

Installation instruction

1.2m Antenna



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Tools required

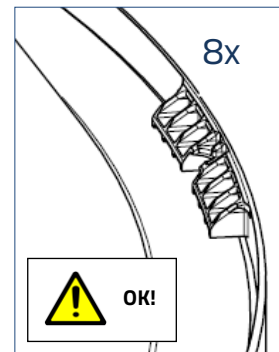
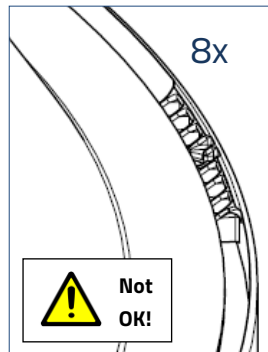
- ✓ Allen key 6mm; for M8.
- ✓ Combination wrenches (ring/open jaw) for Hex 13, 15 & 16mm; for M8 and M10.
- ✓ Socket wrench and sockets for Hex 13, 15 & 16mm; for M8 and M10.
- ✓ Tool for torque levels; 17Nm, 24Nm and 49Nm.

Unpacking

- ✓ Place antenna on a flat clean surface, such as on top of the packing material.
- ✓ Visually inspect that all fastenings (8pcs) on the radome are still properly mounted to the reflector. If any are loose, then carefully press them over the reflector edge, without damaging the radome or reflector.



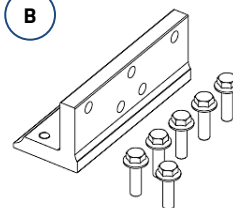
Handle Antenna carefully at all times.



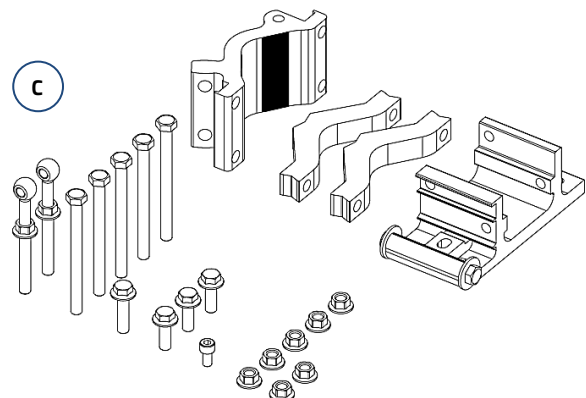
Included parts

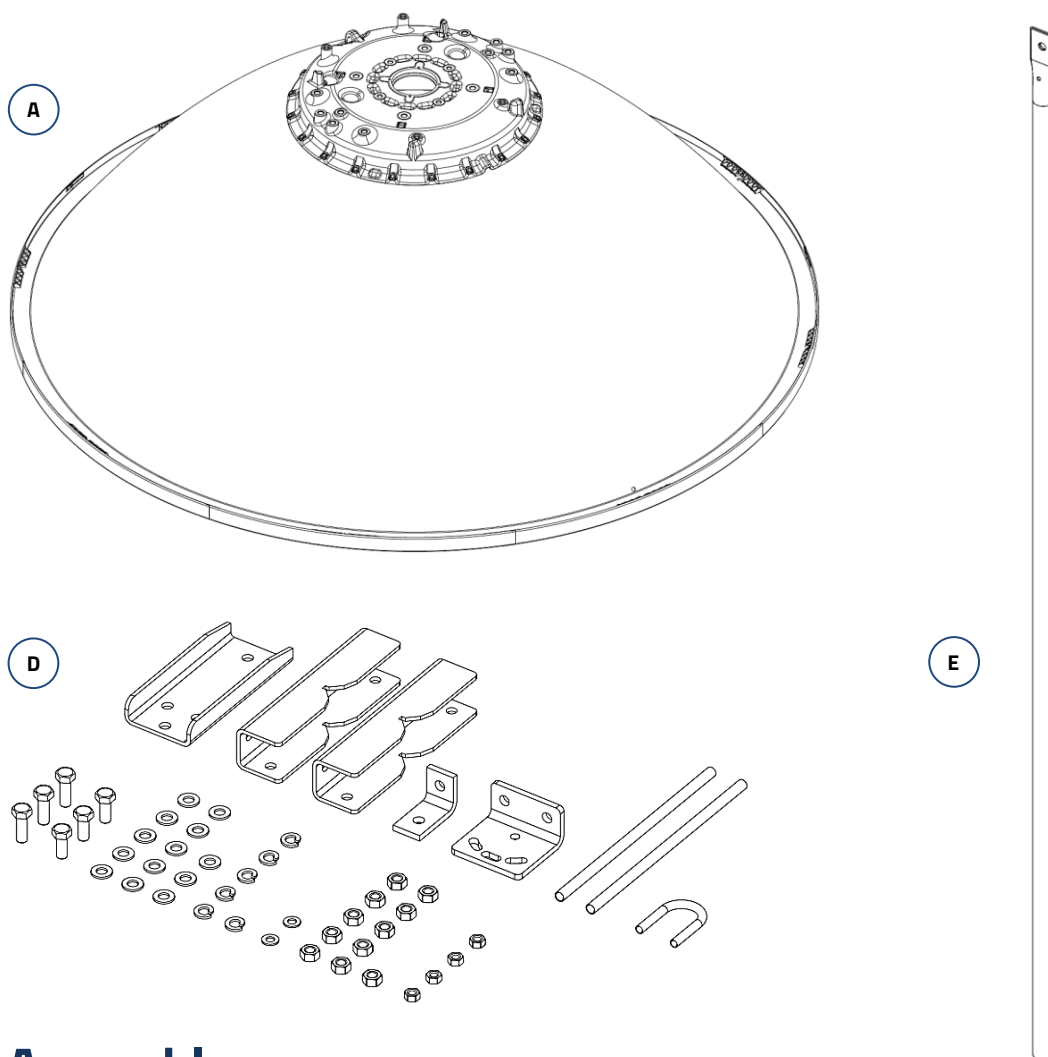
Item	Qty	Description
A	1	Antenna
B	1	Antenna support bracket
	6	M10x35 screw with flange
C	1	Antenna support (Box)
	1	Pipe attachment bracket
	2	Clamp bracket
	1	Pivot bracket
	2	M10 link screw (and M10 flange nut)
	5	M10x120 screw
	1	M10x40 screw with flange
	3	M10x30 screw with flange
	1	M8x16 screw
	7	M10 flange nut
D	1	Side strut kit (Box)
	1	Strut support bracket
	2	Clamp bracket
	1	L-bracket
	1	Strut attachment bracket
	2	M10 rod
	1	M8 U-bolt
	3	M10x30 screw
	3	M10x25 screw
	13	Washer M10
	6	Spring washer M10
	2	Washer M8
	11	M10 nut
	4	M8 nut
E	1	Side strut

B



C

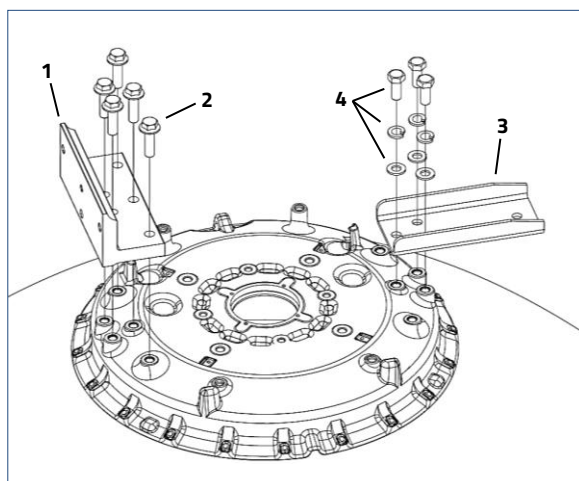




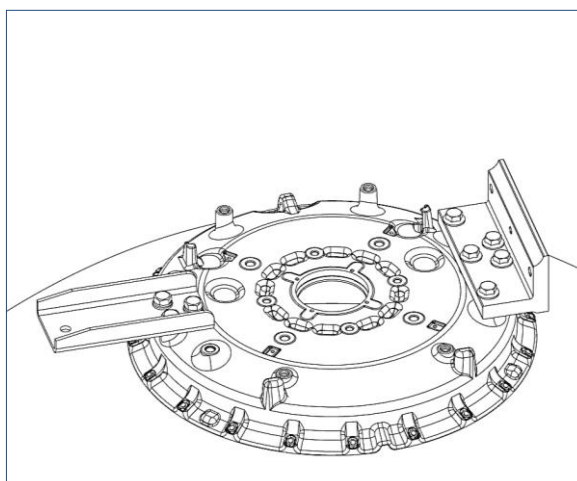
Assembly

Step 1 – Support brackets

- Mount Antenna support bracket (**1**) using 5pcs M10x35 screw (**2**). Tighten screws to torque of $49\text{Nm} \pm 5\%$.
- Mount Strut support bracket (**3**) using 3pcs M10x25 screws / 3pcs Spring washer M10 / 3pcs Washers M10 (**4**). Tighten screws to torque of $49\text{Nm} \pm 5\%$.



Right side installation



Left side installation

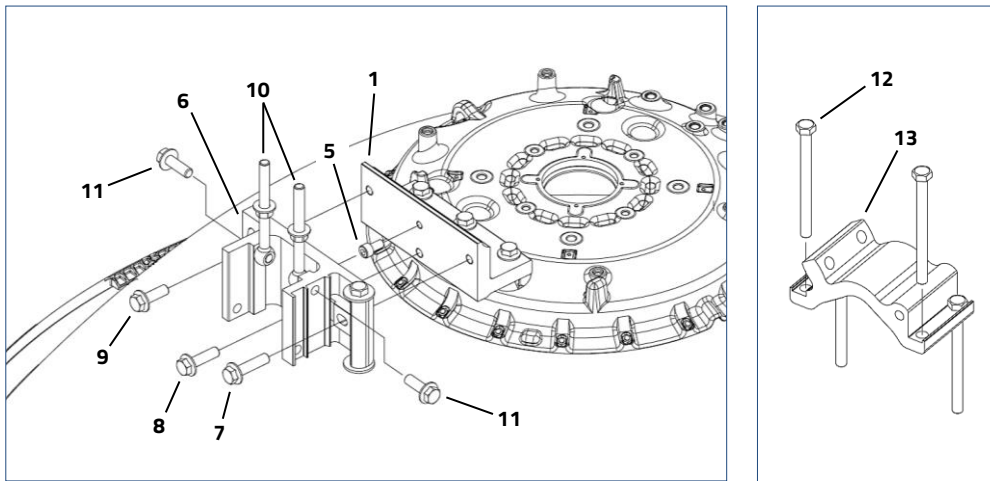
Step 2 – Radio unique Installation

For assembling of radio interface; see radio unique installation instruction.

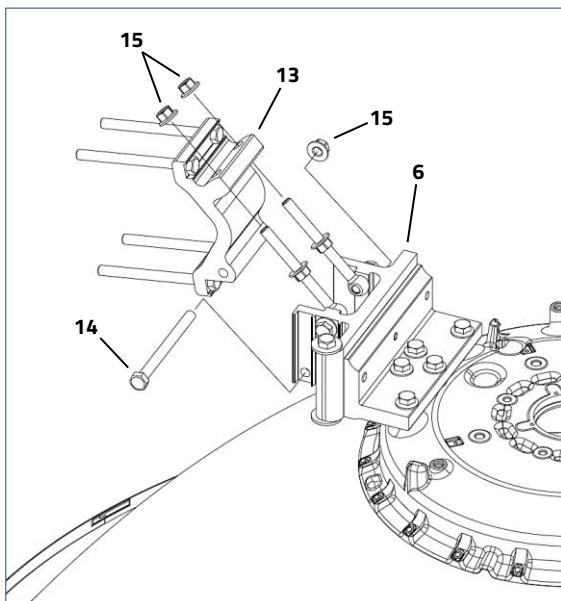
Step 3 – Antenna support

(Following steps/pictures describe a right side installation, see "Installation: Left or Right side installation" on page 6).

- Mount 1pcs M8x16 screw (**5**) to Antenna support bracket (**1**). Tighten screw to torque of $17\text{Nm} \pm 5\%$.
- Mount Pivot bracket (**6**) to Antenna support bracket (**1**) using 1pcs M10x40 screw (**7**), 1pcs M10x35 screw (**8**) and 1pcs M10x30 screw (**9**). Fit screws finger tight.
- Mount 2pcs M10 link screw (**10**) to Pivot bracket (**6**) using 1+1pcs M10x30 screw (**11**). Fit screws loosely.
- Mount 4pcs M10x120 screw (**12**) to Pipe attachment bracket (**13**).

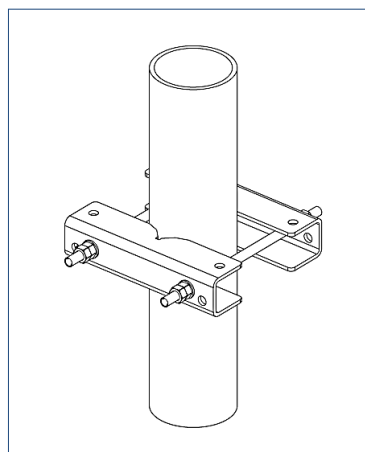
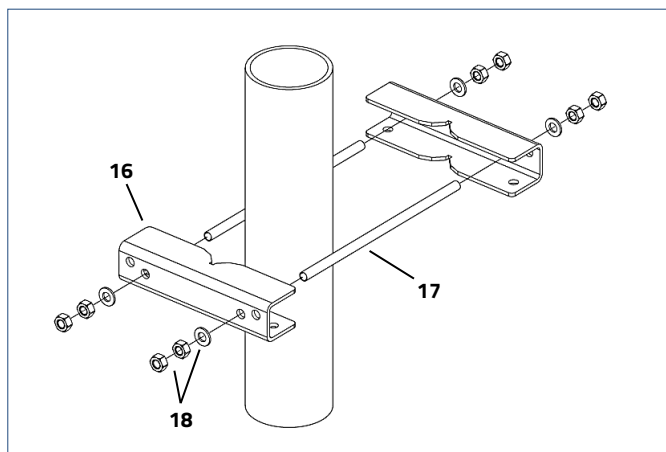


- Mount Pipe attachment bracket (**13**) to Pivot bracket (**6**) using 1pcs M10x120 screw (**14**) and 1+2pcs M10 flange nut (**15**). Fit screw and nuts loosely.



Step 4 – Strut mount

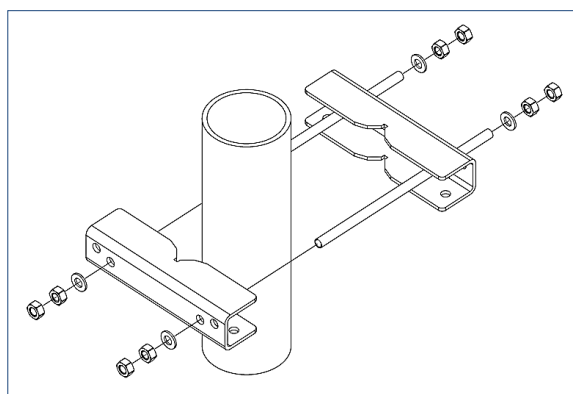
- a) Secure 2pcs Clamp bracket (**16**) to pipe or L-section structure using 2pcs M10 Rod (**17**) and 4*2pcs M10 nut / 4*1pcs Washer M10 (**18**). Tighten nuts to torque of $49\text{Nm} \pm 5\%$.



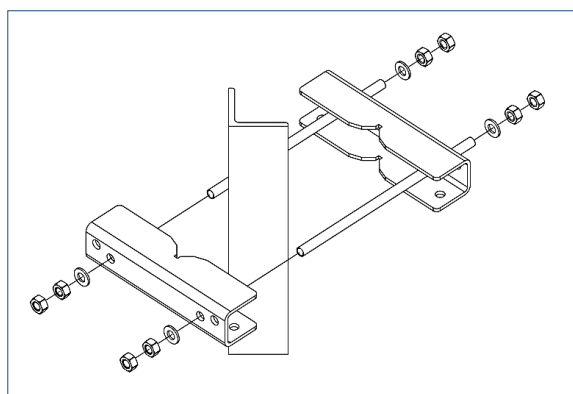
Alternative bracket orientation

Tower pipe compatibility: $\varnothing 50$ - $\varnothing 115$ mm,

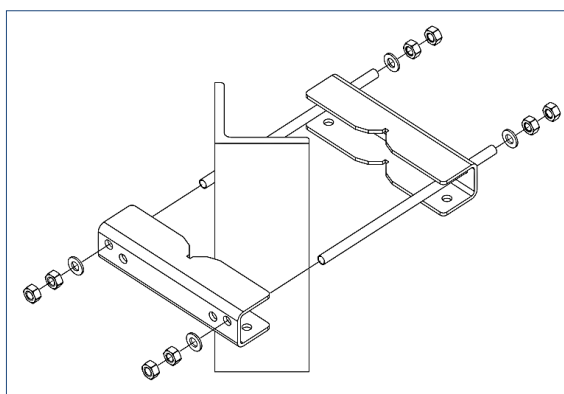
Tower L-section compatibility: L40x40- L110x110mm



Assembly for pipes $\varnothing 50$ up to $\varnothing 115$



Assembly for L40x40 up to L70x70



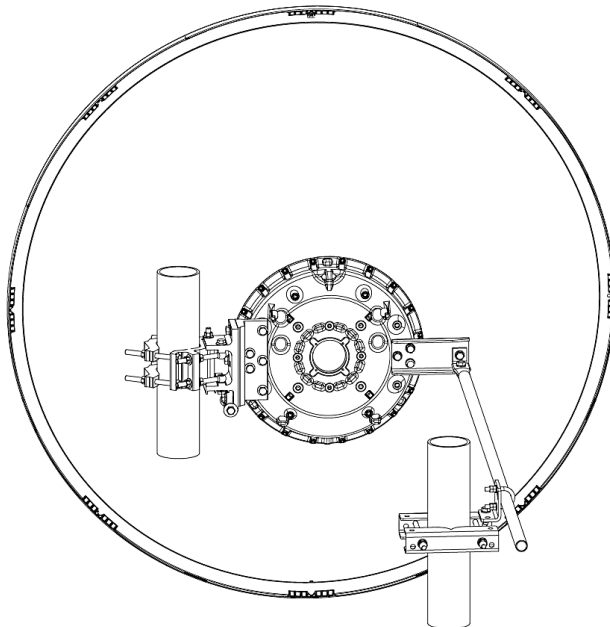
Assembly for L > 70x70 up to L110x110

Installation

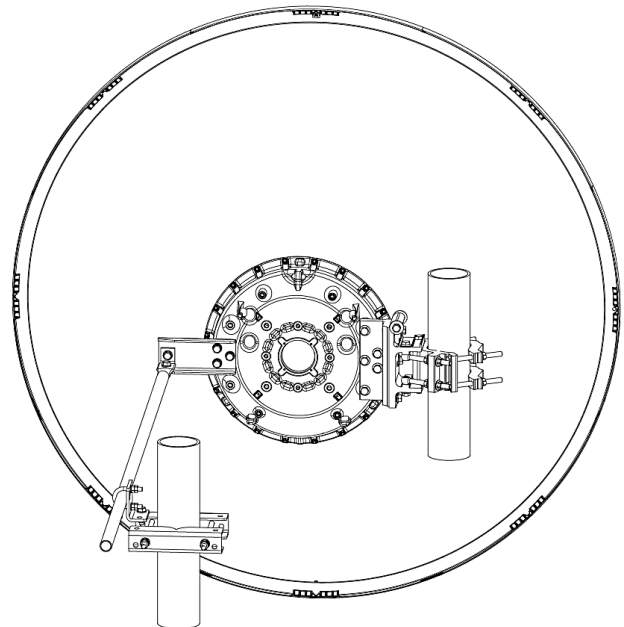
Left or Right side installation

For a left side installation, switch place on support brackets, see "Assembly: Step 1 – Support brackets".

This can be done at any time, during Assembly (Step 1-4).



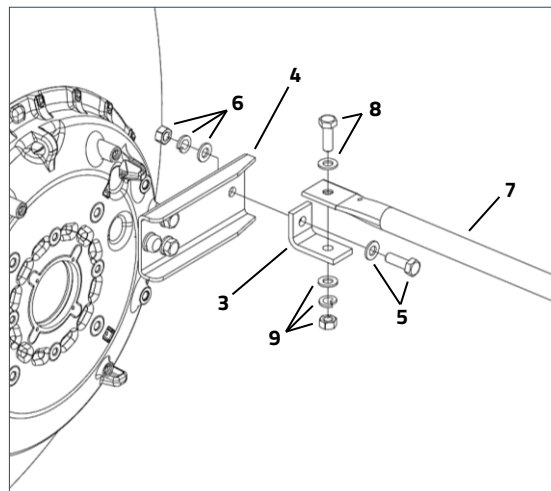
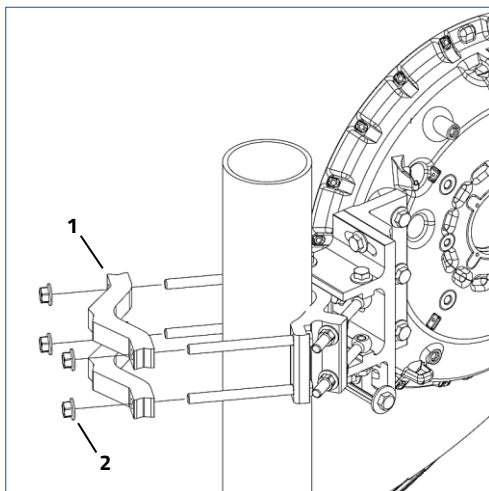
Right side installation



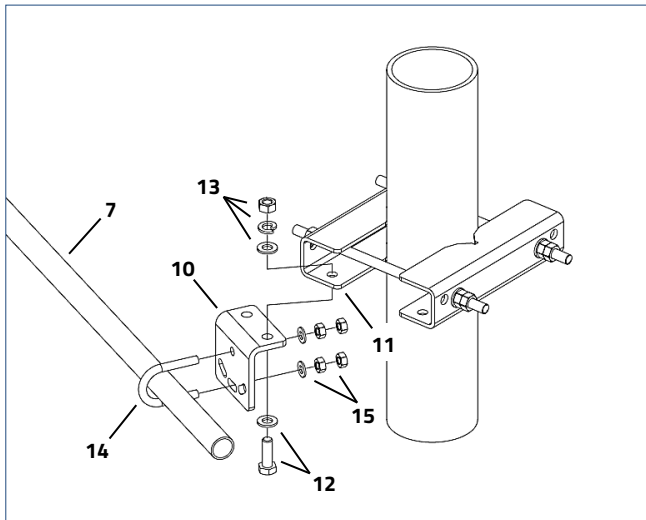
Left side installation

Antenna installation

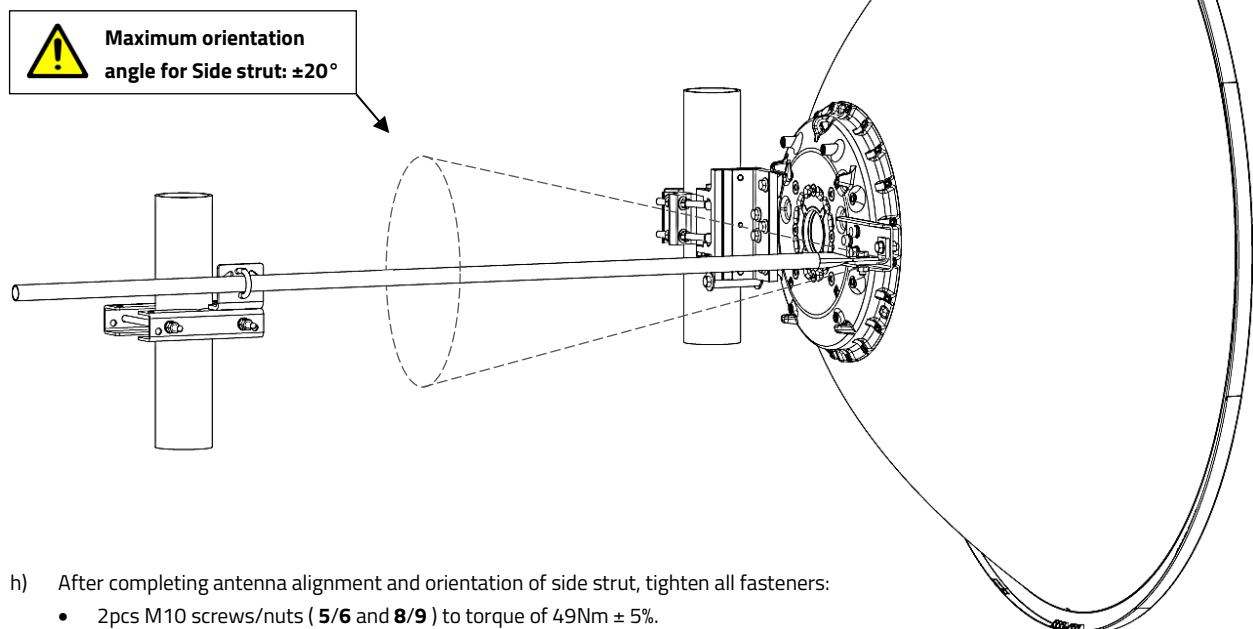
- Hoist and secure antenna to pipe (Ø90- Ø120mm) using 2pcs Clamp bracket (**1**) and 4pcs M10 flange nut (**2**).
- Position the antenna so it will point along the radio link path and then tighten nuts to torque of $49\text{Nm} \pm 5\%$.
- Mount L-bracket (**3**) to Strut support bracket (**4**) using 1pcs M10x30 screw / 1pcs Washer M10 (**5**) and 1pcs M10 nut / 1pcs Spring washer M10 / 1pcs Washer M10 (**6**). Fit screw finger tight.
- Mount Side strut (**7**) to L-bracket (**3**) using 1pcs M10x30 screw / 1pcs Washer M10 (**8**) and 1pcs M10 nut / 1pcs Spring washer M10 / 1pcs Washer M10 (**9**). Fit screw finger tight.



- e) Mount the Strut attachment bracket (**10**) to one of the four corners of the Clamp brackets (**11**) using 1pcs M10x30 screw / 1pcs Washer M10 (**12**) and 1pcs M10 nut / 1pcs Spring washer M10 / 1pcs washer M10 (**13**). Fit screw finger tight.
- f) Attach and secure Side strut (**7**) to Strut attachment bracket (**10**) using 1pcs M8 U-bolt (**14**) and 2*2pcs M8 nut / 2*1pcs Washer M8 (**15**).



- g) Respect the maximum orientation angle indicated below.
(This angle may be limited by the radio equipment).

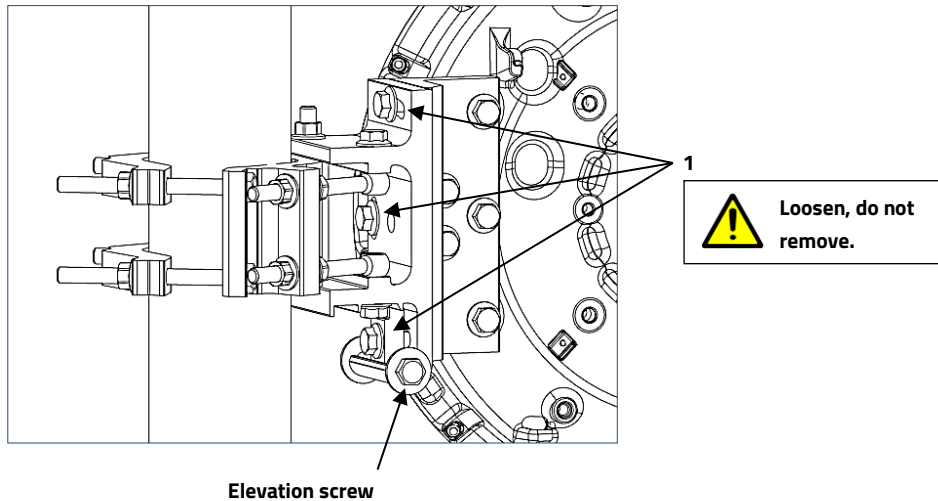


- h) After completing antenna alignment and orientation of side strut, tighten all fasteners:
- 2pcs M10 screws/nuts (**5/6** and **8/9**) to torque of 49Nm \pm 5%.
 - 2*2pcs M8 nuts (**15**) to torque of 24Nm \pm 5%.
 - 1pc M10 screw/nut (**12/13**) to torque of 49Nm \pm 5%.

Antenna alignment

Elevation adjustment

- a) Ensure 3pcs M10 screw (**1**) are slightly loose.
- b) Rotate **Elevation screw** to adjust direction $\pm 15^\circ$.
- c) On completion tighten screws to torque of $49\text{Nm} \pm 5\%$.



Azimuth adjustment

- a) Ensure 5pcs M10 nut (**2**) (**3**) and 2pcs M10 screw (**4**) are slightly loose.
- b) Move 4pcs M10 nuts (**2**) along **Azimuth screws** to adjust direction $\pm 15^\circ$.
- c) On completion tighten all nuts and screws to torque of $49\text{Nm} \pm 5\%$.

