



IFIGENEIA

Innovative Facility for Isotope GENERation
with Efficient Ion Accelerator

Deliverable D3.1 - LINAC-RFQ prototype design

Dimitrios Lamboudis

YFOS

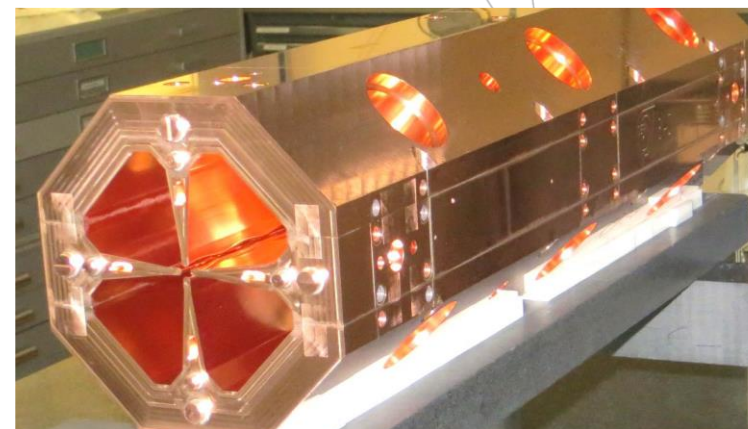
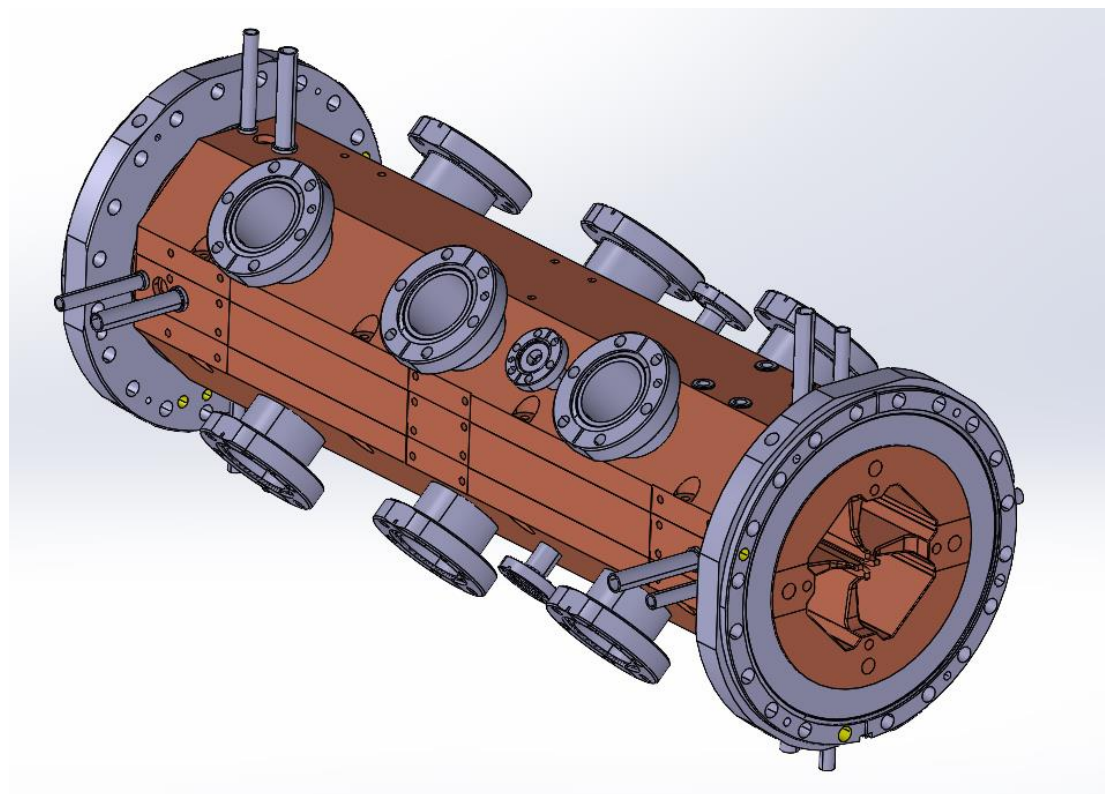


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Research and Innovation Programme under the Grant Agreement No.101186921.



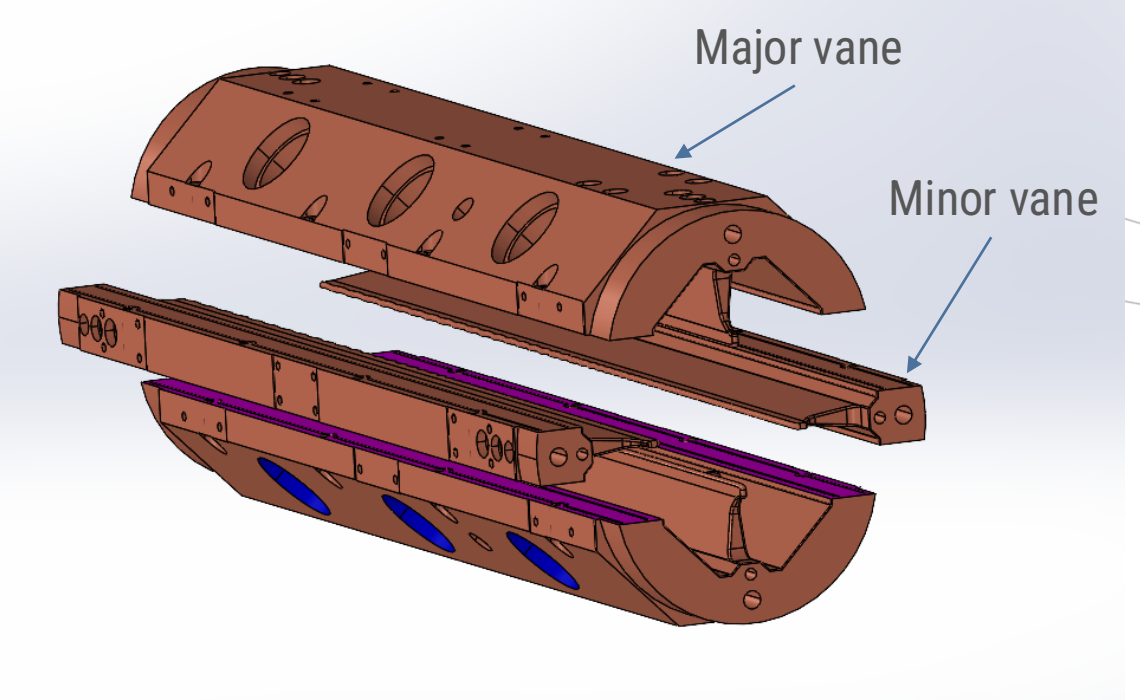
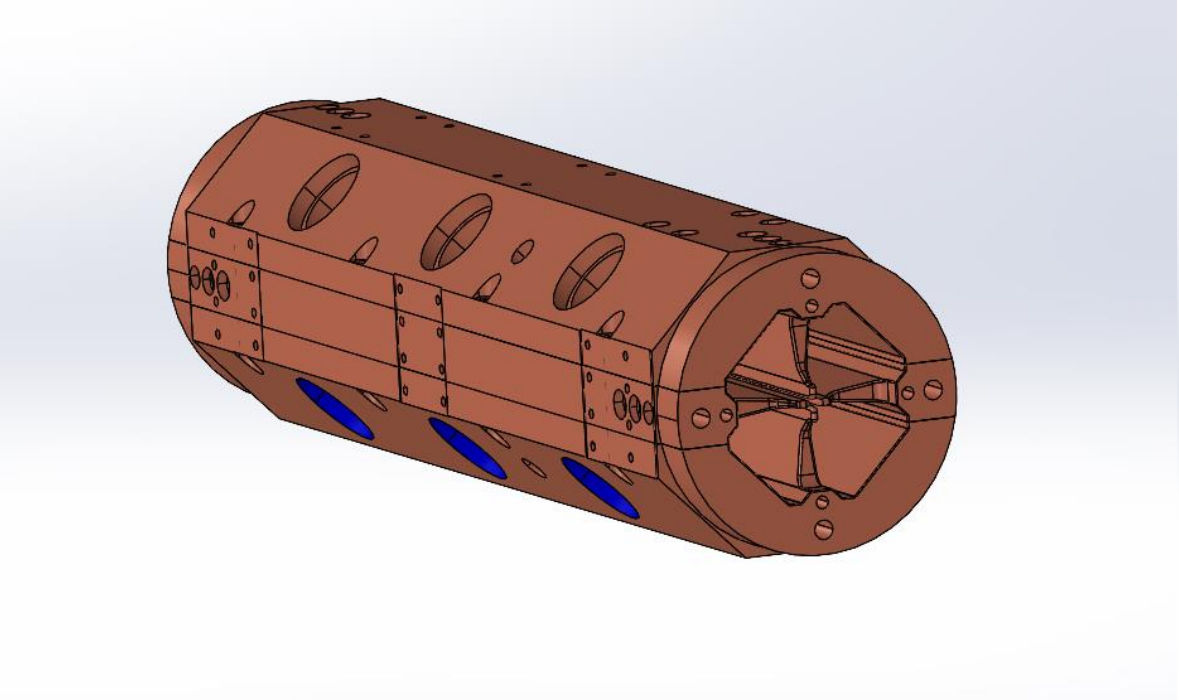
LINAC-RFQ Prototype

All the information presented regarding the drawings, the machining strategy, the heat treatment and the technical specifications, have been provided by CERN.



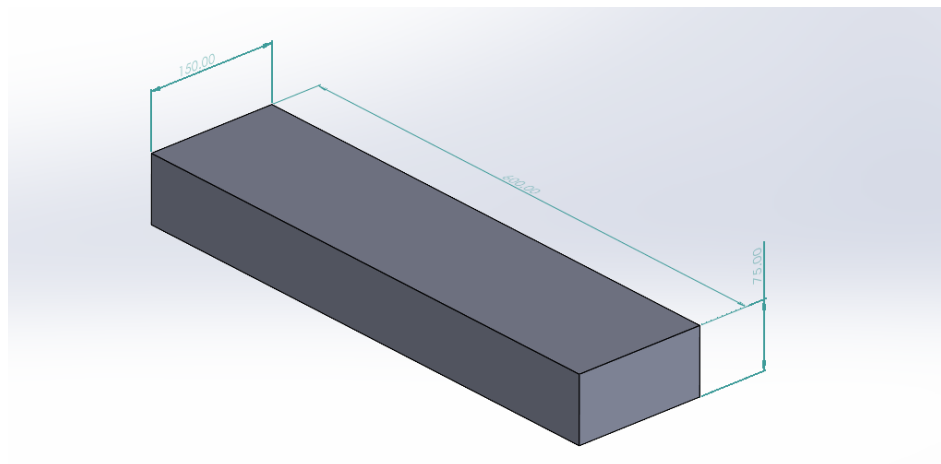


LINAC-RFQ Prototype

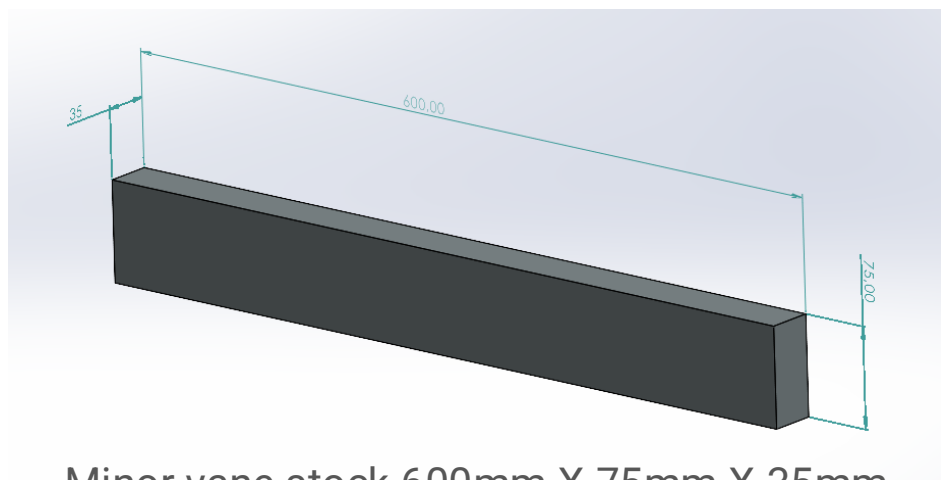




Stock material specifications

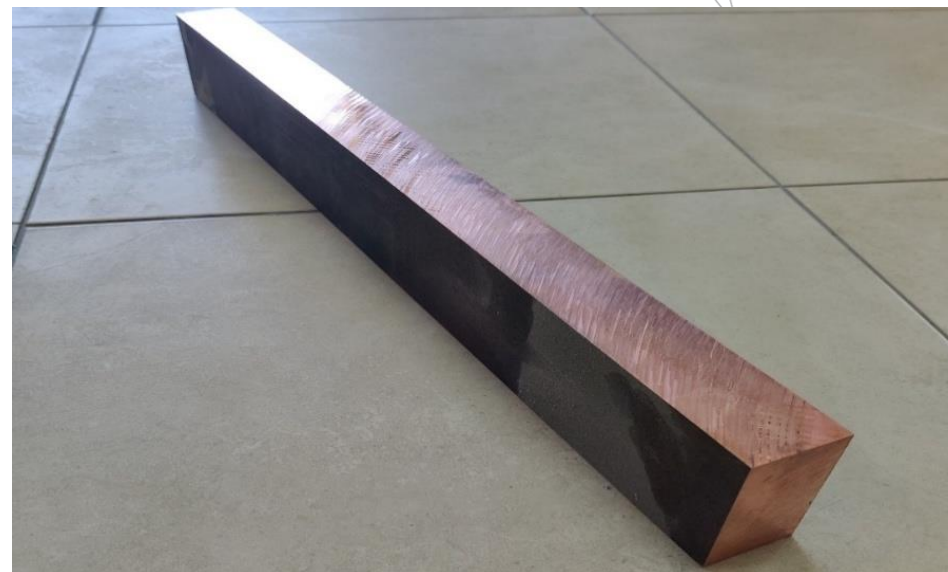


Major vane stock 600mm X 150mm X 75mm



Minor vane stock 600mm X 75mm X 35mm

Minor vane stock provided by LUVATA Pori



Technical Specification

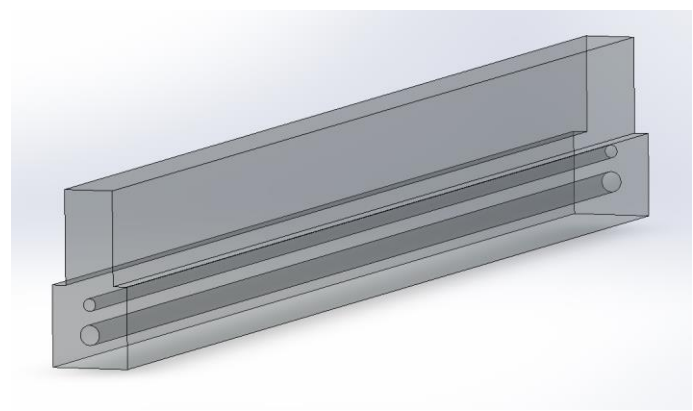
N° 2001 - Ed. 8
EDMS No: 790779

Oxygen-Free Electronic copper
Bars/blanks/ingots

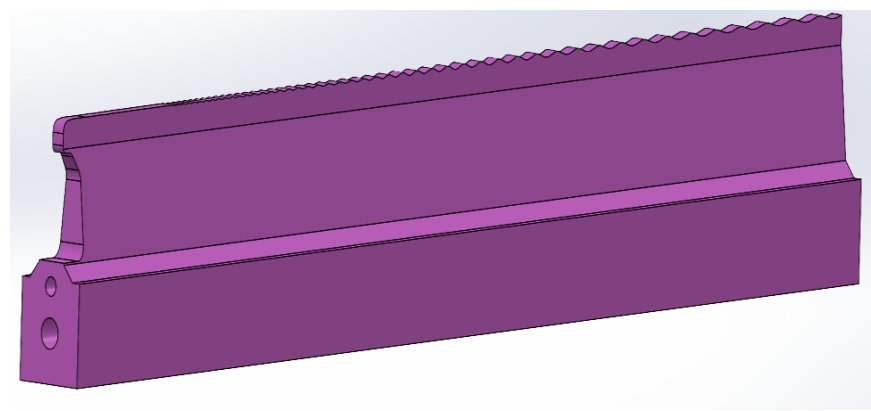
Cu-OFE



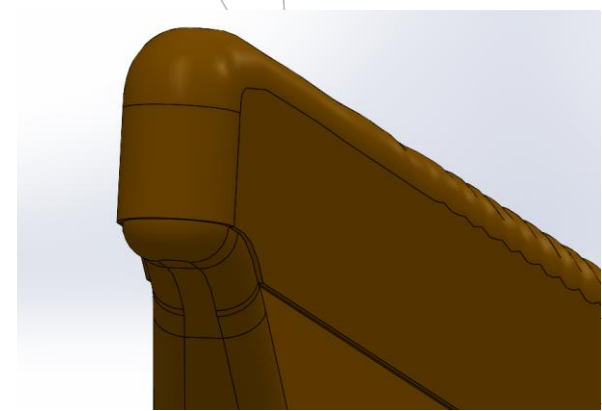
Minor vane machining stages



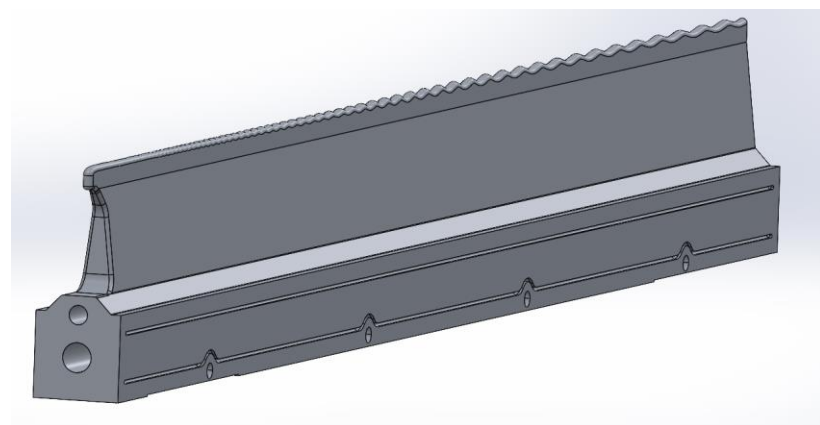
Pre-rough machining 3mm offset



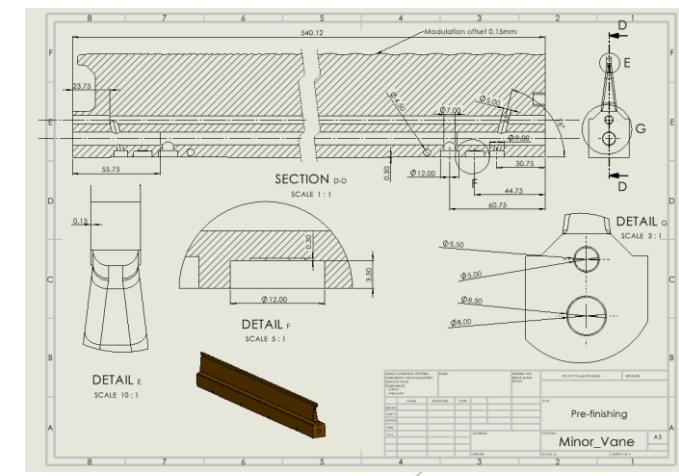
Rough machining 1mm offset



Pre-finishing, 0.15mm excess material on the modulation



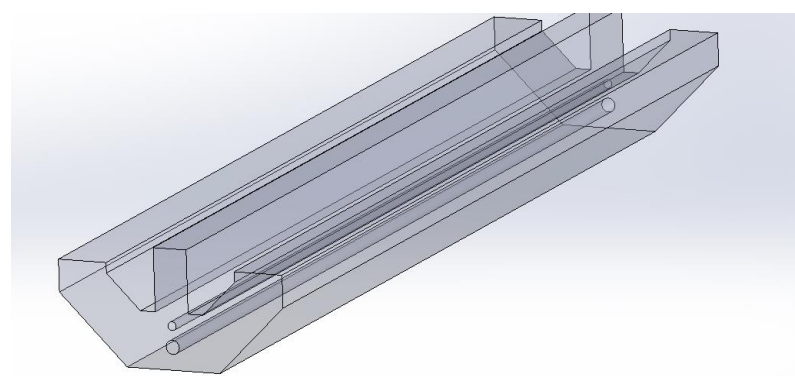
Finished minor vane before brazing



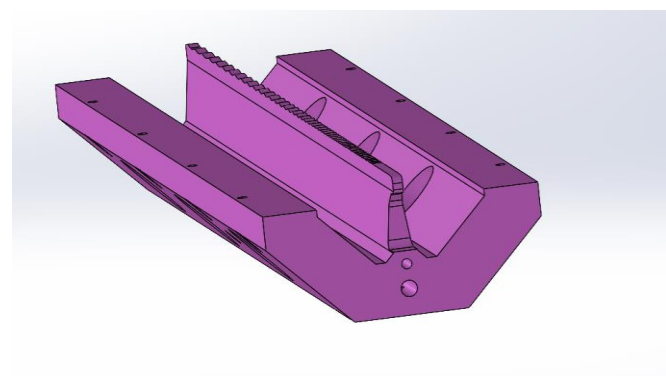
Pre-finishing, mechanical drawing



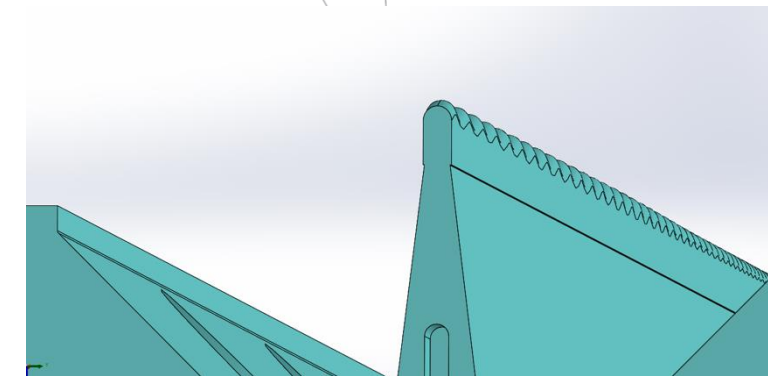
Major vane machining stages



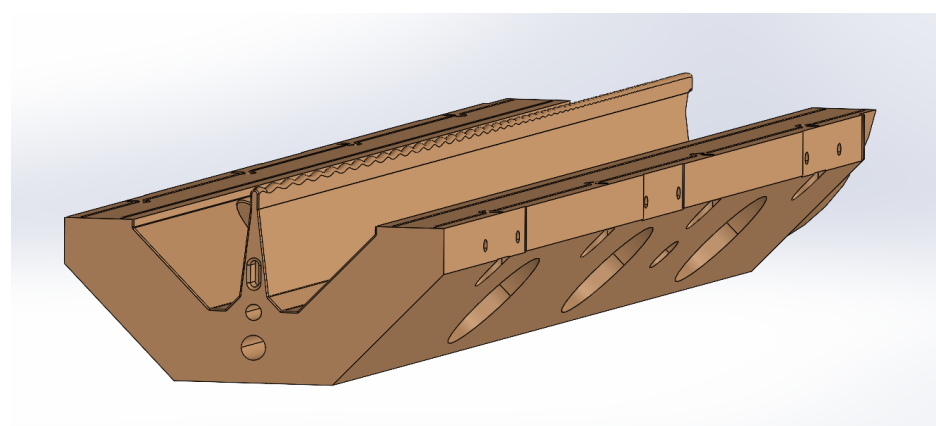
Pre-rough machining 3mm offset



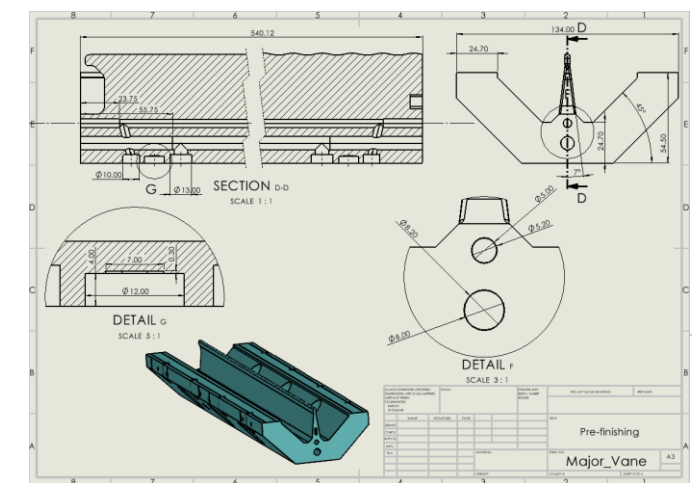
Rough machining 1mm offset



Pre-finishing, 0.15mm excess material on the modulation

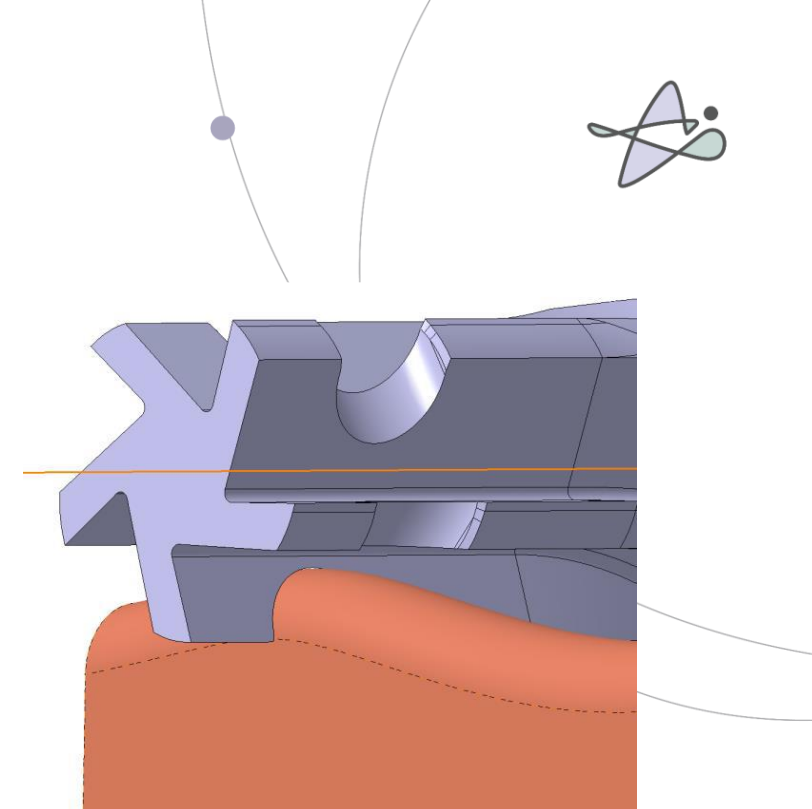


Finished minor vane before brazing



Pre-finishing, mechanical drawing

Modulation machining principle



Modulation finishing principle



Heat treatment

The heat treatment processes between the machining stages will take place in a vacuum oven provided by our external partner MATREX.



Thank you for your attention



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