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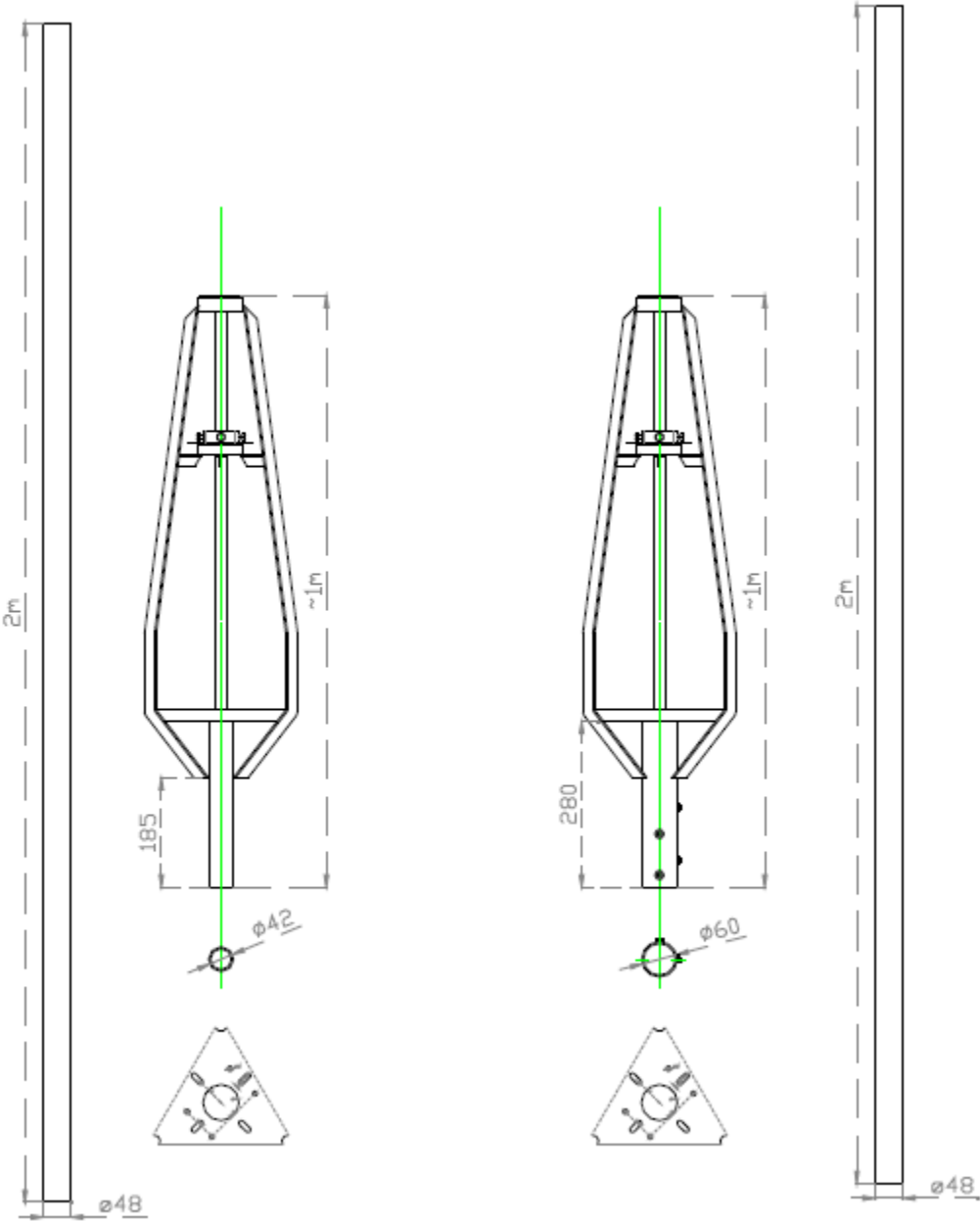
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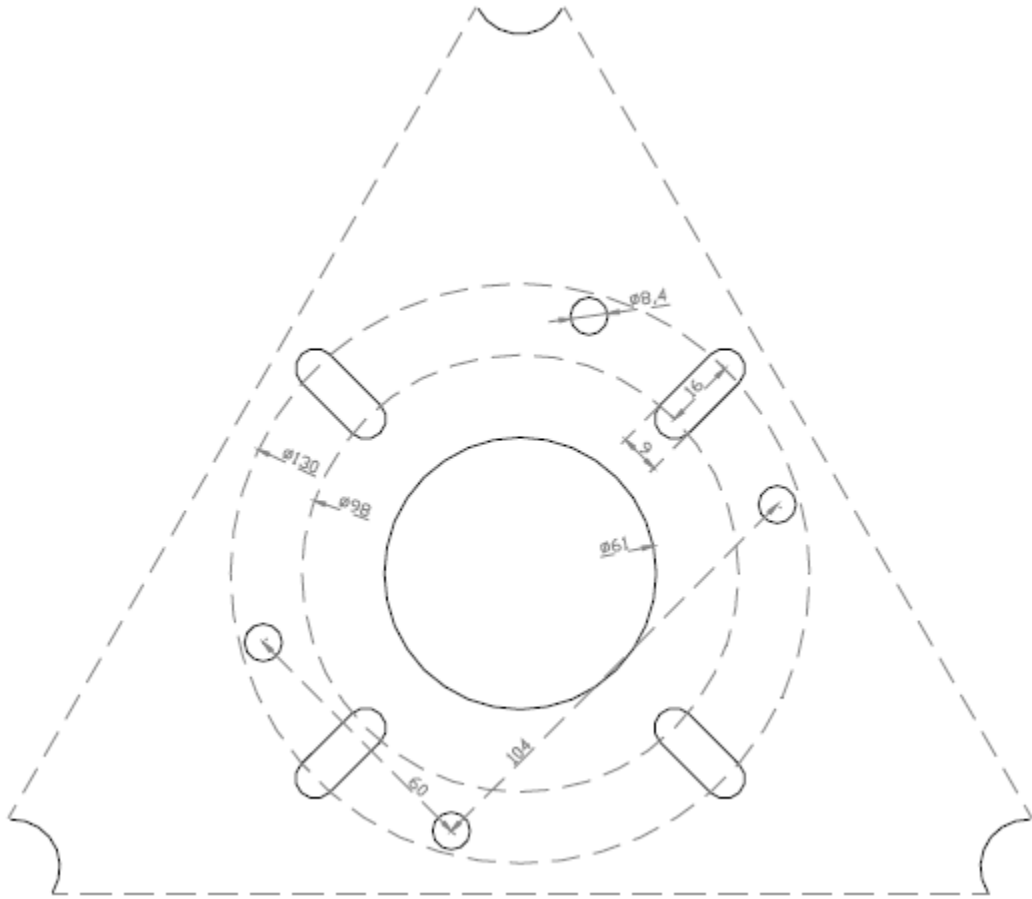
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# ROTOR CAGE TECHNICAL SHEET FOR POLE MOUNT

**Fig. 1: Standard cage and Custom cage geometrical features**



**Fig. 2: Universal multi-perforated rotor housing plate**



**Fig. 3: Termination of bracing in the cage head**



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**Main features**

Overall dimensions: 25cm x 20cm x 1m Weight: about 9kg  
Maximum range (vertical load): 40kg  
Maximum wind area (with full bracing): 1m<sup>2</sup> Anchoring: with quill or glass with pins to tighten  
Breakdown load: Bayco ø4mm - 550kg; Bayco ø6mm - 1100kg  
Packaging appearance: exposed, some protruding parts are protected with cardboard and transparent film

**Geometric and structural features**

The supporting structure is made up of cold-shaped T-shaped sections that form a triangular-based frame with a pyramidal appearance. The cage is attached to a support system by means of the lower tube, ø42mm or ø60 mm in diameter. A press-folded sheet metal plate will act as a housing for the antenna rotor (fig 2). The standard mast supplied is ø48mm length 2m. The structure is designed so that the weight of the antennas and of the mast itself are discharged on the axial bearing whose seat is arranged in the center of the cage. An upper bush made of self-lubricating synthetic material will act as guide and centering of the mast.

The stays are applicable in the upper part of the cage, where there are holes in the T profiles near the upper bushing. The termination of the stalls is done as in fig.3.  
The arrangement of the stays is a star of three arms at 120 ° between them and they are anchored to the ground at a distance from the base of the structure not less than 50% of the total height of the same.

**Materials used**

Steel for metal structural work.  
The elements in place comply with the qualification and production control methods required by current legislation. Semi-calcified or soaked hot-rolled steels having a chemical composition corresponding to type S235JR are used.

The following parameters are assumed:

Steel S235JR

Normal modulus of elasticity	E = 206000 N / mm <sup>2</sup>
Tangential elasticity modulus	G = 78400 N / mm <sup>2</sup>
Coefficient of thermal expansion	a = 1.2 · 10 <sup>-5</sup> ° C <sup>-1</sup>
Yield strength	f <sub>y</sub> = 235 N / mm <sup>2</sup>
Tensile stress at traction	f <sup>t</sup> = 340 N / mm <sup>2</sup>
Admissible voltage	σ <sub>s,adm</sub> = 160 N / mm <sup>2</sup>
Hot dipped galvanized steel	

**Reference standards,**

- *D. M. January 14, 2008*, New technical standards for construction
- *Circ. Ministry of Infrastructure and Transport, No. 617 of 02 February 2009*, Instructions for the application of the new technical standards for buildings pursuant to Ministerial Decree 14 January 2008

Bearing assembly and accessories

The thrust bearing is of the open type with a ball cage, before inserting it in its seat lubricate abundantly with lithium grease (also known as marine grease) all parts. Then place the rain cover and the mast ring.

**Fig. 4:** Component assembly sequence



Maintenance

Periodically carry out a visual check verifying that the structure shows no signs of corrosion; if necessary, treat with zinc spray paint.

Check that the various nuts are tightened.

If necessary, clean the output bushing from dust deposits.