

# PRO.SIS.TEL.

Produzione Sistemi Telecomunicazioni

## PST-53

### Assembly instructions:

The antenna can be assembled in different ways:

Assemble it on two sawhorses and then carry it on the mast or pre-assemble the elements and then complete the assembly on the mast.

In both cases it is preferable to prepare before the elements and then the boom. If possible, given the delicacy, the supply lines it is preferable that they are installed with the antenna on the mast already.

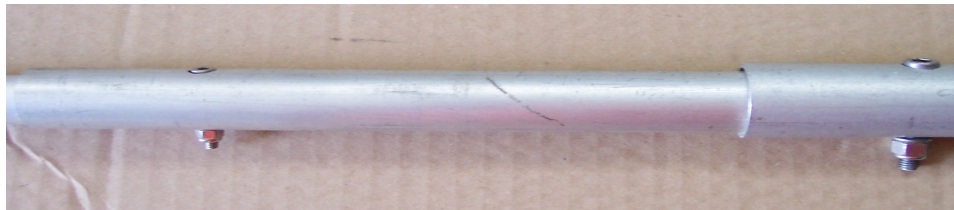
Extracting elements from the carton, you will find the element tubes pre-assembled elements, in a telescopic set. Tilt the tube set, make sure that all heads of each diameter escape from the main pipe. **Do not forget to lubricate the thread of steel bolts, left to dry may stiff them.**

Place the element on a plan, and begin to assembly the smaller diameter,

Align the hole of the inner tube with hole of the outer tube. The fastening of the elements takes place by inserting the bolt from the larger hole so that the cylindrical bolt head pass thoroughly and rests on the inner tube fig.2. Some sections are multi-perforated to facilitate the adjustment, always start from the center hole, and then shorten or lengthen it if antenna is too long or too short.

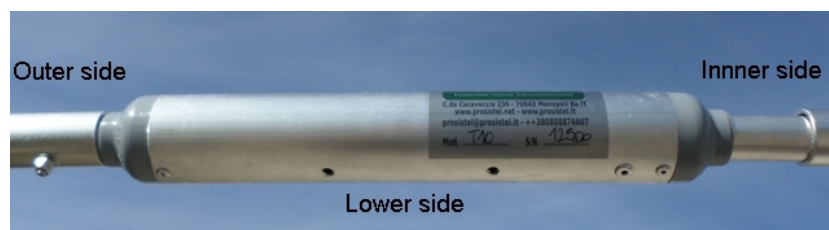
Using the same technique, extract and splicing all sections and traps.

Tighten the nut. Make sure that all bolts heads are on the same side.

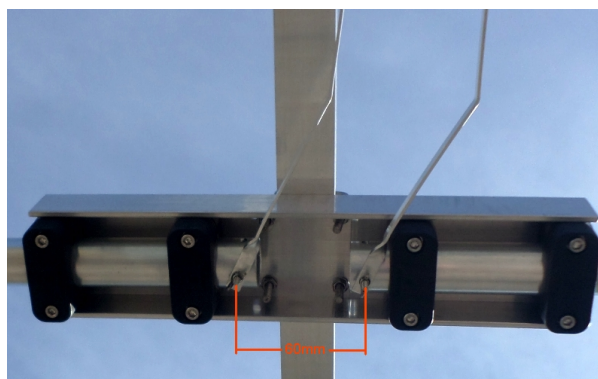


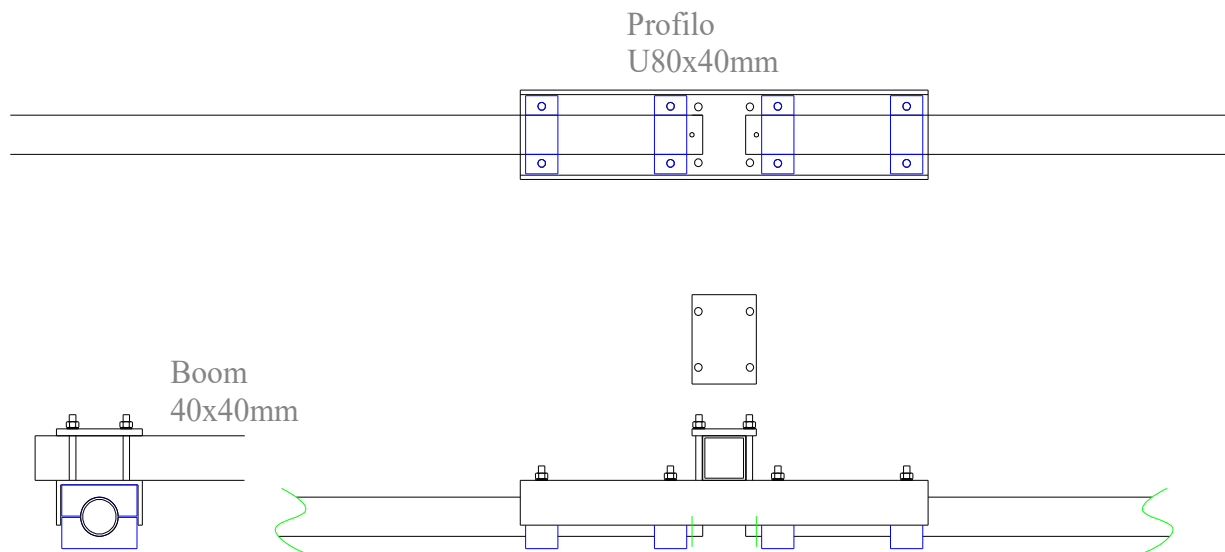
The central element of the Director and radiator are pre-assembled on the boom mounting plate already. It will then be attached to the boom with square U bolt.

The traps are equipped with drainage holes that need to be down.



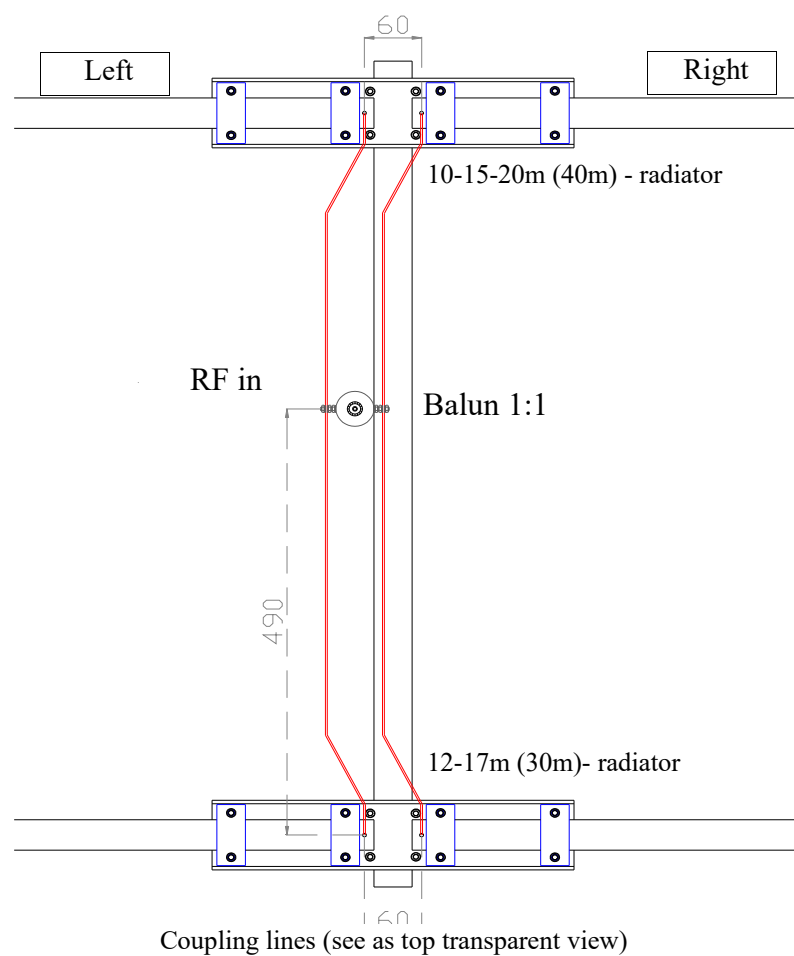
When the two half-elements are ready, prepare the two radiators center plate as in the photo and drawing.

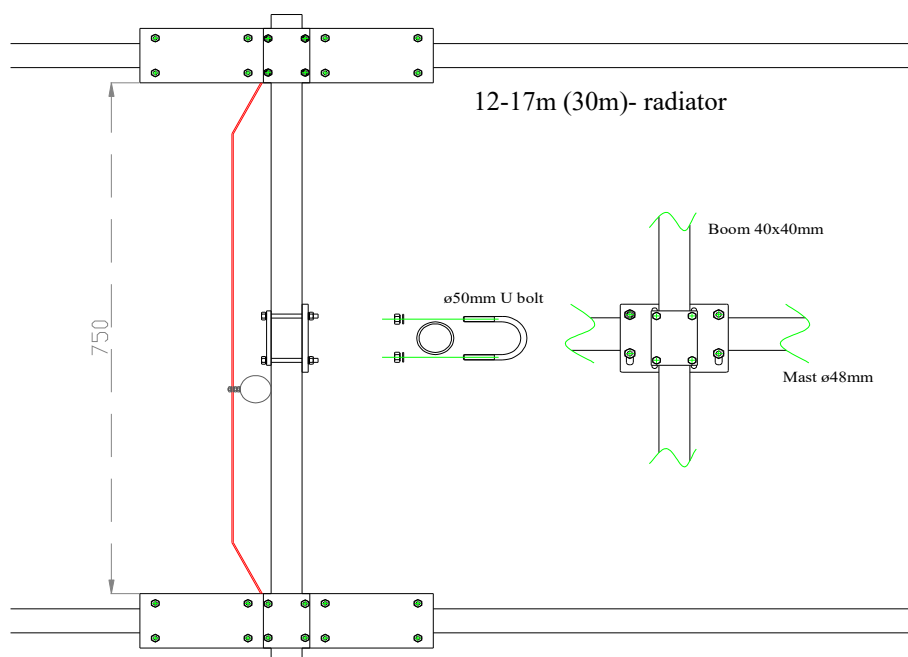




Assembly diagram of the supply lines views from above and below.

**The fixing baseplate of the elements holder and the mast-boom plate were replaced with square U-bolts.**





**Antenna view after assembling**



**For best performance we recommend mounting at a height of at least 5-7or 10m above the ground.**

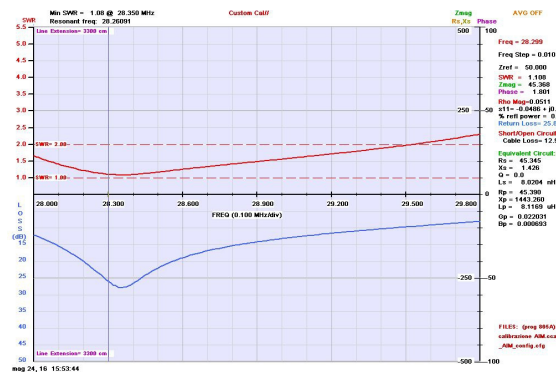
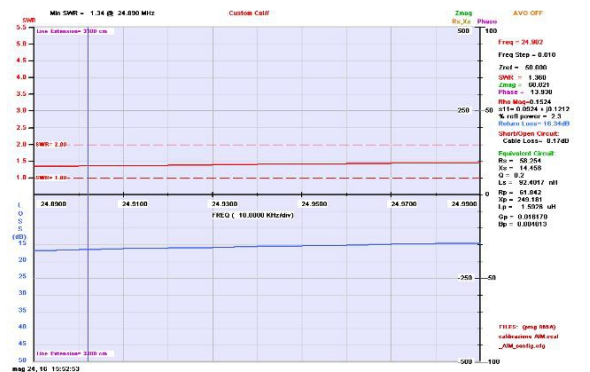
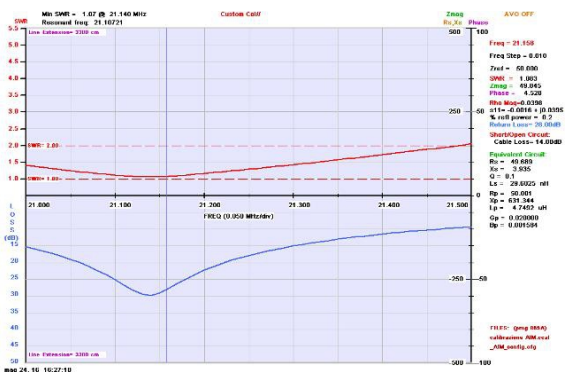
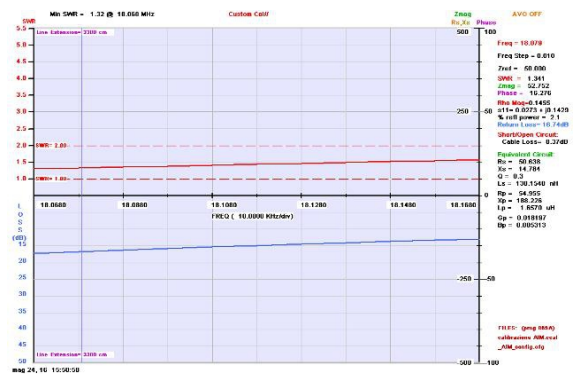
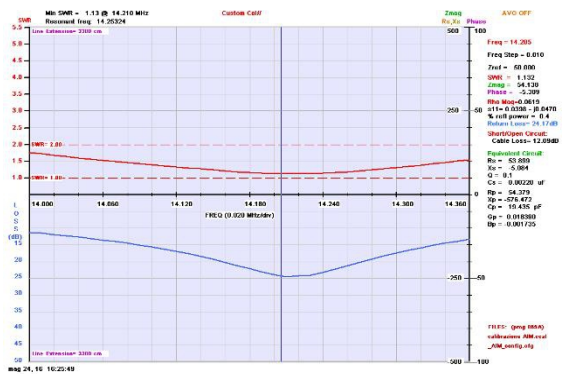


**Do NOT SEALED THE JOINTS, ANTENNAS MUST BREATHE, condensation could cause serious harm to normal operation**

## Specifications:

- Bands = 10-15-20m – 12-17m rotating dipole
- Gain = ~ 4-5 dBd 12-17m 0dB
- Impedance = 50 ohm
- Front/back (about) = 20m 6-8dB, 15m 8-10dB, 10m 10-12dB
- Front-side = >20dB
- ROS = see grafics
- Boom lenght = 2m
- Rotating radius = about 5m
- Weight = about 20 kg
- Take 40 to 50mm mast pipe (series) o 60mm (optional)
- Material = AL6060T6, SS hardware.

## Single band SWR curves



SWR diagram, can change due environment influence.  
Install at heights lower than recommended might not work on lower bands.

**Warning:**

**Do not install the antenna near power lines or equipment that could result in electrical contacts. You could be seriously injured or killed.**

**The antenna must be installed in accordance with / local / national laws.**

**If necessary get a professional installer.**

**Prosistel can not be sued for damages for non-compliance of equipment rules.**

**Thanks for your preference in our products.**

**If you are satisfied tell others, if you are not satisfied tell us.**

**The positive or negative comments help us to improve our work.**

**73 de IK7MWR  
Annamaria Fiume**

**! WARNING Defend the environment**

**Disposing components and materials**

**The antenna consists mainly of aluminum, in the event of disposal, conferred the scrap to a specialized disposal center, in compliance with the requirements of the laws.**



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### PST53

5 bands, 3 elements yagi trapped antenna

2 elements 10-15-20m

Rotating dipole 12-17m

Max power: 2KW balun 1:1 included- SO239

Boom lenght = 2m Rotating radius = 5m

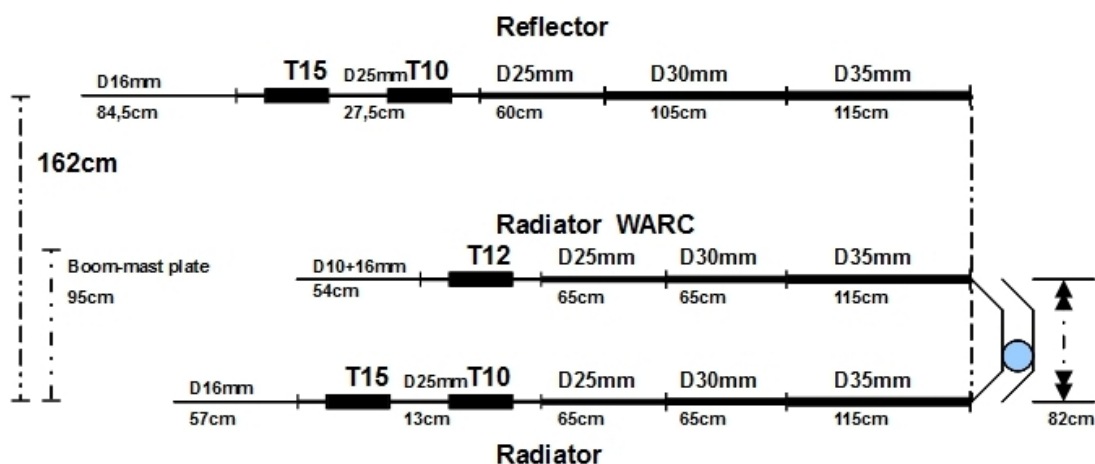
Weight: ~20Kg

#### Schema di montaggio semi elemento.

Le misure degli elementi sono di massima e possono subire piccole variazioni per esigenze di taratura e massa a punto

#### Half-element assembly diagram.

The measures of the elements may change due fine tuning requirements



Band width (if minimum swr  $\leq 1:1,3$  to swr limits  $\Rightarrow 2:1$ )

10m = full

12m = full

15m = full

18m = full

20m = ~ 250 Kc/s

SWR limits may change due to environmental influences.