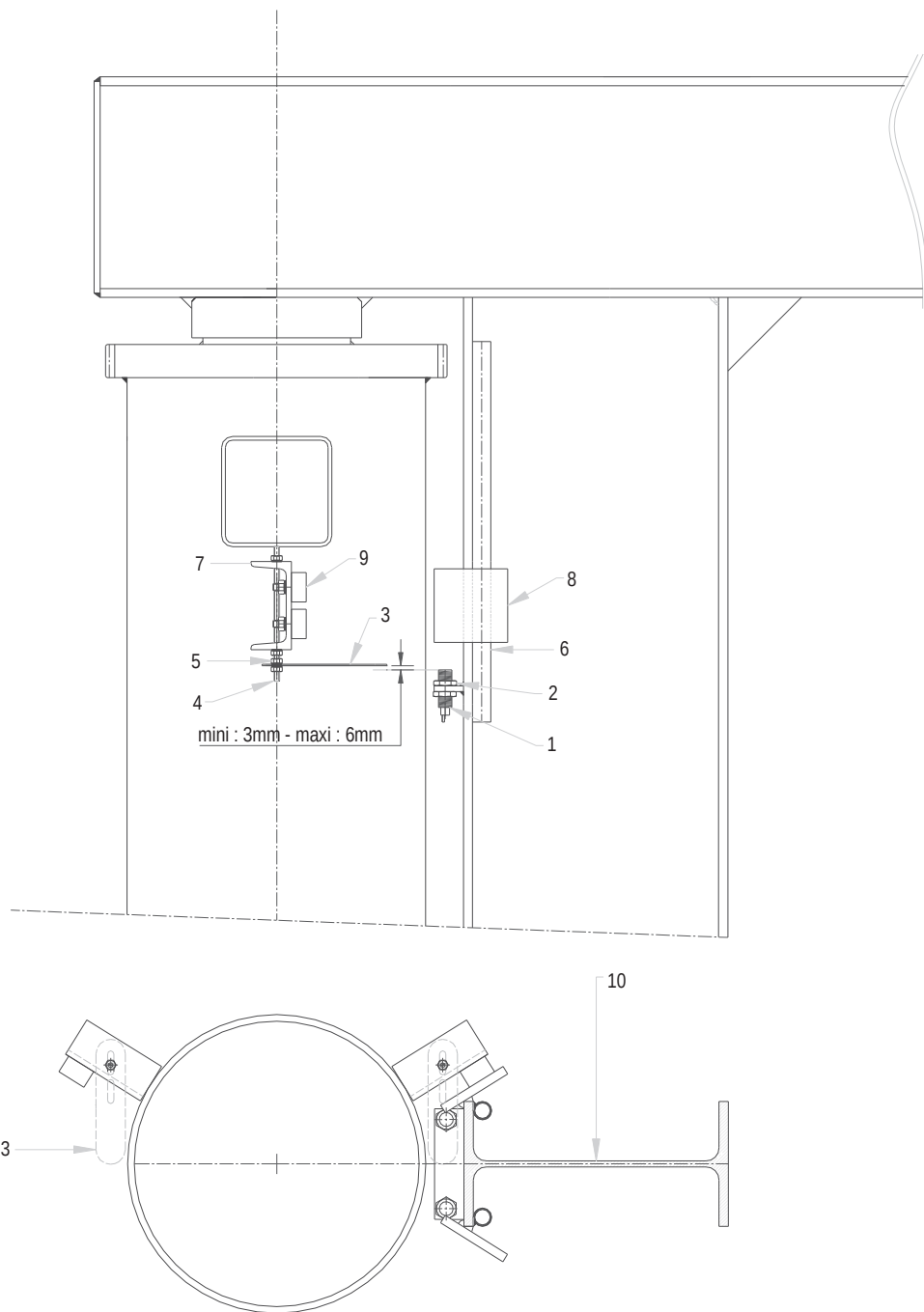
1. Remove the plastic cover blocking the access hole to the commutator.
2. Pull the power supply cable of the hoist or electric slewing movement device (applies to motorpowered full-rotation jib crane only).
3. Insert the cable into the elbow of the jib crane arm and the slewing head shaft.
4. Insert the power supply cable of the hoist or the electric slewing movement device into the commutator, and then crimp the female plugs provided.
5. Inside the commutator, connect the three phases to terminals R, S, T and the earth to the fourth terminal using the electric lugs provided.
6. Lay the power supply cable from the switch
7. Insert the cable through the commutator stop hole, form a loop to lock it into position and then crimp the female plugs provided.
8. On the outer part of the commutator, connect the three phases to terminals R, S, T and the earth to the fourth terminal.
9. Install the connector by engaging it onto the slewing shaft and position the commutator locking clamp on the slewing movement stop.
10. Tighten both cone-point set screws of the upper part of the commutator and block the lock nuts.
11. Re-install the plastic cover closing the access hole to the commutator.
12. Apply silicone sealing paste on the power supply cable of the hoist or the electric slewing movement device at the 90° elbow to prevent water infiltration (for cranes operating outdoors).



INSTRUCTIONS DE MONTAGE

BUTÉES DE ROTATION ET FIN DE COURSE INDUCTIFS

PRT MOTORISÉES PAR LE HAUT (pignon / couronne)



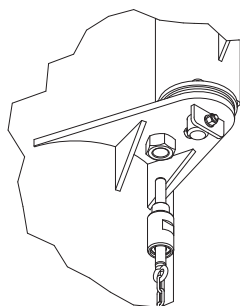
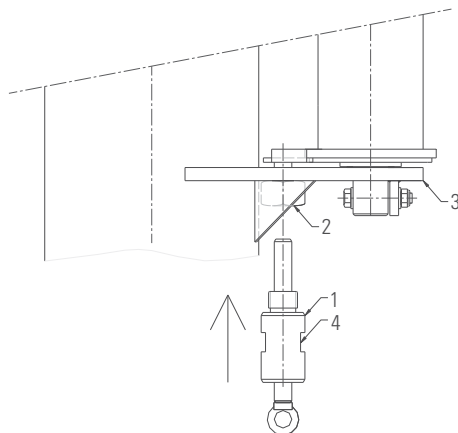
1. Locate the two extreme positions of rotation of the arm of the jib crane.
2. Position the stop supports ⑦ in such a way that the rubber stoppers ⑨ coincide perfectly at the angle and height with the plate ⑧ (the top of the supports ⑦ is approximately 20 mm from the bottom of the access door, axis of the jib crane).
3. Weld the stop supports ⑦ to the pillar of the jib crane and carry out the touch-ups with the small pot of paint provided for this purpose.
4. Locate electrically by operating the rotation, which of the 2 inductive contacts ① corresponds to the stop of each direction of rotation (use the reflectors manually ③ to ensure the triggering).
5. Insert the inductive contacts ① into the protective tubes ⑥.
6. Screw in the first nuts ② and insert the inductive contacts ① in their bracket (direction of the cable facing downwards) then screw in the second nuts ②. The inductive sensors ① will be centered approximately on their support and lock the nuts ②. Use a sufficient cable loop to avoid damaging it.
7. Insert the threaded rod M8 ④ into the stop support ⑦ leaving 20 mm at the top. Block with the nuts plus washers ⑤.
8. Insert the stainless steel reflector ③ between 2 nuts and washers ⑤.
9. **IMPERATIVELY MAKE A GAME INCLUDED between 3 and 6 mm between the underside of the reflector ③ and the top of the inductive contact ①. Beyond a set of 6 mm, the inductive sensors no longer detect.**
10. Orient the reflector ③ so that it does not strike the « stand » of the jib crane ⑩.
11. **Adjust the reflectors ③ using the slotted holes so that the complete stop of the rotation of the jib crane occurs before the rubber stoppers ⑨ come into contact with the plate ⑧. It is imperative that the reflector ③ does not detect the second inductive contact, which would result in the prohibition of restarting the rotation in the opposite direction.**
12. Carefully wrap the excess cable from the inductive contacts ③.

ASSEMBLY INSTRUCTIONS

LOCKING DEVICE

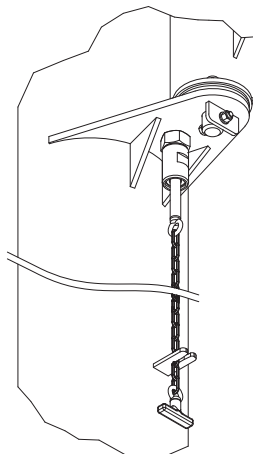
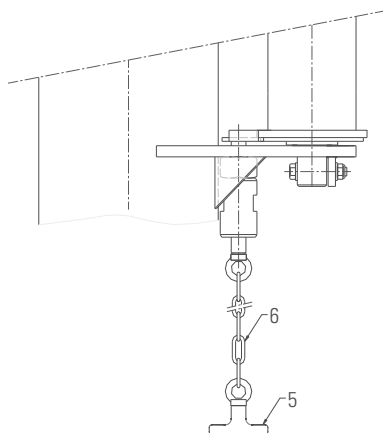
Installation

- Screw the lock body **1** in the nut **2** welded on the bracket (**3**).
- Block there squeezing using an appropriate key on the flats **4**.
- The hand chain and the handle are already mounted on the locking pin.



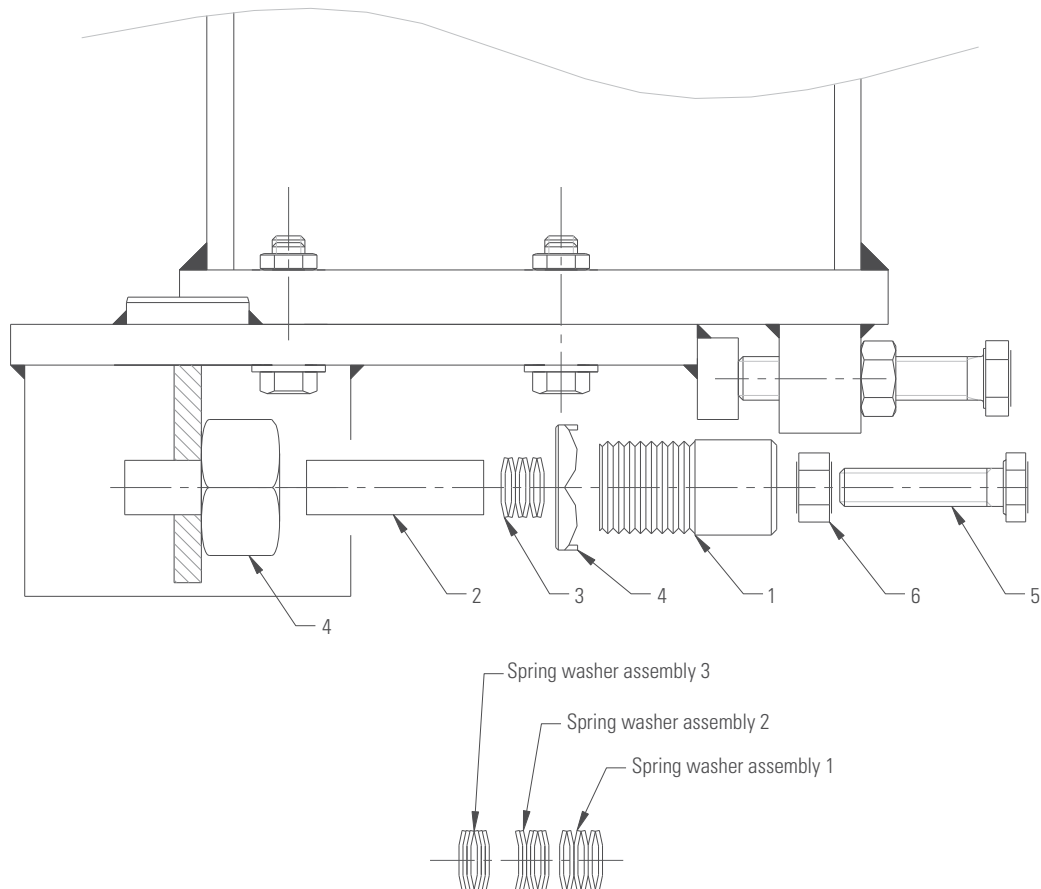
Utilisation

- Pull the handle **5** located at the end of the chain **6** to unlock.
- The locking position device finger is assembled on an internal spring. When the chain is released, the finger automatically comes up. During rotation, the locking will automatically matches in the indexing hole (if needed, adjust by cutting the locking finger extra length).
- If you want the lock does not come automatically, hanging chain in a stretched position on the flat welded at human height on the pillar of the jib crane.



ASSEMBLY INSTRUCTIONS

SLOWING DEVICE



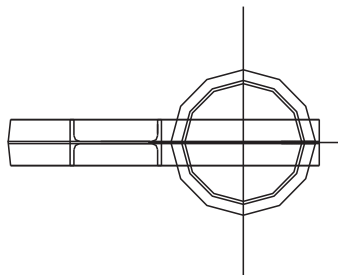
Installation

The slowing device can only be mounted once the arm is set.

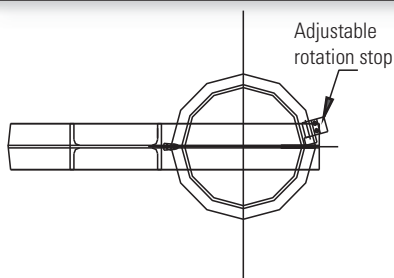
1. Place the rubbing finger in nylon **2** and the spring washers **3** according to the needed break in the body of the slower **1** :
 - Assembly 1 : smooth breaking.
 - Assembly 2 : normal breaking
 - Assembly 3 : hard breaking
2. Screw the body of the slower and his counter nut **4** on the existing nut M33 **7** and lock it.
3. Adjust the pressure thanks to the screw **5** provided to this purpose before locking it with the counter nut **6**.

ASSEMBLY INSTRUCTIONS

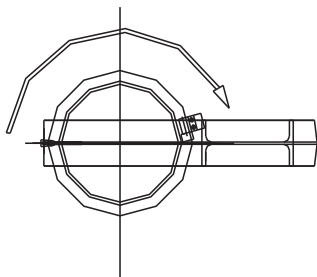
ADJUSTABLE ROTATION STOPS



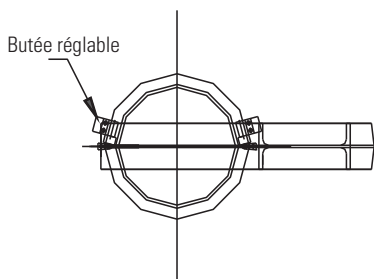
1. Put the arm in the first extrem needed position



2. Assemble the first end stop on the disc with the screw provided.



3. Place the arm in the second extrem position.

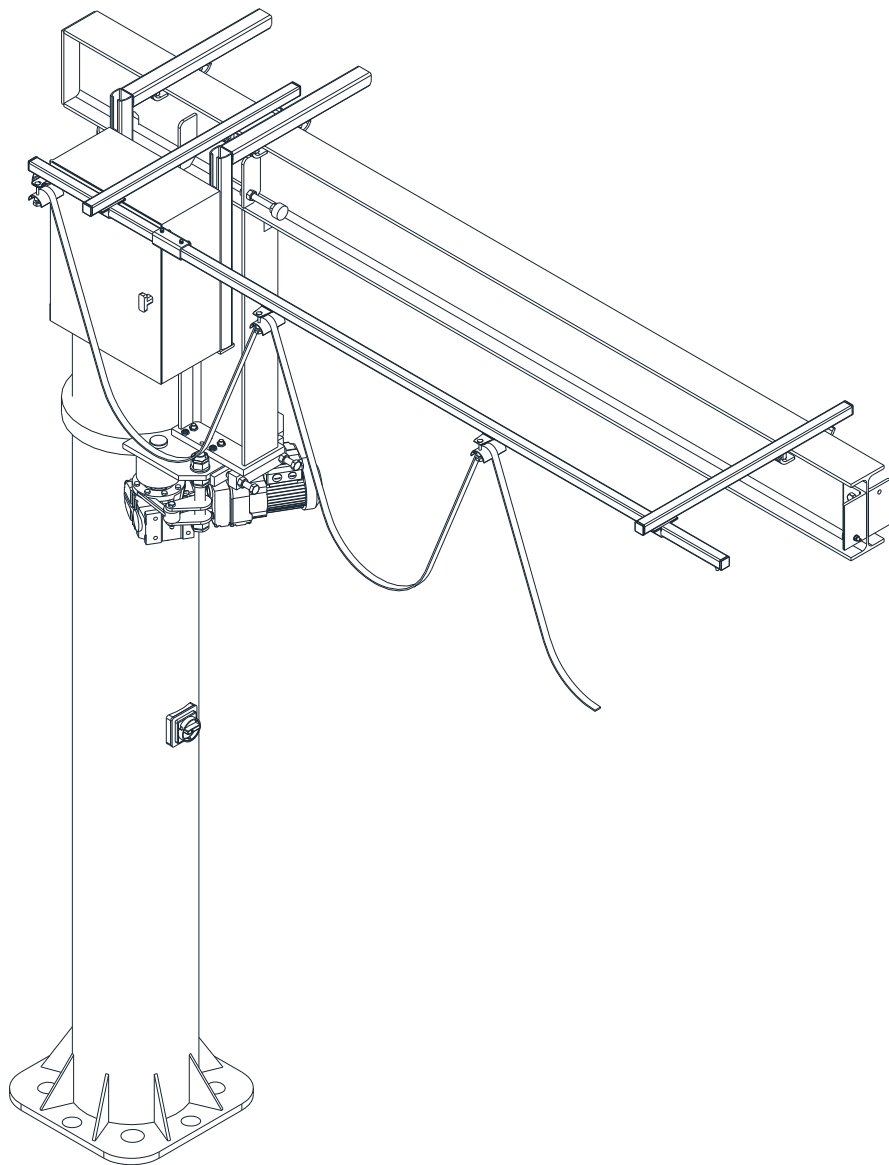


4. Assemble the second end stop on the disc in the step 2.

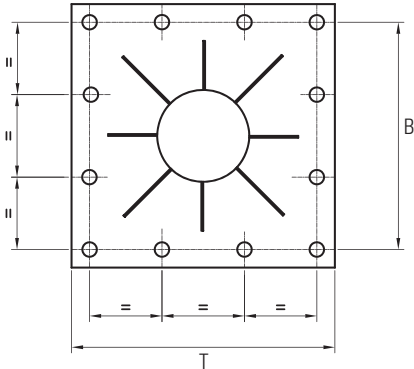
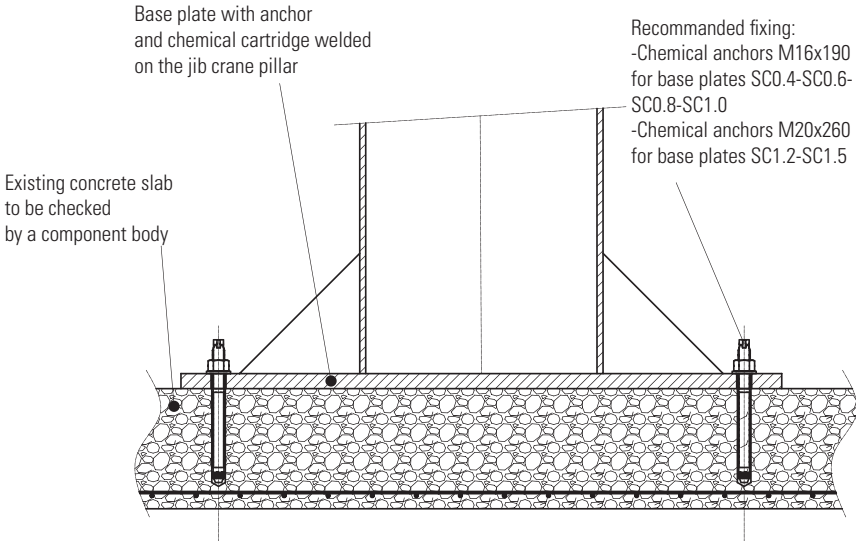
ASSEMBLY INSTRUCTIONS HOIST COVER

Installation

- Center the cover between the beam, the hoist and the line, before tightening the clamp.
- **Warning ! Do not position the cover too close to the axis, it would affect your slewing range.**



SPECIFIC PROCEDURE FOR BASE PLATE WITH ANCHORS & CHEMICAL CARTRIDGES



Ø20 for anchors Ø16, base plates SC03 - SC04 - SC06 - SC08 - SC10
Ø25 for anchors Ø20, base plates SC12 - SC15

N°	TxT	Number of holes	Ø	BxB	Thick	CR
SC0.3	300 x 300	4	20	250 x 250	12	250 DaN.m
SC0.4	400 x 400	8	20	350 x 350	15	1 000 DaN.m
SC0.6	600 x 600	8	20	500 x 500	15	1 500 DaN.m
SC0.8	800 x 800	12	20	700 x 700	20	3 800 DaN.m
SC1.0	1 000 x 1 000	16	20	900 x 900	20	6 000 DaN.m
SC1.2	1 200 x 1 200	16	25	1 100 x 1 100	20	8 000 DaN.m
SC1.5	1 500 x 1 500	16	25	1 400 x 1 400	20	12 000 DaN.m

This type of fixation is to be used with the biggest caution, and while the use of a concrete foundation mass is impossible. This solution imposes a concrete slab of sufficient thickness and quality, to be verified in accordance with the bending moments recommended in the general documentation.

In any case, WE RELEASED OUR RESPONSABILITY as to the keeping of this type of fastening.

These base plates are not dismountable from the jib crane table.

CR = Bending moment mentioned in the pillar jib crane table.

We join for information and as example the technical characteristics of WURTH anchors.

This mark/model is neither imposed nor contractual.

21.1

W-VD/S Shear-Anchor Cartridge System

**Individual attachment:
Uncracked concrete**

Galvanized steel

W-VD/A4 Shear-anchor cartridge system see **21.2**

W-VD/HCR Shear-anchor cartridge system see **21.2**



Evidence of performance

Approvals	Test reports
European Technical Approval Option 8 for uncracked concrete	Fire Resistance
	

1. Applications

- Can be used for medium to heavy loads
- With European Technical Approval, the anchor can be used in reinforced or non-reinforced standard concrete with a strength class of at least C20/25 and at most C50/60 in accordance with EN 206:2000-12
- Anchorage with European Technical Approval in uncracked concrete (concrete pressure zone)
- The anchor may be used for anchorage with primarily static loads (e.g. own weight, installations, support materials) or quasi-static loads
- Installation in dry or wet concrete
- The temperature in the mortar area may not exceed +50 °C and briefly +80 °C
- For use in concrete < C20/25 and pressure-resistant natural stone (without approval)
- W-VD/S (galvanized steel) can be used in dry interior rooms

Drill hole cleaning

Cleaning the drill hole: 1x blow-out, 1x brush-out, 1x blow-out, 1x brush-out

Installation instructions

Set anchor bar rotating and + impacting with hammer drill or percussion drill.

- Suitable for fastening metal constructions, metal profiles, brackets, foot plates, supports, wood structures, beams etc.

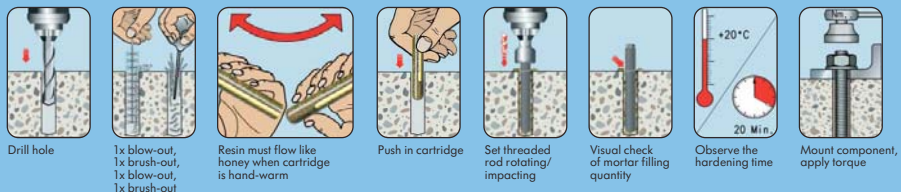
2. Advantages

- Heavy loads, small axial and edge distances
- Hardened composite mortar largely seals off the drill hole
- Attachment with low expansion pressure allows small edge and axial clearances

3. Properties

- Anchoring through bond between mortar, anchor bar and anchoring base. Galvanized anchor bar in the sizes M8, M10, M12, M16, M20 and M24
- Galvanized steel: European Technical Approval ETA-06/0074
- Dimensioned in accordance with the "Guideline for European Technical Approval (ETAG) of Metal Anchors for Use in Concrete", Annex C, dimensioning method A
- Fire resistance: **F30, F60, F90, F120**: One-sided fire stress according to DIN EN 1363-1:1999-10

Setting instructions



SHEAR-ANCHOR CARTRIDGE SYSTEM W-VD/A4, W-VD/HCR

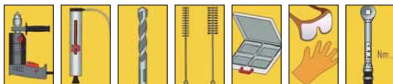
21.2

Performance data			M8	M10	M12	M16	M20	M24
Anchor diameter								
Permissible central tensile load ¹⁾ on a single anchor without edge influence	Pressure zone (uncracked concrete C20/25 M8: $s \geq 3 h_{ef}$, $c \geq 1.5 h_{ef}$ M10-M24: $s \geq 2 h_{ef}$, $c \geq 1 h_{ef}$)	$N_{perm} [kN] = C20/25$ 50°C ²⁾ /80°C ³⁾	7.9	11.9	15.9	19.8	29.8	35.7
Perm. transverse load ¹⁾ on a single anchor without edge influence	Pressure zone (uncracked concrete C20/25, $c \geq 10 h_{ef}$)	$V_{perm.} [kN] = C20/25$ 50°C ²⁾ /80°C ³⁾	6.0	9.2	13.3	25.2	39.4	56.8
Permissible bending torque		$M_{perm.} [Nm]$	11.9	23.8	42.1	106.7	207.9	359.4
Fire-resistance duration		F30 [kN]	2.3	3.64	5.26	9.79	15.28	22.01
		F60 [kN]	1.29	2.04	3.07	5.72	8.93	12.86
		F90 [kN]	0.79	1.3	2.0	3.68	5.75	8.28
		F120 [kN]	0.53	1.0	1.5	2.67	4.16	6.0

Characteristic values							
Minimum axial spacing	$s_{min} [mm]$	40	45	55	65	85	105
Axial spacing	$s_{cr,N} [mm]$	240	180	220	250	340	420
Minimum edge spacing	$c_{min} [mm]$	40	45	55	65	85	105
Edge spacing	$c_{cr,N} [mm]$	120	90	110	125	170	210
Minimum component thickness	$h_{min} [mm]$	110	120	140	160	220	260
Effective anchoring depth	$h_{ef} [mm]$	80	90	110	125	170	210
Nom. drill dia.	$d_o [mm]$	10	12	14	18	25	28
Drill cutting dia.	$d_{cut} \leq [mm]$	10.5	12.5	14.5	18.5	25.5	28.5
Drill hole depth	$h_o \geq [mm]$	80	90	110	125	170	210
Through-hole in the component being connected	$d_t \leq [mm]$	9	12	14	18	22	26
Torque while installing anchor	$T_{inst} = [Nm]$	10	20	40	80	120	180
Cleaning brush dia.	$D [mm]$	11	13	16	20	27	30

Storable in ORSY®

Würth System Components



¹⁾ The part-safety coefficients of the resistances regulated in the approval and a part-safety coefficient of the effects of $\gamma_f = 1.4$ have been taken into account. For the combination of tensile and transverse loads, for edge influence and anchor groups, please refer to the Guideline for European Technical Approval (ETAG), Appendix C.

²⁾ Maximum long-term temperature

³⁾ Maximum short-term temperature

WHAT TO DO AND WHAT NOT TO DO

It is very important to read these instructions carefully to enable you to install, use and maintain your equipment and reduce any risks caused by its incorrect use.

Any use that is not compliant with the following is dangerous and the manufacturer refuses to accept any liability in such cases.

Please comply with the instructions given below.

WHAT TO DO

GENERALLY

- Read and follow the instructions given in the introduction manual carefully, starting from initial commissioning. During repair or maintenance, use only «standard parts».
- Always keep the instructions manual and the user instructions near the equipment, available to the operator and the person in charge of maintenance.

TRANSPORT / STORAGE

- Handle the equipment and its structure either using the devices provided for the purpose or in the original package.
- Store the equipment away from any harsh environmental conditions (dust, damp...). It must be cleaned and protected from corrosion (lubrication...)

INSTALLATION / MAINTENANCE / INTERVENTIONS

- Have trained people who are electrically and mechanically competent deal with installation.
- Require absolute compliance with the safety rules (harnesses, clearance around working areas, cordoning off the area...)
- Ensure that the equipment attaching structure is rigid.
- Neutralize any sources of electric power.
- Keep strictly to the installation instructions mentioned in the equipment instructions manual.
- Connect directly the power supply cable to the power supply terminal of the electrical unit :
 - the cable must be assembled in accordance with the manual, greased and run in by several maneuvers without a load,
 - the line must be assembled in accordance with the manual, oiled and run in by several maneuvers without a load.
- Set out an inspection program and record all the maintenance work carried out on the equipment, and more particularly: hooks, sheave assemblies, chains or cables, brakes and travel end switches.
- Replace any suspicious or worn parts.

AFTER EXTENDED STOPPAGE OR DURING A CHECK :

- Check the operation and adjustment of the safety devices (brake, travel ends, limiters...) in accordance with the instruction manual.
- Regularly check the condition of the chain or cable and of the hooks.
- If a deformation or any wear is observed, replace the parts.
- Keep the cable clean and greased at all times.
- Check that all of the assembly components are tight.
- Check the condition of the lifting cable component wires.
- Check that the chains are not twisted and are free of any damage.
- Check that the steel cables strands supporting the pushbutton box fulfil their functions. The pushbutton box conductor cable is not a handling cable.

It is very important to read these instructions carefully to enable you to install, use and maintain your equipment and reduce any risks caused by its incorrect use.
Any use that is not compliant with the following is dangerous and the manufacturer refuses to accept any liability in such cases.
Please comply with the instructions given below.

WHAT NOT TO DO

TRANSPORT / STORAGE

- Never move or lift the equipment of using the electrical cables.
- Never put the hoist down without using a suitable support to avoid damage to the components on the underside.

INSTALLATION / MAINTENANCE / INTERVENTIONS

- Never modify the equipment without suitable study and the authorization of the manufacturer.
- Never change the values and settings of the safety devices outside the limits provided for in the manual or without the agreement of the manufacturer.
- Never bypass isolating switches, electrical switches, prevention or limiting equipment.

IN USE

- Never transport a load without keeping the personnel at a distance. Never have the book, loaded or empty, move above the personnel.
- Never let anybody unqualified use the equipment.
- Never lift a load exceeding the maximum operating load indicated on the equipment. Shock or accidental catching of the load being handled with the environment can generate overloads.
- Never remove the tab from the hook.
- Never block, adjust or remove switches or end of travel devices to go higher or lower than permitted by them.
- Never use the equipment to pull away, un-jam or pull sideways.
- Never use the equipment to transport people.
- Never touch any moving parts.
- Never use equipment that is in poor condition (wear, deformation...)
- Never use defective spare parts or whose origin is not fully known.
- Never swing the load intentionally.
- Do not cause abrupt movement on the equipment.
- Never use the mechanical stops as a means of repetitive stoppage.
- Never use the lifting chain or cable as a sling.
- Never sling anything from the nose of the hook (risk of damage to hook and falling of load)
- Never use the hook when cantilevered.
- Never twist the loading chains. (turn-around of the sheave...).
- Never use the electric cables to move the equipment around.
- Never leave a load hanging.
- Never use the equipment as a ground reference for welding.
- Never use the equipment for any purpose or in any place for which it was designed.
- Never use the safety devices as a means of measuring the carried weight.
- Never use the controls pointlessly (avoid keying on them). This can cause overheating or even the deterioration of the equipment.
- Never pull a load cross-wise or bring the equipment vertically above the load before lifting it.
- Never use the equipment with an electric power supply that is different from the one recommended (under or over voltage, absence of a phase...)

TEST UNDER LOAD OF THE JIB CRANES AND OF THE GANTRY CRANES

To ensure the good performance of the equipment, and in the absence of specific legislation, the following is recommended by the manufacturer in terms of dynamic and static load tests on standard devices.

Any other regulation, whether related to specific conditions of a country or a particular use should be specifications duly approved by the manufacturer.

DYNAMIC TESTS

For the dynamic tests will be added an overload of 10% at rated load, whether electric or manual lifting.

The tests are therefore performed on all movements (lifting, travelling, translation, rotation etc ...) It will not be necessary to lift the load to its maximum height but it is possible to do it and no time is imposed.

One move of each movement is necessary and sufficient.

Interpretation of dynamic tests :

During these tests the hoist + trolley must remain stable. Ensure no visible distortion too important.

Measure the height under beam or over beam empty before applying the load (Load at the end of the arm if it is a jib crane or at the center if it is a gantry crane) and remeasure under dynamic load.

Do the ratio to recalculate the measured deflection under dynamic load by dividing by 1.1 in order to interpret **Deflection under nominal load**, this deflection is directly proportional to the load.

Only the deflection under nominal load is interpretable to the exclusion of any other!

For pillar jib cranes, deflection observed (**interpreted under nominal load**) must not exceed $1/100^{\text{th}}$ of the span and $1/200^{\text{th}}$ of the sum Height + Span.

For wall jib cranes, deflection should not exceed $1/200^{\text{th}}$ of the span (it will not take into account the possible deformation of the post which is supposedly of sufficient size and have been calculated by the user).

For gantry cranes, deflection should not exceed $1/500^{\text{th}}$ of the span.

If the dynamic tests give satisfaction, there will be static tests.

To ensure the good performance of the equipment, and in the absence of specific legislation, the following is recommended by the manufacturer in terms of dynamic and static load tests on standard devices.

Any other regulation, whether related to specific conditions of a country or a particular use should be specifications duly approved by the manufacturer.

STATIC TESTS

Static testing has for single purpose to ensure the strength of the assembly and verify the absence of permanent deformation or residual.

No deflection measurement shall be interpreted during these tests if it is only to verify the absence of permanent deformation

Requirements during the static tests :

For static tests, it will be an overload applied **in more than 25% of the rated load**, whether it be a manual or electric lifting.

These tests will be performed only on the lifting arms of the bracket in the center position (end of the load arm in the case of jib crane and to the center of a gantry).

It is forbidden to lift the load increased by 25% with the device but additional weights are added to the dynamic load. In the case of a wall jib, the static test will be done in the sense that less strains the building structure.

The duration of this test shall not exceed 30 min.

Interpretation of static tests:

If after static tests, no permanent or residual deformation is found, the device can be operated.

As defined in the European Machinery Directive, any calculation notes will not be issued unless requested to ordering and duly accepted by Comege, as well as the detailed plans, schedules etc. which are the subject of the information folder and as such are confidential documents.

Concerning electric chain hoists:

It is reminded that these devices are equipped with **torque limiters** and not **load limiters**.

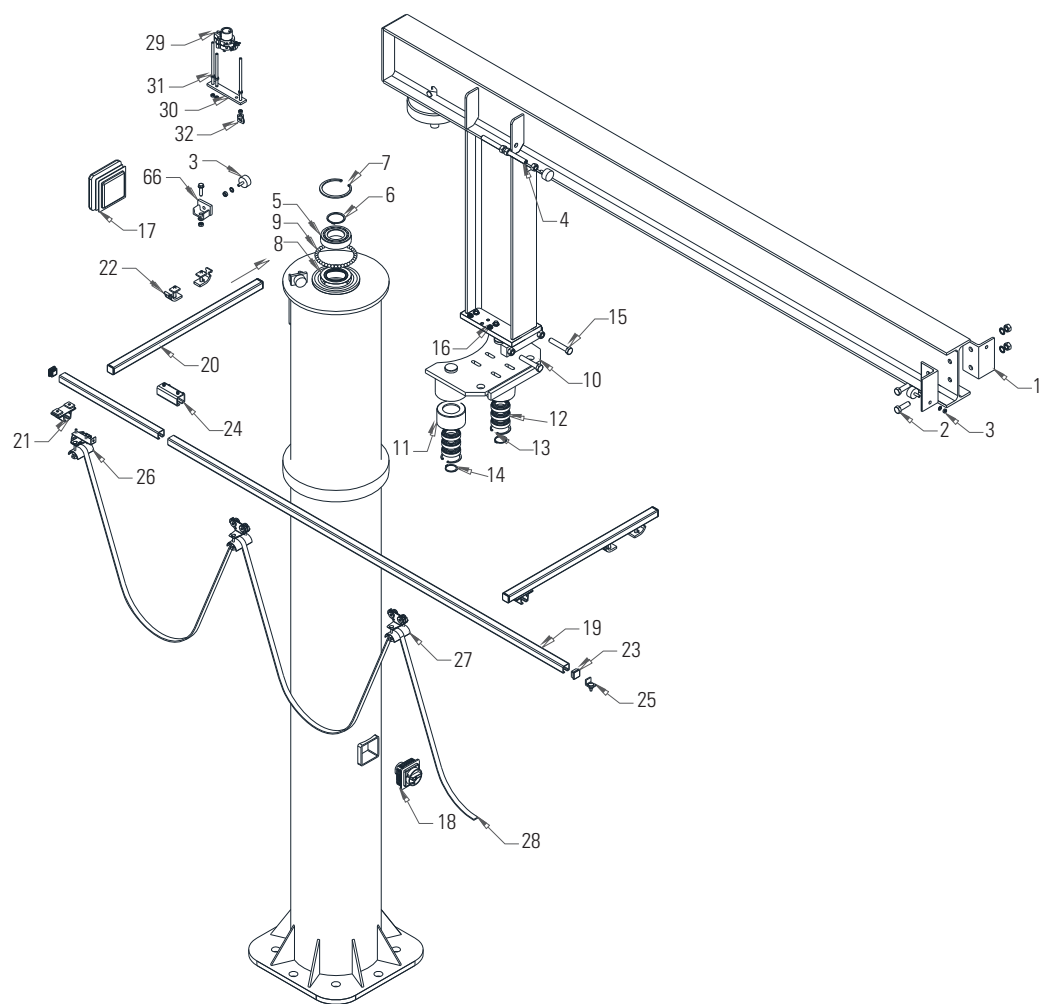
Also for security reasons, their setting far exceeds the trigger threshold 110% of the rated load.

It is quite acceptable that the torque limiters can be «*calibrated*» to 125 or even 130% of rated load.

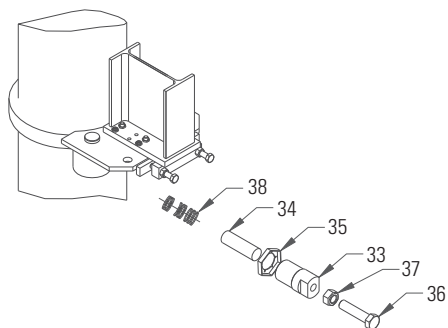
This measure aimed to anticipate wear slip friction system providing torque limit and prevent and to the risk of «*slippage*» of the load.

SPARE PARTS

FULL ROTATION JIB CRANE 360°

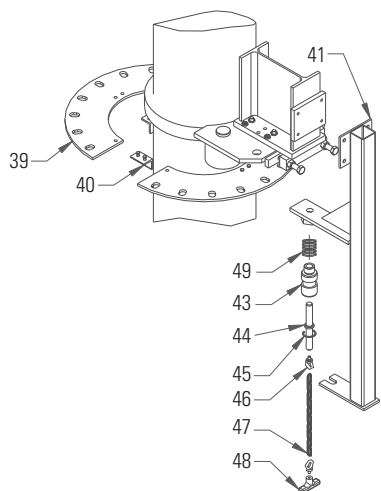


	N°	Désignation	Standard	Option
Full rotation jib crane	1	Extrem end stop	X	
	2	Bolts for the end stop	X	
	3	Rubber bump + bolts	X	
	4	Tige filetée + butée	X	
	5	Roulement (tête de rotation)	X	
	6	Interior elastic ring	X	
	7	Exterior elastic ring	X	
	8	Joint DUSTOP	X	
	9	Billes	X	
	10	Boitard à galet	X	
	11	Roller bearing	X	
	12	Roulement (galet)	X	
	13	Interior elastic ring (roller bearing)	X	
	14	Exterior elastic ring (roller bearing)	X	
	15	Vis d'appui de réglage de contre flèche	X	
	16	Bolt	X	
	17	Plastic cap	X	
	18	Lockable switch		X
Feeding line	19	Power supply rail		X
	20	Bracket		X
	21	Suspension claw		X
	22	Clamp		X
	23	Plastic cap		X
	24	Junction plate		X
	25	Power supply and stop		X
	26	Fixed cable trolley		X
	27	Mobile cable trolley		X
	28	Cable		X
Collector	29	Collector		X
	30	Plat support collecteur		X
	31	Tige filetée (collecteur) + écrous		X
	32	Anneau femelle		X
End stop	33	Butée caoutchouc + visserie		X
	66	Butée à visser sur le chapeau		X



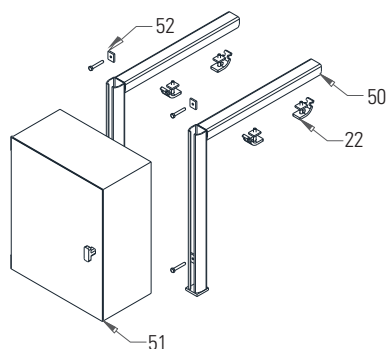
Slowing Device

N°	Désignation	Standard	Option
33	Body of the break		X
34	Rubbing finger		X
35	Bolt		X
36	Adjustment screw		X
37	Counter bolt		X
38	Spring washer		X



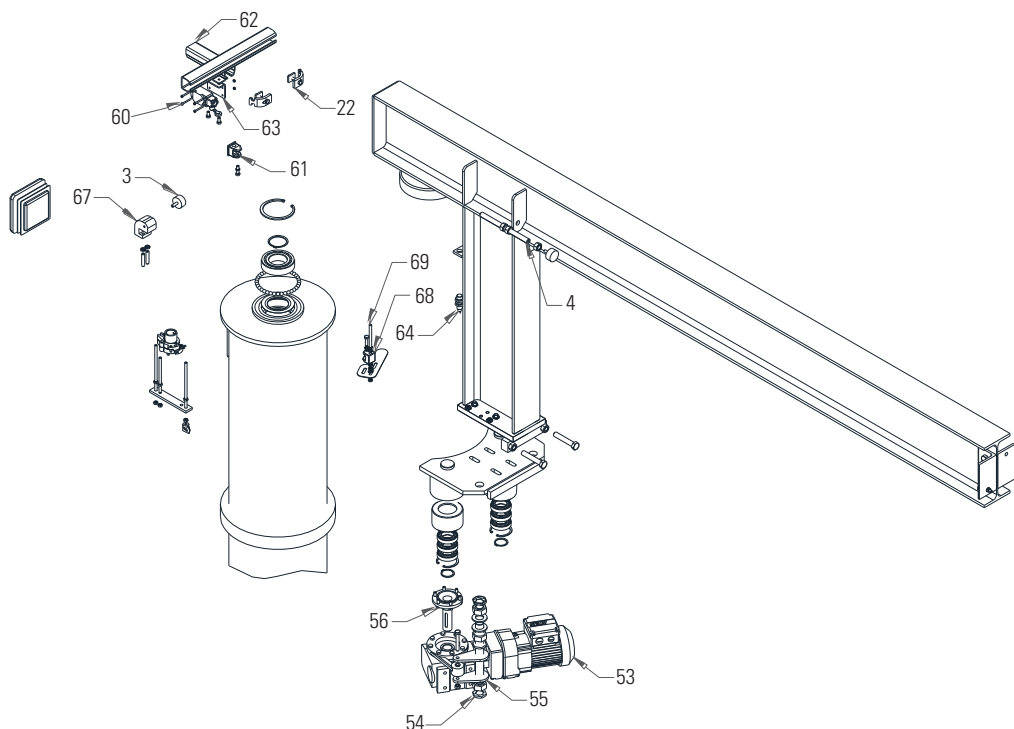
Locking Device

N°	Désignation	Standard	Option
39	Demi-coquille		X
40	Cornière + visserie		X
41	Adaptation sur béquille non motorisée		X
43	Hub		X
44	Axis		X
45	Elastic ring		X
46	Ring screw		X
47	Chain		X
48	Handle		X
49	Spring		X



Support Coffret

N°	Désignation	Standard	Option
50	Support coffret		X
51	Coffret		X
22	Crapaud		X
52	Écrou carré + vis		X



**Motorisation
basse**

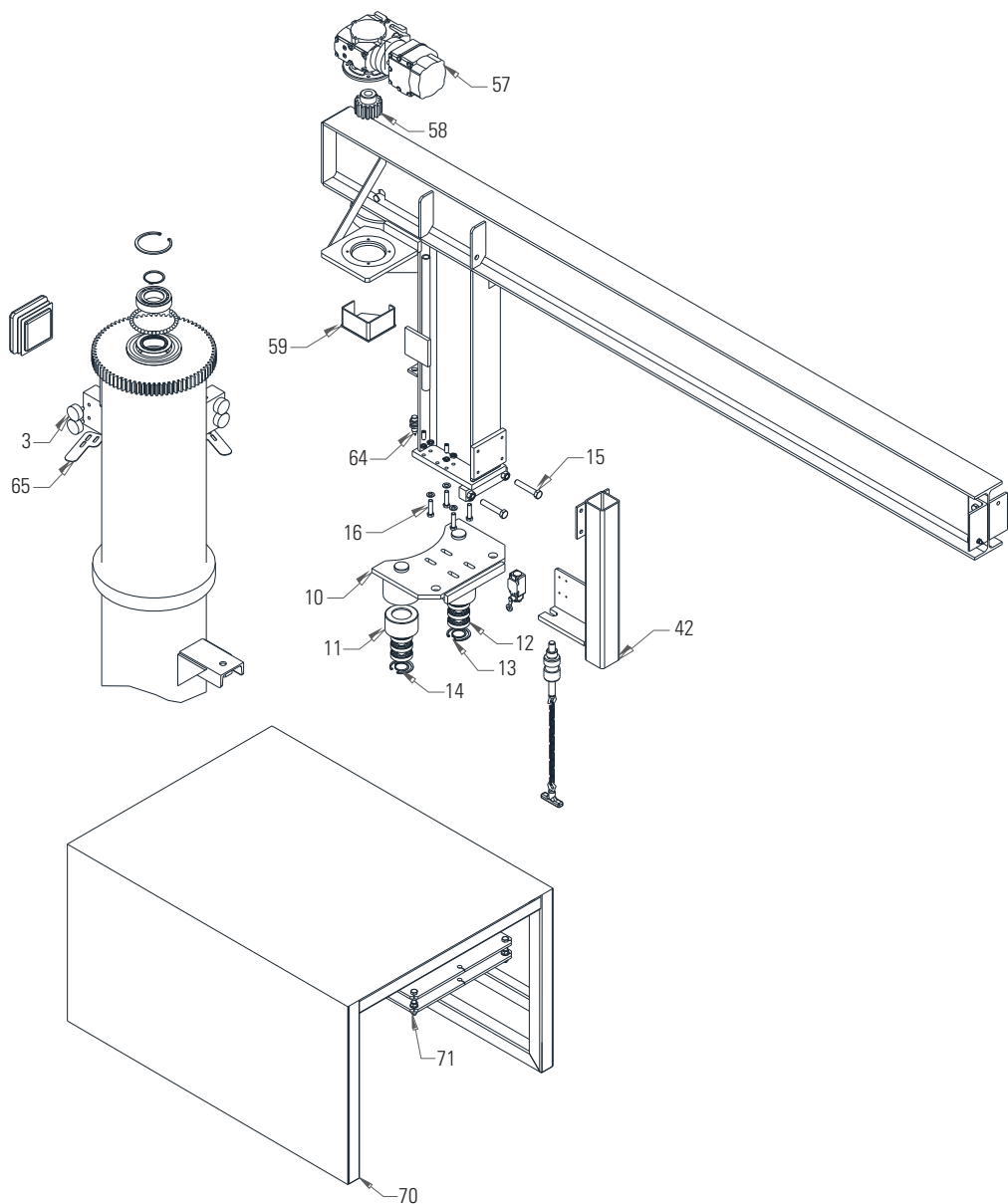
N°	Désignation	Standard	Option
53	Moteur		X
54	Tige de fixation + visserie		X
55	Chape de fixation + visserie		X
56	Trompette de motorisation		X

**Fin de course
et butées**

60	Capteur fin de course à galet		X
61	Pince + vis d'appui		X
62	Support capteur		X
22	Crapaud		X
63	Platine capteur fin de course à galet		X
64	Capteur fin de course inductif		X
65	Plaque réfléchissante inox		X

**Adjustable
unstop**

67	Butée réglable + vis de serrage		X
3	Rubber bump		X
68	Pince (plaque réfléchissante) + vis d'appui		X
69	Tige de maintien plaque réfléchissante		X



**Motorisation
haute**

N°	Désignation	Standard	Option
57	Moteur		X
58	Pignon denté		X
59	Capot pignon		X

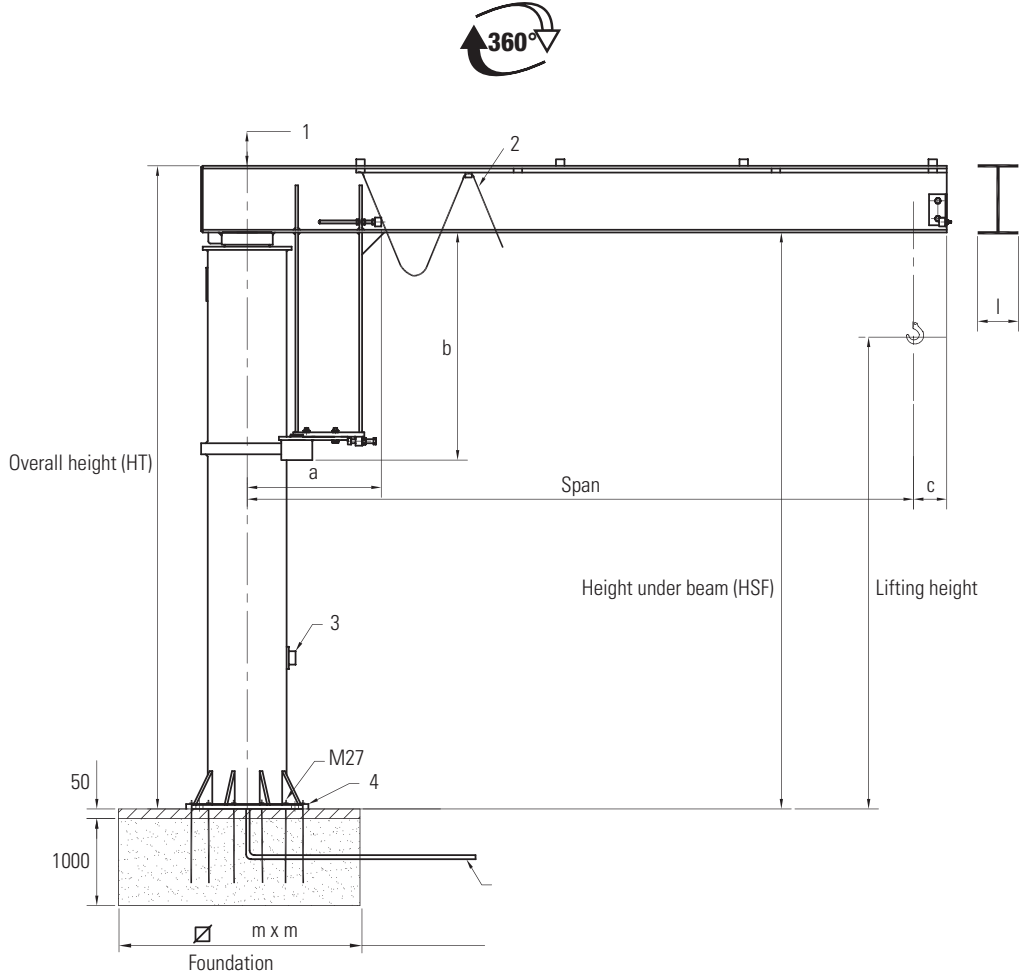
**Capot
intégral**

70	Capot intégral		X
71	Visserie de fixation		X

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SPECIFICATIONS

FULL ROTATION JIB CRANE 360°



1	Necessary clearance for assembly = 150 mm
2	Feeding line (option)
3	Lockable main switch (option)
4	Base plate n°
5	Sheath for supply cable (optional)

Max capacity	Span	Height under beam HSF	Overall height (HT)	a	b	c	l	Standard base plate	Foundation	Splitable base plate	Total weight	Weight pillar	Weight arm	Additionalnal weight for HSH +10 cm	Weight supp SC	HSF maxi	Maximum moment
kg	m	m	m	mm	mm	mm	mm	N°	m	N°	Kg	Kg	Kg	Kg	Kg	m	DaNm
150 (50)	2	3	3,23	415	670	150	91	4	0,85	SC04	185	111	74	3	-8	8,5	468
	2,5	3	3,23	415	670	150	91	4	0,95	SC04	194	111	83	3	-8	6,5	596
	3	3	3,23	415	670	150	91	4	1	SC04	204	111	92	3	-8	5	730
	3,5	3	3,23	450	670	150	91	4	1,05	SC04	252	147	104	4	-7	8,5	868
	4	3	3,23	450	670	150	91	4	1,1	SC06	261	147	114	4	23	6	1010
	4,5	3	3,25	470	770	150	100	4	1,15	SC06	358	214	145	6	23	8,5	1194
	5	3	3,25	470	770	150	100	4	1,2	SC06	303	147	156	4	23	4	1355
	5,5	3	3,29	510	870	150	120	4	1,3	SC08	371	147	224	4	96	4,5	1647
	6	3	3,29	555	920	150	120	5	1,35	SC08	510	250	260	6	77	11	1843
	6,5	3	3,29	555	920	150	120	5	1,4	SC08	526	250	276	6	77	9	2046
	7	3	3,29	555	920	150	120	5	1,45	SC08	541	250	291	6	77	7	2257
	7,5	3	3,29	555	920	150	120	5	1,45	SC08	556	250	306	6	77	5,5	2476
	8	3	3,35	615	1020	150	150	5	1,6	SC08	681	250	431	6	77	8	3070
	8,5	3	3,35	615	1020	150	150	5	1,65	SC08	702	250	452	6	77	7	3352
250 (50)	9	3	3,35	615	1020	150	150	5	1,65	SC08	723	250	473	6	77	6	3644
	9,5	3	3,35	617	1030	150	150	5	1,7	SC10	793	274	519	7	147	7	3947
	10	3	3,41	715	1330	150	170	6	1,85	SC10	1066	336	731	8	126	11	5005
	10,5	3	3,41	715	1330	150	170	6	1,9	SC10	1095	336	759	8	126	11	5405
	11	3	3,41	715	1330	150	170	6	1,95	SC10	1123	336	788	8	126	10,5	5820
	11,5	3	3,41	715	1330	150	170	7	2	SC12	1174	357	816	8	204	9,5	6248
	12	3	3,41	715	1330	150	170	7	2,05	SC12	1202	357	845	8	204	8,5	6691
	2	3	3,23	415	670	150	91	4	0,95	SC04	185	111	74	3	-8	4,5	688
	2,5	3	3,23	450	670	150	91	4	1,05	SC04	233	147	85	4	-7	8,5	871
	3	3	3,23	450	670	150	91	4	1,1	SC06	242	147	95	4	23	6	1060
	3,5	3	3,35	570	970	150	150	4	1,2	SC06	367	147	219	4	23	6,5	1396
	4	3	3,35	570	970	150	150	4	1,3	SC08	388	147	240	4	96	5	1638
	4,5	3	3,29	555	920	150	120	5	1,3	SC08	464	250	214	6	77	10,5	1773
	5	3	3,35	615	1020	150	150	5	1,4	SC08	554	250	304	6	77	10,5	2153
	5,5	3	3,35	615	1020	150	150	5	1,45	SC08	575	250	325	6	77	8,5	2426
500 (50)	6	3	3,35	615	1020	150	150	5	1,5	SC08	596	250	346	6	77	7	2710
	6,5	3	3,35	617	1030	150	150	5	1,55	SC08	666	274	392	7	74	8	3004
	7	3	3,35	617	1030	150	150	5	1,6	SC08	687	274	413	7	74	7	3309
	7,5	3	3,35	617	1030	150	150	5	1,65	SC08	708	274	434	7	74	5,5	3624
	8	3	3,35	617	1030	150	150	5	1,7	SC10	729	274	455	7	147	4,5	3950
	8,5	3	3,35	655	1030	150	150	6	1,75	SC10	818	336	483	8	126	5,5	4287
	9	3	3,35	655	1030	150	150	6	1,8	SC10	839	336	504	8	126	4,5	4634
	9,5	3	3,41	715	1330	150	170	6	1,95	SC10	1038	336	702	8	126	7	5664
	10	3	3,41	715	1330	150	170	6	2	SC12	1066	336	731	8	226	6	6105
	10,5	3	3,45	881	1650	150	180	7	2,1	SC12	1457	520	937	13	200	11	7067
	11	3	3,45	881	1650	150	180	7	2,15	SC12	1490	520	971	13	200	11	7586
	11,5	3	3,45	881	1650	150	180	7	2,2	SC15	1523	520	1004	13	401	11	8122
	12	3	3,45	881	1650	150	180	7	2,2	SC15	1556	520	1037	13	401	11	8674
	2	3	3,23	450	670	150	91	4	1,15	SC06	223	147	76	4	23	4,5	1238
	2,5	3	3,29	510	870	150	120	4	1,3	SC08	279	147	132	4	96	4,5	1596
500 (50)	3	3	3,29	555	920	150	120	5	1,35	SC08	418	250	168	6	77	10,5	1938
	3,5	3	3,29	555	920	150	120	5	1,45	SC08	433	250	184	6	77	7	2288
	4	3	3,29	555	920	150	120	5	1,5	SC08	449	250	199	6	77	5	2646
	4,5	3	3,41	677	1330	150	170	5	1,6	SC08	684	274	410	7	74	8	3278
	5	3	3,35	617	1030	150	150	5	1,65	SC08	603	274	329	7	74	5,5	3528
	5,5	3	3,41	677	1330	150	170	5	1,75	SC10	741	274	467	7	147	5,5	4164
	6	3	3,41	715	1330	150	170	6	1,8	SC10	838	336	502	8	126	7	4628
	6,5	3	3,41	715	1330	150	170	6	1,85	SC10	867	336	531	8	126	6	5106
	7	3	3,41	715	1330	150	170	6	1,95	SC10	895	336	559	8	126	5	5599
	7,5	3	3,41	715	1330	150	170	6	2	SC12	924	336	588	8	226	4	6106
	8	3	3,41	841	1350	150	170	7	2,05	SC12	1183	520	663	13	200	8,5	6627
	8,5	3	3,41	841	1350	150	170	7	2,1	SC12	1211	520	692	13	200	7	7163
	9	3	3,45	881	1650	150	180	7	2,15	SC15	1357	520	838	13	401	8	8085
	9,5	3	3,45	881	1650	150	180	7	2,25	SC15	1391	520	871	13	401	6,5	8692
	10	3	3,45	881	1650	150	180	7	2,3	SC15	1424	520	904	13	401	5,5	9315
500 (50)	10,5	3	3,5	931	1650	150	190	7	2,4	SC15	1597	520	1078	13	401	7	10578
	11	3	3,5	931	1650	150	190	8	2,45	SC15	1693	577	1116	13	344	6	11295
	11,5	3	3,55	1070	1850	150	200	8	2,55	-	2070	679	1391	15	-	11	12898
	12	3	3,55	1070	1850	150	200	9	2,6	-	2197	761	1436	15	-	10,5	13730

Max capacity	Span	Height under beam HSF	Overall height (HT)	a	b	c	l	Standard base plate	Foundation	Splitable base plate	Total weight	Weight pillar	Weight arm	Additioanl weight for HSH +10 cm	Weight supp SC	HSF maxi	Maximum moment
kg	m	m	m	mm	mm	mm	mm	N°	m	N°	Kg	Kg	Kg	Kg	Kg	m	DaNm
1000 (100)	2	3	3,29	555	920	150	120	5	1,45	SC08	387	250	138	6	77	8	2461
	2,5	3	3,29	555	920	150	120	5	1,6	SC08	403	250	153	6	77	5,5	3096
	3	3	3,35	615	1020	150	150	5	1,7	SC08	470	250	220	6	77	5	3790
	3,5	3	3,35	617	1030	150	150	5	1,8	SC10	539	274	266	7	147	5	4458
	4	3	3,35	655	1030	150	150	6	1,85	SC10	628	336	293	8	126	5	5138
	4,5	3	3,41	715	1330	150	170	6	1,95	SC10	752	336	417	8	126	5	5978
	5	3	3,41	715	1330	150	170	6	2,05	SC12	781	336	445	8	226	4	6714
	5,5	3	3,41	841	1350	150	170	7	2,1	SC12	1040	520	521	13	200	8	7464
	6	3	3,41	841	1350	150	170	7	2,2	SC15	1069	520	549	13	401	6	8228
	6,5	3	3,45	881	1650	150	180	7	2,25	SC15	1192	520	672	13	401	6,5	9201
	7	3	3,45	881	1650	150	180	7	2,35	SC15	1225	520	705	13	401	5	10024
	7,5	3	3,5	931	1650	150	190	7	2,4	SC15	1364	520	845	13	401	5,5	11183
	8	3	3,5	931	1650	150	190	8	2,5	-	1461	577	884	13	-	4,5	12083
	8,5	3	3,5	1020	1650	150	190	8	2,55	-	1642	679	963	15	-	6,5	13003
	9	3	3,55	1070	1850	150	200	8	2,65	-	1843	679	1164	15	-	7	14473
	9,5	3	3,55	1070	1850	150	200	8	2,7	-	1888	679	1209	15	-	6	15493
	10	3	3,55	1070	1850	150	200	8	2,75	-	1934	679	1254	15	-	5	16535
1600 (160)	10,5	3	3,6	1160	2000	150	210	9	2,85	-	2844	1282	1562	22	-	11	18443
	11	3	3,6	1160	2000	150	210	9	2,9	-	2897	1282	1615	22	-	10	19613
	11,5	3	3,6	1160	2000	150	210	9	2,95	-	2950	1282	1668	22	-	8,5	20809
	12	3	3,65	1210	1850	150	220	9	3,1	-	3215	1282	1932	22	-	10	23184
	2	3	3,35	617	1030	150	150	5	1,7	SC10	476	274	202	7	147	7	3904
	2,5	3	3,35	617	1030	150	150	6	1,85	SC10	523	299	223	7	122	5	4907
	3	3	3,35	655	1030	150	150	6	1,95	SC10	586	336	250	8	126	5,5	5920
	3,5	3	3,41	715	1330	150	170	6	2,1	SC12	695	336	360	8	226	5	7035
	4	3	3,41	715	1330	150	170	7	2,15	SC15	858	470	388	12	349	5	8097
	4,5	3	3,41	841	1350	150	170	7	2,25	SC15	983	520	464	13	401	6,5	9173
	5	3	3,41	841	1350	150	170	7	2,35	SC15	1012	520	492	13	401	4,5	10264
	5,5	3	3,45	881	1650	150	180	7	2,45	SC15	1125	520	606	13	401	4,5	11508
	6	3	3,5	931	1650	150	190	8	2,55	-	1305	577	728	13	-	4,5	12857
	6,5	3	3,5	931	1650	150	190	8	2,6	-	1429	662	767	16	-	4,5	14054
	7	3	3,55	981	1850	150	200	8	2,7	-	1602	662	941	16	-	4,5	15592
	7,5	3	3,55	1070	1850	150	200	8	2,75	-	1707	679	1028	15	-	5,5	16876
	8	3	3,6	1120	2000	150	210	9	2,85	-	2005	761	1244	15	-	5,5	18672
2000 (200)	8,5	3	3,6	1120	2000	150	210	9	2,95	-	2058	761	1297	15	-	4,5	20064
	9	3	3,6	1120	2000	150	210	9	3	-	2111	761	1350	15	-	4	21483
	9,5	3	3,65	1210	1850	150	220	10	3,1	-	2675	1047	1627	22	-	8,5	23650
	10	3	3,65	1210	1850	150	220	10	3,15	-	2736	1047	1688	22	-	7,5	25200
	10,5	3	3,54	1100	1850	150	300	10	3,3	-	3216	1047	2168	22	-	6	28599
	11	3	3,59	1150	1850	150	300	10	3,4	-	3439	1047	2391	22	-	6,5	31053
	11,5	3	3,59	1150	1850	150	300	11	3,45	-	3522	1047	2474	22	-	5,5	32942
	12	3	3,64	1200	1850	150	300	12	3,55	-	4010	1282	2728	22	-	6	35736
	2	3	3,35	617	1030	150	150	5	1,85	SC10	476	274	202	7	147	5	4884
	2,5	3	3,35	655	1030	150	150	6	2	SC12	565	336	229	8	226	5,5	6132
	3	3	3,35	655	1030	150	150	7	2,1	SC12	608	357	250	8	204	4	7390
	3,5	3	3,41	841	1350	150	170	7	2,25	SC15	926	520	406	13	401	9,5	8750
	4	3	3,41	841	1350	150	170	7	2,35	SC15	955	520	435	13	401	6,5	10057
	4,5	3	3,45	881	1650	150	180	7	2,45	SC15	1059	520	540	13	401	6	11471
	5	3	3,5	931	1650	150	190	8	2,55	-	1228	577	651	13	-	5,5	12970
	5,5	3	3,5	931	1650	150	190	8	2,65	-	1267	577	690	13	-	4	14374
	6	3	3,55	981	1850	150	200	8	2,7	-	1427	577	850	13	-	4	16033
	6,5	3	3,55	1070	1850	150	200	9	2,8	-	1698	761	937	15	-	5,5	17516
	7	3	3,55	1070	1850	150	200	9	2,9	-	1743	761	982	15	-	4,5	19022
	7,5	3	3,55	1070	1850	150	200	9	2,95	-	1891	863	1028	19	-	4	20551
	8	3	3,6	1120	2000	150	210	9	3,05	-	2108	863	1244	19	-	4,5	22592
	8,5	3	3,65	1210	1850	150	220	10	3,15	-	2553	1047	1505	22	-	8	24807
	9	3	3,65	1210	1850	150	220	10	3,2	-	2614	1047	1566	22	-	7	26541
	9,5	3	3,65	1210	1850	150	220	10	3,3	-	2675	1047	1627	22	-	5,5	28305
	10	3	3,59	1150	1850	150	300	10	3,45	-	3273	1047	2225	22	-	5,5	32300
	10,5	3	3,64	1200	1850	150	300	11	3,55	-	3508	1047	2461	22	-	6	35012
	11	3	3,64	1200	1850	150	300	12	3,6	-	3832	1282	2550	22	-	5	37169
	11,5	3	3,65	1275	1900	150	300	12	3,75	-	4595	1410	3185	25	-	8	41619
	12	3	3,65	1275	1900	150	300	12	3,8	-	4701	1410	3291	25	-	7	44064

Max capacity	Span	Height under beam HSF	Overall height (HT)	a	b	c	l	Standard base plate	Foundation	Splitable base plate	Total weight	Weight pillar	Weight arm	Additionalnal weight for HSH +10 cm	Weight supp SC	HSF maxi	Maximum moment
kg	m	m	m	mm	mm	mm	mm	N°	m	N°	Kg	Kg	Kg	Kg	Kg	m	DaNm
2500 (250)	2	3	3,41	715	1330	300	170	6	2	SC12	618	336	282	8	226	7	6114
	2,5	3	3,41	715	1330	300	170	7	2,15	SC12	668	357	311	8	204	5	7678
	3	3	3,41	841	1350	300	170	7	2,25	SC15	906	520	386	13	401	10	9257
	3,5	3	3,45	881	1650	300	180	7	2,4	SC15	1003	520	483	13	401	8	10906
	4	3	3,5	931	1650	300	190	8	2,5	-	1162	577	585	13	-	6,5	12621
	4,5	3	3,5	931	1650	300	190	8	2,6	-	1201	577	624	13	-	5	14286
	5	3	3,5	931	1650	300	190	8	2,7	-	1324	662	662	16	-	4,5	15970
	5,5	3	3,55	1070	1850	300	200	9	2,8	-	1621	761	860	15	-	6	17872
	6	3	3,55	1070	1850	300	200	9	2,9	-	1666	761	905	15	-	5	19633
	6,5	3	3,55	1070	1850	300	200	9	3	-	1814	863	951	19	-	4,5	21416
	7	3	3,6	1120	2000	300	210	9	3,1	-	1915	761	1154	15	-	4	23597
	7,5	3	3,65	1210	1850	300	220	10	3,2	-	2449	1047	1401	22	-	4	25931
	8	3	3,65	1210	1850	300	220	10	3,25	-	2510	1047	1462	22	-	4	27904
	8,5	3	3,65	1210	1850	300	220	10	3,35	-	2571	1047	1523	22	-	5,5	29907
3200 (300)	9	3	3,59	1150	1850	300	300	11	3,5	-	3132	1047	2084	22	-	5,5	33723
	9,5	3	3,64	1200	1850	300	300	12	3,6	-	3592	1282	2309	22	-	5,5	36532
	10	3	3,65	1275	1900	300	300	12	3,7	-	4309	1410	2899	25	-	5,5	40600
	10,5	3	3,65	1275	1900	300	300	12	3,8	-	4415	1410	3005	25	-	4,5	43187
	11	3	3,65	1275	1900	300	300	12	3,85	-	4521	1410	3111	25	-	4	45826
	11,5	3	3,7	1325	1900	300	300	12	3,95	-	4808	1410	3398	25	-	6,5	49378
	12	3	3,7	1325	1900	300	300	12	4,05	-	4920	1410	3511	25	-	5,5	52200
	2	3	3,41	715	1330	300	170	7	2,15	SC12	640	357	282	8	204	5	7754
	2,5	3	3,41	841	1350	300	170	7	2,3	SC15	877	520	358	13	401	9,5	9728
	3	3	3,45	881	1650	300	180	7	2,45	SC15	970	520	450	13	401	8	11758
	3,5	3	3,45	881	1650	300	180	8	2,6	-	1060	577	483	13	-	5,5	13776
	4	3	3,5	931	1650	300	190	8	2,7	-	1162	577	585	13	-	4,5	15901
	4,5	3	3,55	1070	1850	300	200	9	2,85	-	1530	761	769	15	-	7	18108
	5	3	3,55	1070	1850	300	200	9	2,95	-	1575	761	815	15	-	5,5	20234
4000 (400)	5,5	3	3,6	1120	2000	300	210	9	3,05	-	1756	761	995	15	-	5	22613
	6	3	3,6	1120	2000	300	210	9	3,15	-	1809	761	1048	15	-	4	24828
	6,5	3	3,65	1210	1850	300	220	9	3,25	-	2562	1282	1279	22	-	7,5	27407
	7	3	3,65	1210	1850	300	220	10	3,35	-	2388	1047	1340	22	-	6,5	29729
	7,5	3	3,65	1210	1850	300	220	10	3,45	-	2449	1047	1401	22	-	5	32081
	8	3	3,54	1165	1900	300	300	11	3,55	-	3168	1286	1882	25	-	5,5	35520
	8,5	3	3,59	1215	1900	300	300	12	3,65	-	3489	1410	2080	25	-	6	38467
	9	3	3,64	1265	1900	300	300	12	3,75	-	3709	1410	2299	25	-	6	41589
	9,5	3	3,65	1275	1900	300	300	12	3,85	-	4203	1410	2793	25	-	6	45857
	10	3	3,65	1275	1900	300	300	12	3,95	-	4309	1410	2899	25	-	5	48900
	10,5	3	3,7	1325	1900	300	300	12	4,05	-	4583	1410	3173	25	-	5,5	52513
	11	3	3,75	1375	1900	300	300	12	4,15	-	4910	1410	3500	25	-	5,5	56601
	11,5	3	3,75	1425	1900	300	300	12	4,2	-	5195	1486	3709	28	-	7	59866
	12	3	3,75	1425	1900	300	300	12	4,3	-	5315	1486	3829	28	-	6	63192
5000 (500)	2	3	3,5	931	1650	300	190	7	2,3	SC15	949	520	430	13	401	11	9755
	2,5	3	3,5	931	1650	300	190	8	2,5	-	1045	577	468	13	-	8,5	12243
	3	3	3,5	931	1650	300	190	8	2,65	-	1084	577	507	13	-	6,5	14749
	3,5	3	3,5	931	1650	300	190	8	2,8	-	1123	577	546	13	-	4,5	17275
	4	3	3,55	1070	1850	300	200	9	2,95	-	1485	761	724	15	-	7	19926
	4,5	3	3,55	1070	1850	300	200	9	3,05	-	1530	761	769	15	-	5	22518
	5	3	3,6	1120	2000	300	210	10	3,15	-	1705	763	942	15	-	4,5	25325
	5,5	3	3,65	1210	1850	300	220	10	3,3	-	2205	1047	1157	22	-	8,5	28245
	6	3	3,65	1210	1850	300	220	10	3,4	-	2266	1047	1218	22	-	6,5	30996
	6,5	3	3,65	1210	1850	300	220	10	3,5	-	2327	1047	1279	22	-	5,5	33777
	7	3	3,59	1150	1850	300	300	10	3,6	-	2800	1047	1752	22	-	5	37667
	7,5	3	3,59	1215	1900	300	300	12	3,7	-	3323	1410	1914	25	-	6	40669
	8	3	3,64	1265	1900	300	300	12	3,8	-	3531	1410	2121	25	-	6	44096
	8,5	3	3,65	1275	1900	300	300	12	3,95	-	3991	1410	2581	25	-	5,5	48459
5000 (500)	9	3	3,74	1365	1900	300	300	12	4	-	4006	1410	2596	25	-	5,5	51462
	9,5	3	3,75	1375	1900	300	300	12	4,15	-	4548	1410	3139	25	-	5,5	56475
	10	3	3,75	1375	1900	300	300	12	4,2	-	4669	1410	3259	25	-	4,5	60050
	2	3	3,44	871	1850	300	300	8	2,5	-	1224	577	647	13	-	9	12250
	2,5	3	3,44	871	1850	300	300	8	2,7	-	1286	577	709	13	-	7	15391
	3	3	3,44	960	1850	300	300	9	2,85	-	1576	761	815	15	-	9,5	18563
	3,5	3	3,44	960	1850	300	300	9	3	-	1638	761	878	15	-	6,5	21766
	4	3	3,44	1000	1850	300	300	10	3,15	-	2041	1047	994	22	-	9,5	25000
	4,5	3	3,49	1050	1850	300	300	10	3,3	-	2206	1047	1159	22	-	8,5	28418
	5	3	3,49	1050	1850	300	300	10	3,4	-	2276	1047	1229	22	-	6	31750
5000 (500)	5,5	3	3,54	1100	1850	300	300	10	3,55	-	2464	1047	1417	22	-	5,5	35344
	6	3	3,59	1150	1850	300	300	12	3,65	-	2869	1282	1586	22	-	5	38988
	6,5	3	3,59	1215	1900	300	300	12	3,75	-	3157	1410	1748	25	-	6,5	42507
	7	3	3,64	1265	1900	300	300	12	3,85	-	3353	1410	1943	25	-	6	46361
	7,5	3	3,64	1265	1900	300	300	12	3,95	-	3442	1410	2032	25	-	5	50006
	8	3	3,65	1275	1900	300	300	12	4,1	-	3885	1410	2475	25	-	4,5	54784

Max. capacity	Span	Height under beam HSF	Overall height (HT)	a	b	c	l	Standard base plate	Foundation	Splitable base plate	Total weight	Weight pillar	Weight arm	Additional weight for HSH +10 cm	Weight supp SC	HSF maxi	Maximum moment
kg	m	m	m	mm	mm	mm	mm	N°	m	N°	Kg	Kg	Kg	Kg	Kg	m	DaNm
6 300 (600)	2	3	3,44	960	1850	300	300	8	2,7	-	1369	679	690	15	-	11	15310
	2,5	3	3,44	960	1850	300	300	9	2,9	-	1513	761	753	15	-	9	19216
	3	3	3,44	960	1850	300	300	9	3,1	-	1576	761	815	15	-	7	23153
	3,5	3	3,49	1010	1850	300	300	9	3,25	-	1725	761	965	15	-	5,5	27213
	4	3	3,49	1050	1850	300	300	10	3,4	-	2136	1047	1089	22	-	8	31240
	4,5	3	3,49	1050	1850	300	300	10	3,55	-	2206	1047	1159	22	-	5,5	35303
	5	3	3,54	1100	1850	300	300	12	3,65	-	2622	1282	1339	22	-	5	39588
	5,5	3	3,59	1215	1900	300	300	12	3,8	-	2991	1410	1582	25	-	7	43926
	6	3	3,59	1215	1900	300	300	12	3,9	-	3074	1410	1665	25	-	5,5	48168
8 000 (1000)	6,5	3	3,64	1265	1900	300	300	12	4,05	-	3264	1410	1854	25	-	5	52705
	7	3	3,65	1275	1900	300	300	12	4,15	-	3673	1410	2263	25	-	4,5	57904
	2	3	3,49	1010	1850	300	300	9	2,9	-	1515	761	755	15	-	9,5	19480
	2,5	3	3,49	1010	1850	300	300	9	3,15	-	1585	761	825	15	-	7,5	24438
	3	3	3,49	1050	1850	300	300	10	3,35	-	1996	1047	949	22	-	11	29430
	3,5	3	3,54	1100	1850	300	300	10	3,5	-	2154	1047	1107	22	-	8,5	34549
	4	3	3,54	1100	1850	300	300	12	3,7	-	2467	1282	1184	22	-	6,5	39640
	4,5	3	3,59	1150	1850	300	300	12	3,85	-	2620	1282	1337	22	-	5,5	44881
	5	3	3,64	1265	1900	300	300	12	3,95	-	2997	1410	1587	25	-	7	50225
10 000 (1200)	5,5	3	3,64	1265	1900	300	300	12	4,1	-	3086	1410	1676	25	-	5,5	55492
	6	3	3,65	1275	1900	300	300	12	4,25	-	3461	1410	2051	25	-	4,5	61416
	2	3	3,54	1100	1850	300	300	10	3,15	-	1922	1047	874	22	-	11	24310
	2,5	3	3,54	1100	1850	300	300	10	3,35	-	1999	1047	952	22	-	11	30484
	3	3	3,54	1100	1850	300	300	12	3,6	-	2312	1282	1029	22	-	9	36698
	3,5	3	3,59	1150	1850	300	300	12	3,8	-	2454	1282	1171	22	-	7	43017
	4	3	3,64	1265	1900	300	300	12	3,95	-	2819	1410	1409	25	-	8,5	49424
	4,5	3	3,64	1265	1900	300	300	12	4,1	-	2908	1410	1498	25	-	6,5	55802
	5	3	3,65	1275	1900	300	300	12	4,3	-	3249	1410	1839	25	-	5,5	62650
	5,5	3	3,65	1275	1900	300	300	13	4,4	-	3355	1410	1945	25	-	4	69207
	6	3	3,75	1425	1900	300	300	13	4,55	-	3973	1590	2383	28	-	6	76338

This image shows a single sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.

