Installation Instructions

Microwave Parabolic 8 ft Antennas 250 km/h WindKit

Kit : SMA-WK-8

NMT 204-11(e)

These installation instructions have been written for qualified, skilled personnel. The antenna shall be inspected once per year by qualified personnel to verify proper installation, maintenance, and condition of equipment. It is important to adhere precisely to all parts of the installation instructions. RFS disclaim any responsibility resulting from improper or unsafe installation. RFS reserves the right to alter details at any time, especially with respect to technical improvements.

1 - Description

All standard 8 ft antennas withstand a survival windspeed of 200 Km/h.
These antennas can be equipped with a WindKit for a survival windspeed of 250 Km/h.

These 250 km/h WindKit is composed of :

- 6 stiffening steel pipes
- 1 hardware pack

2 - Tool required for installation

( ) opening / N° of wrenches

- Wrenches for hexagon bolts or nuts M12(18/19), M20(30)
- Torque wrench from 50 to 240 Nm
- 3 ropes for antenna securization (if the antenna is already installed on the tower)
- Electric drill with Ø13 mm drill bit (for antenna equipped with hemispherical radome)

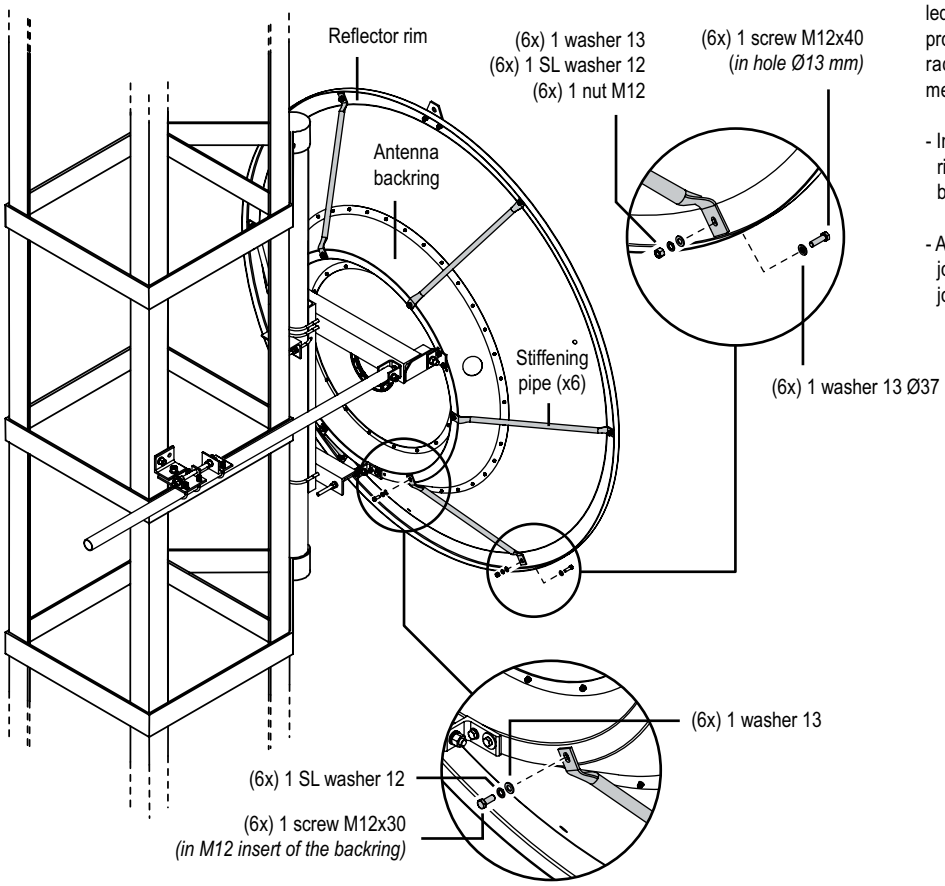
3 - Installation process

This installation instructions describes the process for a 250 km/h WindKit installation over an antenna already installed on the tower. If you have ordered a 250 km/h windkit jointly with the antenna, for convenience, you can transpose this installation instructions at the ground level before hoisting the antenna on the tower.

If the antennas is equipped with a shroud or hemispherical radome, you must install it before stiffening pipes installation. For antennas without shroud or radome, the stiffening pipes could be installed directly without particular order. Take care to not damage the radome or the feed system during the antenna manipulation.

4 - Assembly of the steel pipes on the refl ector (Antenna already installed on the tower)

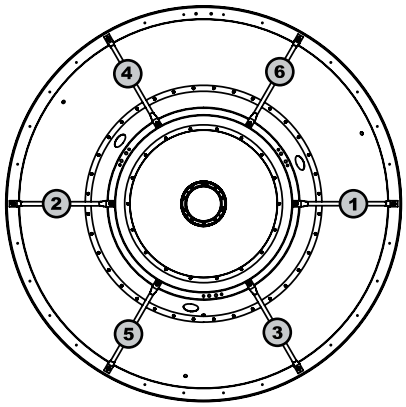
Antenna with Standard Backring Kit : SMA-WK-8



Note : For antenna with shroud or hemispherical fiber radome, you need to substitute the 6 M5 or M6 bolts (installed in holes Ø13) of the reflector rim, by the M12x40 bolts provided in 250 km/h hardware pack. For hemispherical radomes, the holes used for stiffening pipes attachment must be oversized to Ø13 mm.

- Install the 6 stiffening steel pipes between the reflector rim and the antenna backring, hantighten the M12 bolted joints
- After complete handtightening, torque tighten all bolted joints in opposite diagonal mode(refer to torque table joined)

Final torque tightening in opposite diagonal mode
(Antenna rear view)

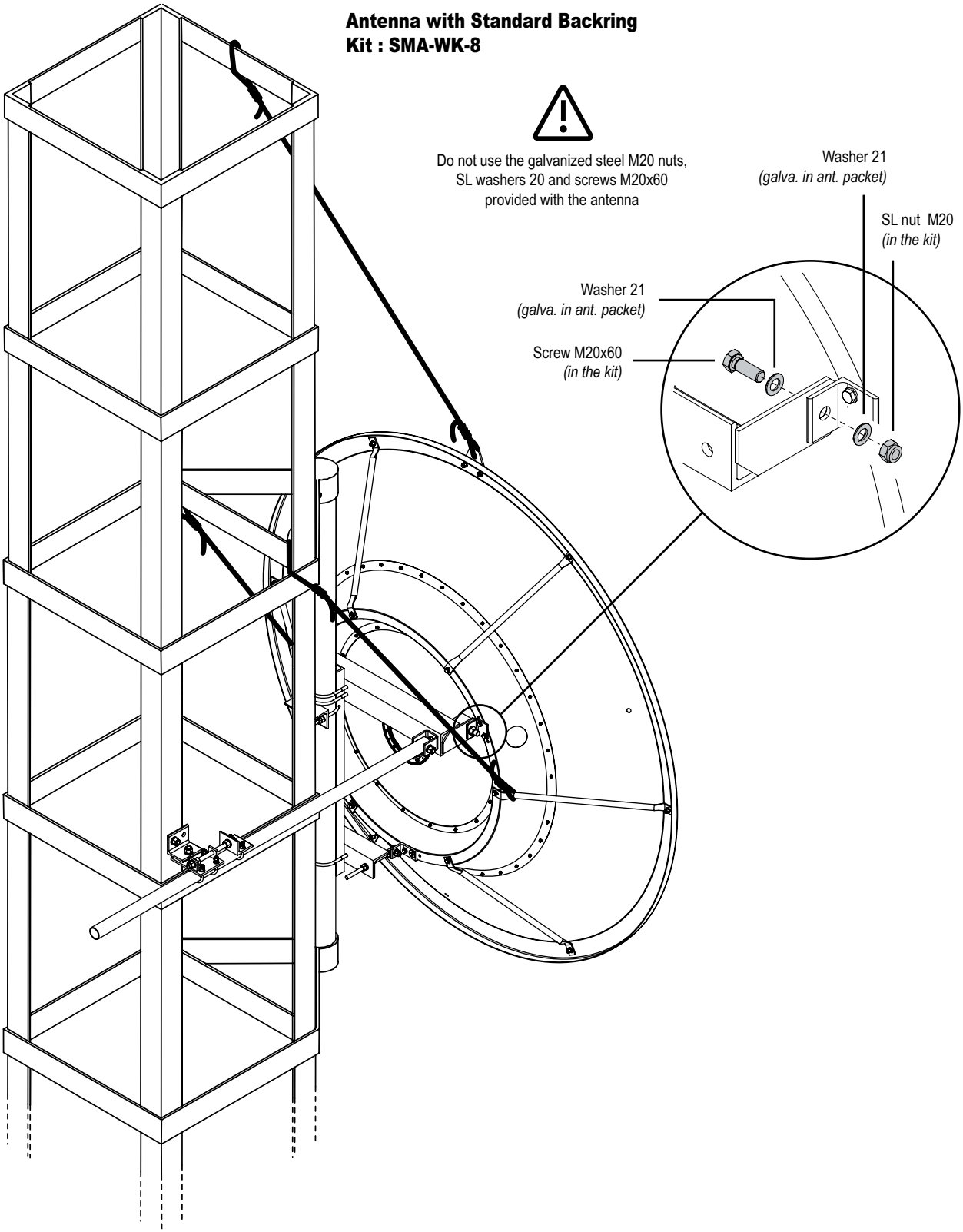


Sales department : Radio Frequency Systems
Kabelkamp 20, D-30179 Hannover (Germany) - Tel. +49-511 676-2520 - Fax +49-511 676-2521
Plant : RFS France Trignac (France) - Tel +33 (0)2 40 45 95 45 - Fax +33 (0)2 40 90 41 43

5 - Replacement of the left & right pivot angle screws

If the antenna is already installed on the tower, it must be securized before screws replacement : With a rope on the hoisting eye at the TOP antenna, and with 2 ropes attached over 2 horizontal steel pipes you have installed at the precedent chapter (all the ropes must have a little tension). In any case NEVER remove the 2 HM20x50 pivot screws at the same time !

If the tower site configuration does not permit the antenna securization as described, it is imperative to proceed at the screws replacement at the ground level. Refer to the antenna installation instructions for the antenna lifting down. In case of M20 pivot screws replacement before antenna hoisting on the tower, no particular safety rules to respect.



6 - Next instructions (For antennas not already installed on tower, see installation instructions supplied with the antenna)