

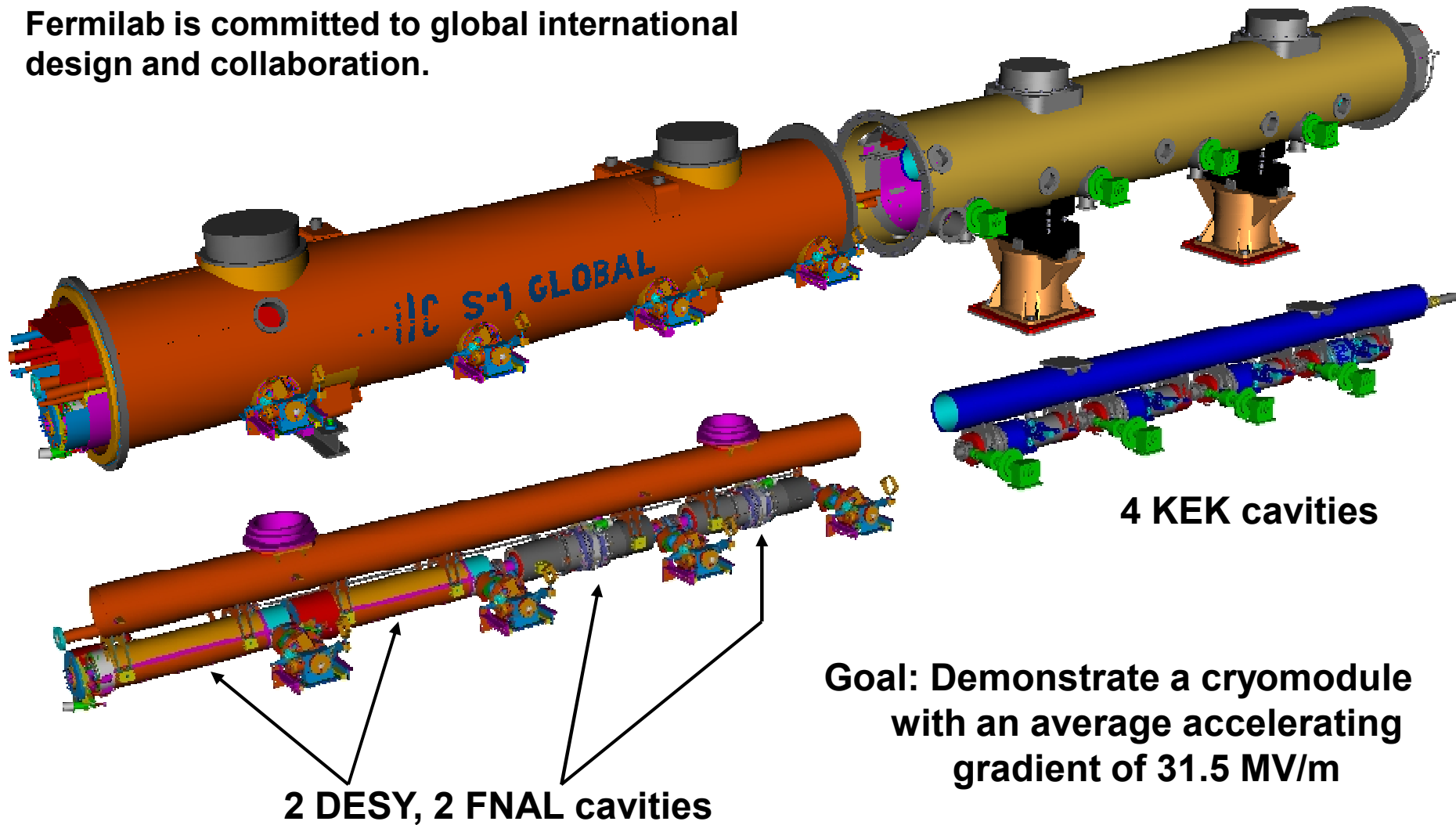


1.3 GHz FNAL Dressed Cavity

S-1 Global Deliverable to KEK

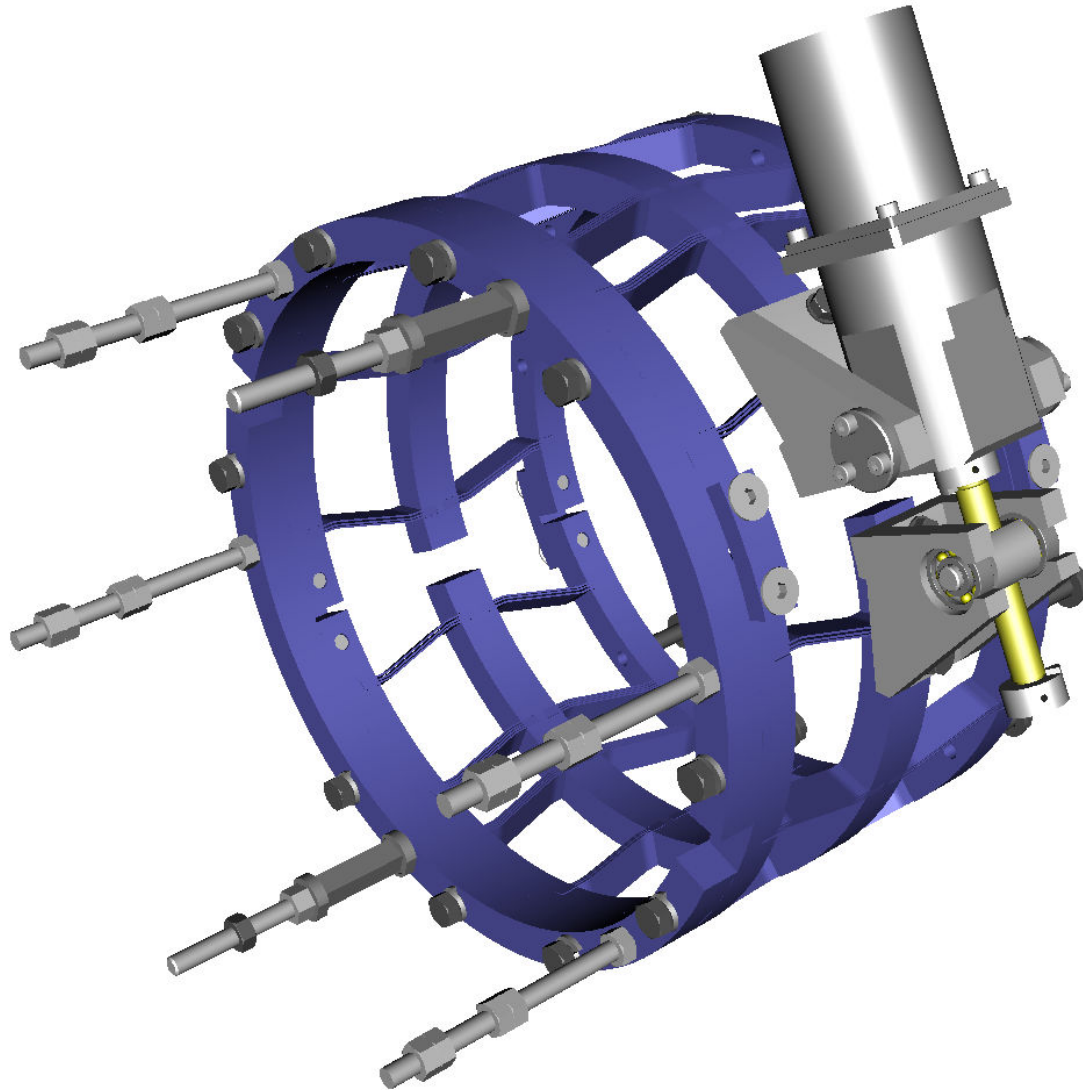
S1-Global Cryomodule

Fermilab is committed to global international design and collaboration.

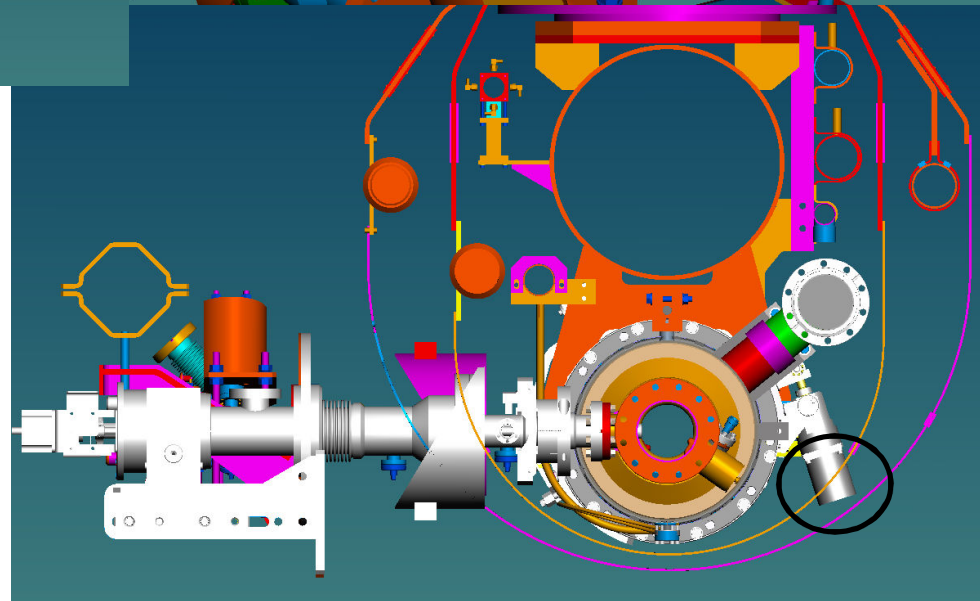
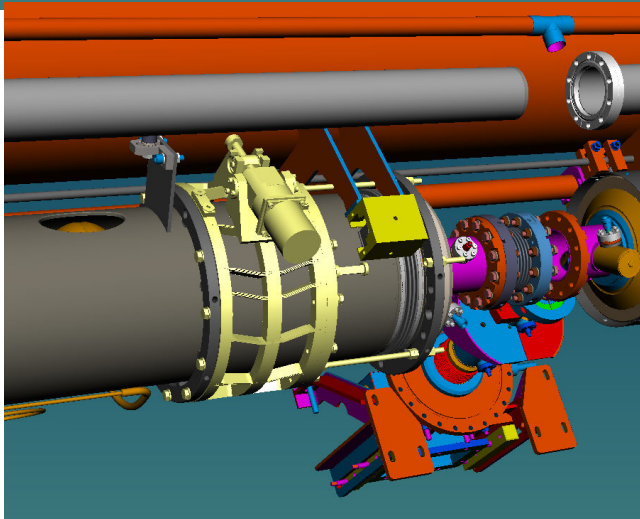
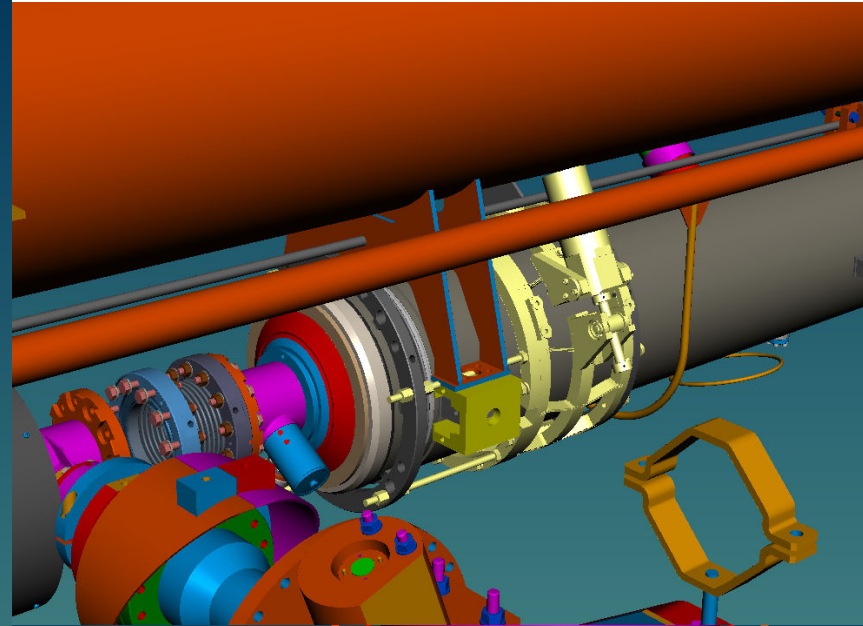
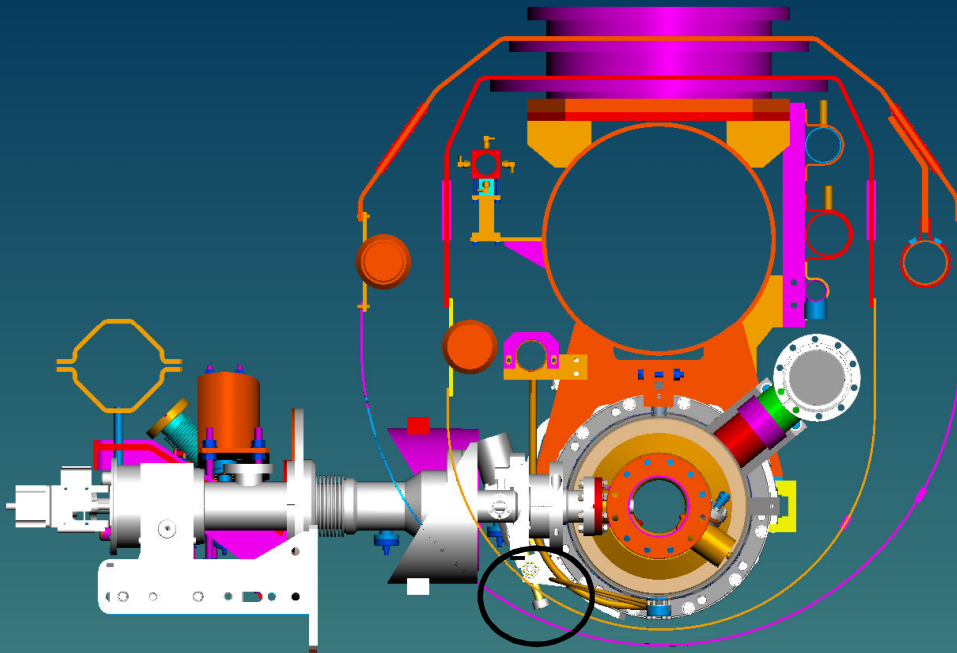


Goal: Demonstrate a cryomodule with an average accelerating gradient of 31.5 MV/m

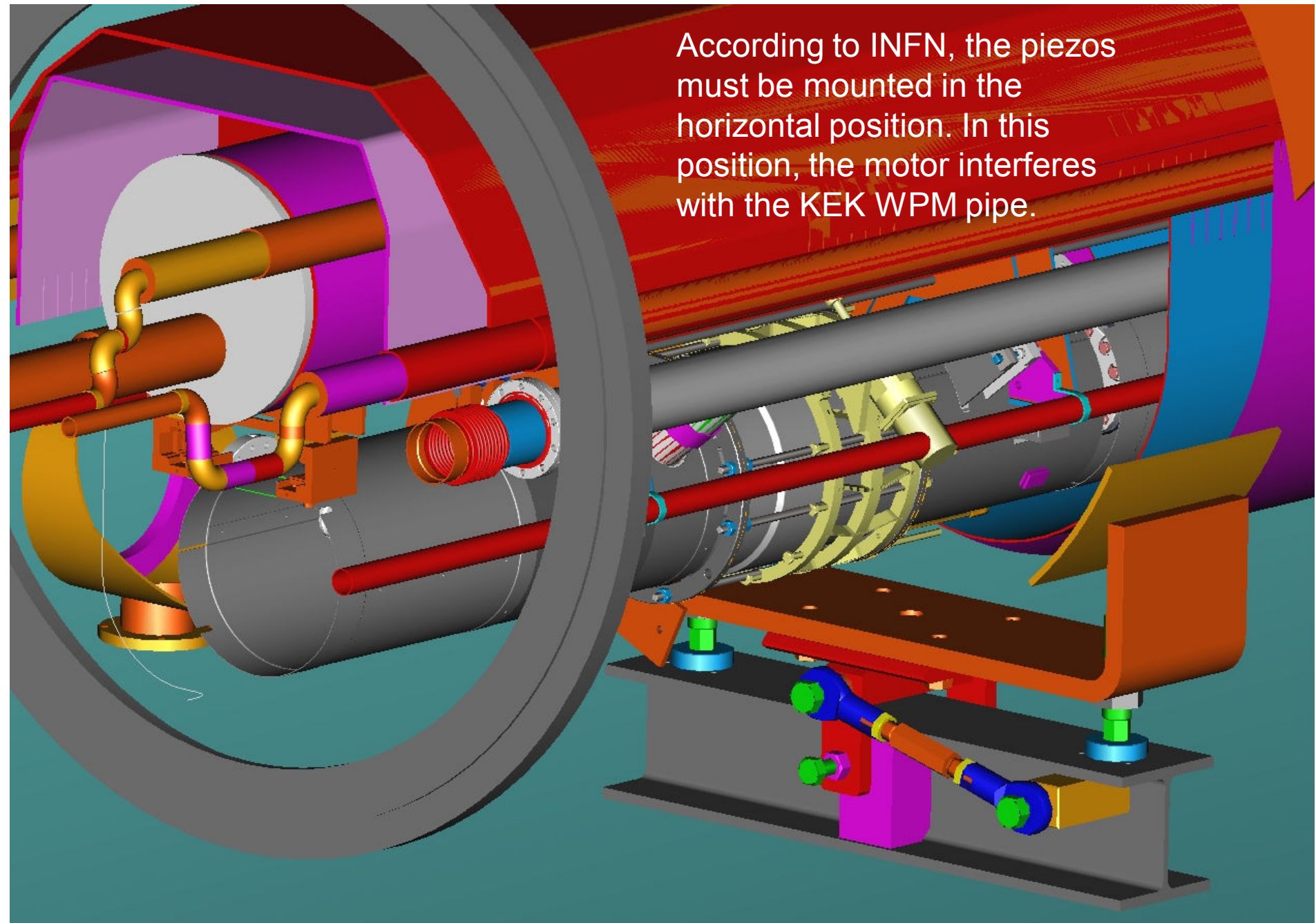
INFN Bladetuner Installation Issues with KEK WPM & Heat Shields



Motor Interference with Shield and KEK WPM Pipe

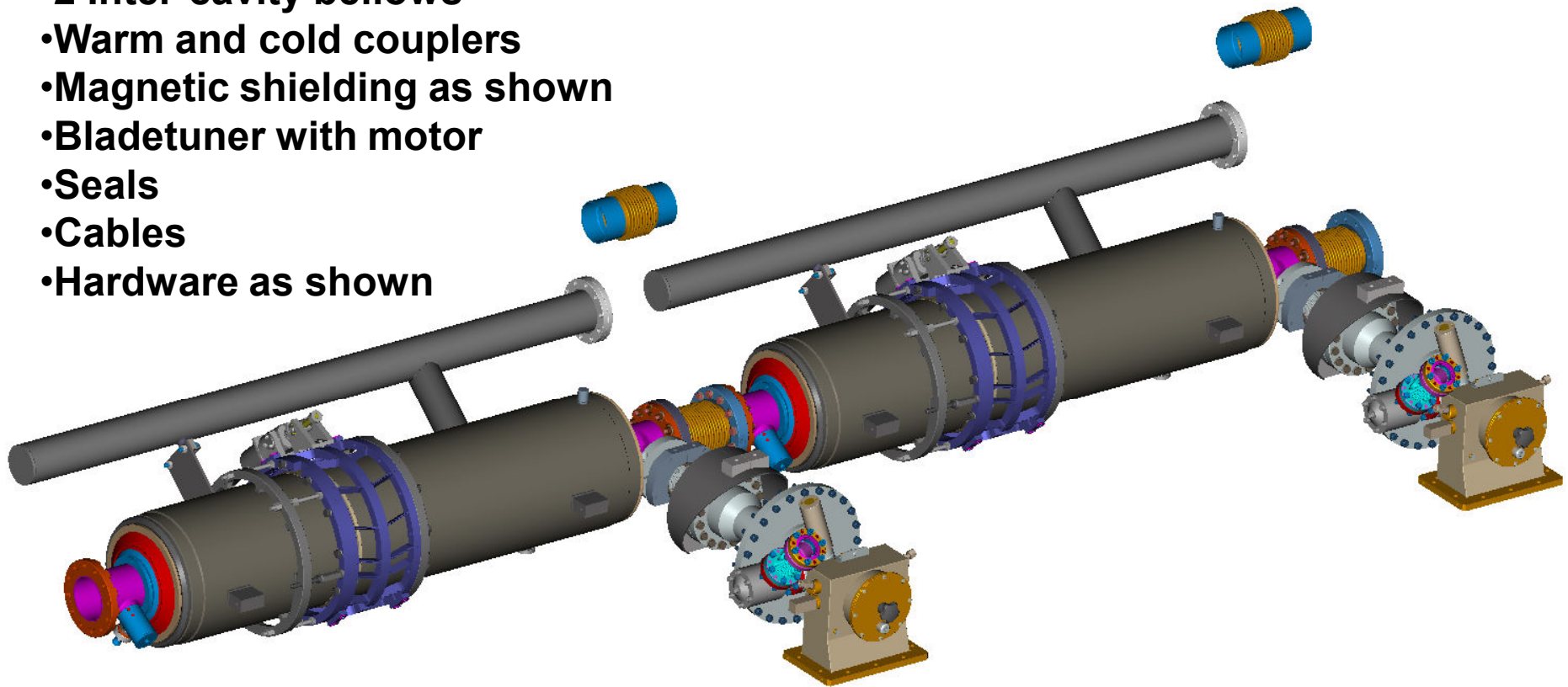


According to INFN, the piezos must be mounted in the horizontal position. In this position, the motor interferes with the KEK WPM pipe.



Current Dressed Cavity Design

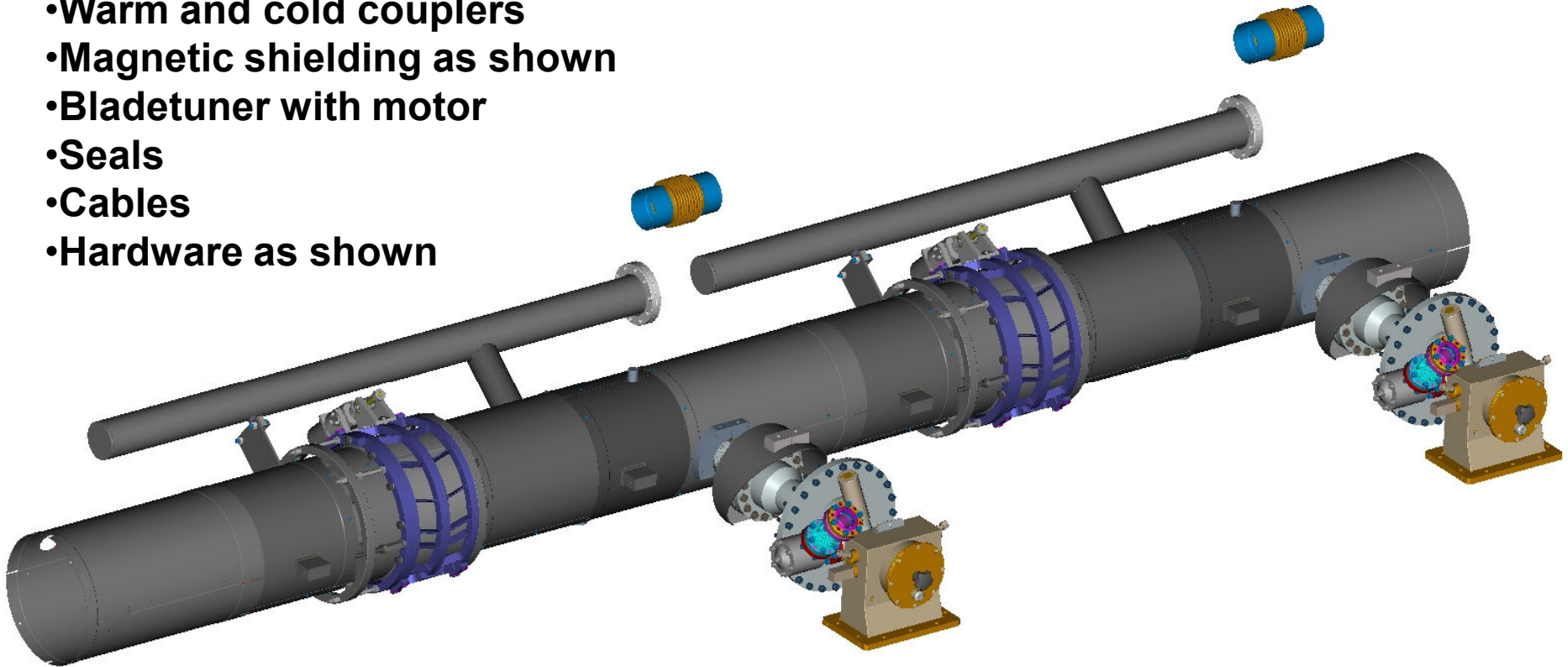
- 2 Dressed cavities
- HOM couplers, cables, heat sinks
- 2 He Supply pipe bellows
- 2 Inter-cavity bellows
- Warm and cold couplers
- Magnetic shielding as shown
- Bladetuner with motor
- Seals
- Cables
- Hardware as shown



Magnetic shielding not shown

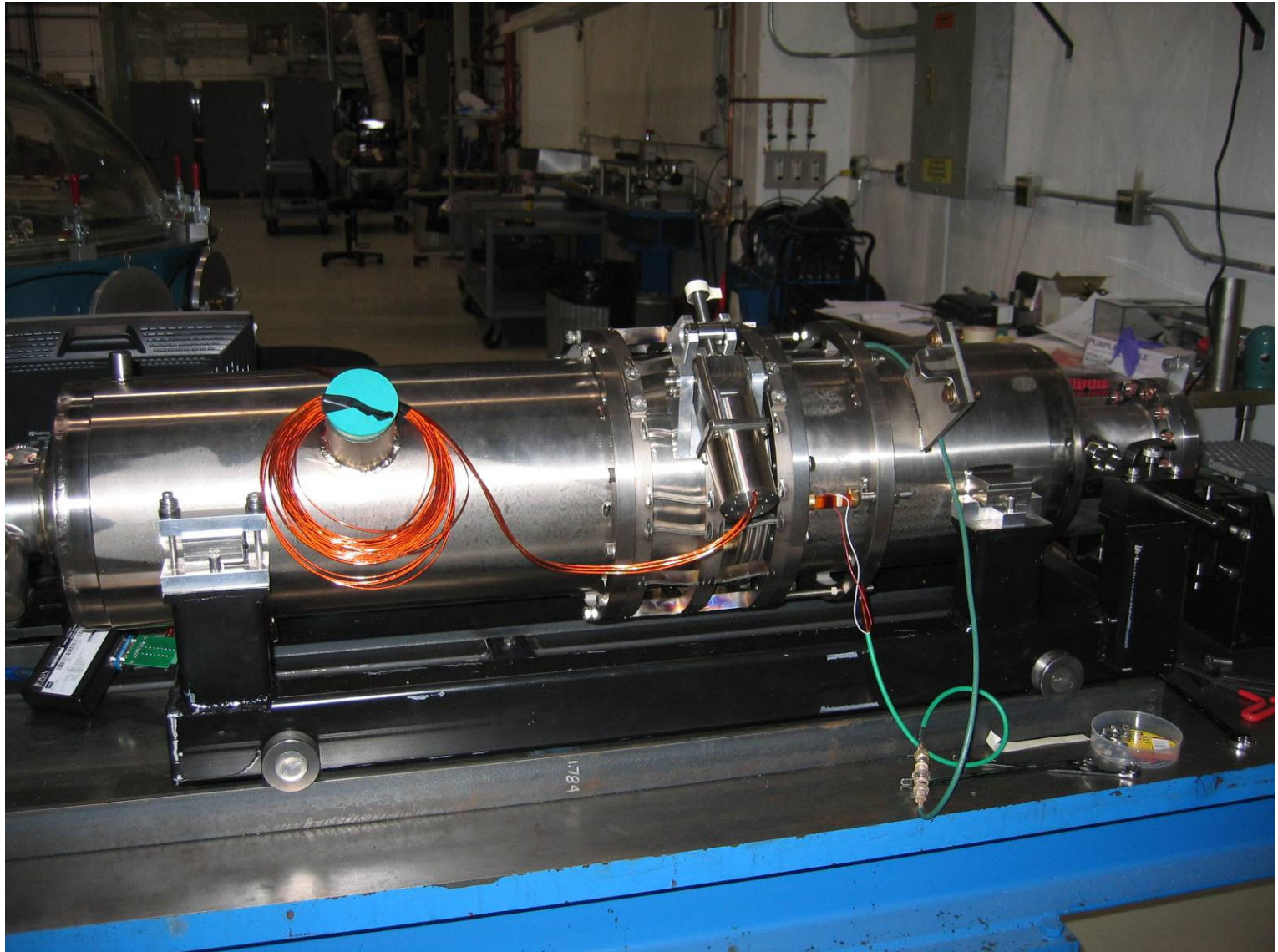
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Magnetic shielding shown

Bladetuner Cables



Potential Issues

- Needle bearings
- Main coupler external mounts, hardware, alignment tooling for installation
- Magnetic shielding interface with DESY cavities
- 2-phase He pipe cut-offs and welding the bellows into the system
- Heat-sink straps for coupler shields
- Gatevalves / 90 deg valves / blankoffs