



We are aluminium

Installation manual base plates



Introduction

The purpose of this manual is to provide instructions so that installers and service operatives can competently and safely mount or install the Hydro base plates.

Installers and service operatives must have the required competencies, knowledge and experience to safely work on equipment and operate mechanical tooling needed for the installation of the Hydro base plate.



ATTENTION:

- Read this manual carefully before installing the baseplate.
- Always follow the instructions in this manual.
- Always wear personal protection equipment; helmet, boots, gloves and safety glasses.
- The fasteners must be clean and free from burrs, strange metal parts and casting sand.
- One sided clamping of the base plate caused by damage of the bolt or the skew screw-on of the nut and bold must be avoided.
- Due care must be taken not to exceed the torque settings stated in table 1 to prevent catastrophic component damage.
- Air tools should not to be used because the fasteners can score due to the relatively high speed of the operation. This also counts when these tools are adjustable. The same goes for electrical tools, but when they can be adjusted at the right tightening moment, these tools can be used. We recommend "Never-Seez" lubricant for stainless fasteners.
- Hydro recommends carrying out a visual inspection every year and re-tightening the bolts/locknuts

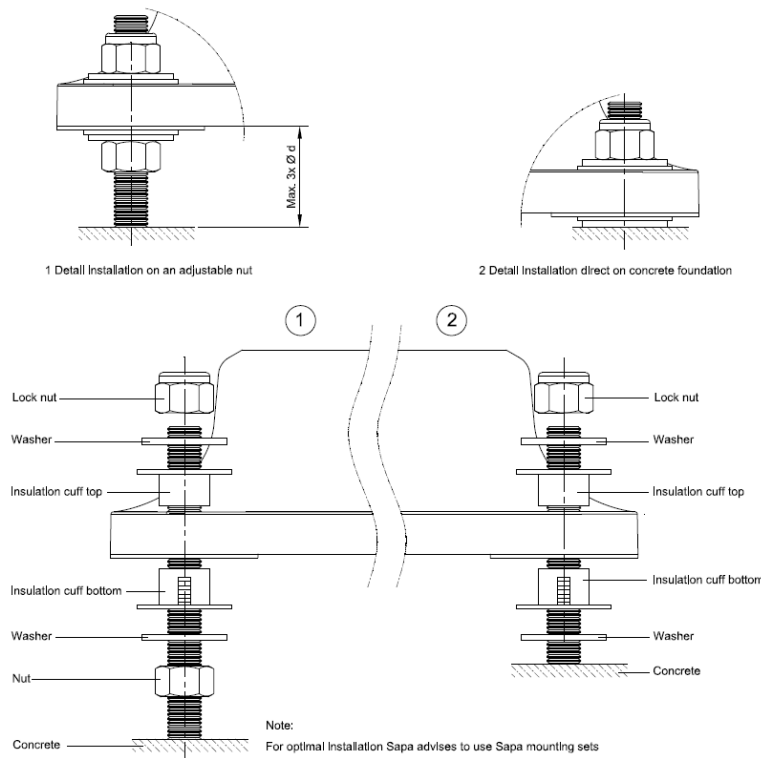
Disclaimer

Despite the careful development and compilation of this installation manual, it is possible that incorrect or incomplete information is included. Hydro is not liable for any damage, directly or indirectly, related to the use of the information in this manual.

Installation instructions 1-part base plate

Note: Also applicable for mât fusible

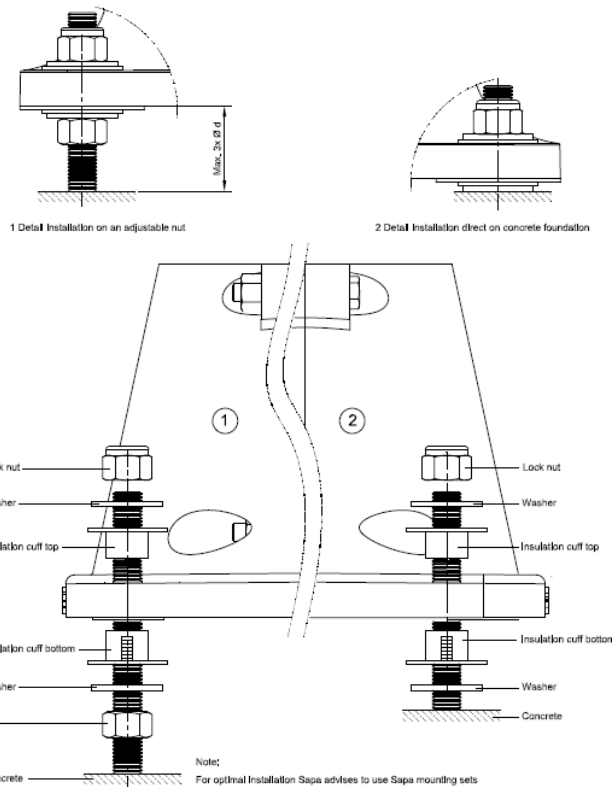
Use table 1 (see page 4) as guidance to determine the minimal length of the anchors.



Installation on adjustable nut	Installation direct on concrete foundation
<ol style="list-style-type: none"> 1. Screw a hexagonal nut on the anchor 2. Place the washer (Hydro) on top of the nut 3. Repeat step 1-3 for each anchor 4. Mount the insulation cuffs bottom and top into the Hydro base plate Note: In some cases, the insulation cuffs are pre-mounted 5. Place the base plate on the anchors. 6. Put the washers on the anchors 7. Screw the lock nuts to just above the base plate 8. Tighten the lock nuts 	<ol style="list-style-type: none"> 1. Place the washer (Hydro) on the anchor 2. Repeat step 1 for each anchor 3. Mount the insulation cuffs bottom and top into the Hydro base plate Note: In some cases, the insulation cuffs are pre-mounted 4. Place the base plate on the anchors 5. Put the washers on the anchors 6. Screw the lock nuts to just above the base plate Tighten the lock nuts

Installation instruction 2-part base plate

Use table 1 (see page 4) as guidance to determine the minimal length of the anchors



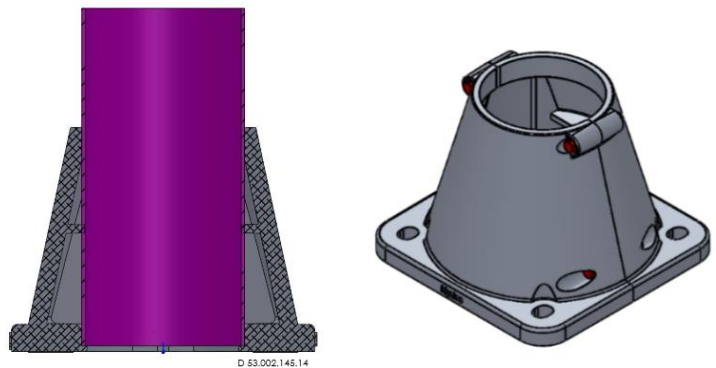
Installation on adjustable nut	Installation direct on concrete foundation
<ol style="list-style-type: none"> 1. Screw a hexagonal nut on the anchor 2. Place the washer (Hydro) on top of the nut 3. Repeat step 1-3 for each anchor 4. Mount the insulation cuffs bottom and top into the base plate Note: In some cases, the insulation cuffs are pre-mounted 5. Place the base plate on the anchors. 6. Put the washers on the anchors 7. Screw the lock nuts to just above the base plate 8. Tighten the lock nuts 	<ol style="list-style-type: none"> 1. Place the washer (Hydro) on the anchor 2. Repeat step 1 for each anchor 3. Mount the insulation cuffs bottom and top into the base plate Note: In some cases, the insulation cuffs are pre-mounted 4. Place the base plate on the anchors 5. Put the washers on the anchors 6. Screw the lock nuts to just above the base plate Tighten the lock nuts

2-part base plate installation and column

- Install the base plate as indicated above
- Lower the column end into the base plate until the base of the column and baseplate are in line.
- Ensure both sides of bolts are tightened equally to ensure gap to avoid canting.
- Don't use air tools for tightening.
- Maximum torque setting as per table 1.

Maximum tightening moments for stainless fasteners	
Bolt dimension (A2 class 70)	Tightening moment Nm
M10	35
M12	50
M16	100
M18	125

Table 1



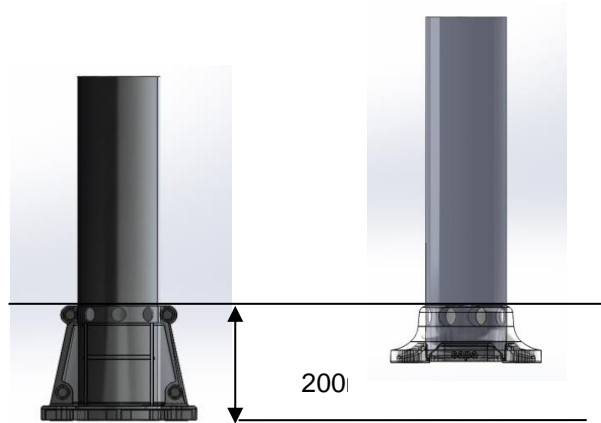
Minimal length of thread/anchors (above ground):

Base plate	D114 - D145				D145		D165		D175		D200		D250
Pitch	200x200				300x300		300x300		300x300		300x300		300x300
Thread size	M12	M14	M16	M18	M20	M24	M20	M24	M20	M24	M20	M24	M24
Min. length of thread [mm] (1.)	100	105	120	130	140	170	140	170	140	170	140	170	170
Min. length of thread [mm] (2.)	60	65	70	75	85	95	85	95	85	95	85	95	95

Table 1: minimal length of thread/anchors. (With the advised thread size for each size base plate).

Installation level in case of mât fusible (France)

Minimal level pole:
 casted baseplate
 completely
 In the ground.
 Depending on the
 type of cast this can be
 100 or 200mm
 (or even 300mm)



Maximal level pole:
 top of cast at 200mm
 above ground level

Note: the red arrow is ground level in both extremes; the 200mm comes from STRMTG: GT3-DTW-Obstacles Fixes V2. The pole needs to break below 200mm above ground level with maximal 570 daNm.