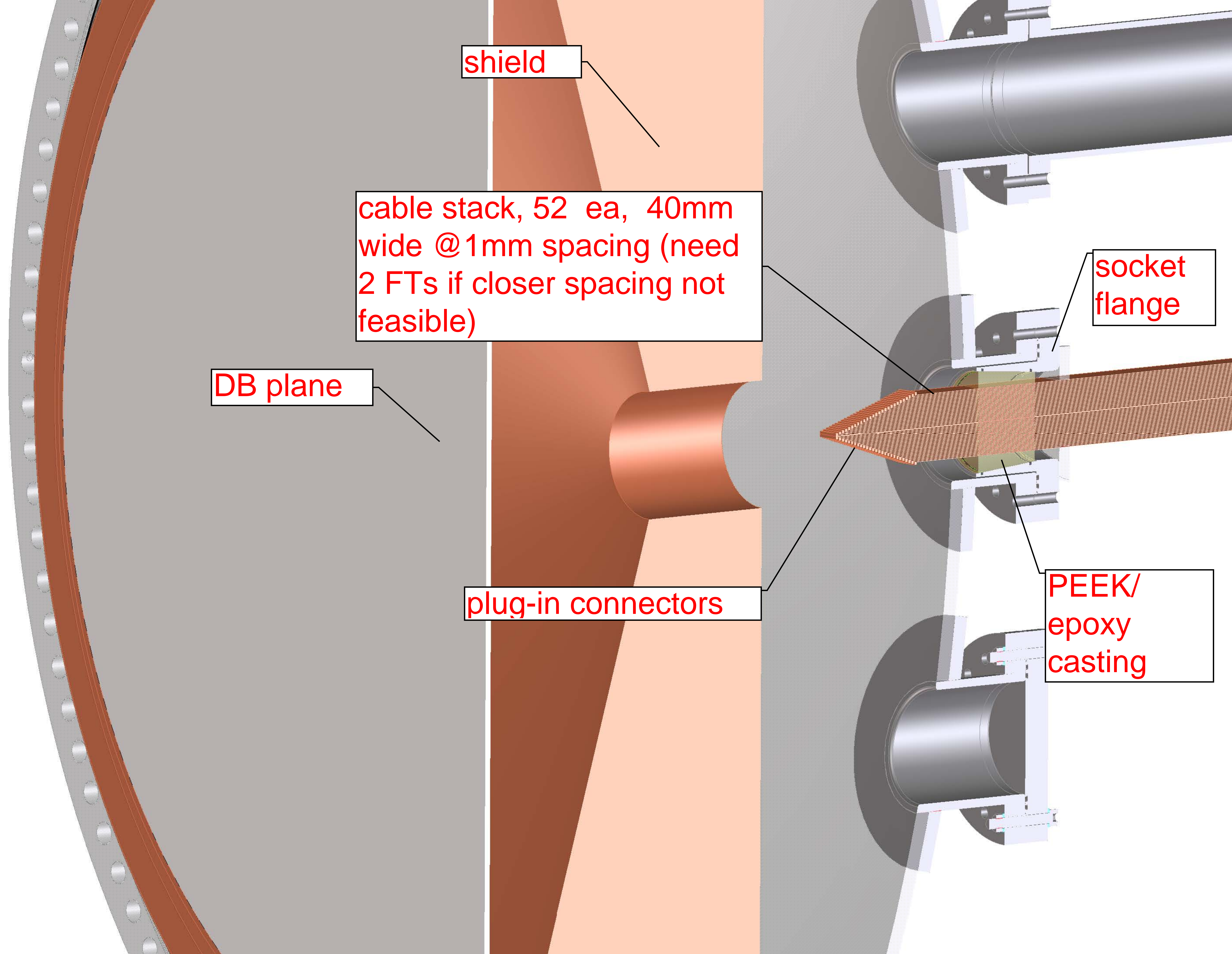


**Figure 18.** View of warm and cold cable feedthroughs, as installed. (1) Cold flange that makes the seal from LXe to vacuum, showing acrylic cup filled with epoxy. (2) Temporary bracket holding the warm flange during TPC transportation and installation. (3) Warm flange making the seal from the cryostat insulation vacuum to atmosphere. (4) PTFE strain relief. The service loop shown is in the insulation vacuum of the





shield

cable stack, 52 ea, 40mm  
wide @1mm spacing (need  
2 FTs if closer spacing not  
feasible)

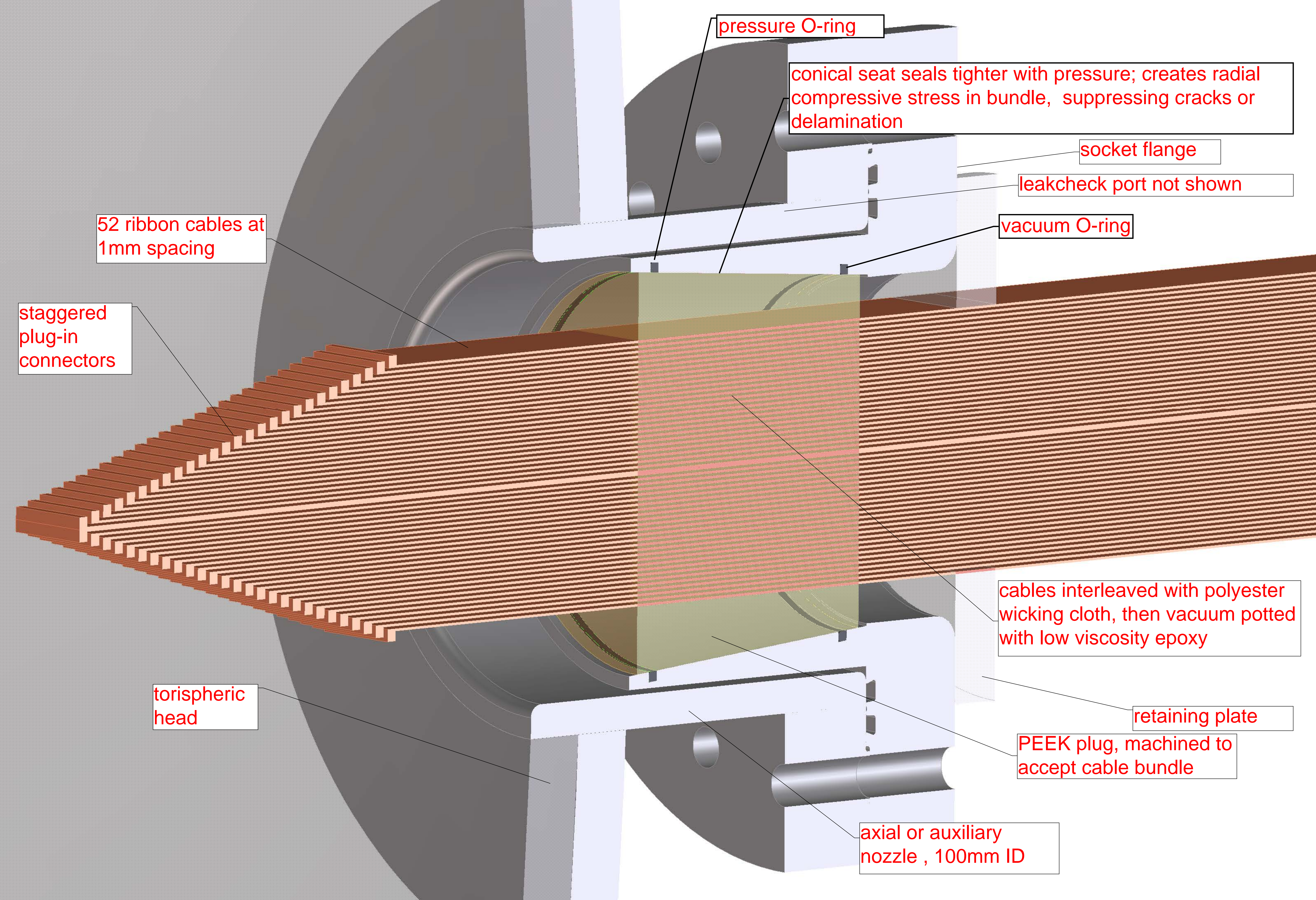
DB plane

plug-in connectors

socket  
flange

PEEK/  
epoxy  
casting





pressure O-ring

conical seat seals tighter with pressure; creates radial compressive stress in bundle, suppressing cracks or delamination

socket flange

leakcheck port not shown

vacuum O-ring

52 ribbon cables at 1mm spacing

staggered plug-in connectors

cables interleaved with polyester wicking cloth, then vacuum potted with low viscosity epoxy

torispheric head

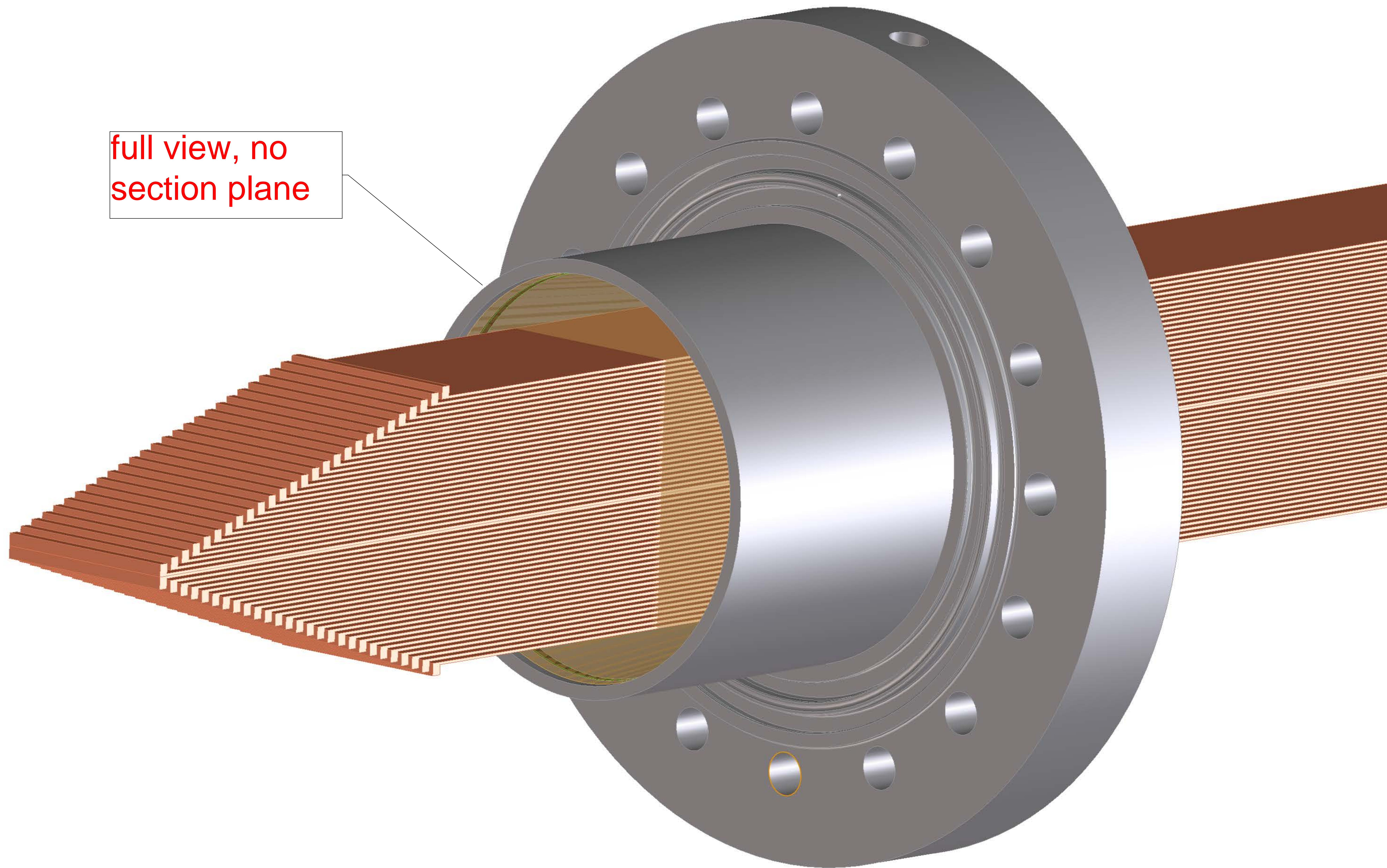
retaining plate

PEEK plug, machined to accept cable bundle

axial or auxiliary nozzle , 100mm ID

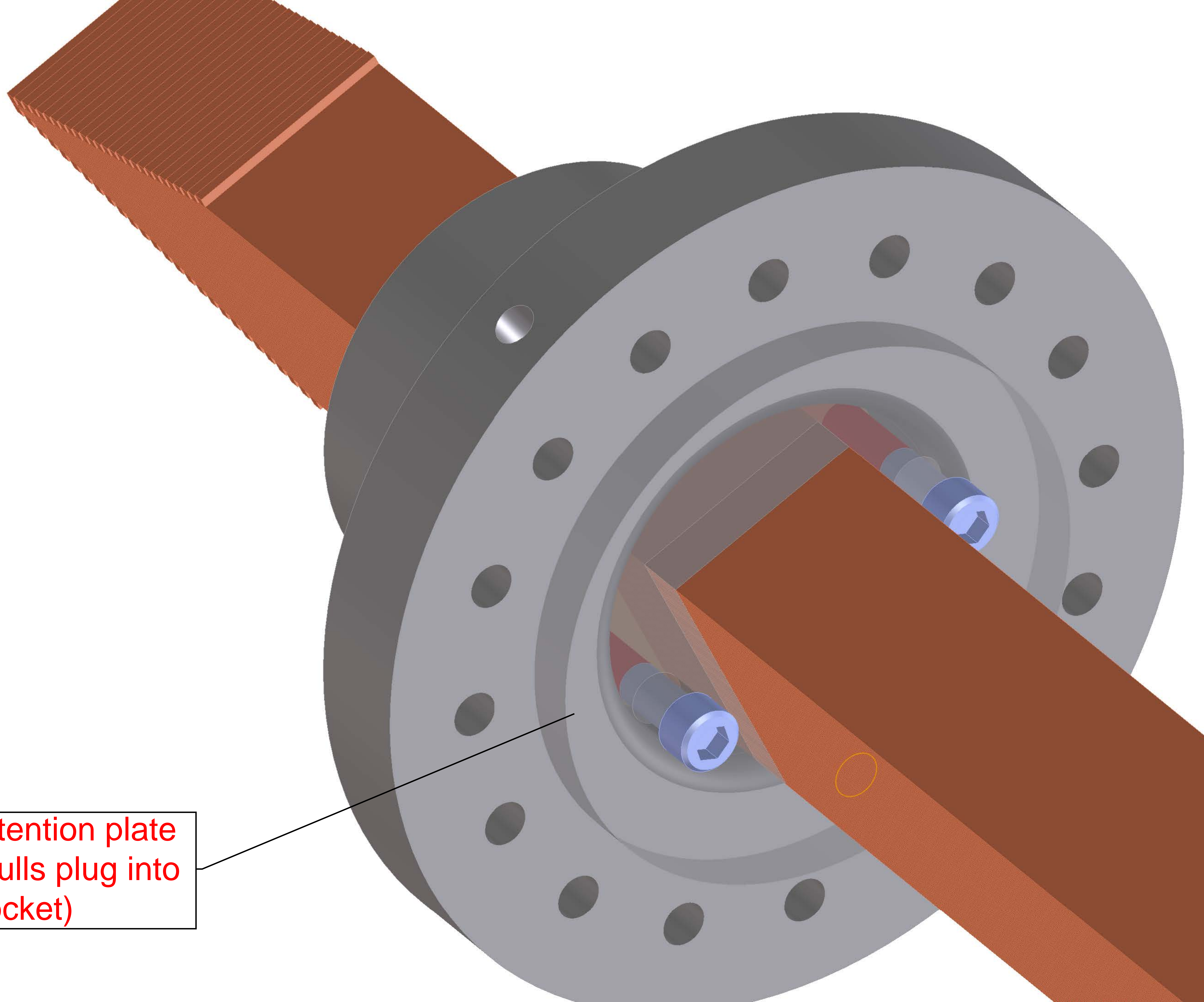


full view, no  
section plane





retention plate  
(pulls plug into  
socket)





disassembly

1. remove retention plate

2. remove socket

3. Head (already removed from vessel)  
may then be withdrawn from shield/  
motherboard, feedthrough stays with MB

