

Laser Calibration system Installation plan and requirements

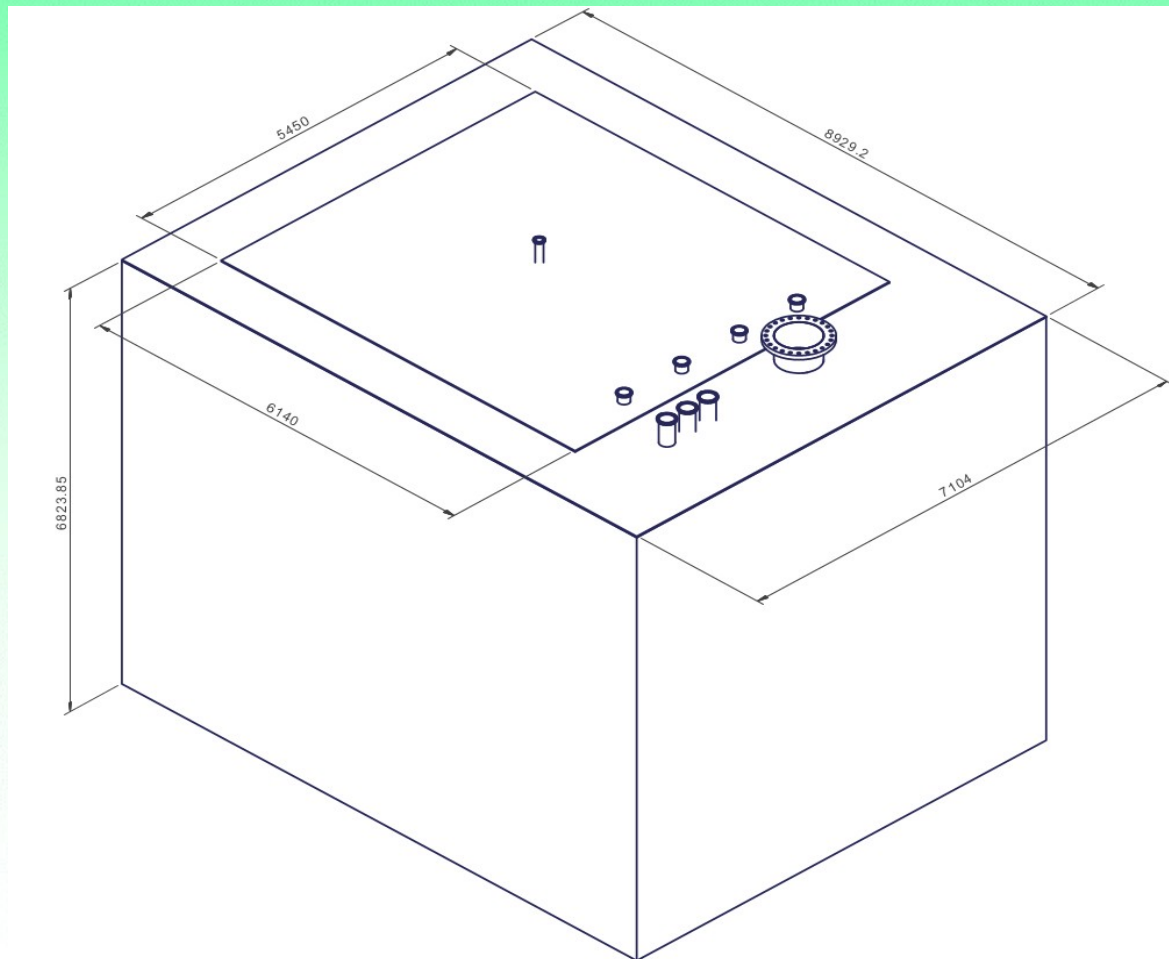
I. Kreslo
WG meeting on 14.1.15

TPC cryostat assumptions

1. The basis is the 3D design from SBN Doc# 270

158 m³ Crostat with removable top (F10035424_06JA2014__.stp, 439.0 MB)

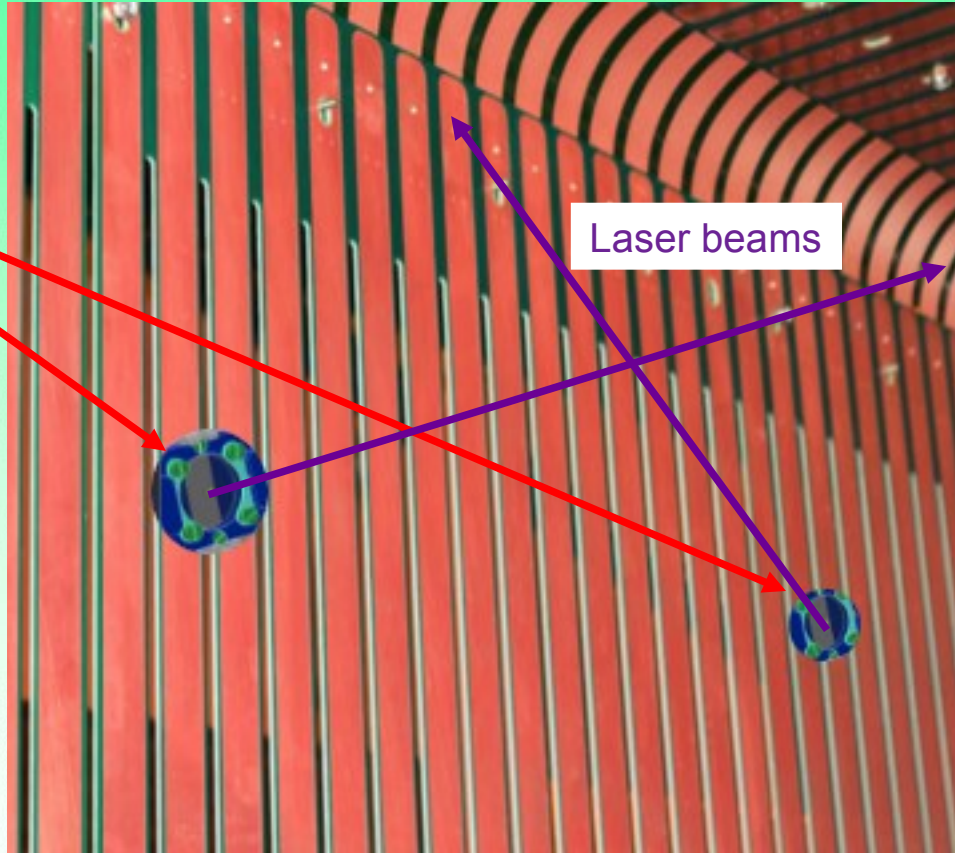
2. The system resides on the removable cover of the cryostat and mounted at the same time and location (tent at DAB?) as the TPC frame structure.



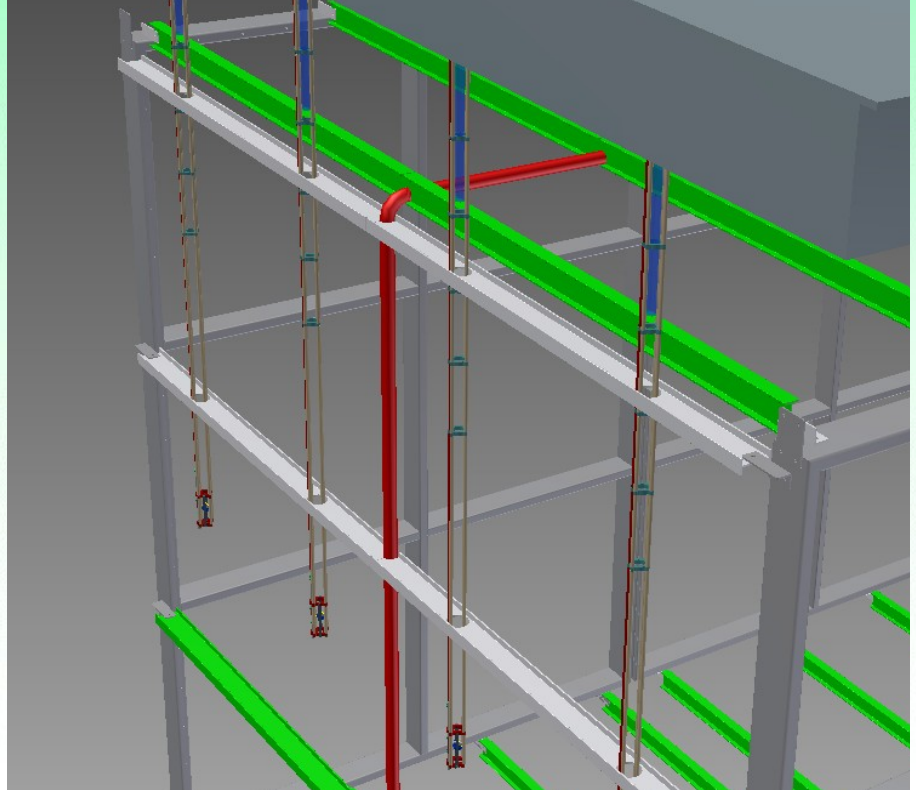
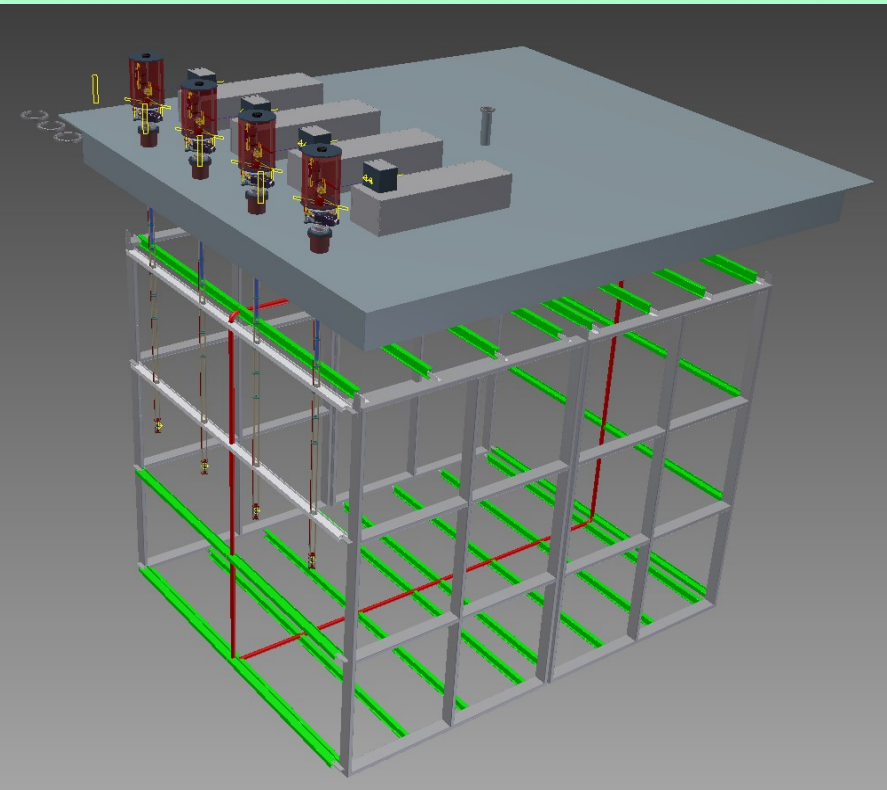
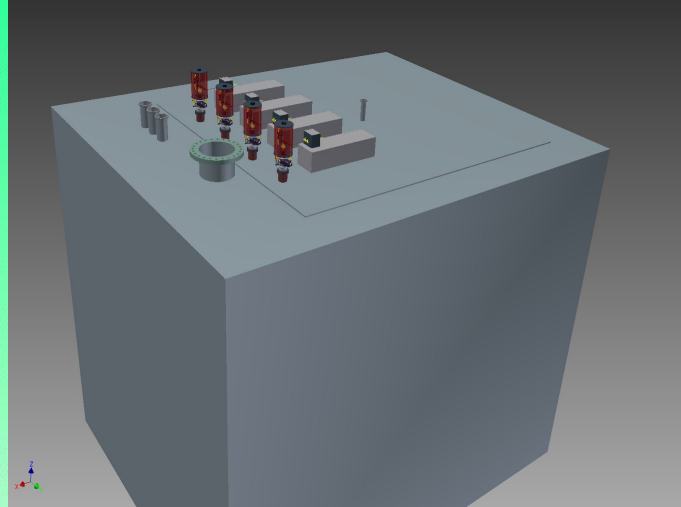
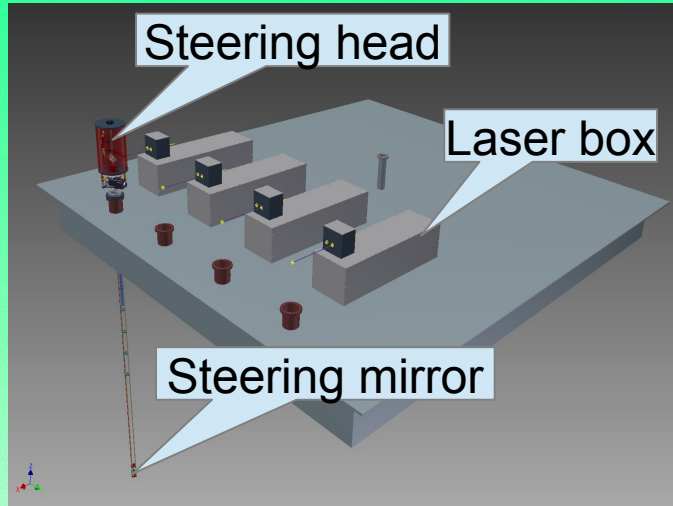
Entering TPC field cage

Steerable mirrors

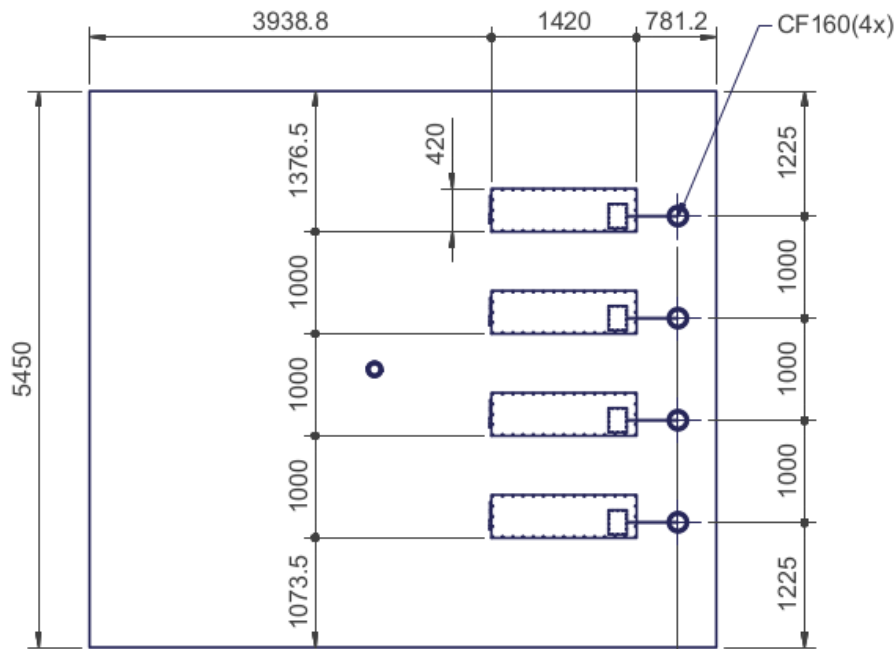
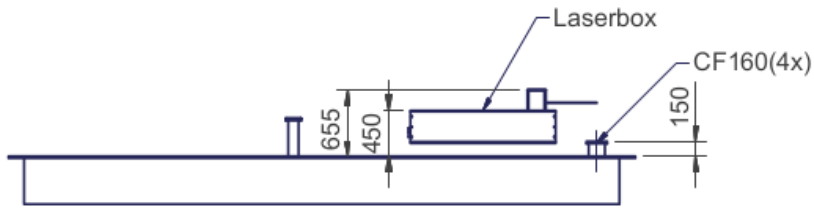
Laser beams



General view

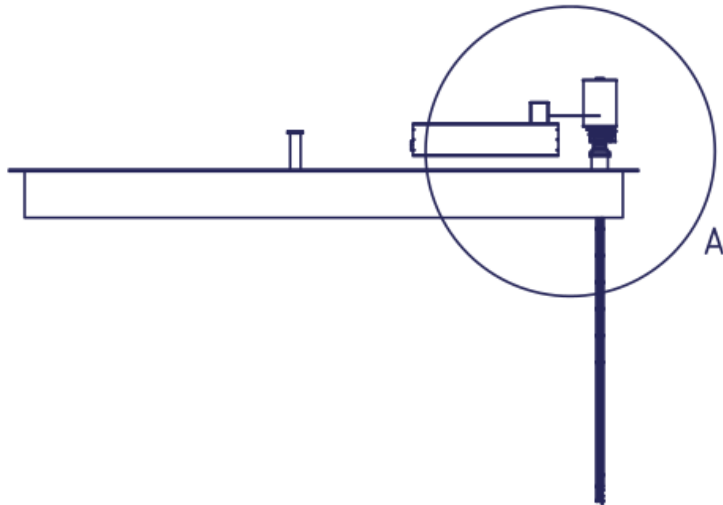
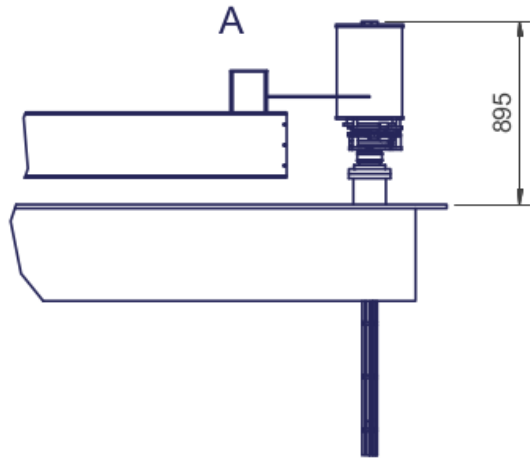


Details of top flange arrangement



376.2

Pos.	Anz.	Nummer	Gegenstand	Material	Bemerkungen
			A4	Datum	Name
			Gez.	12.01.2015	rohaenni
			Freig.		
			Gewicht:		
					Ausgabe Blatt Nr. 1 von 1 Massstab
			LAr1NDxxx		
Ausgabe	Änderung	Datum	Name	Zusammenst. Nr.:	Ersatz für: Ersetzt durch:



Details of Laser box to steering head link

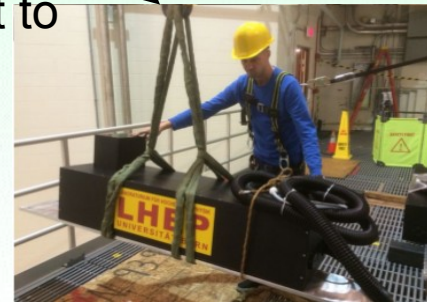
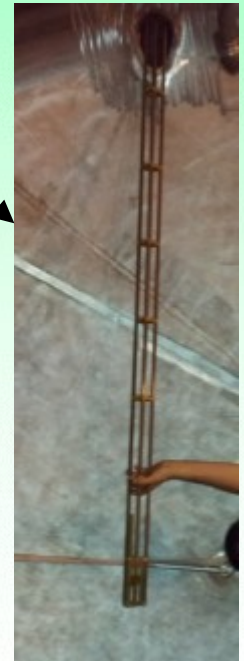
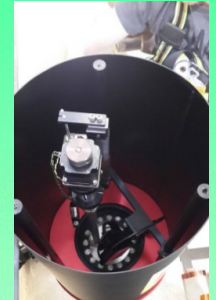
Pos.	Anz.	Nummer	Gegenstand			Material	Bemerkungen		
			A4	Datum	Name				
			Gez.	12.01.2015	rohaenni				
			Freig.						
			Gewicht:						
						LAr1NDxxx	Ausgabe	Blatt Nr.	Massstab
							1	von 1	
Ausgabe	Änderung	Datum	Name	Zusammenst. Nr.:	Ersatz für:	Ersetzt durch:			

Installation scenario (at assembly location, DAB?)

1. Lower the pole structure into CF160 nozzle, needs space 4 m above
 - 1.a assemble the pole structure from segments, lowering to nozzle — needs space 1 m above

2. Mount laser head at the top platform (at the level of the flange + 50 cm)

3. Laser rack **at <5 m from the laser** box (1 per laser head) resides either outside of the removable cover or on the cover next to laser boxes.



Remarks

1. The location of top steerable heads is linked to the side of the TPC frame. Any change in the position of the TPC translates to corresponding change in location of the CF160 nozzles at the top flange, and location of laser boxes.
2. Not sensitive to any other modifications of the cryostat.