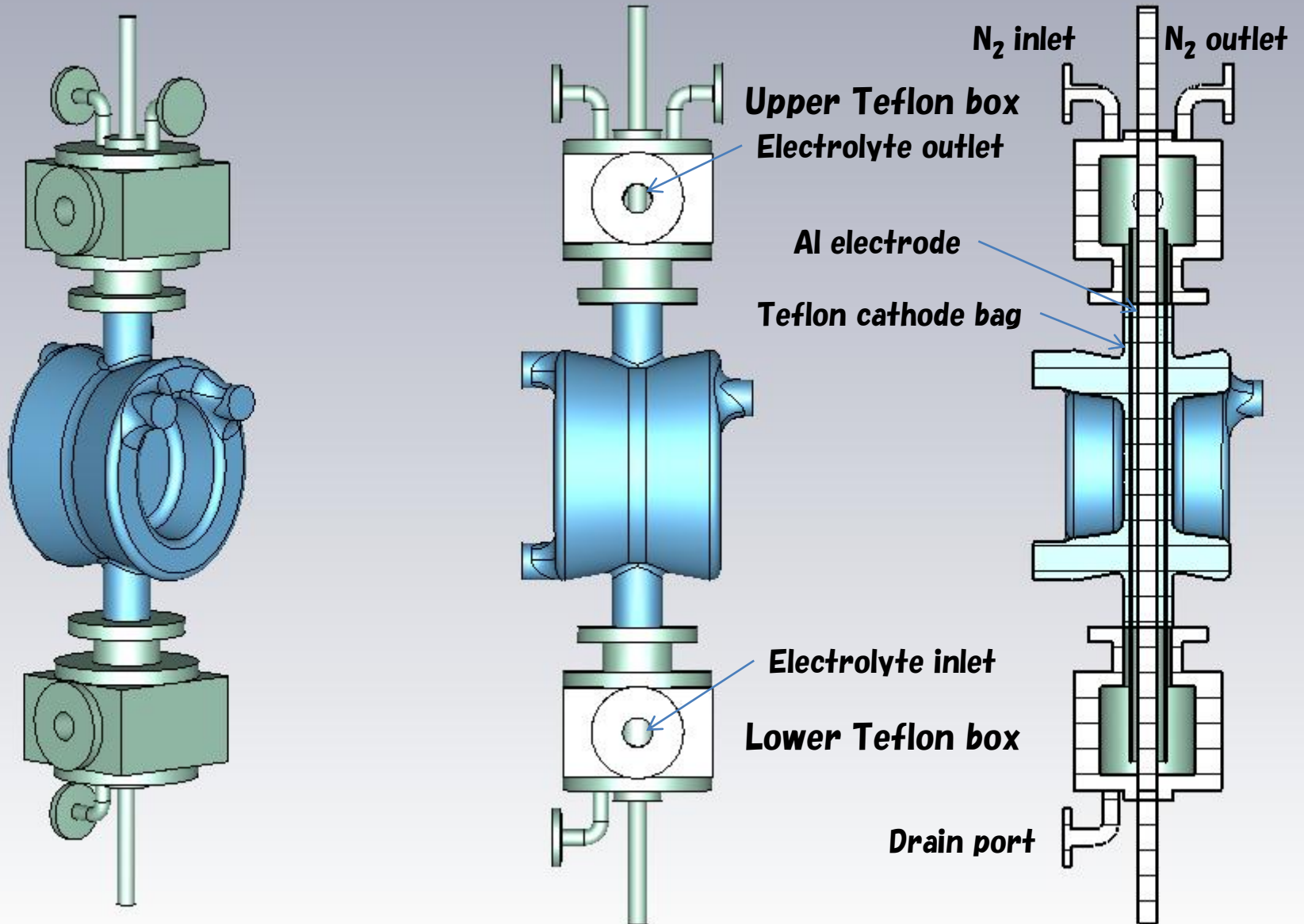


Vertical EP apparatus

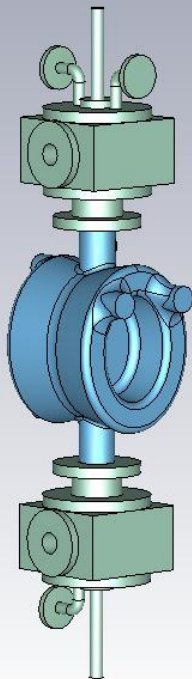


Procedure for VEP and rinsing

- VEP
 - Turn on the electric power
 - Continue VEP for 5 minutes (duration of time depends on the current given in VEP)
 - Turn off the power
 - Stirring electrolyte for 5 minutes
 - Repeat above procedure until required polishing is given
- Rinsing after VEP
 - Pure water dump several times until pH becomes 6
 - Shower rinsing (low pressure ultra pure water rinsing) for about 30 minutes
 - Packing the cavity with the rinsing jig
 - Ozonized water rinsing, dump twice and overflow for 10 minutes
 - Supersonic rinsing with overflowing ultrapure water for one hour
 - Nitrogen gas purge (cavity is packed with the rinsing jig)

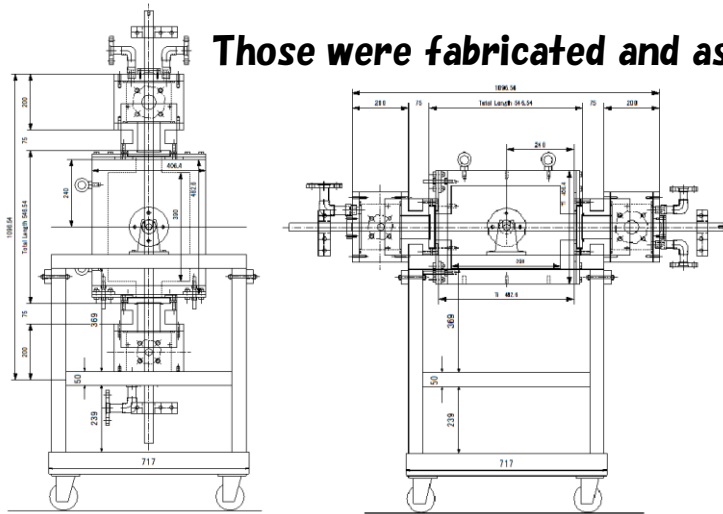
Timetable for Vertical EP at KEK

Item	Sep. 2015	Oct.	Nov.	Dec.	Jan. 2016	Feb.	Mar.
Electrode	Fabrication						
Teflon box	Fabrication						
Rotation jig	<i>Almost done, a stand has to be fabricated (the stand for KEKB cavity can be used temporarily)</i>						
Ozonized water rinsing jig	<i>Almost done, a Teflon attachment has to be fabricated (the Teflon attachment for KEKB cavity can be used temporarily)</i>						
Dummy cavity	Done						
Fitting check				Fitting check			
Vertical EP at KEK				Vertical EP at KEK			
Sending the cavity back to CERN and cold test						Sending the cavity back to CERN and cold test	



We are fabricating the vertical EP apparatus. The rotation jig and the ozonized water rinsing jig are already fabricated and assembled. After the fitting check of apparatus, we applied the vertical EP to the LHC crab cavity fabricated at BNL.

Rotation jig and dummy cavity to support the cavity during VEP



Those were fabricated and assembled

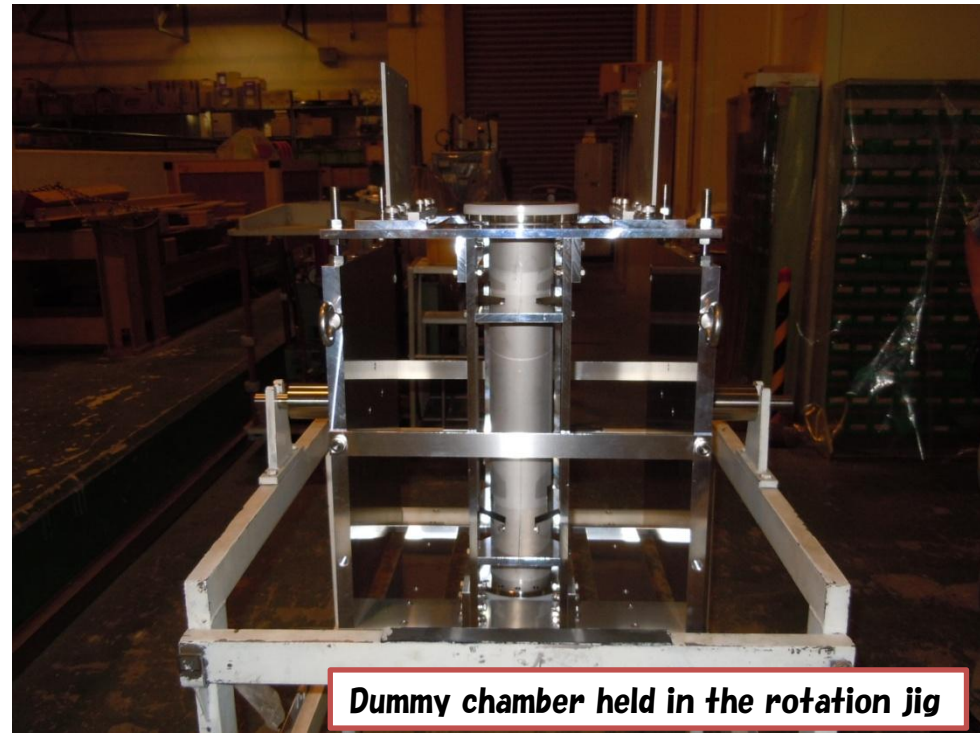


Dummy cavity and its support



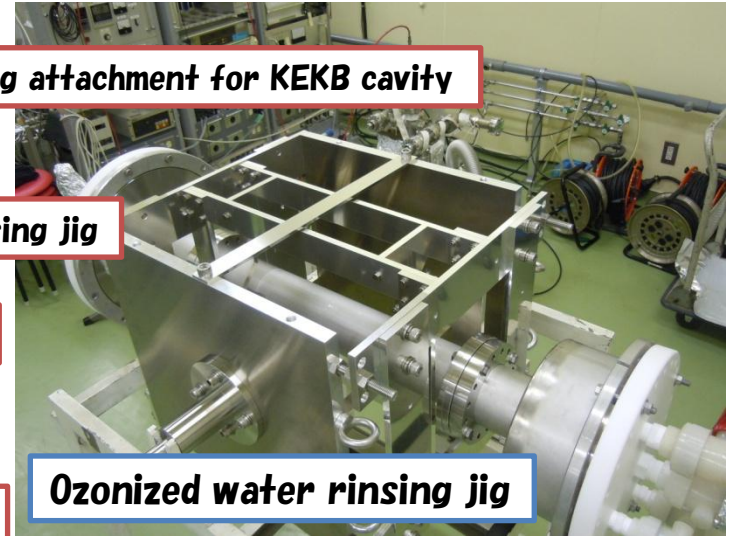
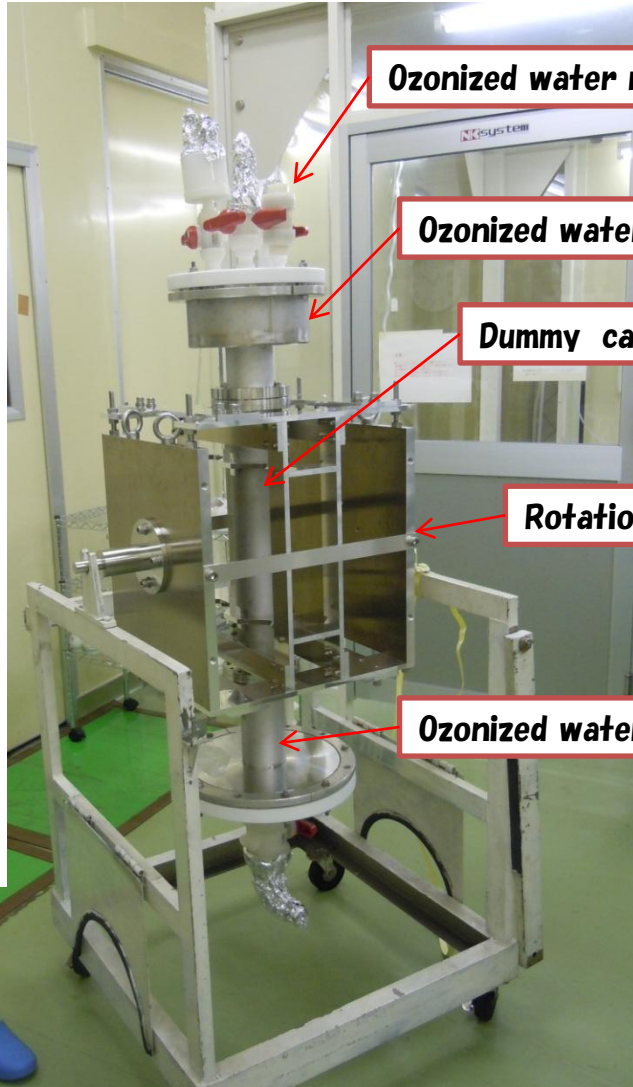
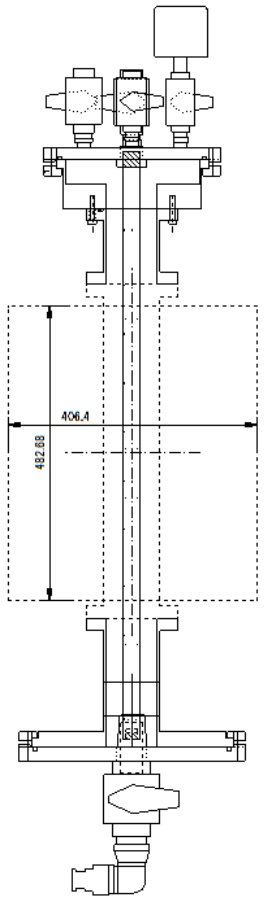
rotation jig

Existing stand for KEKB cavity



Dummy chamber held in the rotation jig

Ozonized water rinsing jig and our clean room for rinsing and re-assembling after VEP



Our clean room