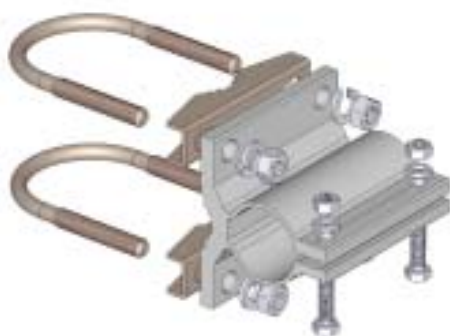


MOUNTING INSTRUCTIONS

Standard Mounting Bracket



Spare parts: p/n SA197

Materials: extruded aluminum
Hardware: stainless & zinc plated steel
Dimensions : 80 x 76 x 65 mm
Weight: 460 gr

Part List

| Q.ty | Description |
|------|----------------------------|
| 1 | Extruded aluminium bracket |
| 2 | Steel bracket |
| 2 | M8x200 U-bolt |
| 4 | M8 Grower washer |
| 4 | M8 Hexagonal nut |
| 2 | M6x20 Hexagonal head screw |
| 2 | M6 Grower washer |
| 2 | M6 Hexagonal nut |

Tilting Bracket*



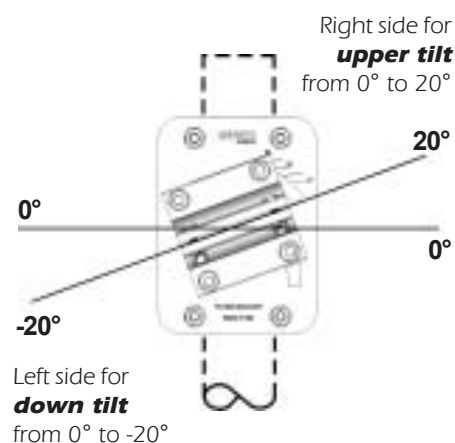
Order p/n: 2519803.00

Materials & Hardware: zinc plated steel
Dimensions: 110 x 150 x 6 mm.
Weight: 800 gr

Part List

| Q.ty | Description |
|------|---------------------------|
| 1 | 110x150x6 Tilting bracket |
| 4 | M8x25 Spheric head screw |
| 4 | M8 Grower washer |
| 4 | M8 Hexagonal nut |

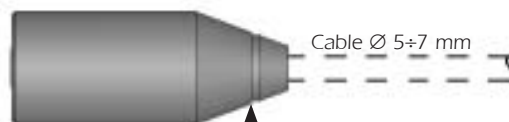
Mounting example



* **Optional (not included).**

Connector protection cap

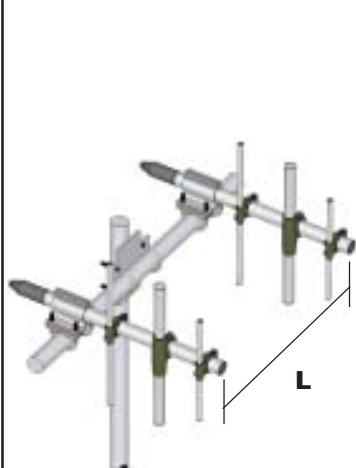
Spare parts: p/n TE06416



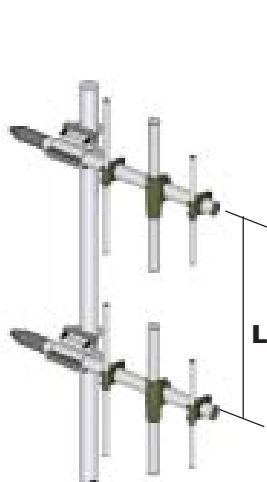
Cable Ø 5÷7 mm

↑ Cut here for Ø 10mm cable or more

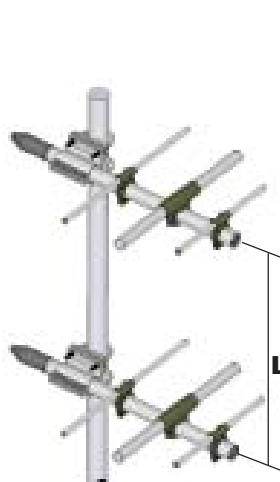
Stacking and Baying distance



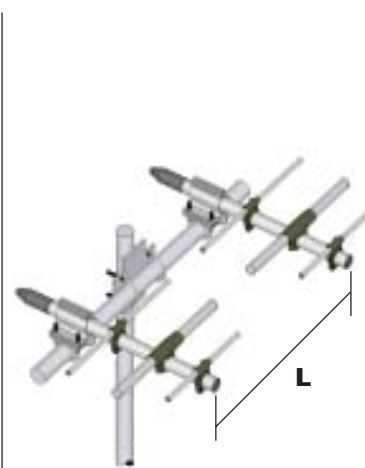
Vertical polarization
(Bayed)
L= 350 mm



Vertical polarization
(Stacked)
L= 500 mm



Horizontal polarization
(Stacked)
L= 350 mm



Horizontal polarization
(Bayed)
L= 500 mm



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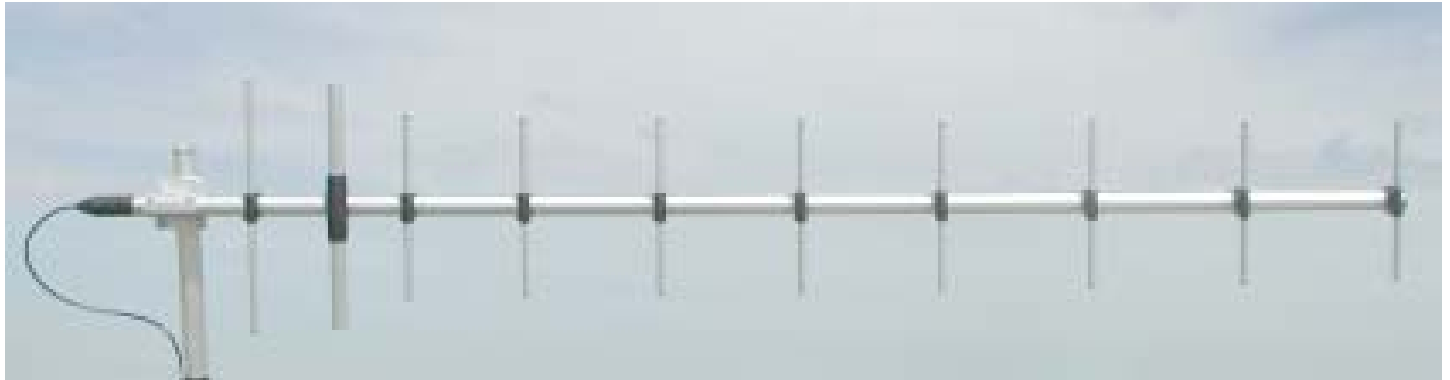
HI-QUALITY ANTENNAS MADE IN ITALY

WY400-ION

400-470 MHz Base Station IO Element Yagi Antenna

DESCRIPTION

Base station antenna conceived by using an innovative feed system studied and applied to have highly symmetrical radiation pattern in both planes (E and H). It's completely computer designed to get high performances of gain and front-to-back in the working band. All aluminium parts are protected by anodized treatment, hardware are of Stainless steel or zinc plated steel, mounting bracket is of extruded aluminium for the best strength and the connector is placed in rear position for an easily access. To increase the antenna gain please install it in stacked or bayed array. **Patent pending applied.**



TECHNICAL DATA

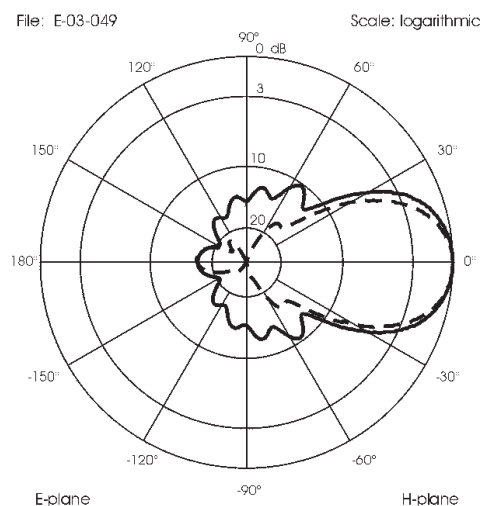
Electrical Data

| | |
|------------------------|--|
| Type | 10 element Yagi |
| Frequency range | 400 - 470 MHz |
| Impedance | 50 Ω Unbalanced |
| Polarization | Linear Vertical or Horizontal |
| Radiation (H-plane) | beamwidth at -3 dB= 50° at 435 MHz |
| Radiation (E-plane) | beamwidth at -3 dB= 45° at 435 MHz |
| Max Gain | 14 dBi |
| Front to Back ratio | ≥ 18 dB |
| S.W.R. in bandwidth | $\leq 1.5:1$ |
| Max Power | 150 Watts (CW) at 30°C |
| Feed system / Position | RG303 Teflon coax with balun / inside boom |
| Lightning protection | DC-ground |
| Connector | N-female with rubber protection cap |

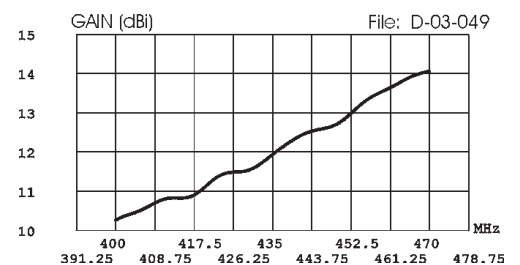
Mechanical Data

| | |
|------------------------|---|
| Materials | Anodized 6063-T5 Aluminium, Thermoplastic UV stabilized, Chromed Brass |
| Wind load / resistance | 150 N at 150 Km/h / 120 Km/h |
| Wind surface | 0.120 m ² |
| Dimensions (approx.) | 2000 x 375 mm |
| Weight (approx.) | 2040 gr |
| Turning radius | 1860 mm |
| Operating temperature | -40° C to +60° C |
| Mounting Mast | \varnothing 35-52 mm |

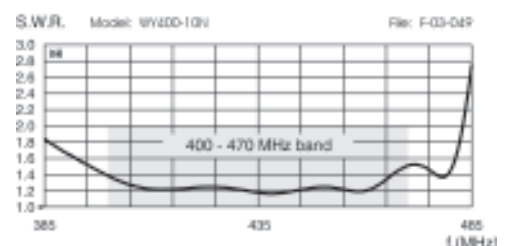
TYPICAL RADIATION PATTERN at 435 MHz



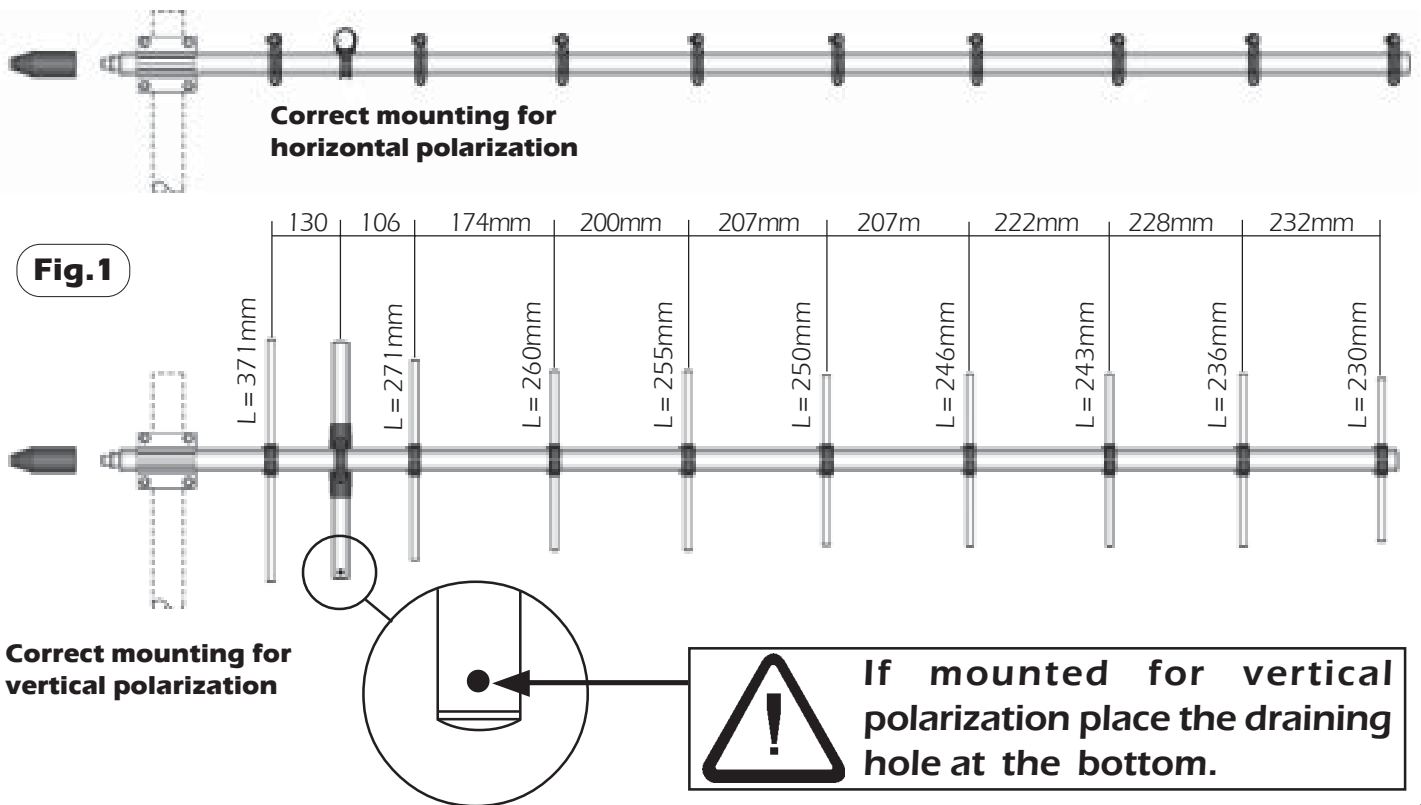
TYPICAL GAIN DIAGRAM vs FREQUENCY



TYPICAL S.W.R. RESPONSE



MOUNTING INSTRUCTIONS



Element Mounting

1) By means of a meter measure the aluminium elements **A** and position them in the plastic support **B** of the boom according to **fig. 1**.

2) Place the reference marker of the aluminium element **A** in the centre of the plastic support **B** (see **fig. 3**) and lock the screws **C** by the supplied key **D** (**fig. 4**). When the screws touch the aluminium tubes you can finally lock them turning for 1.5 turns.

Warning: do not exceed 1.5 turns. The plastic support threads could be damaged.

3) Insert the plastic caps **E** on the aluminium elements **A** (see **fig. 4**)

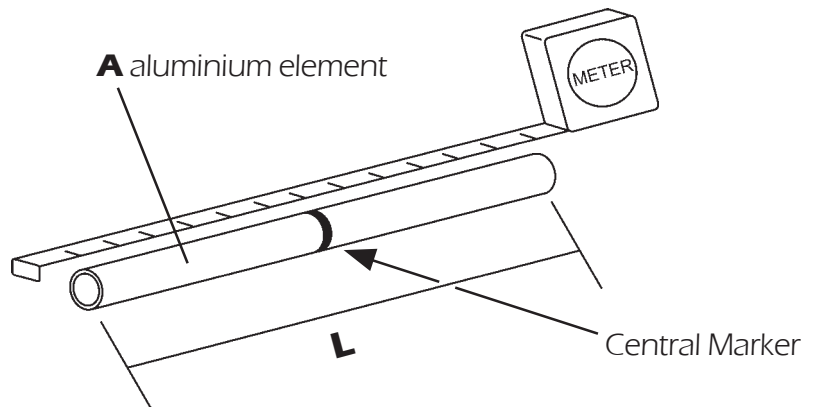


Fig.2

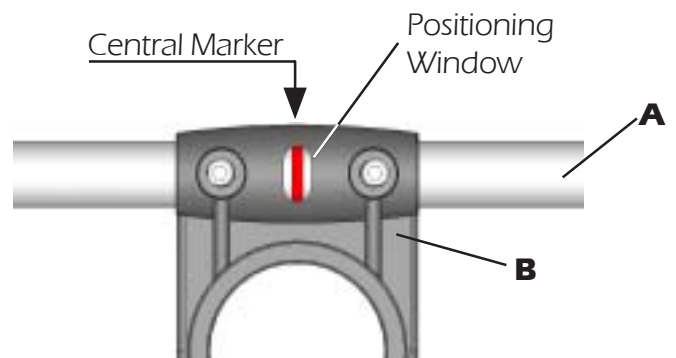


Fig.3

Part List

| Q.ty | Description |
|------|--|
| 9 | A) Aluminium tubes (9 different length) |
| 18 | C) M5x6 Hexagon socket set screw |
| 1 | D) 2.5mm Hexagonal key |
| 18 | E) Plastic cap |



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MOUNTING INSTRUCTIONS

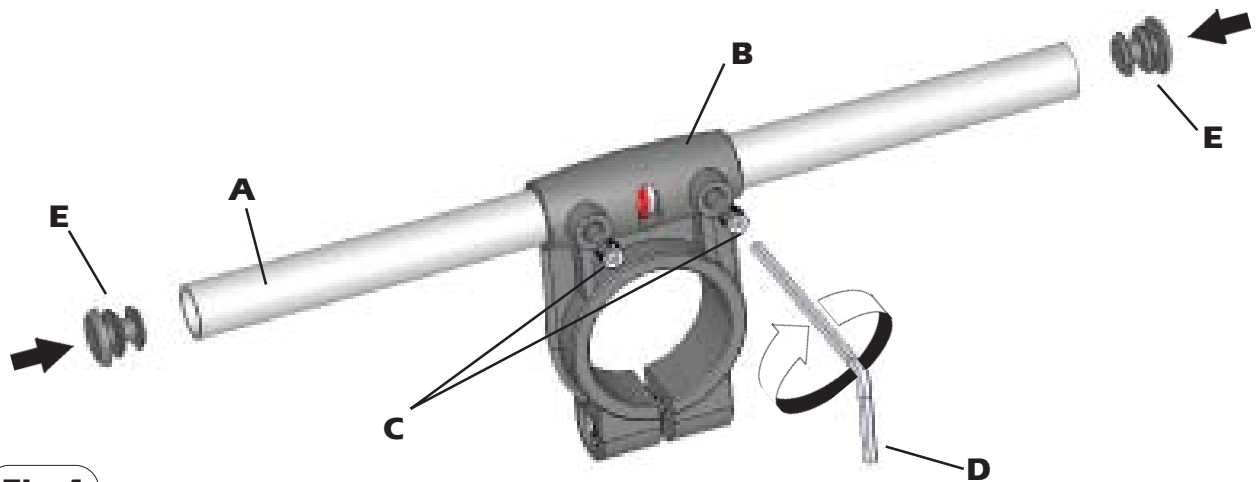


Fig.4

Dipole mounting

- 1) Place the O-ring gasket **F** on the dipole connector **G**. (See **Fig.5**)
 - 2) Insert the antenna's dipole **H** in the dipole connector **G**
 - 3) Fix the antenna's dipole **H** by using the plastic fixing clamp **I** and the screws **J**. Lock the screws to well fix the plastic parts to avoid any gap (see **Fig.6**)
- Remark: the antenna's dipole must be aligned to the elements tubes **A**.*

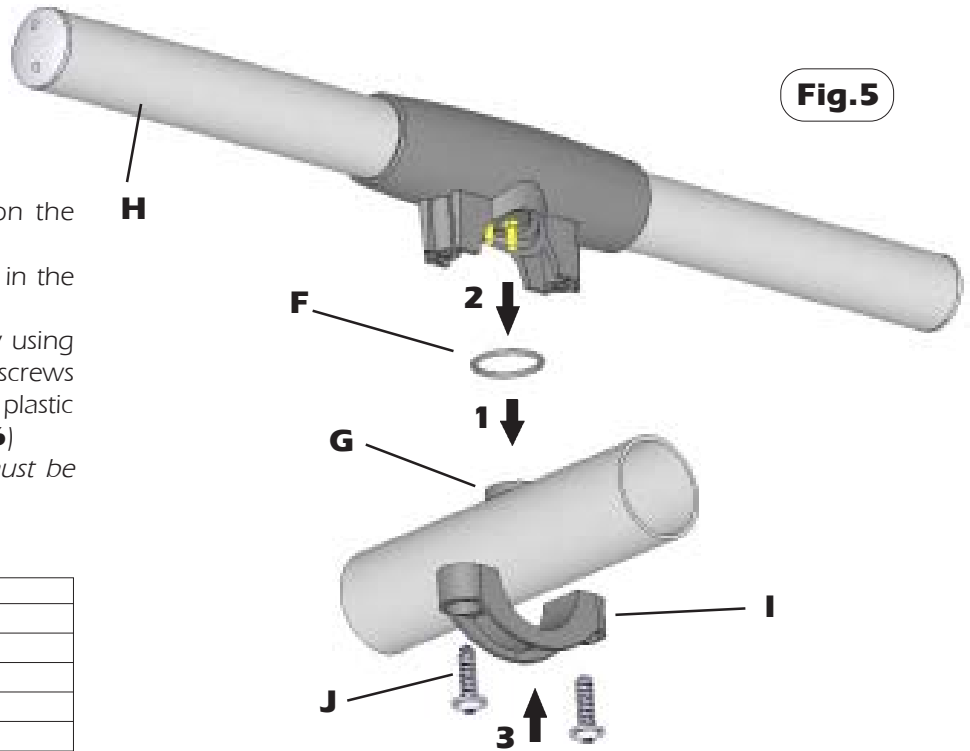


Fig.5

| Part List | |
|-----------|--------------------------------------|
| Q.ty | Description |
| 1 | F) O-ring gasket |
| 1 | H) Antenna's dipole |
| 1 | I) Plastic fixing clamp |
| 2 | J) Tapping Screws for plastic |

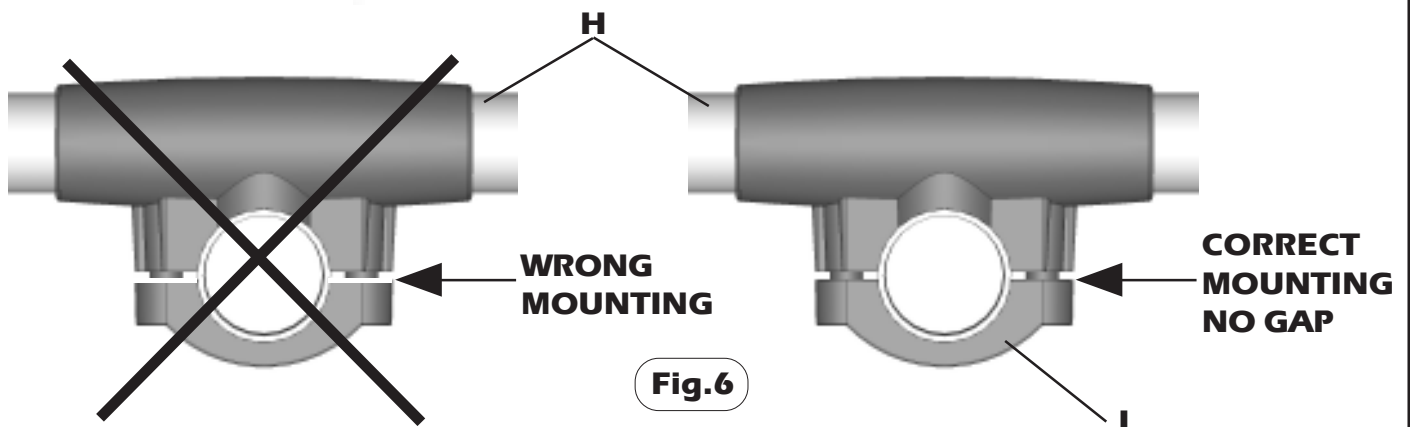


Fig.6