# Rearrangement of the Low-Section

## Mechanical constrains in the PITZ beamline for charge measurements

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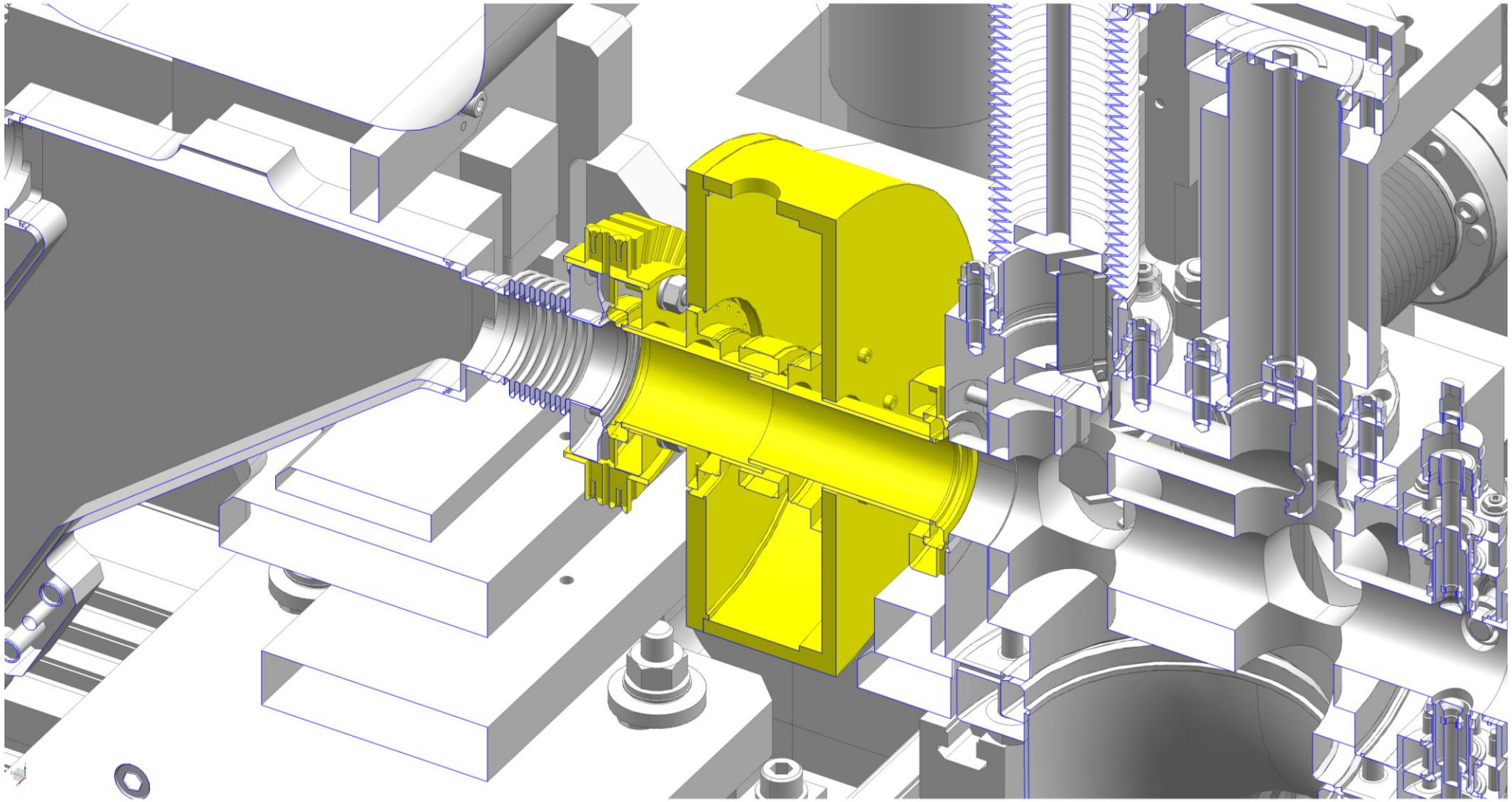
HELMHOLTZ RESEARCH FOR GRAND CHALLENGES

DESY.

# Options requested by Osip

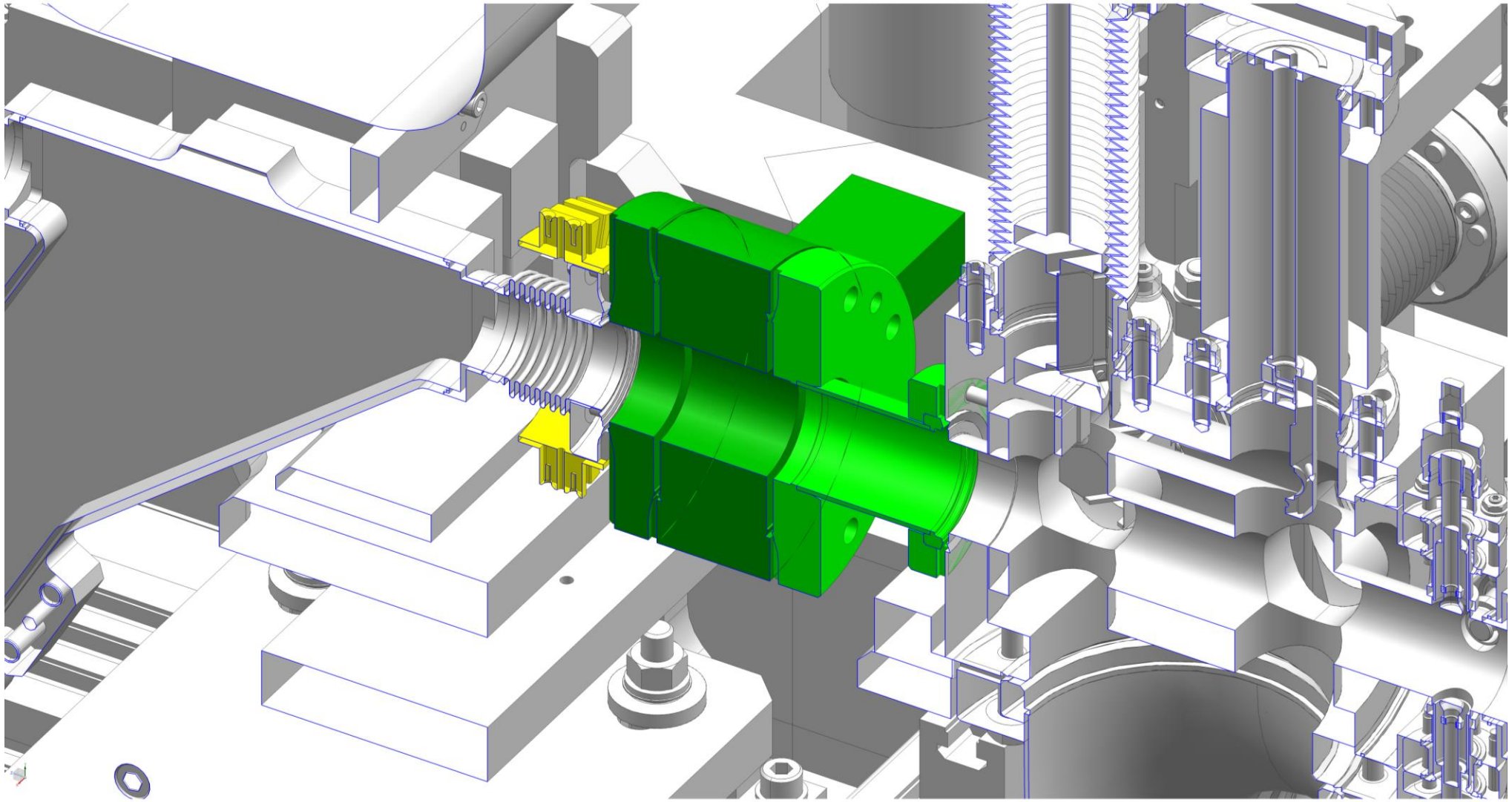
1. Replace Low.ICT with the Turbo-ICT
2. Replace the dark current monitor with a Toroid
3. Squeeze a Toroid next to the dark current monitor (by removing low.st5?)
4. Mount a Toroid and Turbo-ICT together instead of the dark current monitor

# Current situation around Low.ICT

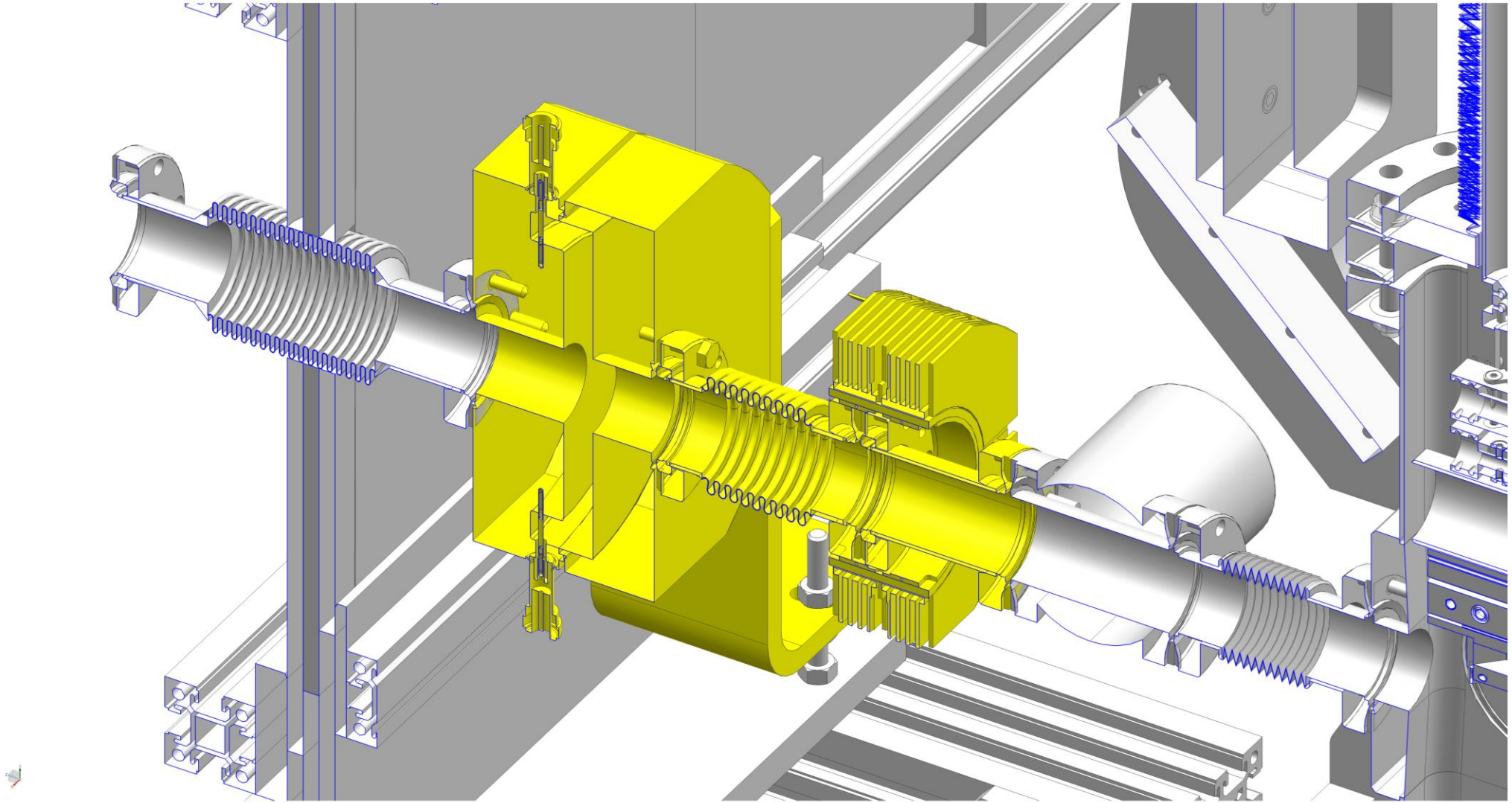


# 1. Replace Low.ICT with the Turbo-ICT

## In general possible → mounting of steerer to be looked into

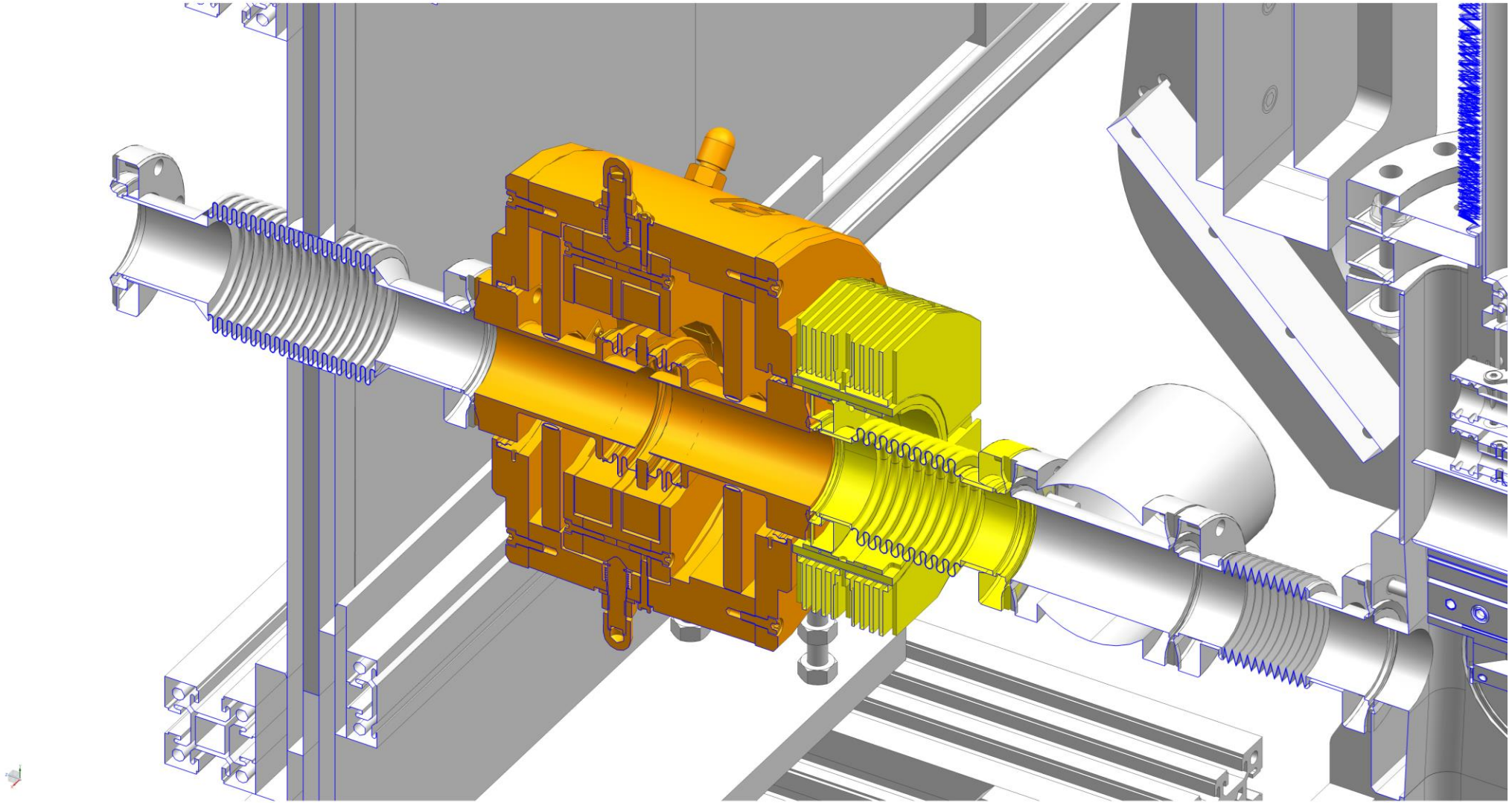


# Current situation around dark current monitor



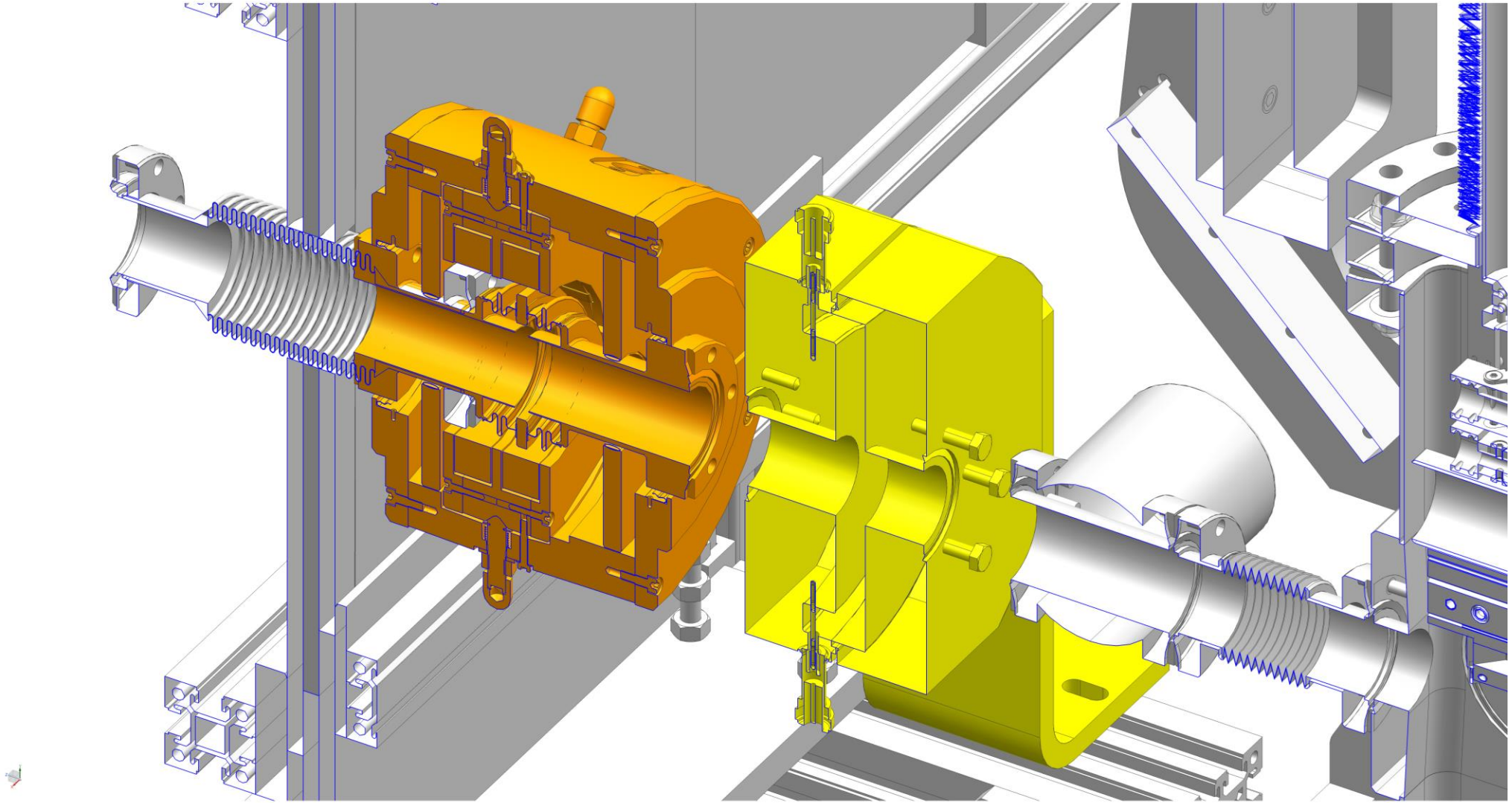
# 2. Replace the dark current monitor with a Toroid

**In general possible → frame for toroid + mounting of steerer to be looked into**



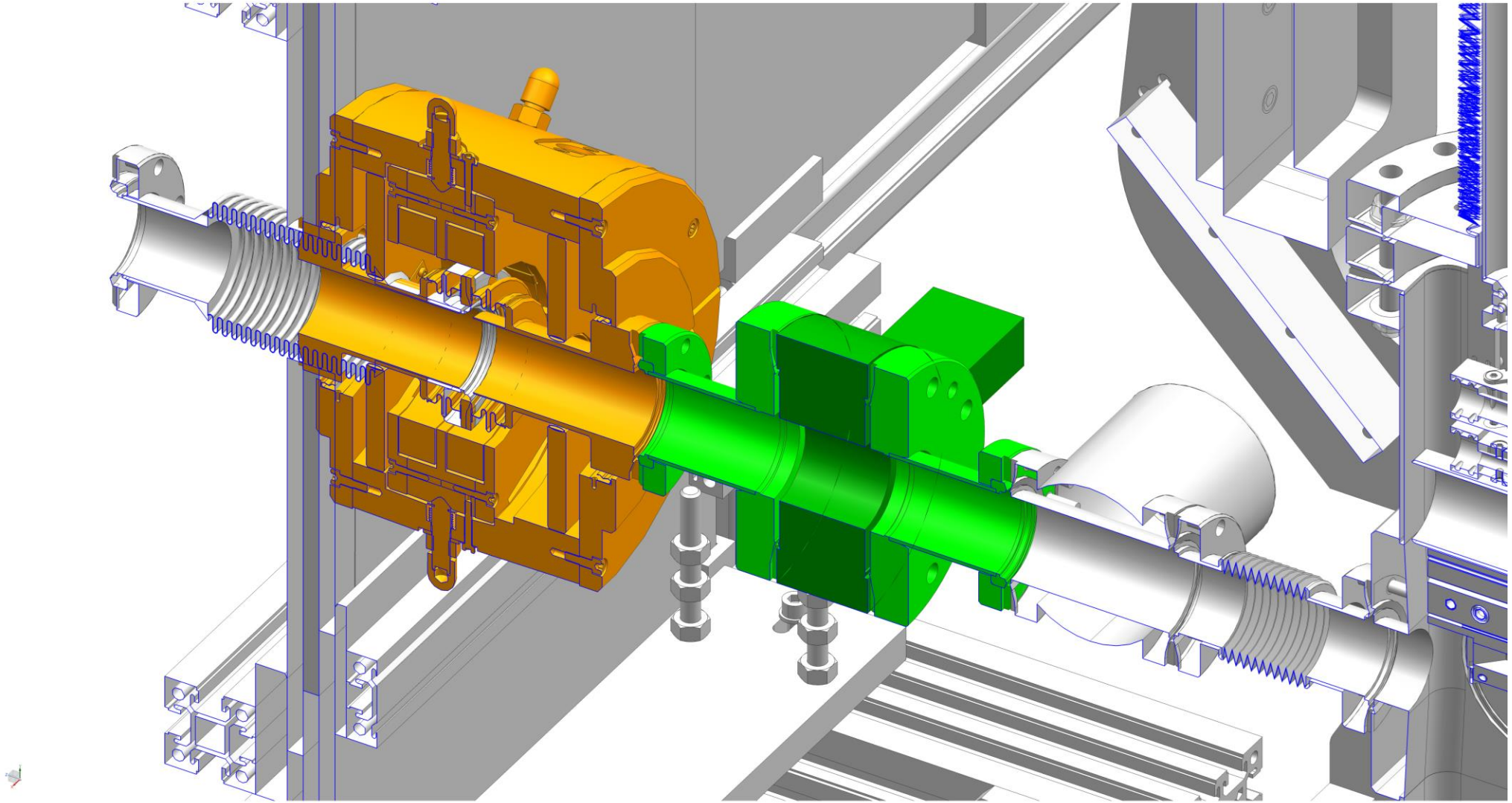
# 3. Squeeze a Toroid next to the dark current monitor

**Not possible due to threaded holes in all flanges → shielding wall would need to be removed**



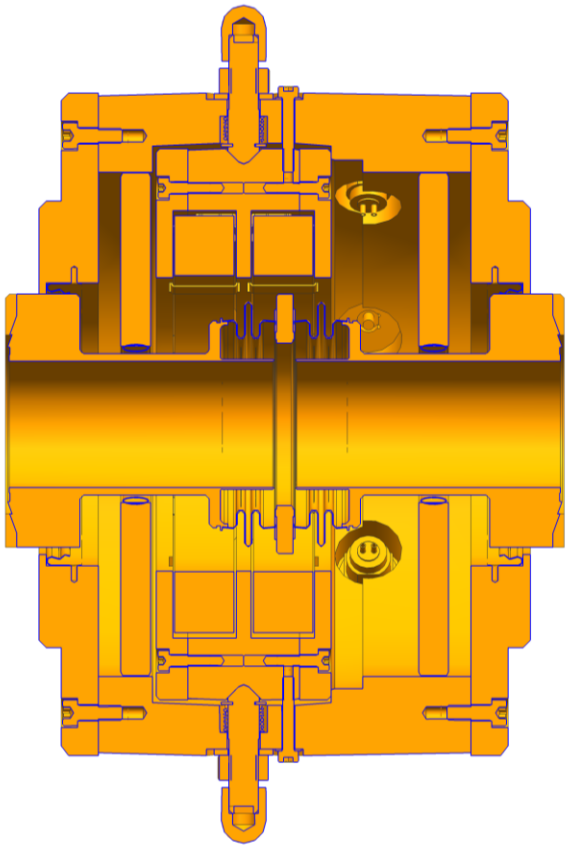
# 4. Mount a Toroid and Turbo-ICT

**Not possible due to threaded holes in all flanges → shielding wall would need to be removed**

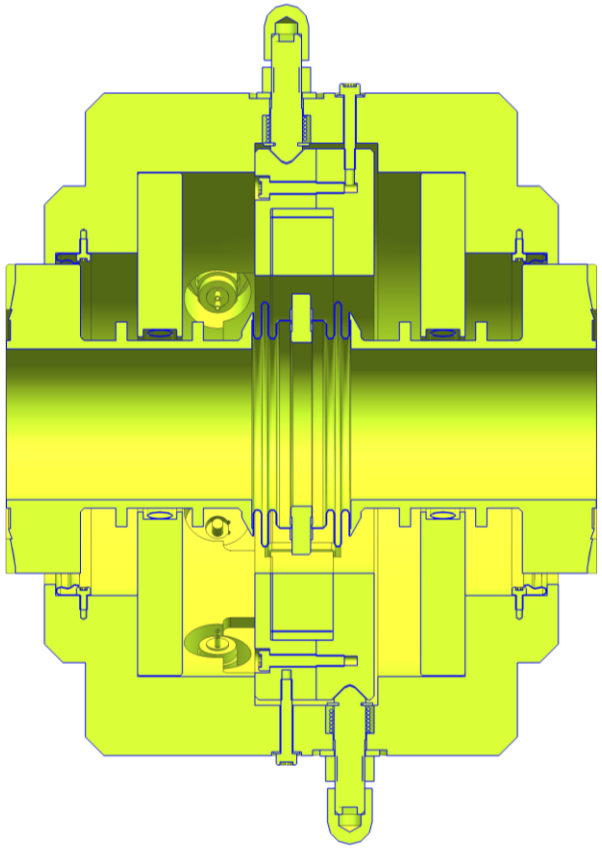


# Toroid comparison

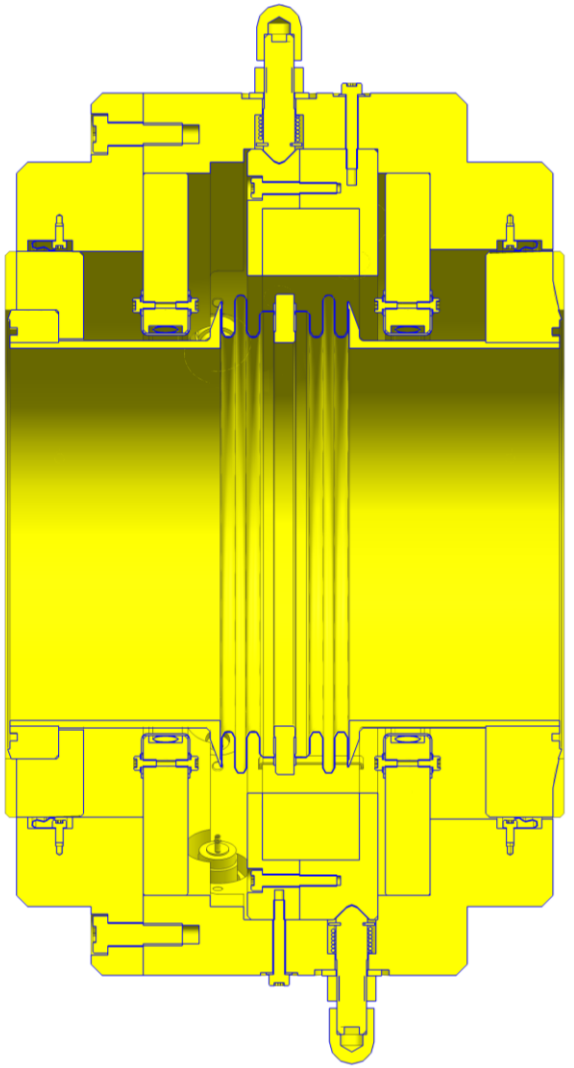
## Sinbad_TOR best as it provides DN40CF interfaces



SINBAD_TOR
DN40 Flange, ø34mm, L=150mm)



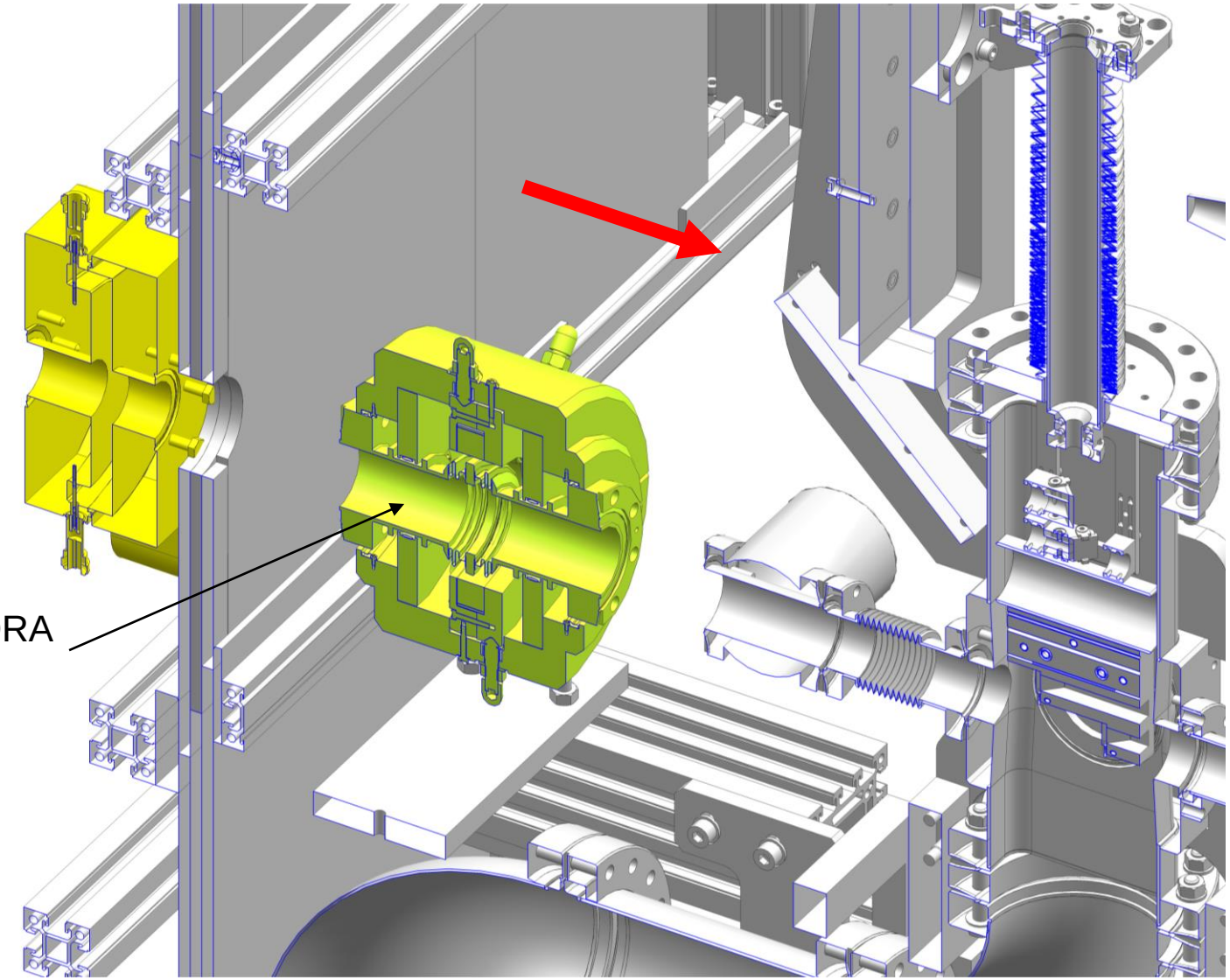
XFEL_TORA
DN50 Flange, ø40.5mm, L=158.6mm)



XFEL_TORC
DN100 Flange, ø94mm, L=150mm)

# Wished configuration from the meeting

## Check if it is possible to move the lead wall upstream and to put the DCM behind it



Due to availability XFEL_TORA should be used

# Thank you

## Contact

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