

# Preliminary RF design of the correction cavity

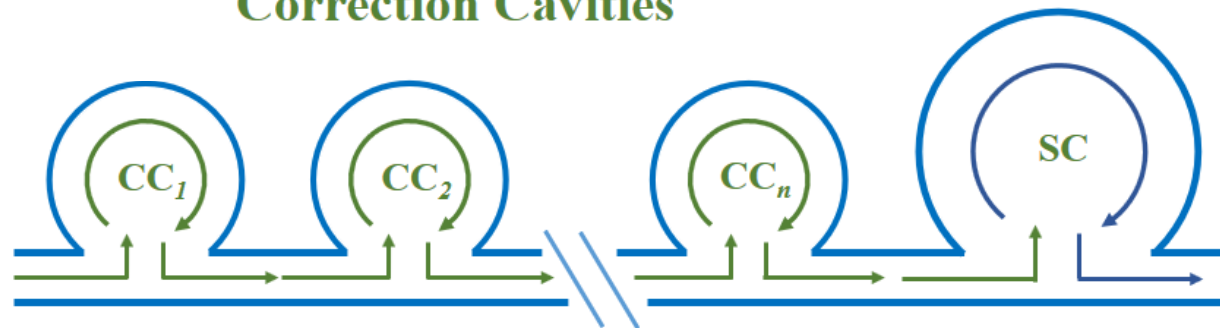
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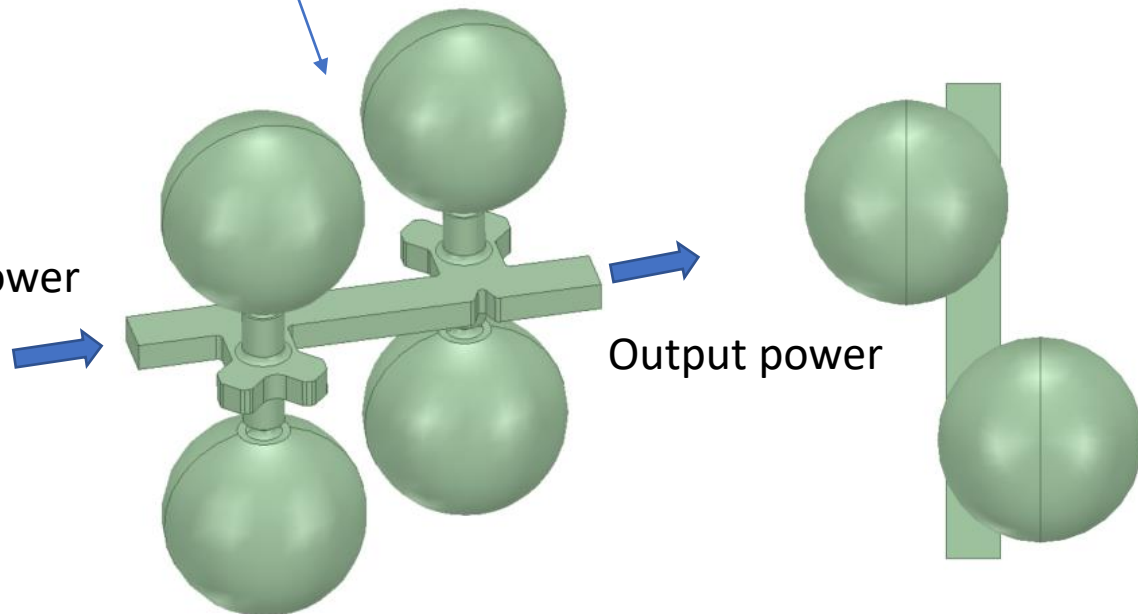
# Pulse compression system for klystron-based CLIC

Correction Cavities

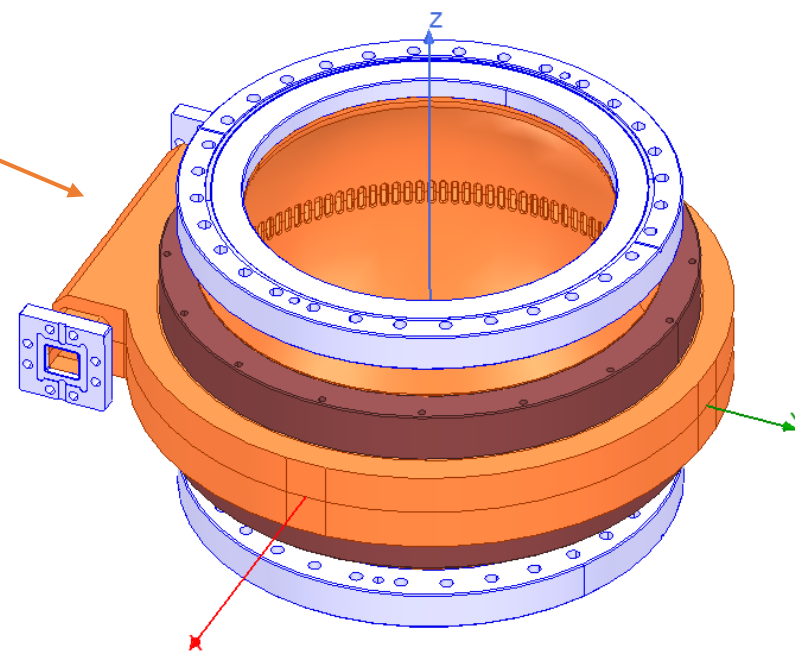
Storage Cavity



Input power

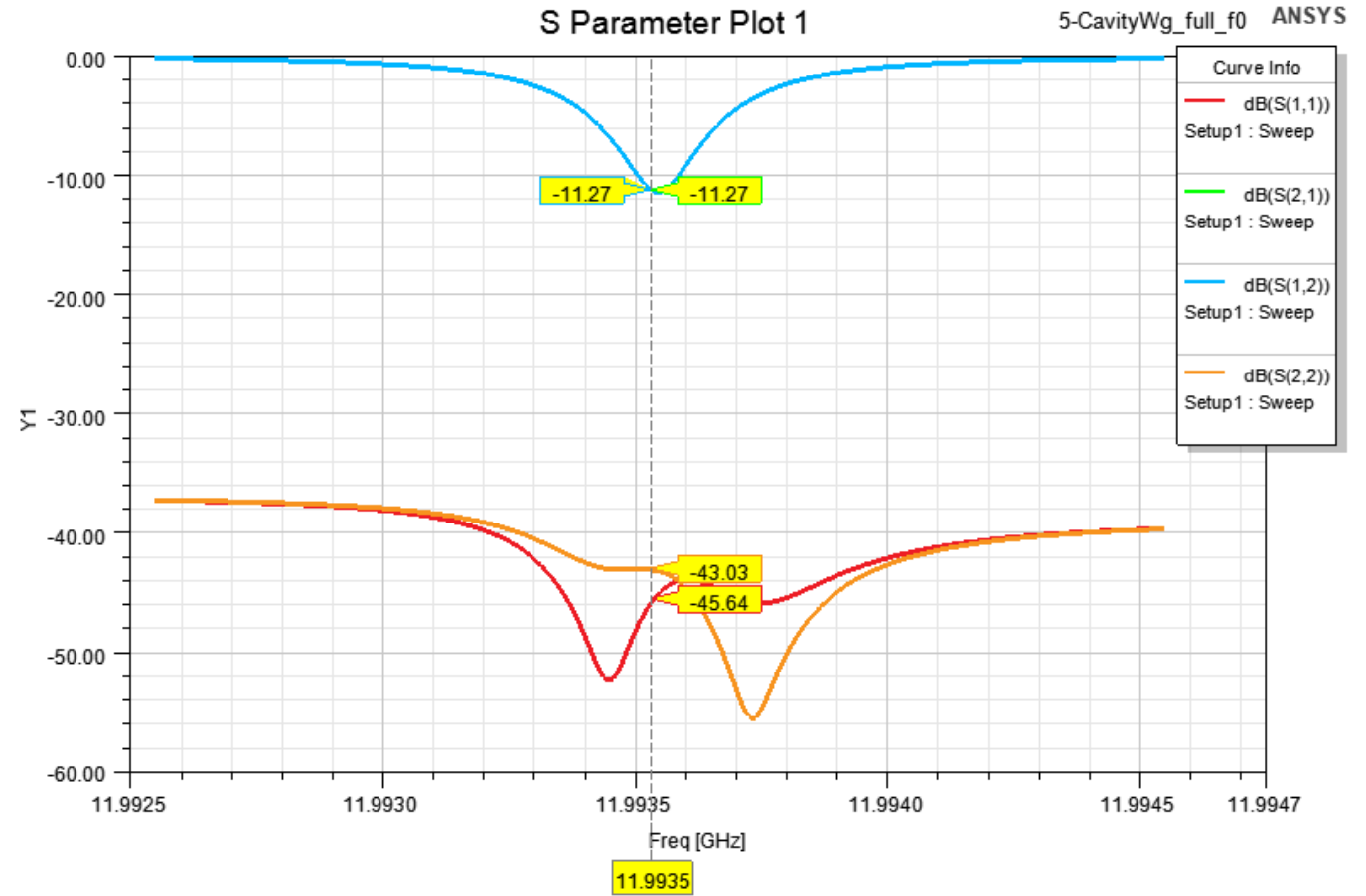
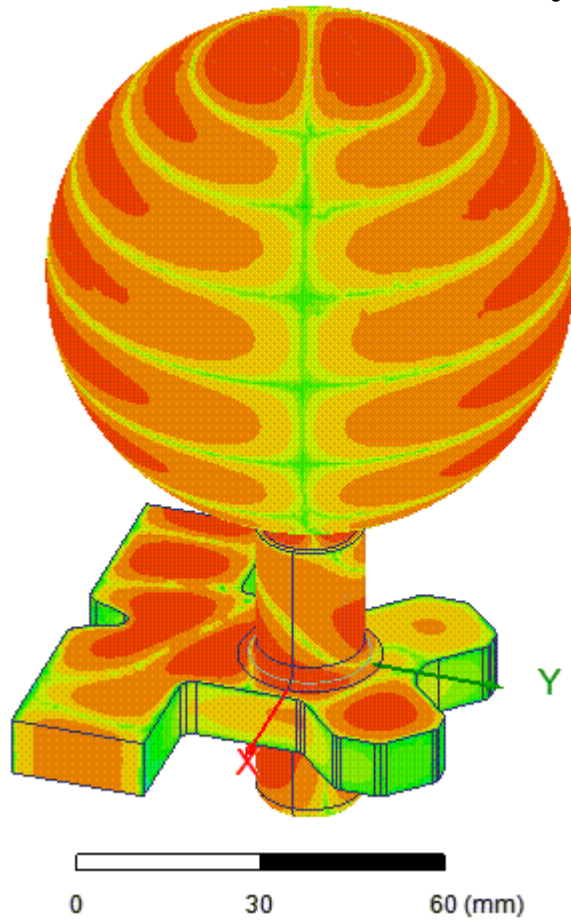


Output power



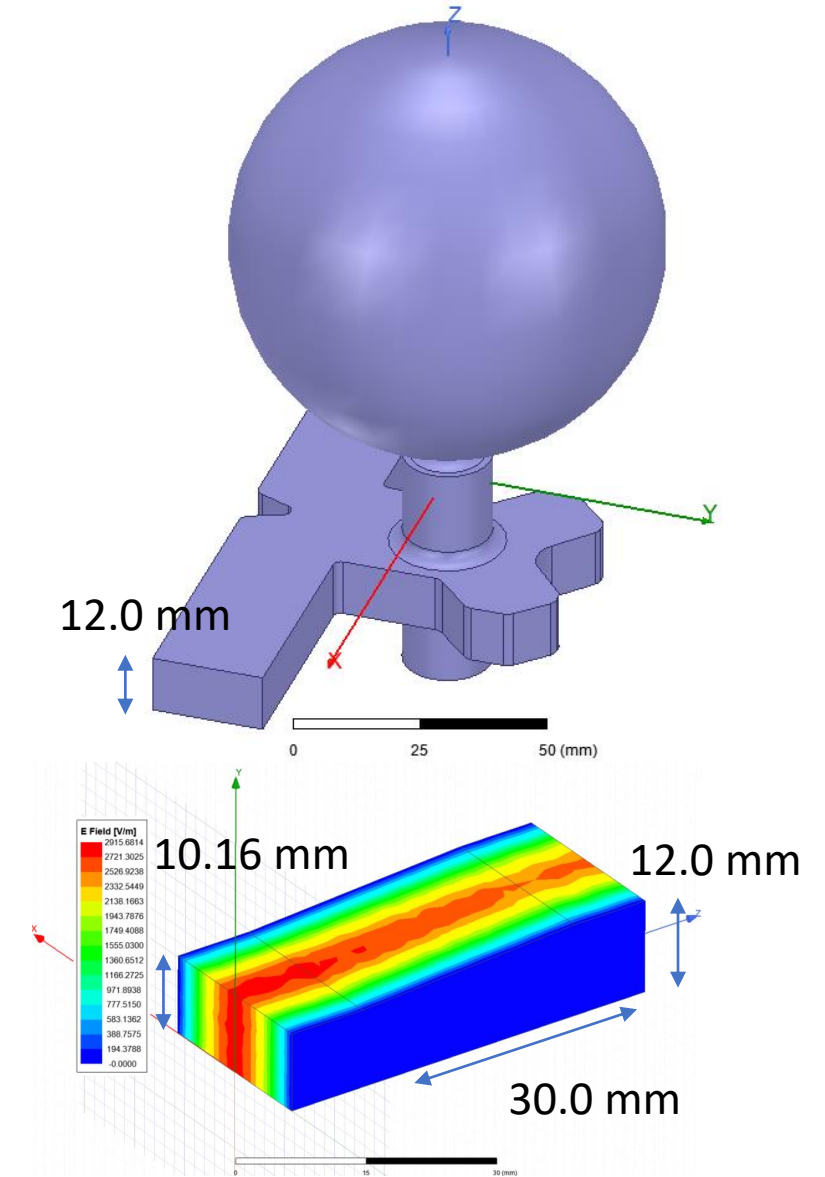
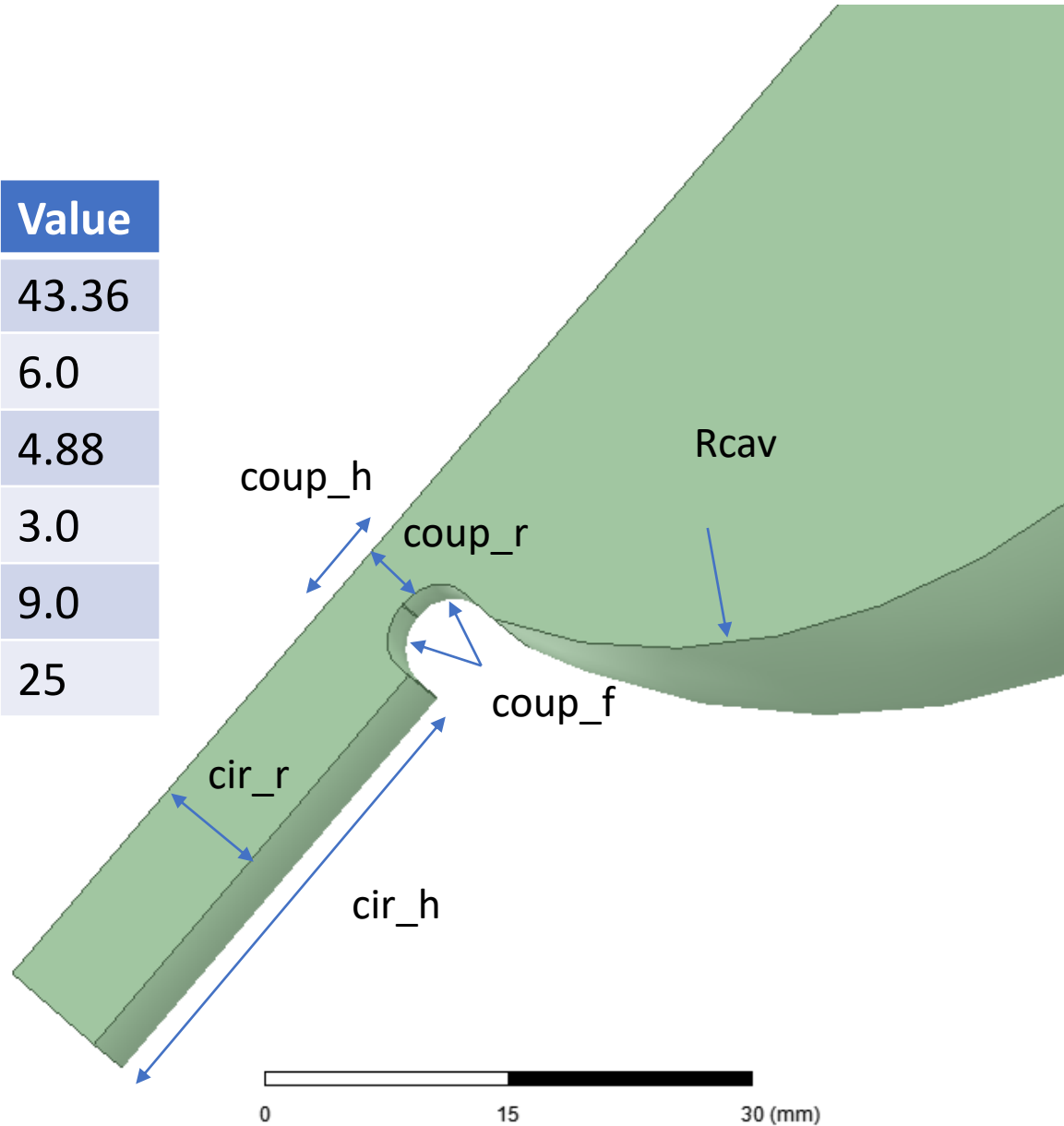
# Prototype of the first correction cavity

- $Q_0=70936$
- $\text{Beta}=1.75$

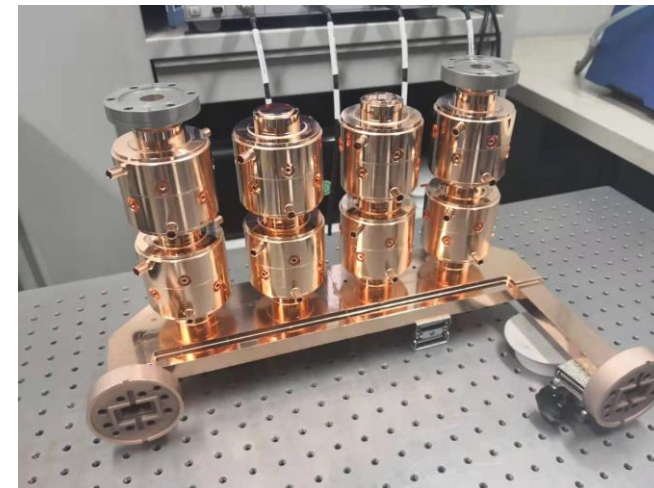
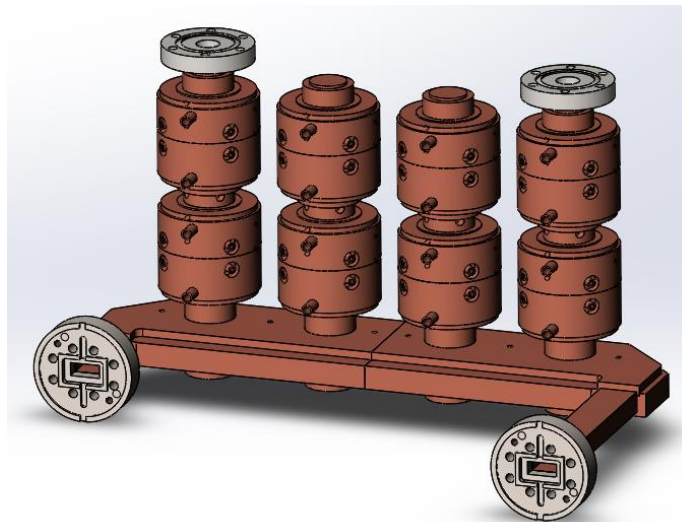
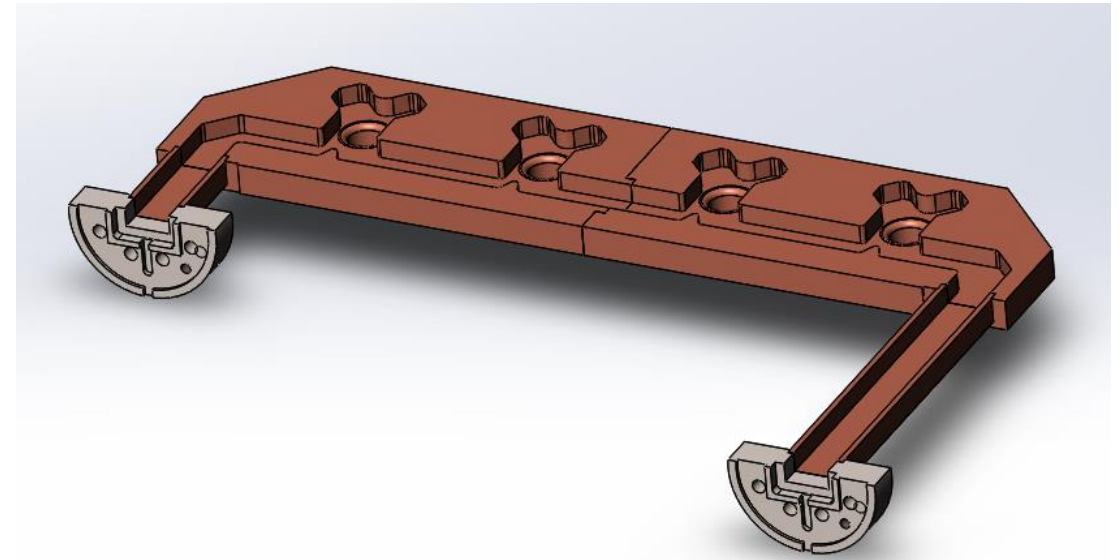
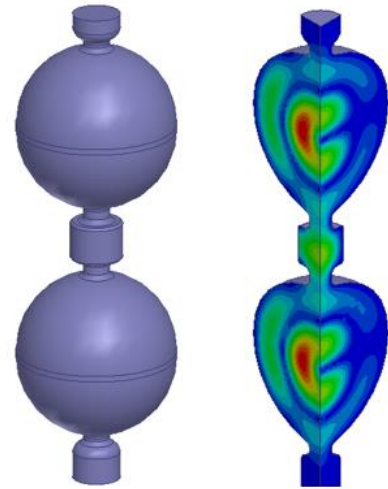
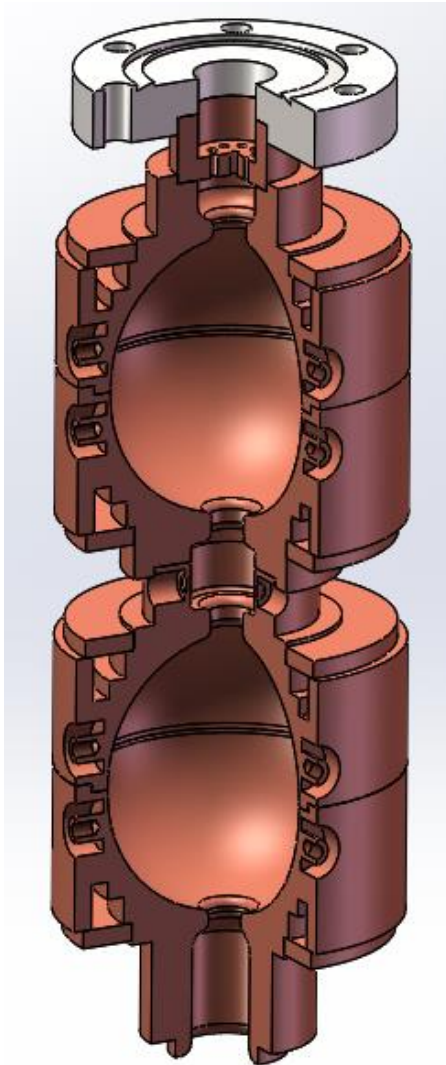


# Main parameters of the spherical cavity

Parameters	Value
Rcav [mm]	43.36
coup_h [mm]	6.0
coup_r [mm]	4.88
coup_f [mm]	3.0
cir_r [mm]	9.0
cir_h [mm]	25



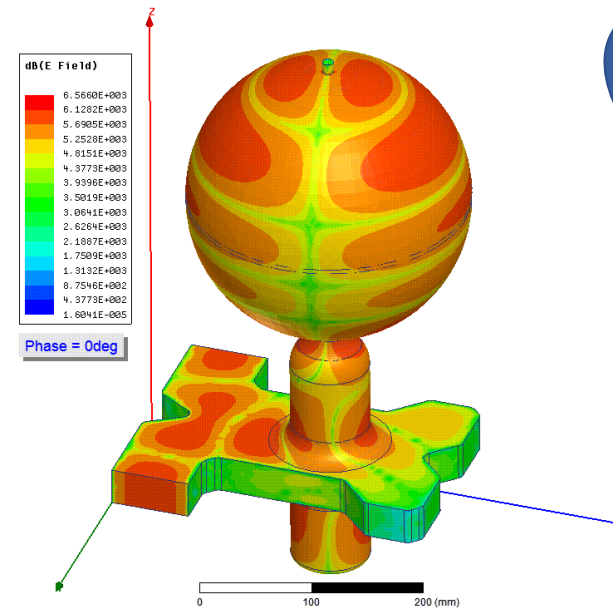
# Reference mechanical design





## Step 1: First prototype

- One RF rotator
- One spherical cavity
- Two tapers from 12 mm to 10.16mm
- Only one proposed tuning hole on the top the cavity



## Step 2: Correction cavity chain

- Two RF rotators
- Four spherical cavities
- Two tapers from 12mm to 22.32 mm

