



# yagi antenna

# 70MOX

Artikel nr: 17754.04

Thank you for choosing EA Antenna.

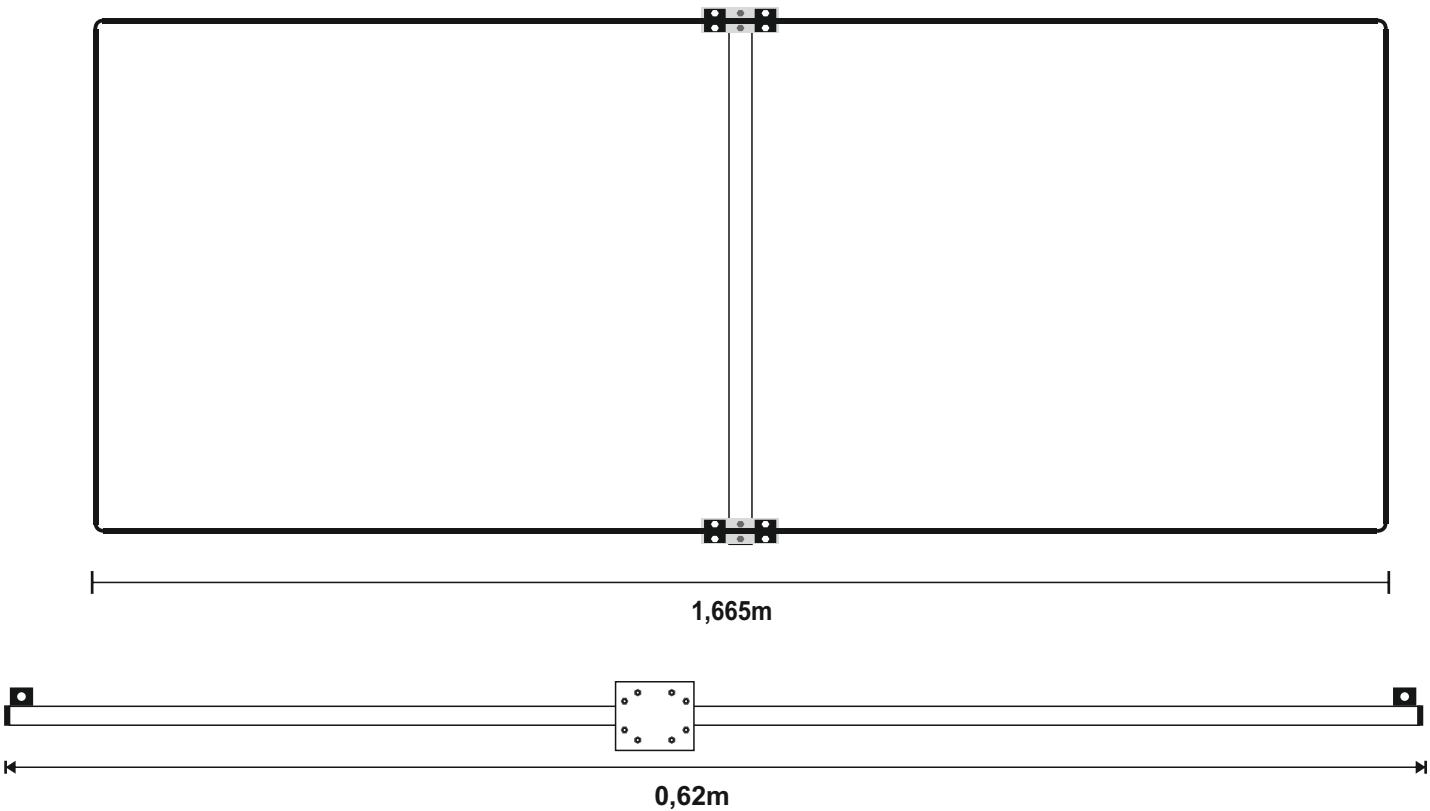
All our products are manufactured and developed with the best materials on the market, to offer the best qualities and guarantees to our customers.

The Yagi type MOXON antennas were developed by Leslie A. Moxon, to be used in communications in HF during the 2nd half of the 20th century, quite successfully. Its cost, profit and ease of construction make it an option very convenient. As it is a specific antenna according to the bands in which we want to operate. The address of the maximum Gain is obtained in the opposite direction to the reflector and perpendicular to the radiating element. According to the position with respect to ground, horizontal or vertical, will be its polarization. It is very important that this coincides with the polarization used in the antenna of the equipment to which you connect with this antenna.

Like any antenna manufactured by EA Antenna, we do not include a connector, to have the minimum losses. We include terminals to solder directly, although we offer as an option balun or ferrites EMI / RFI.

We detail the materials used, for their best use and assembly. All the fittings are made of stainless steel and the Aluminum is made of T6061 or T6063 alloy, known as Aeronautical Aluminium, which offers the best conditions to withstand the most extreme climates, the force of the wind and the best conductivity. The plastics used, is Polyamide or Polypropylene, which offer the best hardness and durability for the passage of time. We offer guarantee in the operation, and guarantee in the ironworks, delivering the kit of hardware some extra pieces, for possible losses or forced breakages.

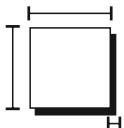
In the following pages we detail the exploded view with its graphics.



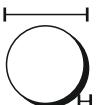
Peso: 1,8Kg.  
Max. Potencia: 10,0 kW



	SPECIFICATIONS	Eantenna 70MOX
	<b>Elements:</b>	<b>2</b>
	<b>Frequency Range:</b>	<b>70.0 ~ 70.5 MHz</b>
	<b>Gain:</b>	<b>6,05dBi</b>
	<b>F/B:</b>	<b>38,5 dB</b>
	<b>Bandwidth:</b>	<b>500 KHz.</b>
	<b>SWR:</b>	<b>1,0:1~1,2:1</b>
	<b>Impedance</b>	<b>50 Ohms</b>
	<b>Max. Power:</b>	<b>10 kW.</b>
	<b>Max. Element Length:</b>	<b>1,67m. / 65,7"</b>
	<b>Boom Length:</b>	<b>0,61m. / 24"</b>
	<b>Wind Survival</b>	<b>200 kmh / 120 mph</b>
	<b>Weight:</b>	<b>1,8 Kg. / 4 Pounds</b>

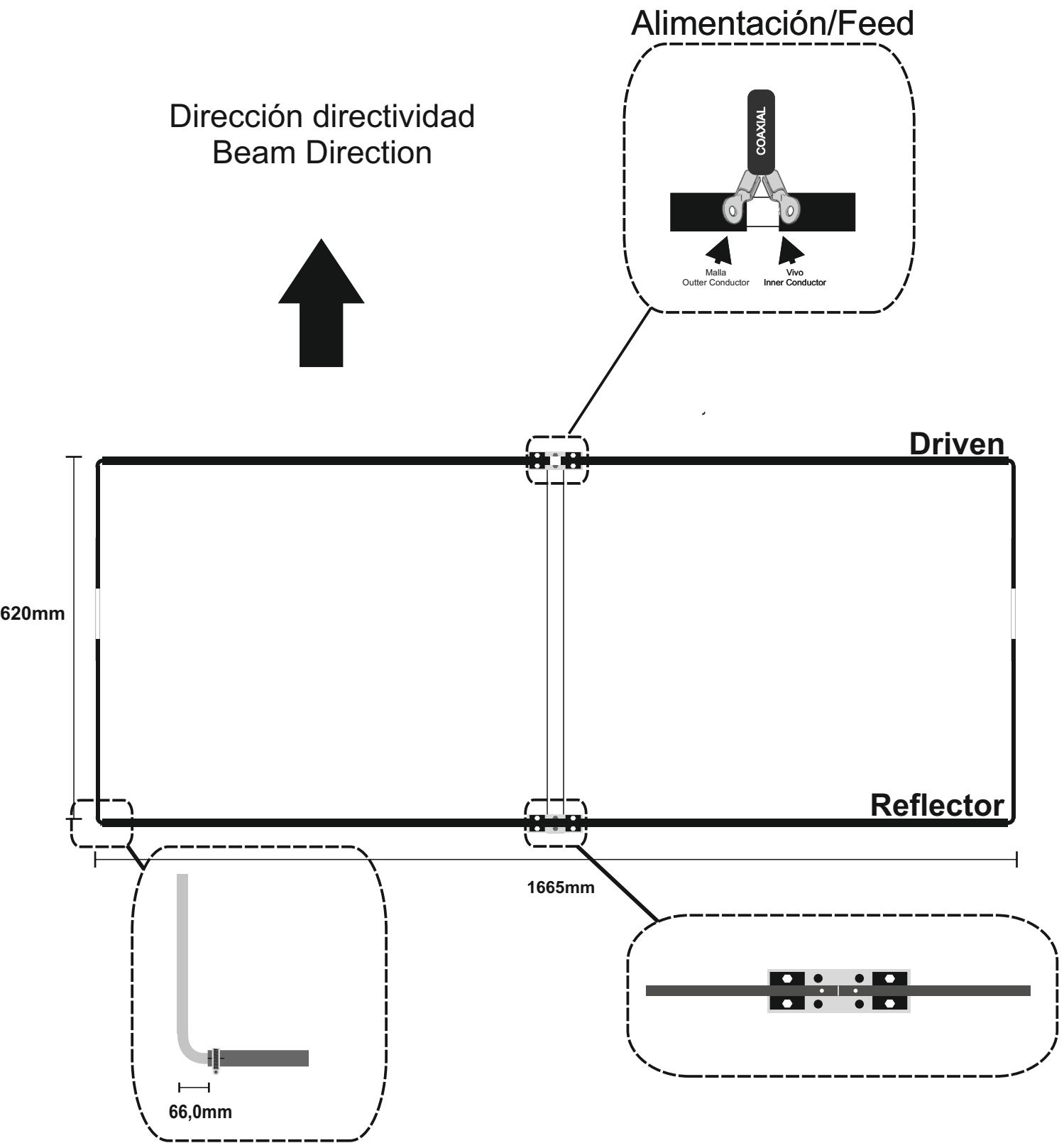


**Boom size:** 30x30x2mm



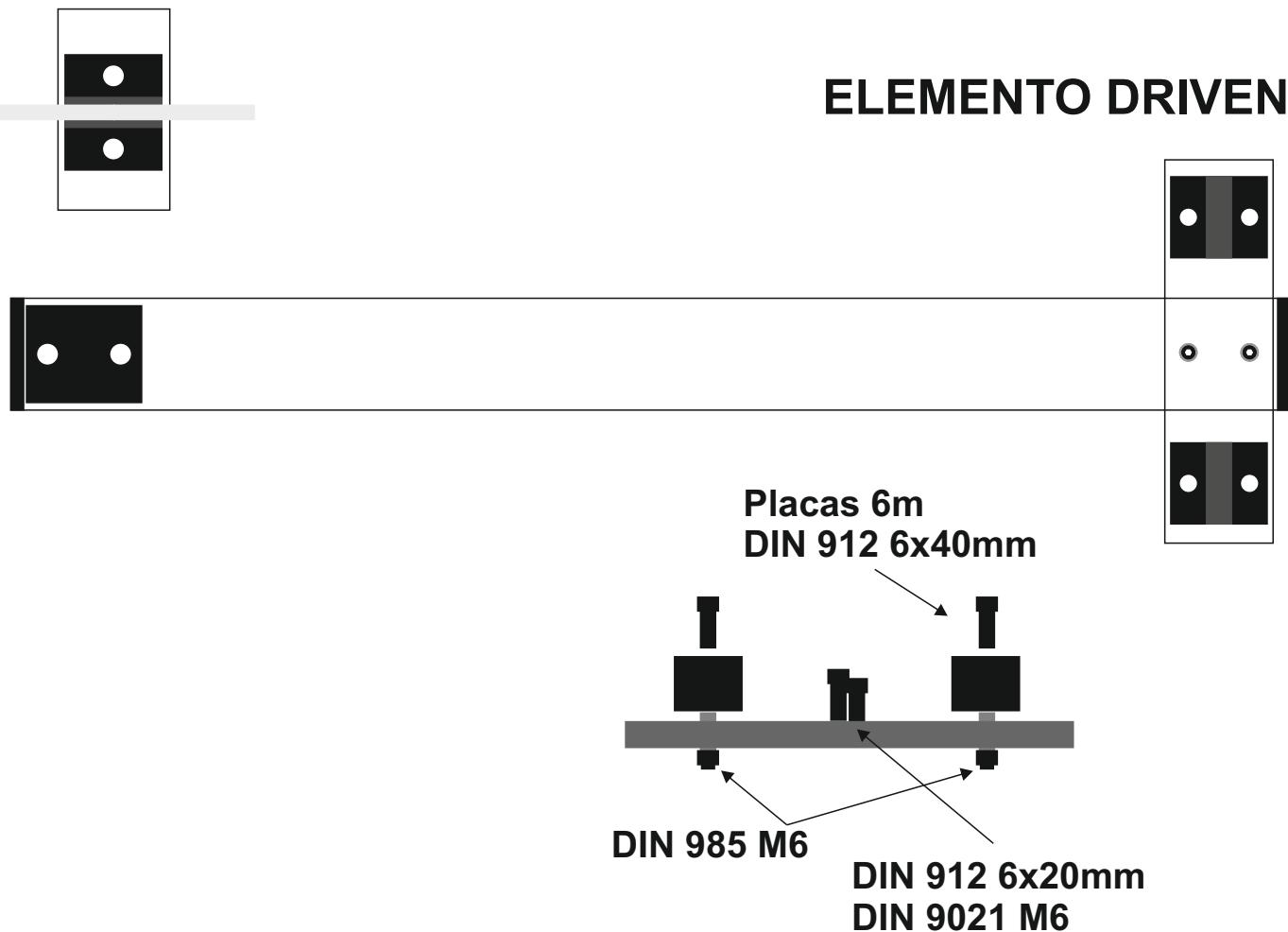
**Element Diameter:** 13x1mm ~ 10x1mm

Dirección directividad  
Beam Direction



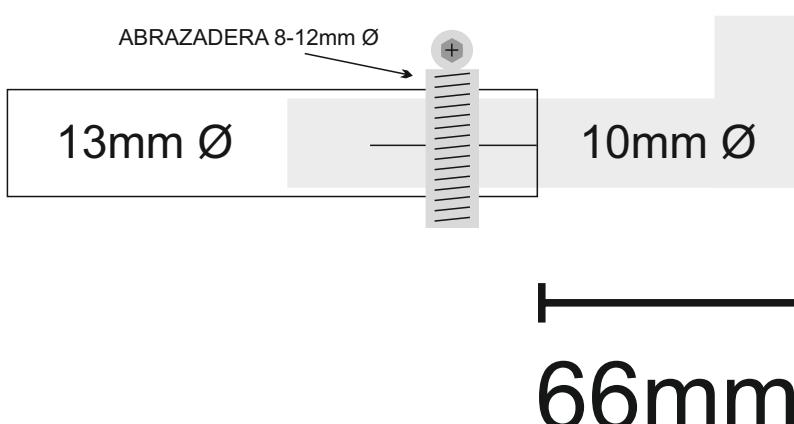
**Las medidas de la pagina anterior están expresadas en medidas exteriores**, o sea, midiendo desde cada extremo del tubo. Una vez que los elementos horizontales estén ensamblados correctamente, se procede a formar el rectángulo con las medidas facilitadas en la página 2.

Tener en cuenta la posición de los extremos según la página 6, para tener en cuenta el reflector y el driven que no se coloquen de la forma incorrecta. Para fijar el elemento al boom, posicione el plástico de **13mm (EAHYP013)** en las posiciones donde corresponde, y se fijan con los tornillos **DIN 912 M6X40**.



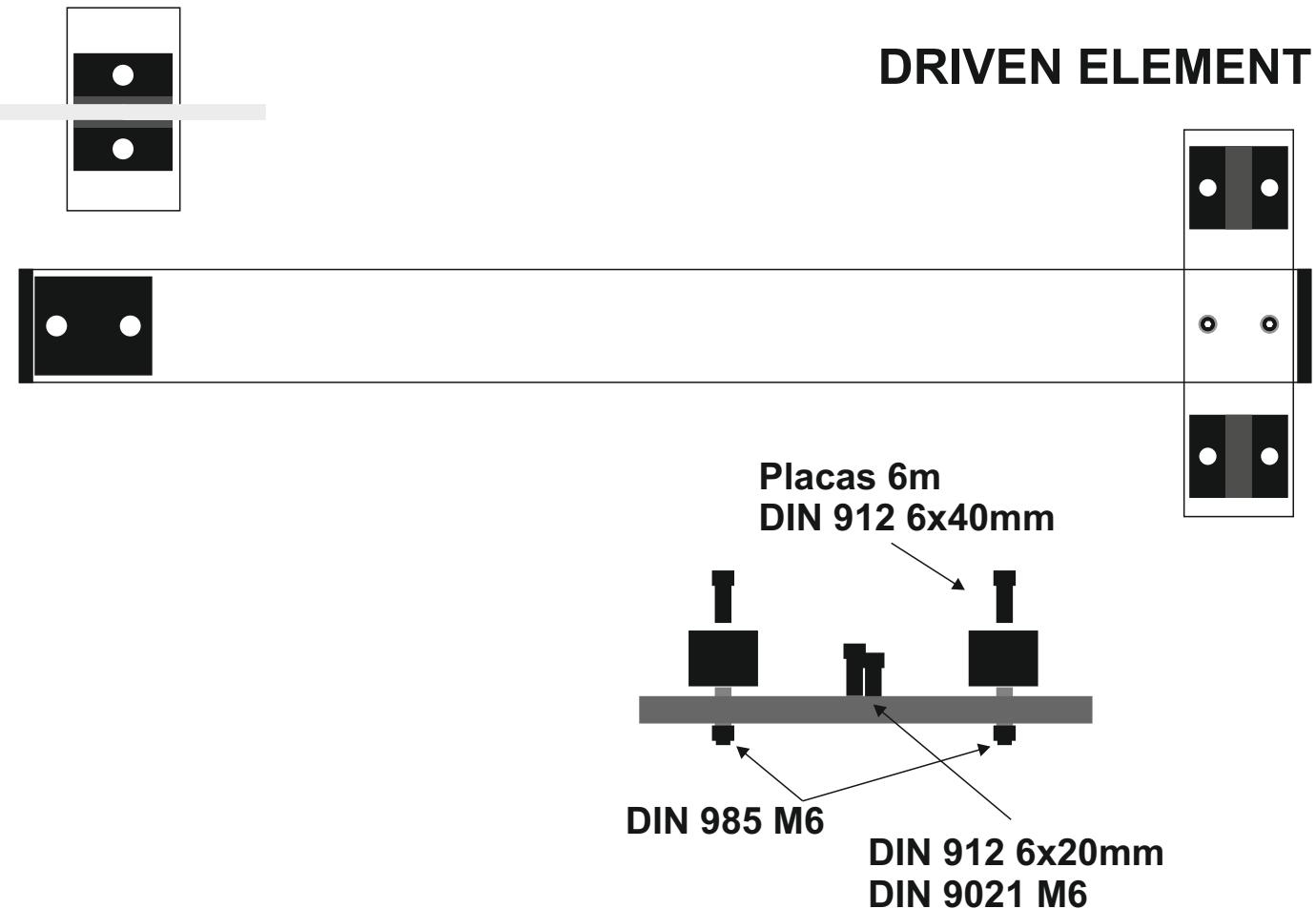
Para colocar cada placa al boom, se fija mediante los tornillos **DIN 912 M6X20** y arandela **DIN 9021 M6**. Esta placa debe de quedar bien firme para la colocación del elemento. El paso siguiente sería igual que los demás elementos, **pero teniendo en cuenta que los tornillos que utilizaremos son DIN 912 M6X40 y tuercas autoblocante DIN 985 M6 una vez que esté ensamblada toda la antena**.

La fijación de cada elemento con la parte curva es mediante la abrazadera Sin/Fin 8-16mm (P0100022)  
**La medida de ajuste está justamente debajo. Esta medida es desde final del tubo de 13mm al extremo de la curva.**



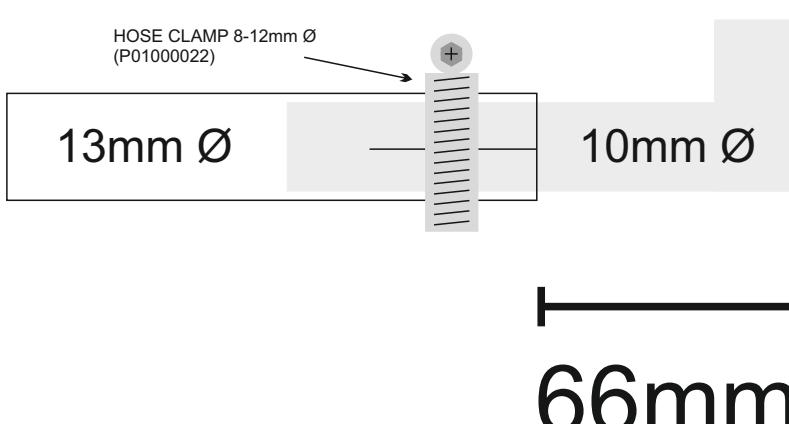
The measures of the previous page are expressed in external dimensions, ie, measuring from each end of the tube. Once the horizontal elements are assembled correctly, proceed to form a rectangle with the measures provided below.

Take into account the position of the ends according to page 6, to take account of the reflector and drivendo not reverse. To set the reflector to boom, position the **plastic clamps of 13mm (EAHYP013)** in positions where it belongs, and fixed with screws **DIN 912 M6x40**.



To place the plate to the boom, use screws **DIN 912 M6X20** and **DIN 9021 M6** washer. This plate must be very firm for positioning the element. Next step is similar to reflector mounting, use again **DIN 912 M6x40** and **Din 985 M6slft locking nuts once it is all assembled antenna.**

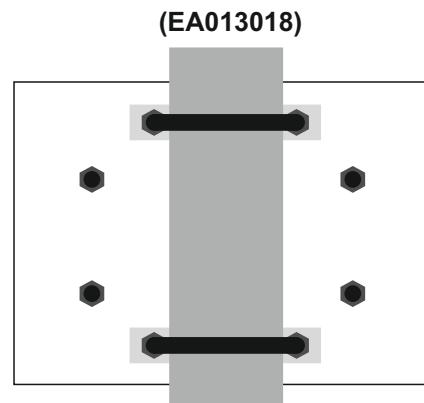
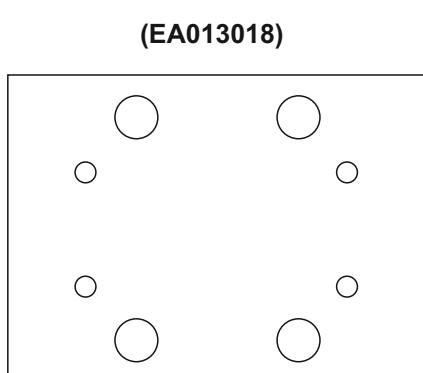
The fixing of the LOOP element, each element is using a Hose Clamp 8-12mm (P0100022) the 13 to 10mm diameter. The final lenght is the pre-sintonized. The lenght is from the end of the 13mm tube to the outside of the bend tube.



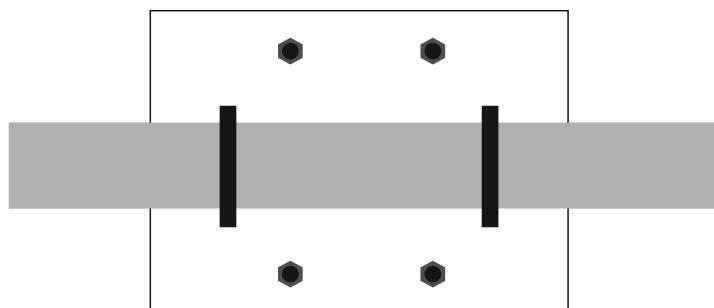
La placa de sujeción BOOM/MÁSTIL (EA013018) de 100X100X6mm consta de 8 agujeros; 4 gruesos para los abarcones redondos y 4 para los abarcones cuadrados que sujetan el BOOM.

Los 4 agujeros de mayor grosor tienen la función de que hagan la mayor fuerza sobre el mástil, mediante abarcones redondos de M8. Los abarcones redondos de M8 (A-0163), van fijados mediante arandela DIN 9021 M8 y tuerca DIN 934 M8 proporcionadas en el mismo abarcón, y fijada al mástil con la Mordaza (23035.50).

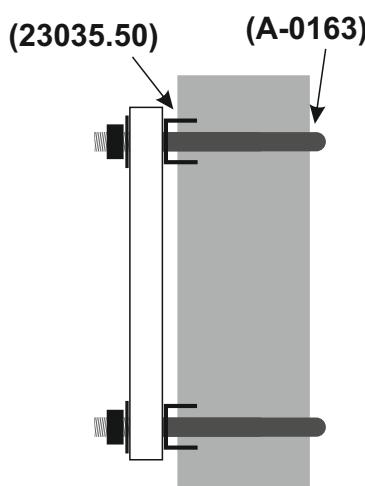
Detallamos dibujos para una mayor ilustración:



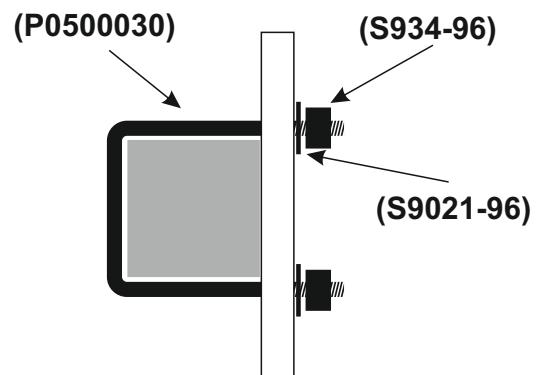
Front view from Mast



Front view from BOOM



Vista lateral desde el mástil



Vista lateral desde el BOOM

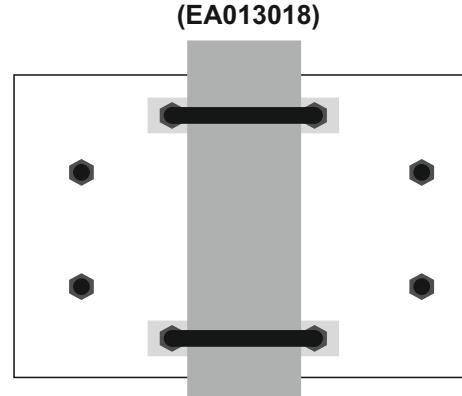
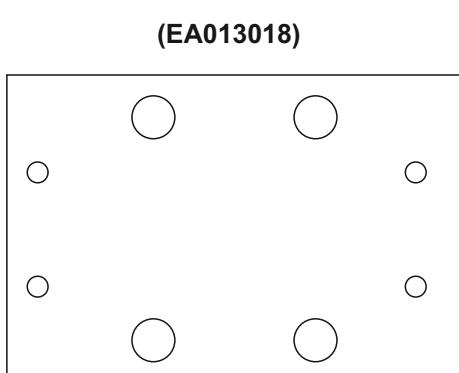
# MAST TO BOOM PLATE ASSEMBLY

ENGLISH

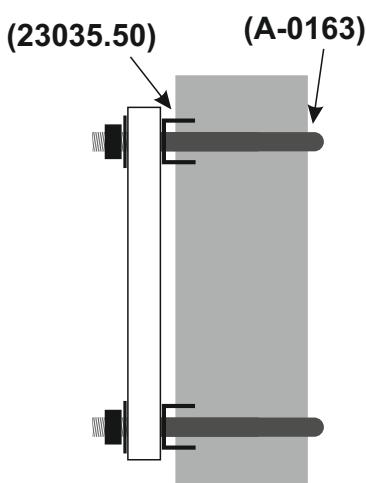
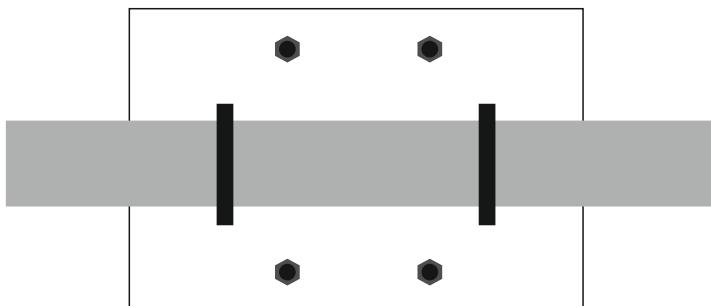
The clamping plate **BOOM / MAST (EA013018)** 100X100X6mm consists of **8 holes**; **4 thick for round U-bolts** and **4 square U-bolts for securing the BOOM**.

The **4 holes** are function that make the greatest force on the mast by means of M8 round U-bolts. **Round U-bolts M8 (A-0163)**, are secured by washer **DIN 9021 M8** and nut **DIN 934 M8** provided in the same bag, and fixed to the mast with clamp (23035.50).

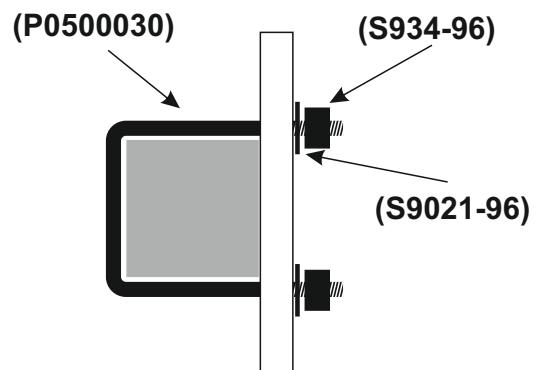
Detailed drawings for further illustration:



Front view from Mast

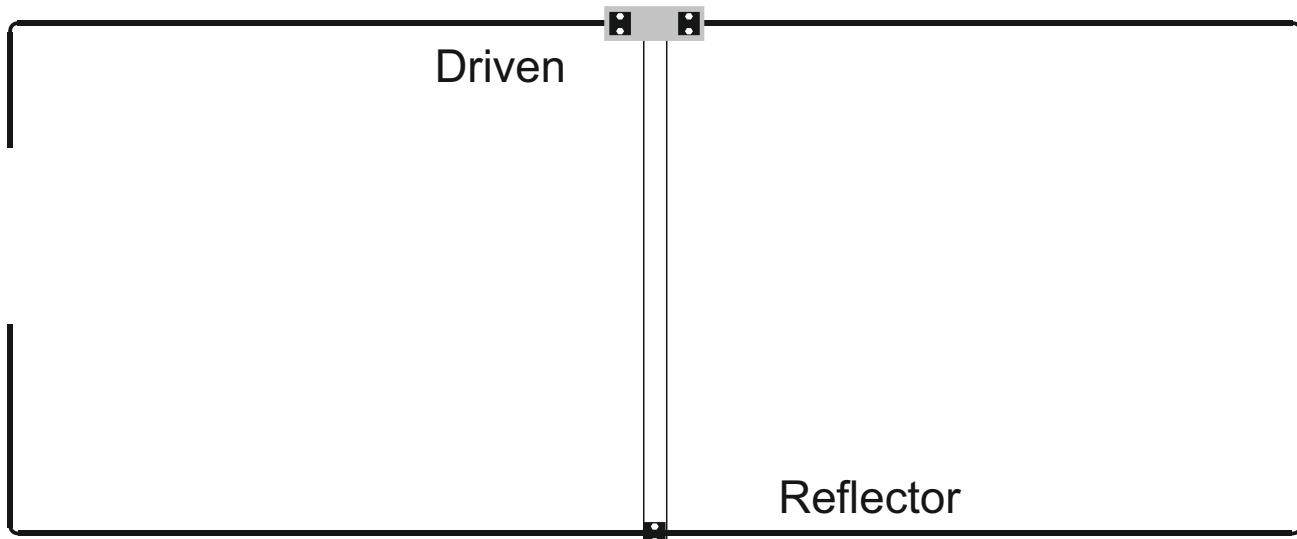


Side view from Mast



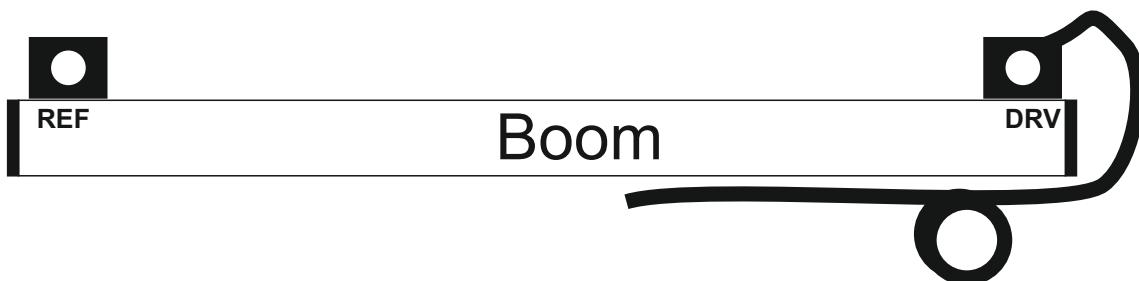
Side view from BOOM

Dirección directividad  
Beam Direction

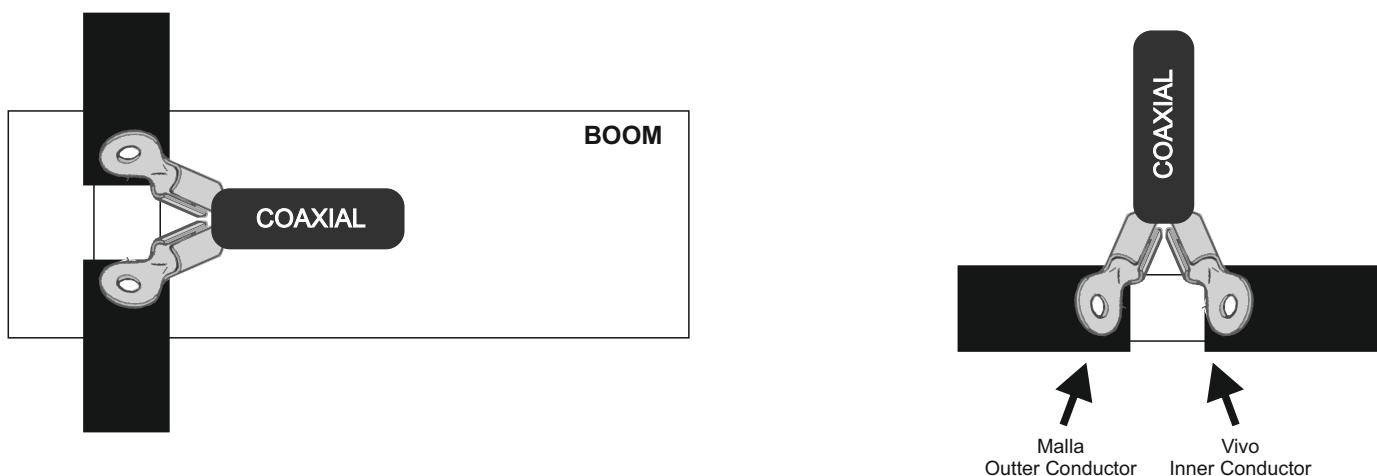


#### Alimentación mediante coaxial:

Después de varios ensayos, vemos que el balun de aluminio hace peor trabajo que un choque de coaxial. Por esto, recomendamos hacer a escaso centímetros o metros de la alimentación, un choque del coaxial de bajada de 4 vueltas de 8 centímetros de diámetro y así el retorno de RF será mínimo o nulo. En el dibujo aconsejamos que siempre el choque se haga por debajo de los elementos para que el coaxial no haga interacción con los elementos.

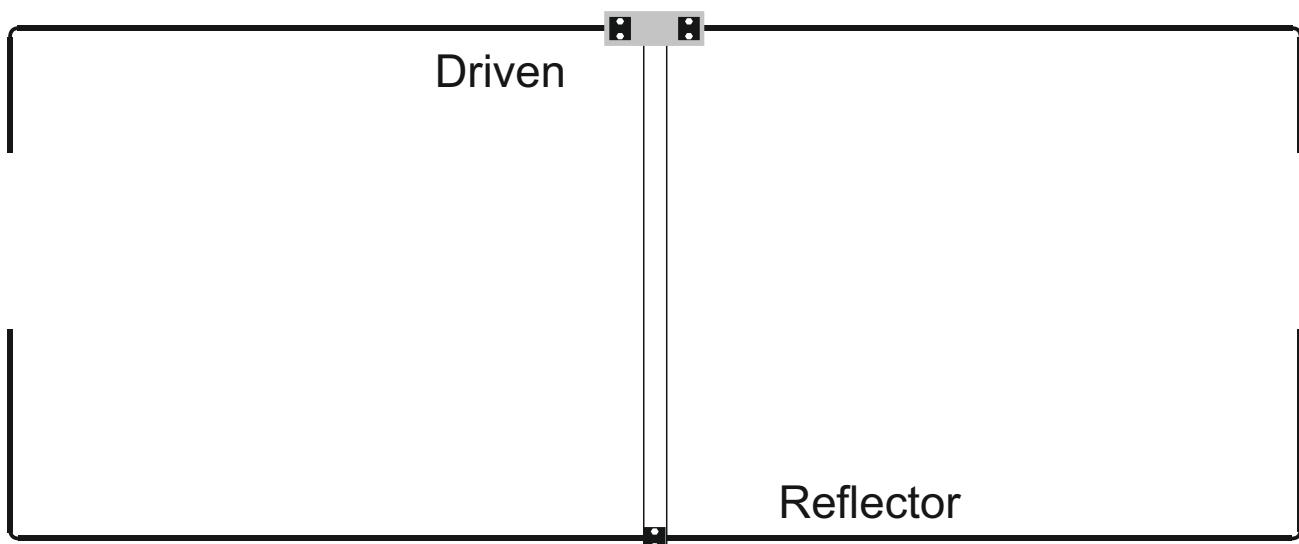


!Hagalo lo mas corto posible!



Montaje correcto:

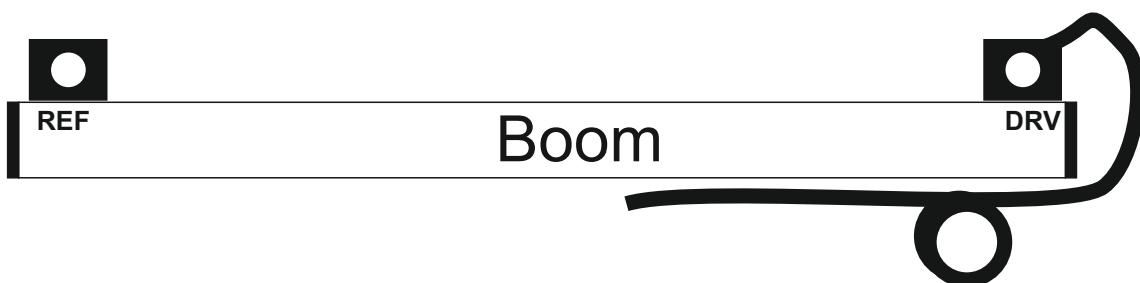
ENGLISH



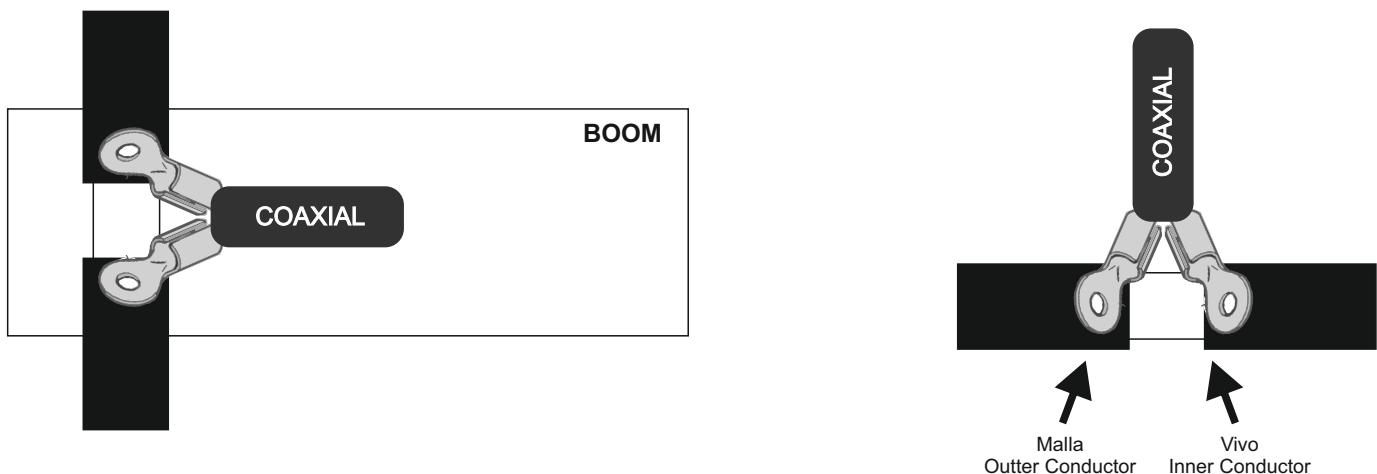
**Coax cable feeding:**

After several trials, we see that the balun aluminum makes it worse job than a coaxial choke. For this, we recommend 5 turns of 8 cm and thus the RF return will be minimal or absent.

The below drawing advise you how to do the clash below the boom to avoid interaction with the elements.



Keep the splice as short as possible !





**ESPAÑOL****ENGLISH**
**PACKING LIST**  
**LISTA DE PIEZAS**
**BOLSA 1 - BAG #1**

PART # PIEZA N°	IMAGEN PART IMAGE	DESCRIPCION DESCRIPTION	MEDIDAS SIZES	CANTIDAD QUANTITY
EA013018		Placa Mástil/Boom Mast and Boom plate	100 x 100 x 6mm	1
A-0163		Abarcon U-Bolt.	50mm, M8	2
23035.50		Mordaza Tube Clamp	50mm	2
S127-98		DIN 127 WASHER	M8	4
S934-98		DIN 934 NUT	M8	4
P0500030		Abarcon Cuadrado Square Clamp	30mm	2
S9021-96		DIN 9021	M6	4
S934-96		DIN 934	M6	4
P1300001		Llave Allen	5mm	1
P1300003		Llave Fija	M10	1

# BOLSA 2 - BAG #2

PART # PIEZA N°	IMAGEN PART IMAGE	DESCRIPCION DESCRIPTION	MEDIDAS SIZES	CANTIDAD QUANTITY
EA010026		Placa para Elementos Elements plates	150x50x6mm	1
S912-9620		Tornillo Allen DIN 912 Allen DIN 912 Screw	M6x20mm	2
S9021-96		DIN 9021	M6	2
EAHYP013		Plásticos Plastic Blocks	13mm Ø	3
S912-9640		Tornillo Allen DIN 912 Allen DIN 912 Screw	M6x40mm	6
S985-906		Tuerca Autoblocante DIN 985 DIN 985 NUT	M6	6
P0100022		Abrazadera Sin-Fin Hose clamp	8-12mm	4

## PACKING LIST LISTA DE PIEZAS

PART # PIEZA N°	IMAGEN PART IMAGE	DESCRIPCION DESCRIPTION	MEDIDAS SIZES	CANTIDAD QUANTITY
70MOX A-A		BOOM	612mm x 30mm	1
		13mm REFLECTOR	1530mm x 13mm Ø	1
		13mm DRIVEN	1530mm x 13mm Ø	1
		Sección Tubo 10mm 10mm Tube section	570mm x 10mm Ø	2