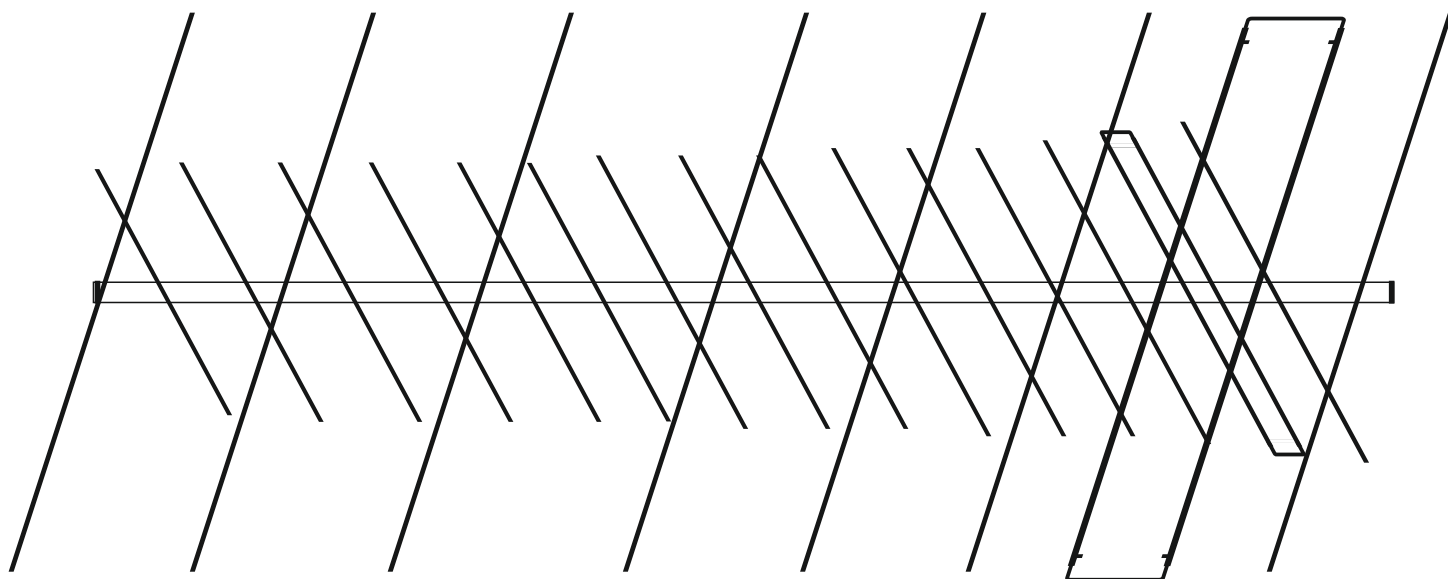


45° X POL DUALBAND YAGI ANTENNA

VU-LFA23

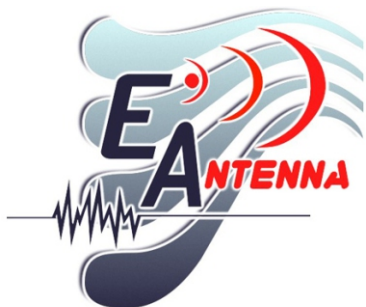
Artikel Nr: 17756.VUX

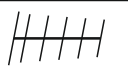



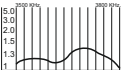


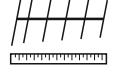




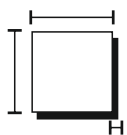
← 3,79 m →

Peso: 8,5 Kg.
Max. Potencia: 10,0 kW

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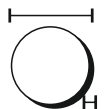


	SPECIFICATIONS	EAntenna	VU-LFA23
	Elements:	8	15
	Frequency Range:	144~146 MHz.	432~440 MHz.
	Gain:	13,31 dBi	14,92 dBi
	F/B:	25,65 dB	34,67 dB
	SWR:	1,0:1~1,2:1	1,0:1~1,3:1
	Impedance	50 Ohms	50 Ohms
	Max. Power:	2000 W.	2000 W.
	Boom Length:	3,76m	12,3 ft
	Wind Survival	≥ 200kmh / ≥	≥ 125mph
	Weight:	8,5 Kg	18,8 pounds



Boom Size:

30x30x2mm



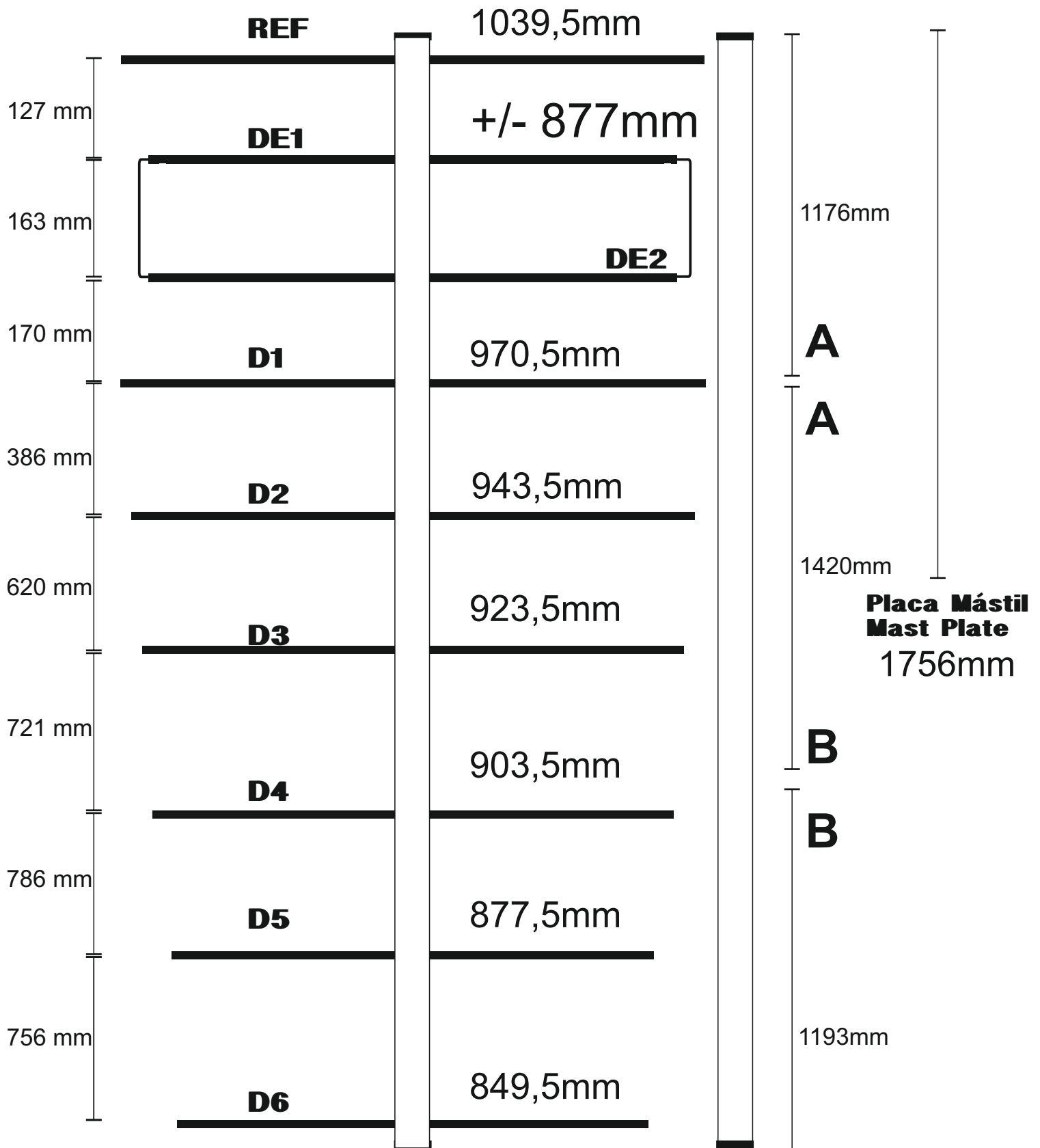
Element Diameter:

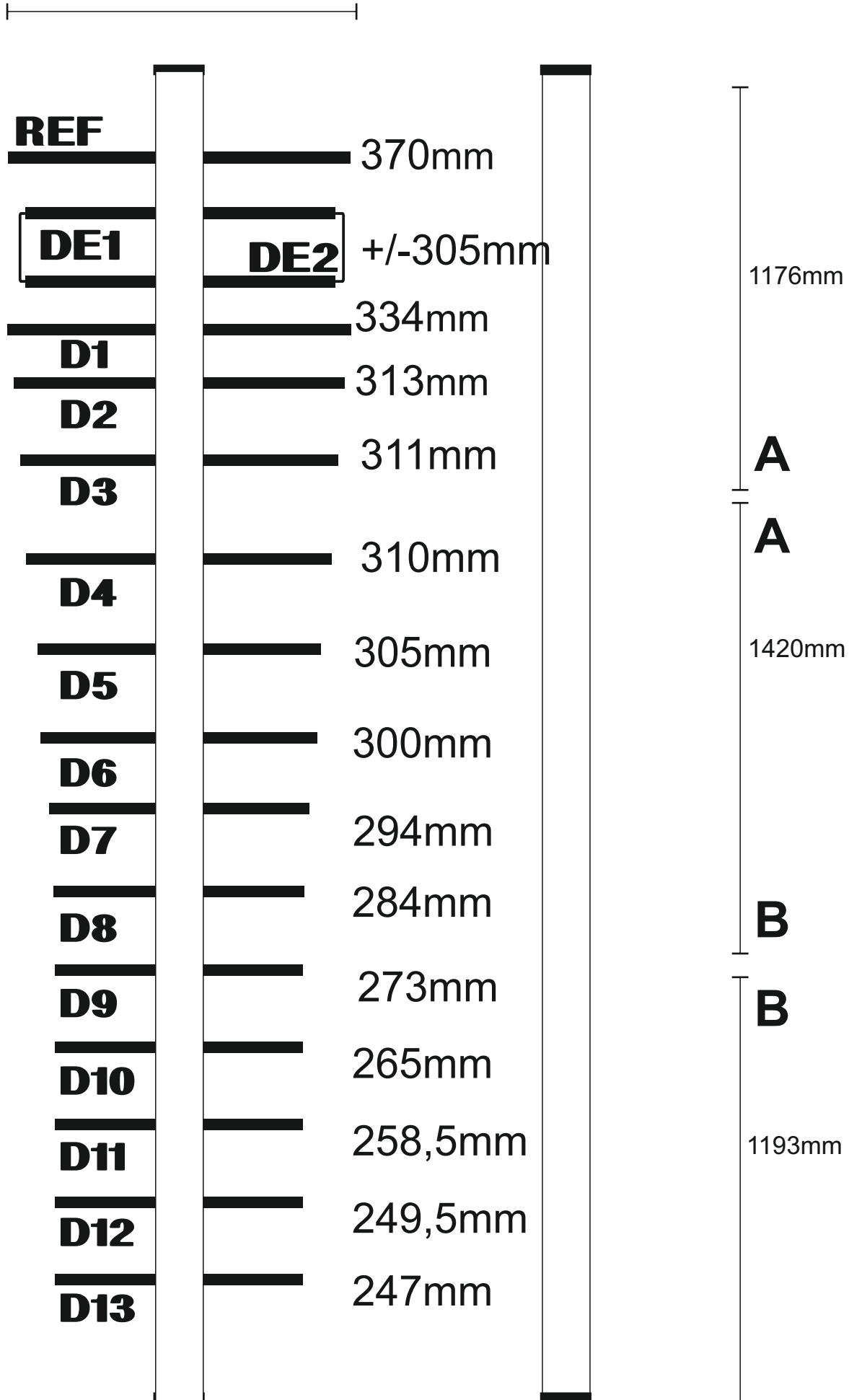
Passive 6x1mm - Driven: 10x1,5 / 13x1mm



Balun: To build with Coax:

***Page 10**

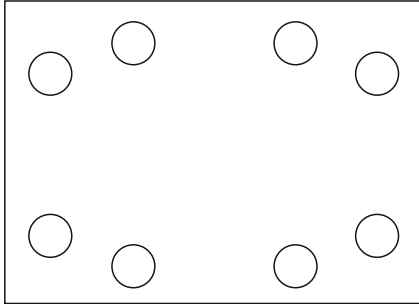




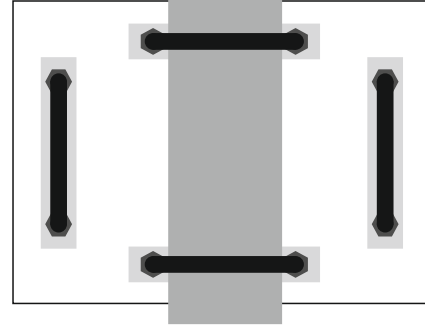
La placa **BOOM / MAST (EA013012)** 149X100X6mm consiste de **8** agujeros; **4 para los abarcones redondos** al mástil y otros **4 para el boom**. Los agujeros **horizontales** son para sujetar la fibra de vidrio con el boom, teniendo en cuenta que el boom debe de ir a **45°** desfasado de la placa. Los abarcones **redondos (A-0163)**, se fijan con las arandelas **DIN 127 M8** y las tuercas **DIN 934 M8** y contrasujetando con las mordazas **(23035.50)**

Detailed drawings for further illustration:

(EA013012)



(EA013012)



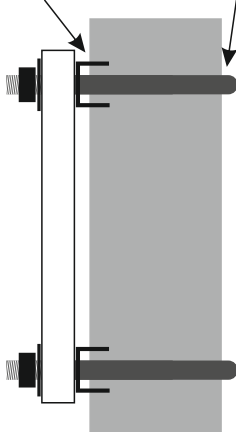
Vista frontal desde el mástil

(EA013012)



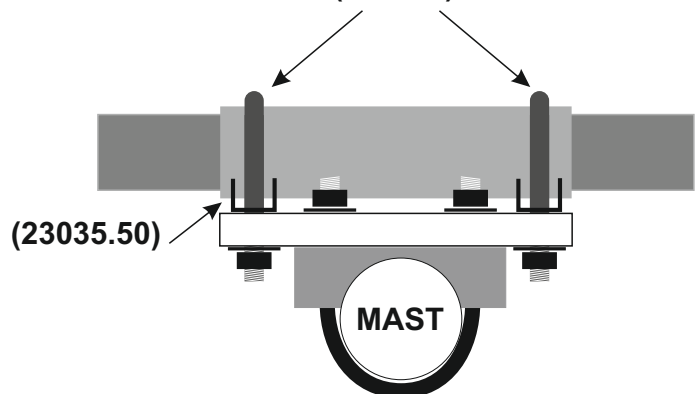
Vista frontal desde el BOOM

(23035.50) (A-0163)



Vista lateral desde el mástil

(A-0163)

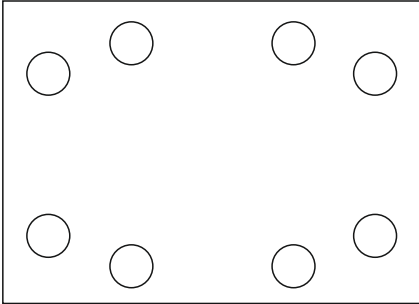


Vista lateral desde el BOOM

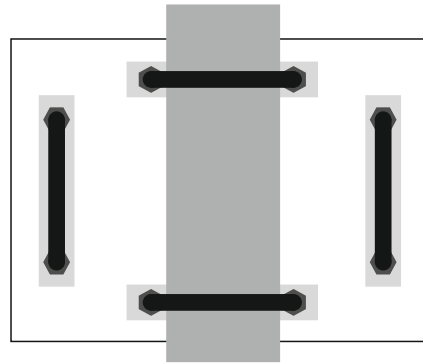
The clamping plate **BOOM / MAST (EA013012)** 149X100X6mm consists of **8 holes; 4 for round U-bolts** for mast and **4 more U-bolts for the BOOM**.

The **horizontal** ones are for the fiberglass tube that you need to fix with the boom at 45° phased. **Round U-bolts M8 (A-0163)**, are secured by washer **DIN 127 M8** and nut **DIN 934 M8** and fixed to the mast with mounting block **(23035.50)**
Detailed drawings for further illustration:

(EA013012)

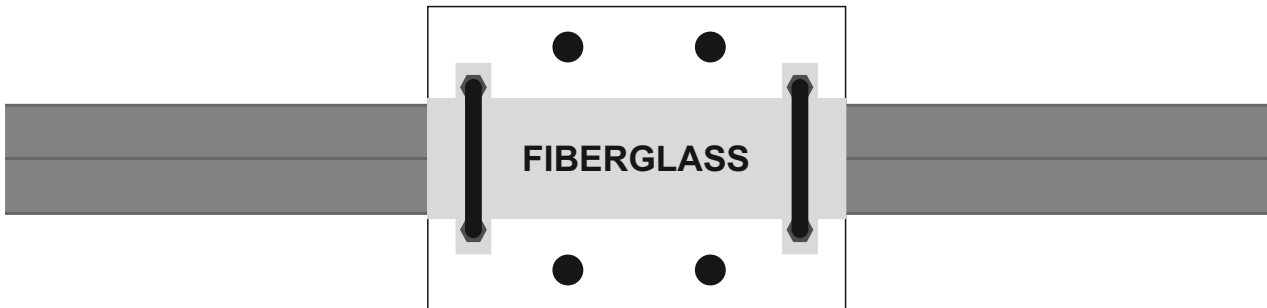


(EA013012)



Front view from Mast

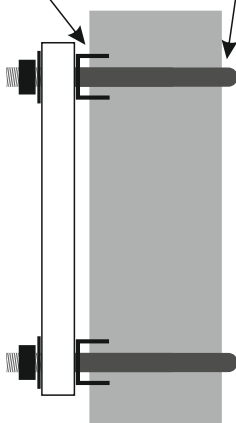
(EA013012)



Front view from BOOM

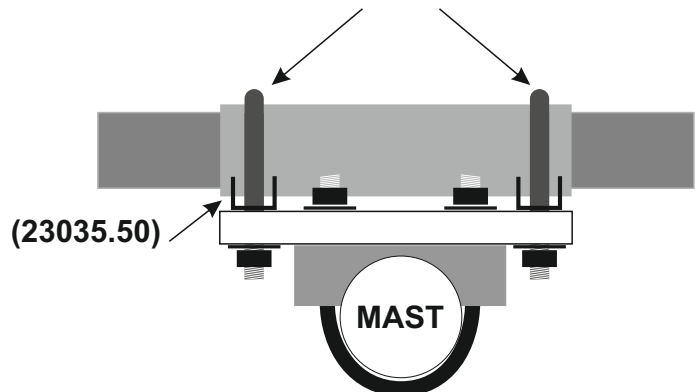
The boom is tightened to the plate in same manner, see below, rectangular U-Bolts **(P0500030)** plus washer and nut.

(23035.50) (A-0163)

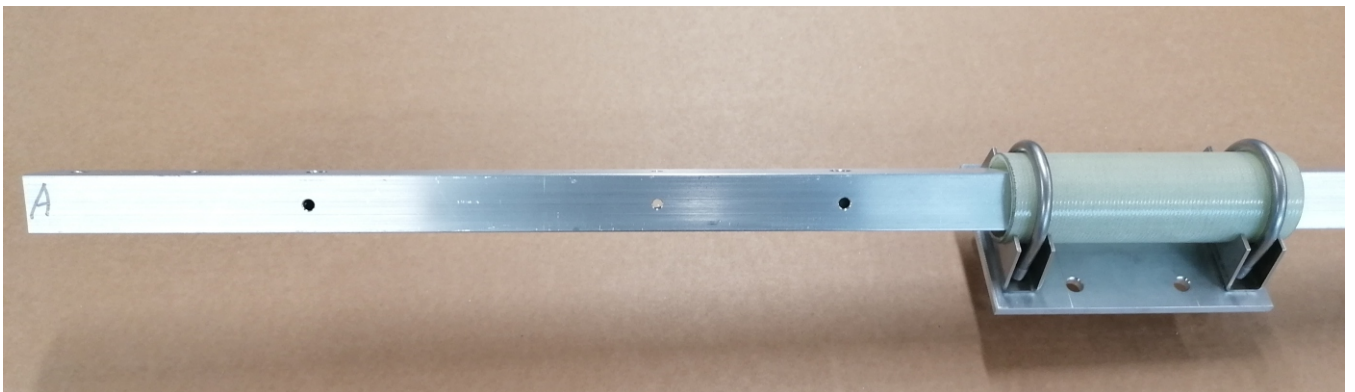
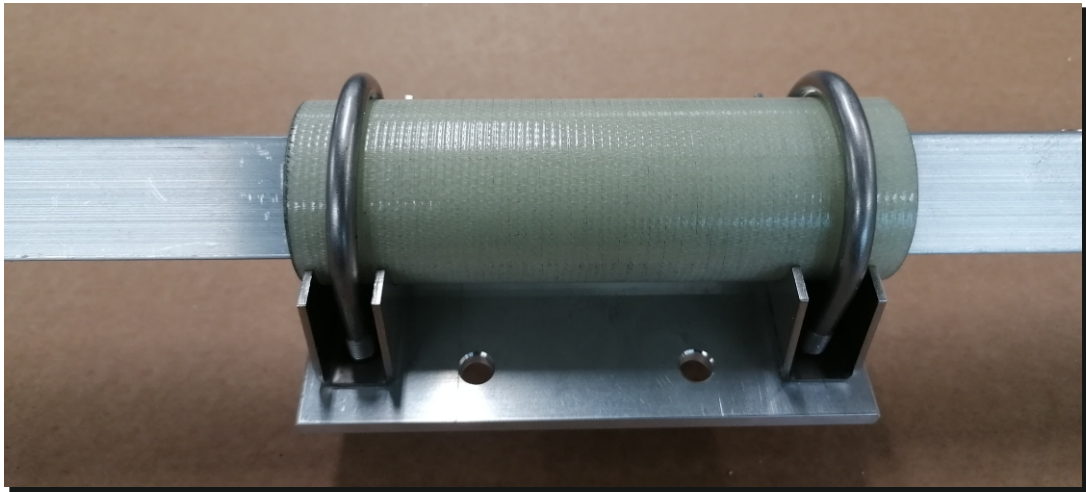
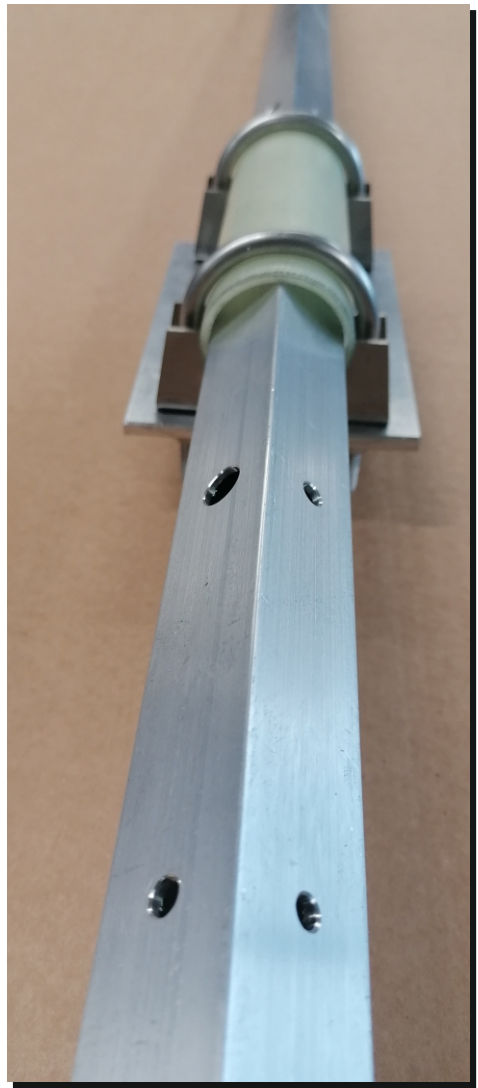
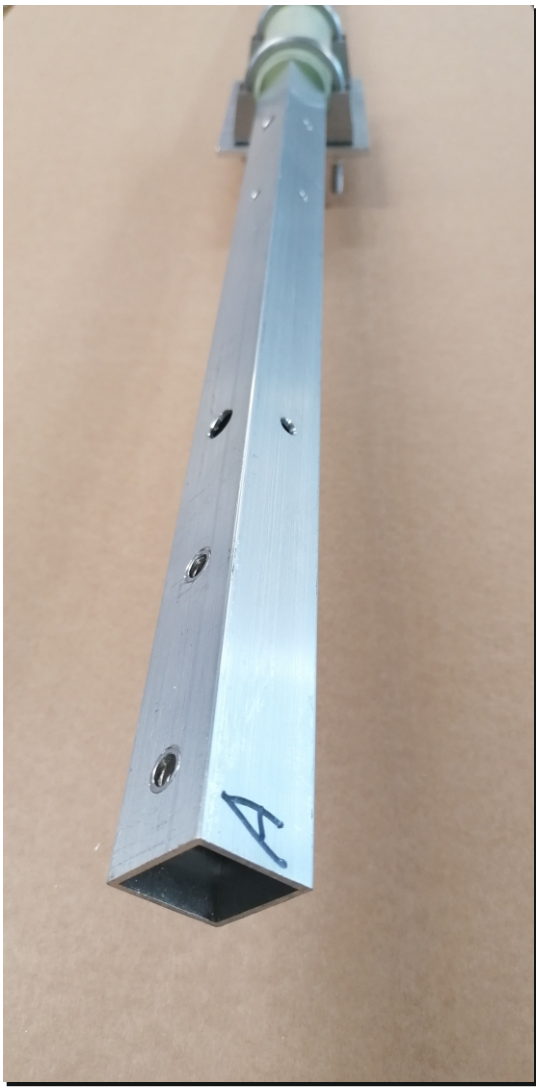


Side view from Mast

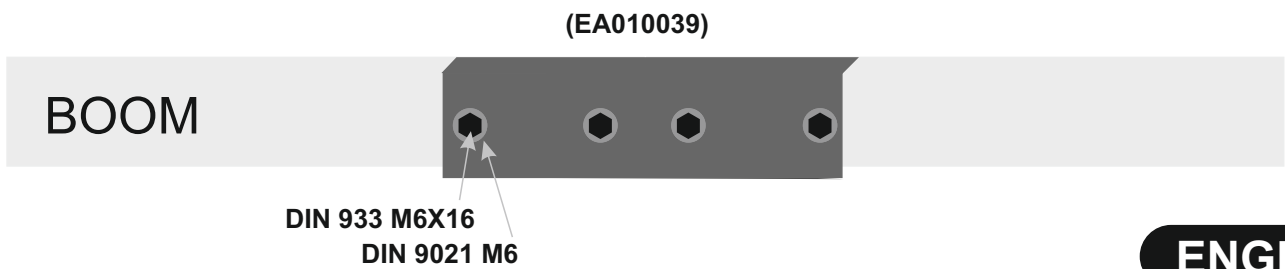
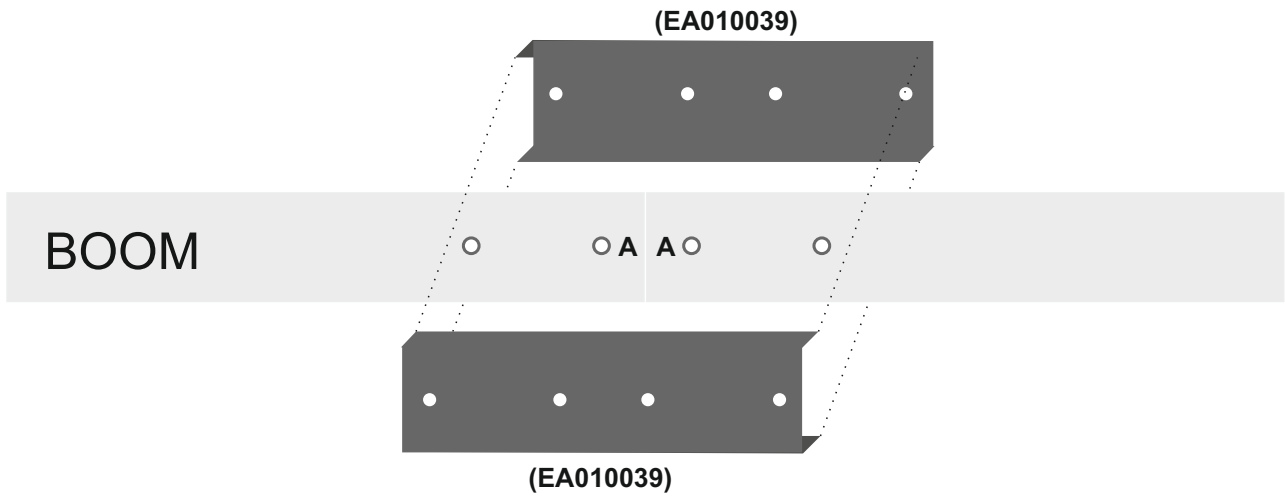
(A-0163)



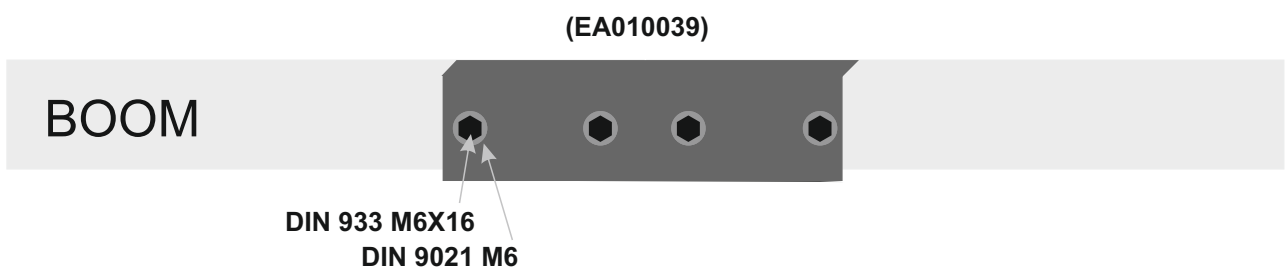
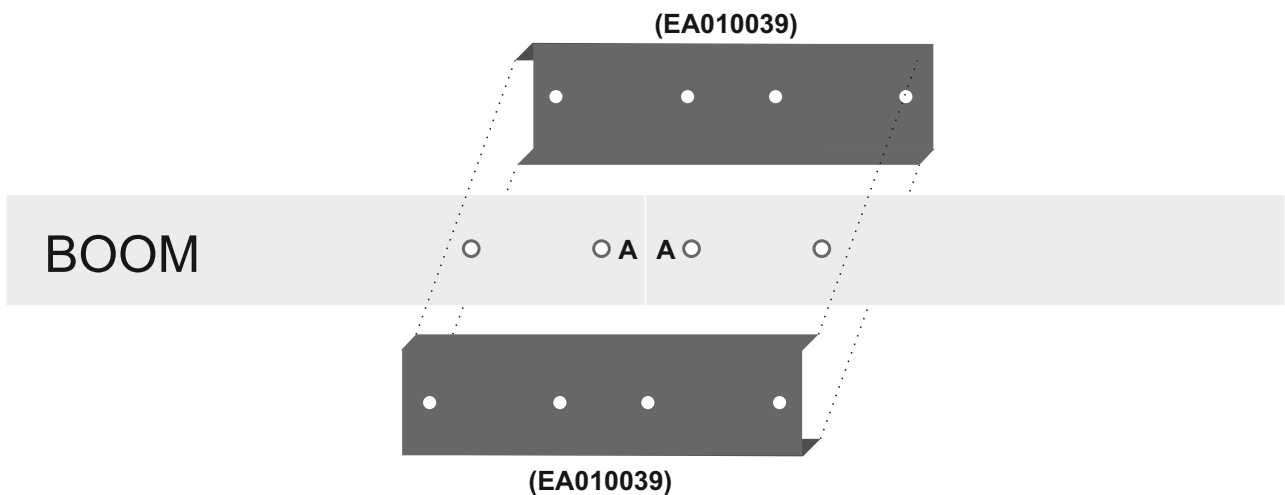
Side view from BOOM



Para montar el BOOM, tiene que hacer coincidir frontalmente las partes de boom que tienen la misma letra (p.ej: A-A, B-B, C-C etc), y una vez hecho, las placas (EA010039) se van fijando con los tornillos DIN 933 M6X16 y arandela DIN 9021 M6. Se recomienda poner todas los tornillos y arandelas antes de fijarla a tope para no dañar ninguna rosca del BOOM.



To mount the BOOM, you have to match frontally boom parts with the same letter (eg: AA, BB, CC etc), and a Once done, the plates (EA010039) go with fixing screws DIN 933 M6X16 and washer DIN 9021 M6. It is recommended to put all the screws and washers before fixing it for not to damage any threads of the BOOM.



ESPAÑOL

BOOM cuadrado tiene 4 caras, para identificar por que parte del boom ensamblaremos la antena.

Cara A; en esta cara del boom se instrudicen los tornillos DIN 7991 M4 para la sujeción de los elementos.

Cara B; la cara opuesta a la A es donde se introduce la tuerca DIN 934 M4 y aprieta con una llave del número 7.

Cara C y D; en estos agujeros van introducidos los elementos.

El montaje de EAntenna es tan facil como introducir cada elemento en su correspondiente agujero en el boom (Cara C y D), y con el tornillo DIN 7991 M4x25 roscar sobre el mismo elemento (CARA A). Para reforzar el elemento al boom, se añade una tuerca M4 DIN 934 que con una llave de vaso o tubo del número 7 se aprieta facilmente (CARA B)

ENGLISH

The square BOOM has 4 faces, to identify by which part of the boom we will assemble the antenna.

Side A; On this face of the boom the screws DIN 7991 M4 are fastened for the fastening of the elements.

Side B; the face opposite to the A is where the nut DIN 934 M4 is inserted and press with a key of the number 7.

Side C and D; in these holes the elements are introduced.

The assembly of the EAntenna is as easy as introducing each element in its corresponding hole in the boom (**SIDE C and D**), and with the screw DIN 7991 M4 thread on the same element (**SIDE A**). To reinforce the element to the boom, an M4 DIN 934 nut is added, which with a socket or pipe wrench of the number 7 is easily tightened (**SIDE B**)

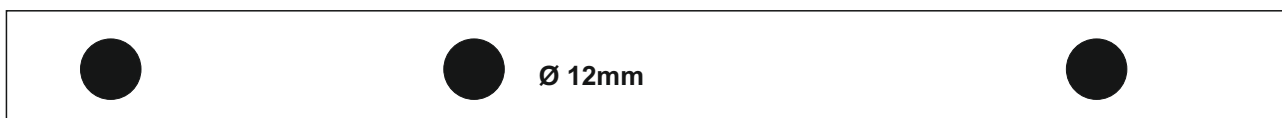
CARA A

SIDE A



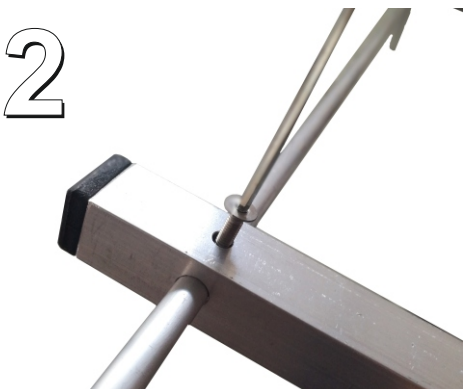
CARA B

SIDE B



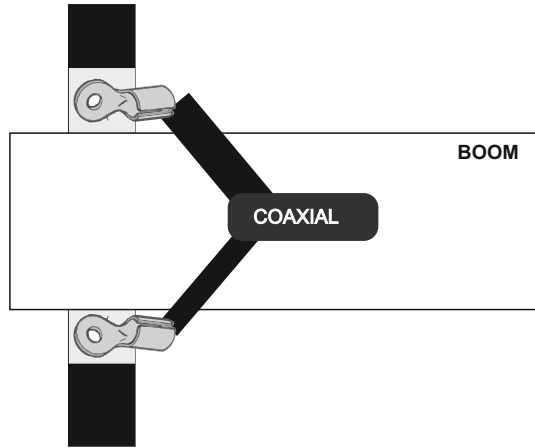
CARA C-D

SIDE C-D



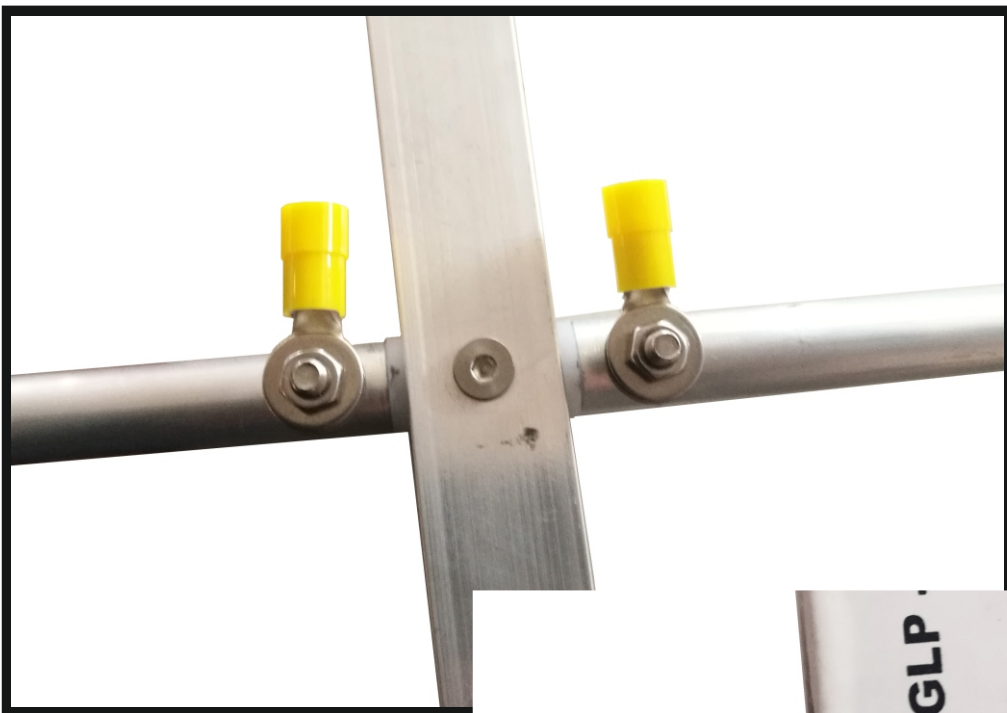
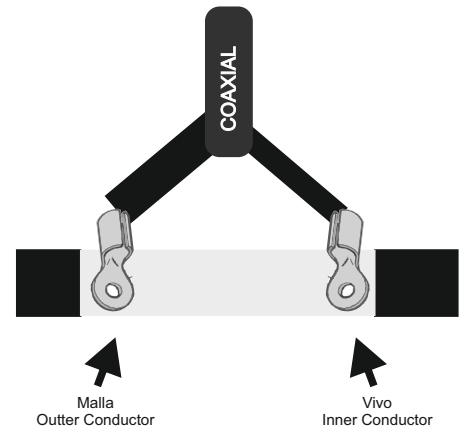
ESPAÑOL

El elemento de más grosor o DRIVEN viene pre-ensamblado, pero para su montaje en el BOOM debe de quitar una parte de la alimentación, para introducir la parte aislante del DRIVEN y esta mediante el agujero que trae, es donde debe de fijarse al boom como se explica anteriormente.



ENGLISH

The DRIVEN ELEMENT comes pre-assembled, but for its assembly into the boom, one side has to be removed. Then, put the insulator into the large hole of the boom, fix with screws as explained above and re-install the side tube which was removed before.



Adjusting SWR:

Once positioned the antenna with your measurements, **you may need some fine-tuning to get the SWR desired. Shifting the curve piece inward or outward several millimeters**, is the way to go. **Looking to the center frequency is 432,200 MHz** in the lower SWR. The best option is to adjust with analyzer or with the help of a swr meter and antenna 1 or 2 meters above the ground while it is sufficient to have achieved in the setting, give us the same results being any other height on the tower or mast.

Coax cable feeding:

After several trials, we see that the balun aluminum makes it worse job than a coaxial choke. For this, we recommend 2 turns of 8 cm and thus the RF return will be minimal or absent.

In the drawing advise you to do the clash below the coaxial elements do not causes interaction with the elements.

**Ajuste del ROE/SWR:**

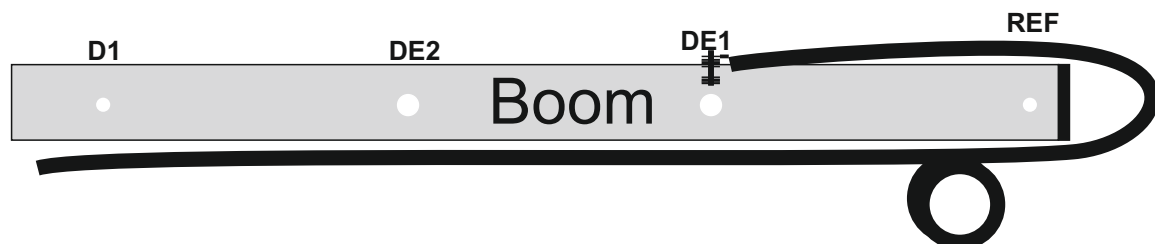
Una vez posicionada la antena con sus medidas, **quizás necesite algún retoque** para conseguir la **ROE/SWR deseada. Desplazando la pieza curva hacia adentro o hacia afuera varios milímetros**, es la forma de hacerlo. **Buscando que el centro de Frecuencia esté en 144,300 MHz**. con la menor ROE/SWR. La mejor opción es ajustarla con analizador de antenas o con la ayuda de un medidor de estacionarias, y estando la antena a 1 o 2 metros del suelo es suficiente para que lo conseguido en el ajuste, nos dé el mismo resultado estando a cualquier otra altura, ya puesto en la torre/mástil.

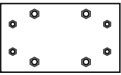










Alimentación mediante coaxial:

Después de varios ensayos, vemos que el balun de aluminio hace peor trabajo que un choque de coaxial.


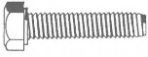

Por esto, recomendamos hacer a escaso centímetros o metros de la alimentación, un choque del coaxial de bajada de 2 vueltas de 8 centímetros de diámetro y así el retorno de RF será mínimo o nulo.















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.


















PART # PIEZA N°	IMAGEN PART IMAGE	DESCRIPCION DESCRIPTION	MEDIDAS SIZES	CANTIDAD QUANTITY
EA013012		Placa Mastil Mast Plate	149x100x6mm	1
A-0163		Abarcon U-Bolt	M8x50mm	4
23035.50		Mordaza Tube Clamp	50mm	4
S127-98		DIN 127 WASHER	M8	8
S934-98		DIN 934 NUT	M8	8
P1300002		Llave Allen 2,5	2,5mm	1
P1300003		Llave Fija	M10	1
S934-94		DIN 934	M4	25
S7991-9430		Tornillo DIN 7991 DIN 7991 Screw	M4x30	25
P0100031		Abrazadera Sin-Fin Hose clamp	7-11mm	4
P0100022		Abrazadera Sin-Fin Hose clamp	8-12mm	4

BOLSA 2 - BAG #2

PART # PIEZA N°	IMAGEN PART IMAGE	DESCRIPCION DESCRIPTION	MEDIDAS SIZES	CANTIDAD QUANTITY
EA010039		Piezas unión de Boom 30mm Boom joint part for 30mm Boom	200x35mm	4
S933-9616		Tornillo Allen DIN 933 Allen DIN 933 Screw	16x6mm	16
S9021-96		DIN 9021	M6	16

PART # PIEZA N°	IMAGEN PART IMAGE	DESCRIPCION DESCRIPTION	MEDIDAS SIZES	CANTIDAD QUANTITY
VU-LFA23 A-A		BOOM A	1176mm x 30mm	1
VU-LFA23 A-B		BOOM B	1420mm x 30mm	1
VU-LFA23 B-C		BOOM C	1193m x 30mm	1
A-3074		FIBERGLASS ISOLATION FIBRA DE VIDRIO AISLANTE	150m x 48mm	1
		Pieza lateral Loop Loop Driven	16,3cm x 11cm x 10mm Ø	2
		DE2	758mm x 13mm Ø	1
		DE1	758mm x 13mm Ø	1
REF-VHF		REFLECTOR	1039,5mm x 6mm Ø	1
D1-VHF		DIRECTOR 1	970,5mm x 6mm Ø	1
D2-VHF		DIRECTOR 2	943,5mm x 6mm Ø	1
D3-VHF		DIRECTOR 3	923,5mm x 6mm Ø	1
D4-VHF		DIRECTOR 4	903,5mm x 6mm Ø	1
D5-VHF		DIRECTOR 5	877,5mm x 6mm Ø	1
D6-VHF		DIRECTOR 6	849,5mm x 6mm Ø	1

PART # PIEZA N°	IMAGEN PART IMAGE	DESCRIPCION DESCRIPTION	MEDIDAS SIZES	CANTIDAD QUANTITY
REF-UHF		REFLECTOR	370mm x 6mm Ø	1
D1-UHF		DIRECTOR 1	334mm x 6mm Ø	1
D2-UHF		DIRECTOR 2	313mm x 6mm Ø	1
D3-UHF		DIRECTOR 3	311mm x 6mm Ø	1
D4-UHF		DIRECTOR 4	310mm x 6mm Ø	1
D5-UHF		DIRECTOR 5	305mm x 6mm Ø	1
D6-UHF		DIRECTOR 6	300mm x 6mm Ø	1
D7-UHF		DIRECTOR 7	293,5mm x 6mm Ø	1
D8-UHF		DIRECTOR 8	284mm x 6mm Ø	1
D9-UHF		DIRECTOR 9	273mm x 6mm Ø	1
D10-UHF		DIRECTOR 10	265mm x 6mm Ø	1
D11-UHF		DIRECTOR 11	258,5mm x 6mm Ø	1
D12-UHF		DIRECTOR 12	249,5mm x 6mm Ø	1
D13-UHF		DIRECTOR 13	247mm x 6mm Ø	1
		LOOP COMPLETO COMPLET LOOP	304 x 10mm Ø	1