

Enostaven žarilec za parabolično anteno

Simple feed for parabolic antenna

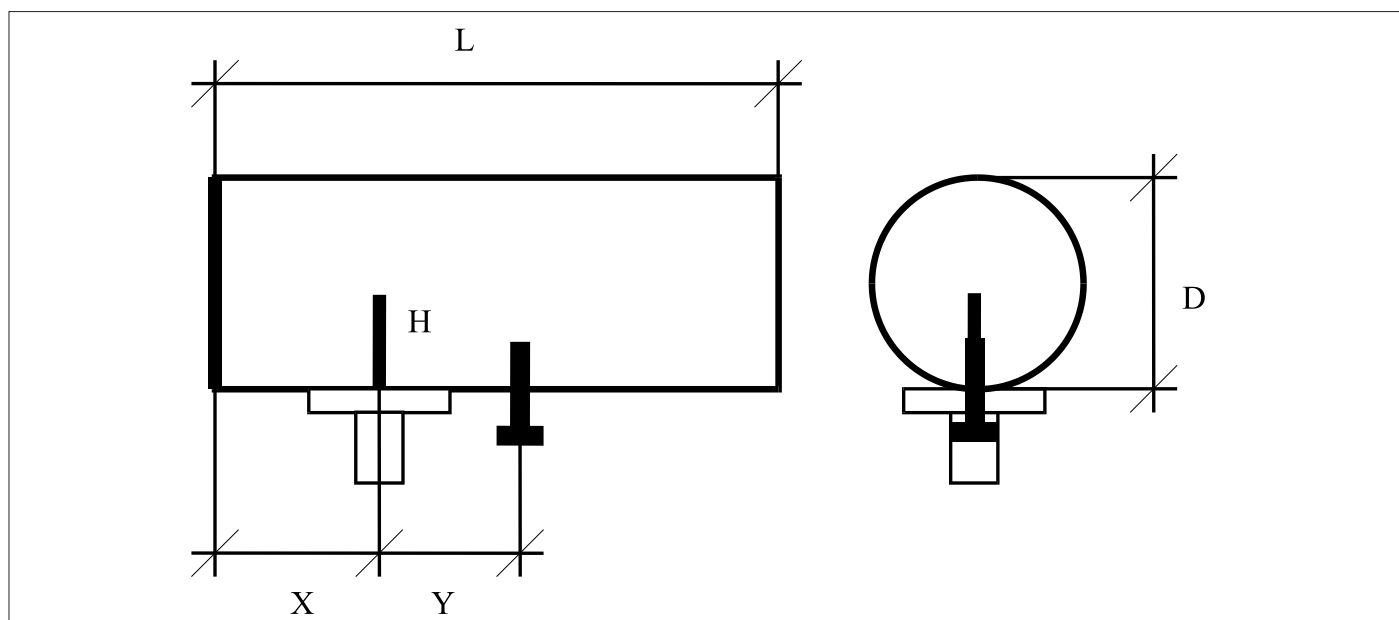
Robert Vilhar - S53WW

Opisani žarilci so namenjeni za osvetljevanje parabol, ki imajo razmerje med goriščem in premerom $f/D=0,4...0,5$. Narejeni so iz standardnih bakrenih ali mesingastih cevi. Na sliki 1 je prikazana splošna geometrija žarilca, v tabeli 1 pa so podane dimenzije za 9, 6 in 3 cm frekvenčni pas. V tabeli podan premer cevi je notranji premer. Debelina stene cevi je lahko 0,5-2 mm. Antenico višine H (končni meri je potrebno dodati debelino stene cevi), ki jo pricininimo na SMA konektor, izdelamo iz 2 mm debele bakrene ali posrebrene žice. Na levi strani cev zapremo - zacininimo ploščico. Mera X je vzeta z notranje strani cevi! Na razdalji Y od konektorja dodamo uglaševalni vijak (M2,5 ali M3).

Described feeds are intended for illuminating parabolic antennas with $f/D=0,4...0,5$. Feeds are fabricated from standard copper or brass tubing. Figure 1 shows general geometry of the feed, and Table 1 gives all the relevant dimensions. Diameter given in Table 1 is inner diameter of the tube. Wall thickness can vary from 0,5 to 2 mm. The monopole with height H (for the final length one must add the wall thickness) that is soldered to the SMA connector is made from 2 mm thick copper or silvered wire. Tube is closed on the left side by soldering small plate. Dimension X is taken from the inner side of the tube! Tuning screw is inserted at the distance Y from the connector (M2,5 or M3).

Tabela 1: Dimenzije antene s slike 1.

	3,4	5,7	10,4	GHz
D	68,0	39,0	20,0	mm
L	170,0	190,0	100,0	mm
X	24,5	15,0	10,0	mm
Y	67,0	41,0	27,0	mm
H	20,0	11,5	6,8	mm



Slika 1: Geometrija preprostega žarilca za parabolno anteno. D je notranji premer cevi!