



This project has received funding from the European Union's Horizon 2020 Research and Innovation programme under GA No 101004730.



## Task 9.2

### **iFAST WP9 task leader's remote meeting**

17 July 2024

Cristian Pira

iFAST

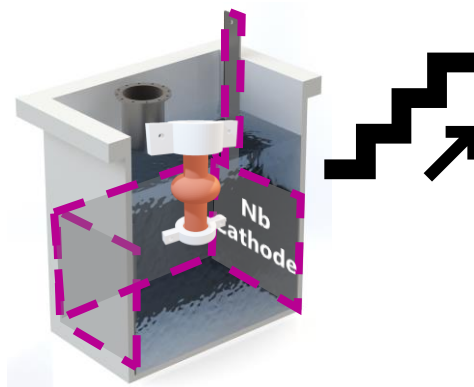


# 1.3 GHz PEP

- Successfully polished a tube with area > 1.3 GHz area
- Test on 1.3 GHz elliptical cavity soon



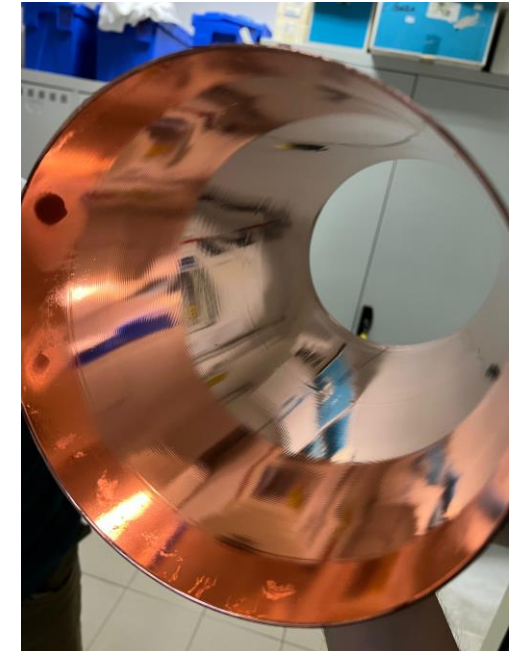
QWR Implant @LNL



6 GHz - 30 L



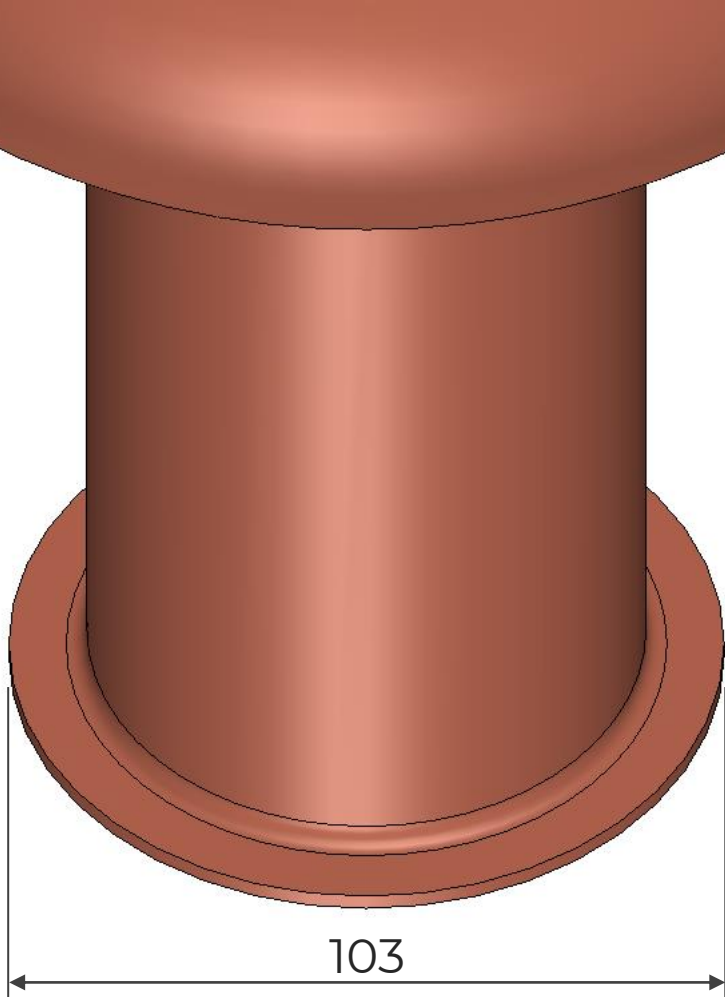
1.3 GHz - 300 L



2300 cm<sup>2</sup> internal tube area treated by PEP (150A<sub>2</sub>, 300V)

## 1.3 GHz cavity production

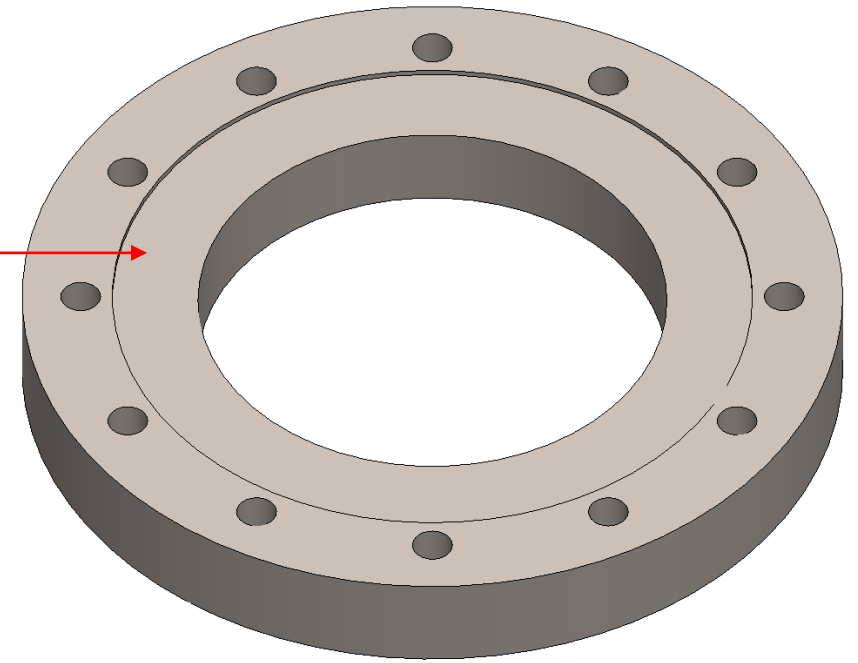
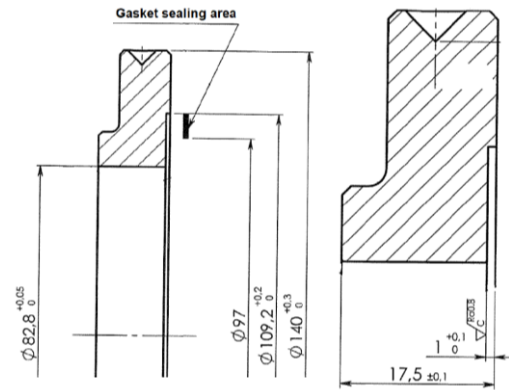
- OFE Cu to anneal at INFN (August)
- New full seamless design produced by Piccoli
- Adaptor flange commissioned
- In July/August Vacuum Test (possibly He test)



Lip at cut-off ends

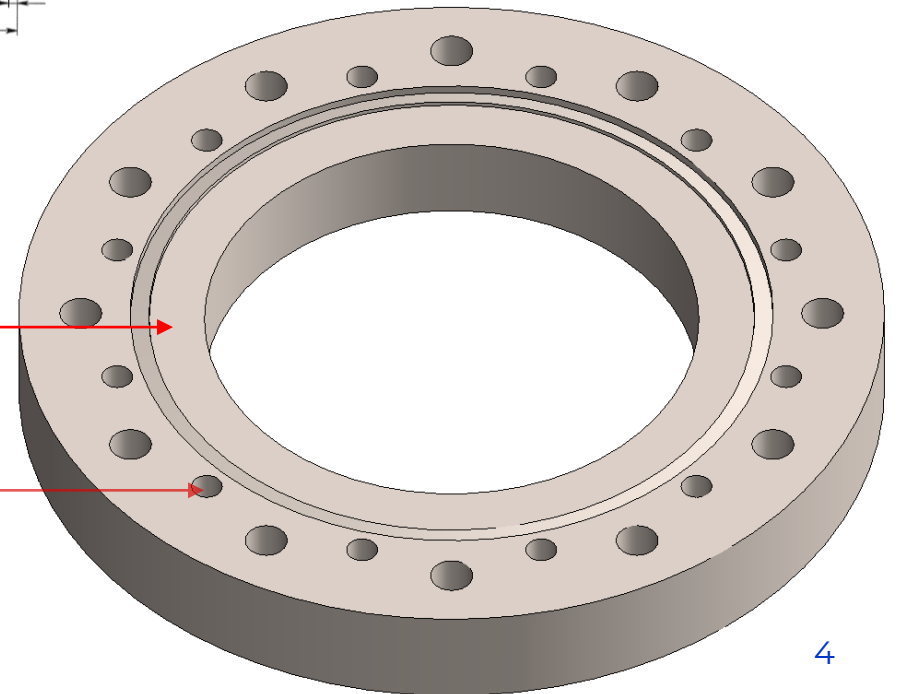
DESY specs  
side

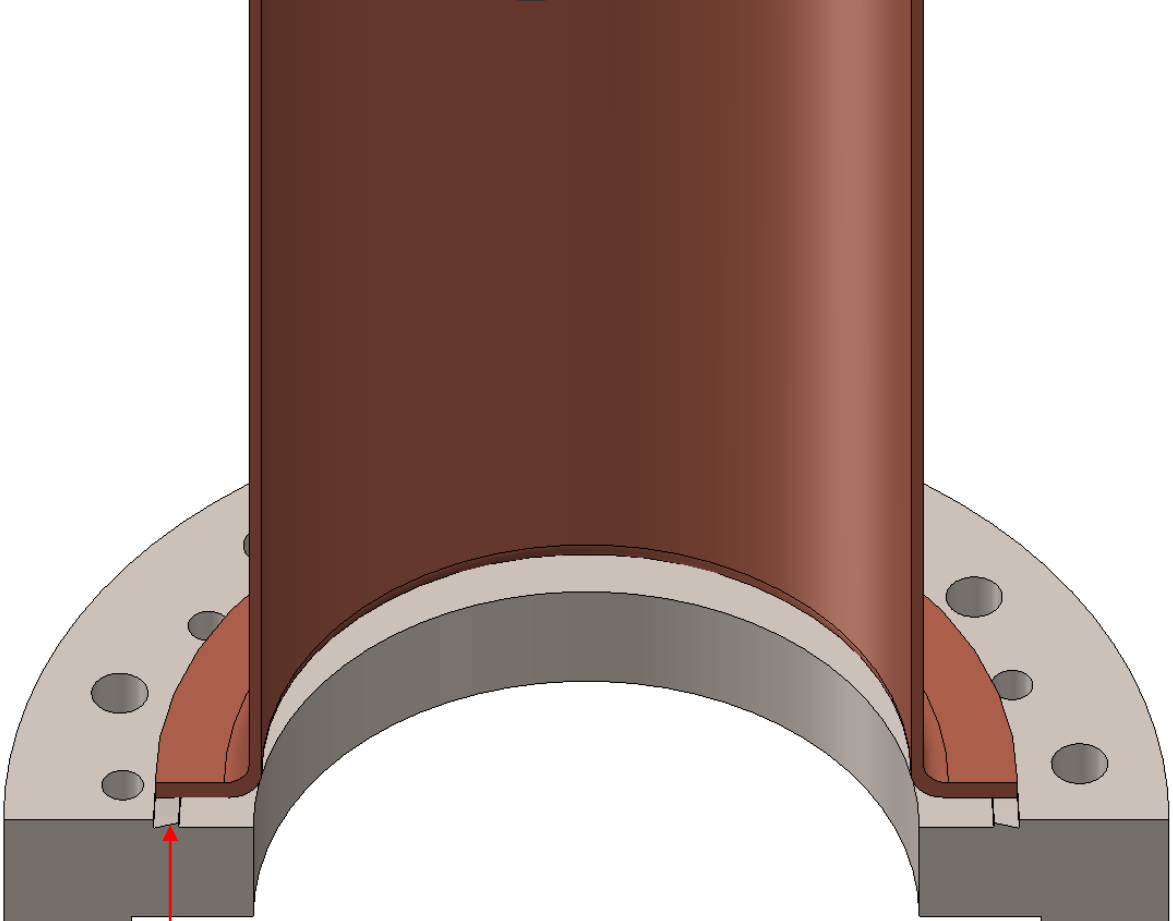
Flange body, sealing surface and tube welding  
Ref. Material is AISI 316LN ESR (1.4429)



Custom CF  
side

Threaded M6  
holes





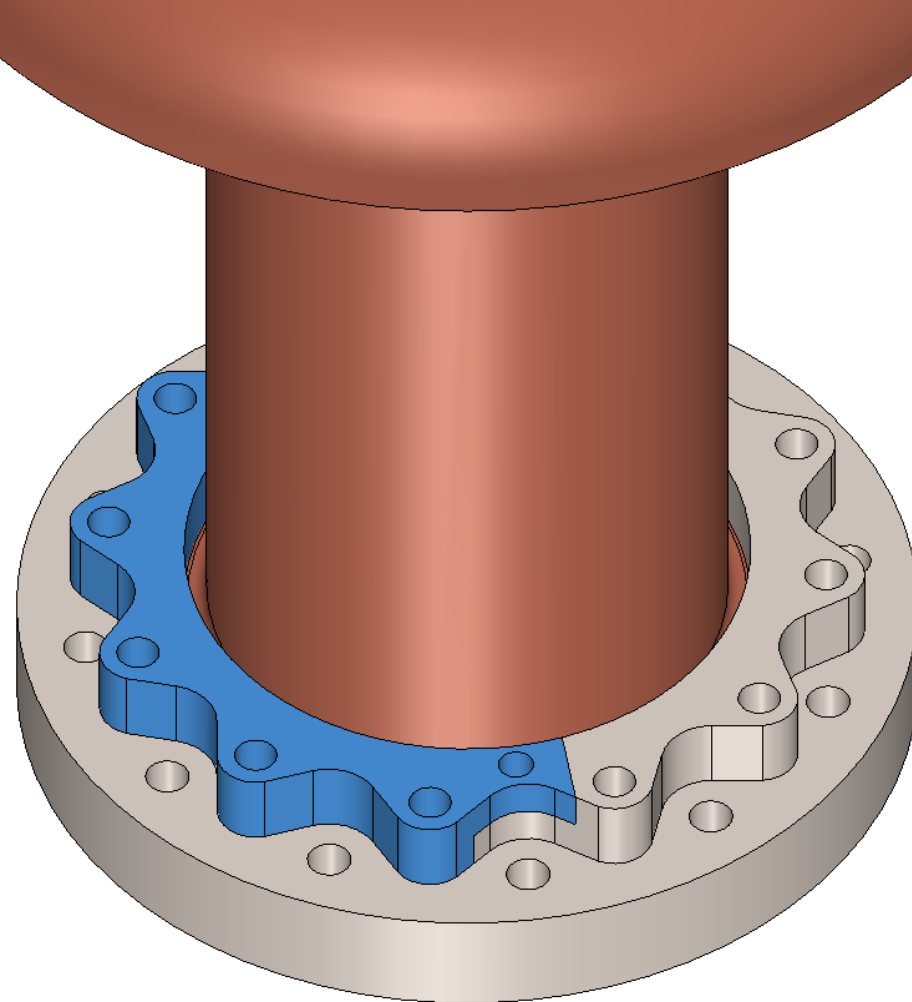
CF knife edge

DESY specs side/  
**Standard CF100**

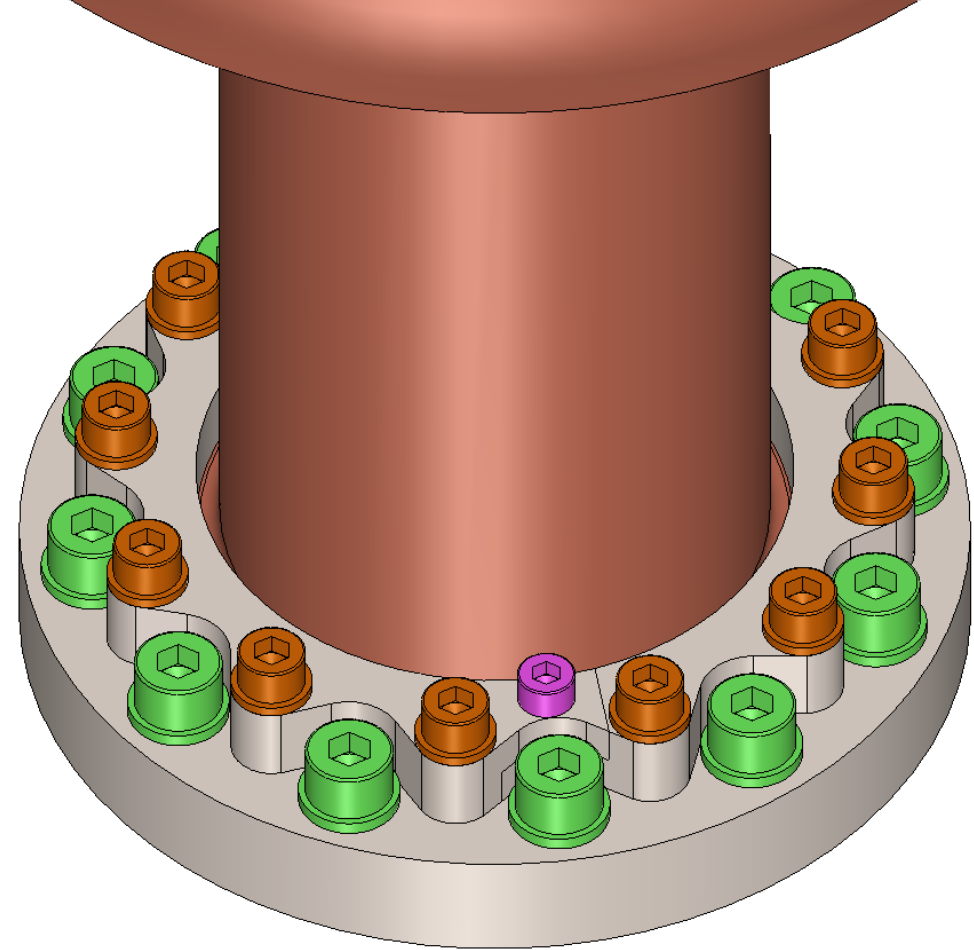
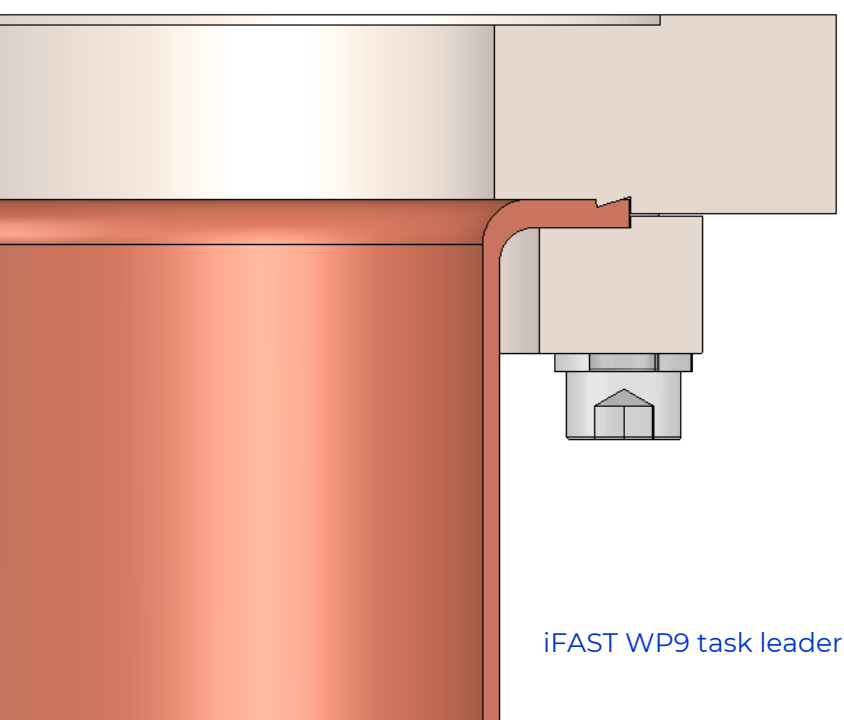
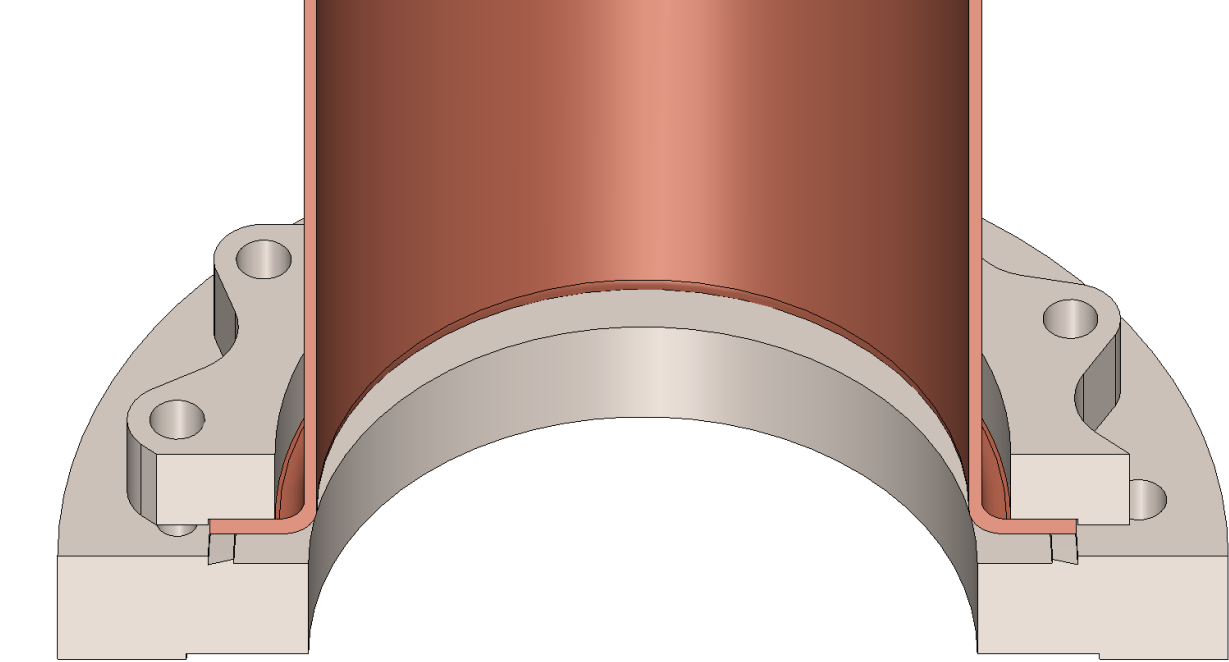
Cavity lip serves as vacuum gasket



iFAST WP9 task leader's remote meeting, 17 July 2024



*Star-shaped* centering ring  
Composed of two halves

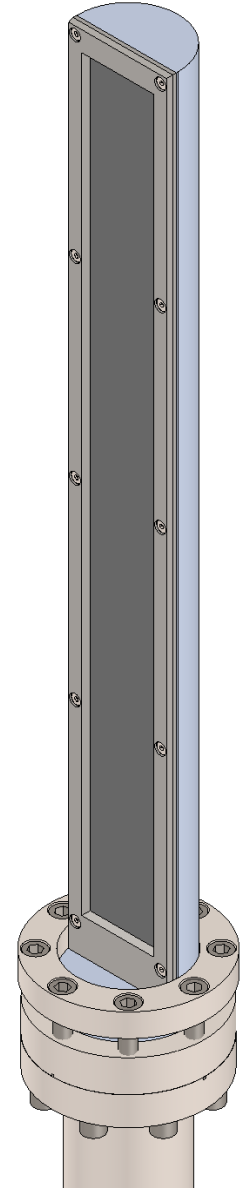


Screws types:

- **M5**
- **M6**
- **M8** (DESY specs)

## 1.3 GHz coating system

- Rectangular Magnetron commissioned
- October first test
- Very strictly with April 2025 deadline (an extension really would help)



# Showstoppers (Task 9.3)

- 6 GHz RF measurement system: issue with Signal amplifier → RF test not possible at the moment
- Dipping System (6 GHz target) not ready yet → Issue with inductors (does not reach the expected temperatures, the seller is working on it)



iFAST



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**Thanks for your attention**



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