



ATLAS CMS ALIGNEMENT

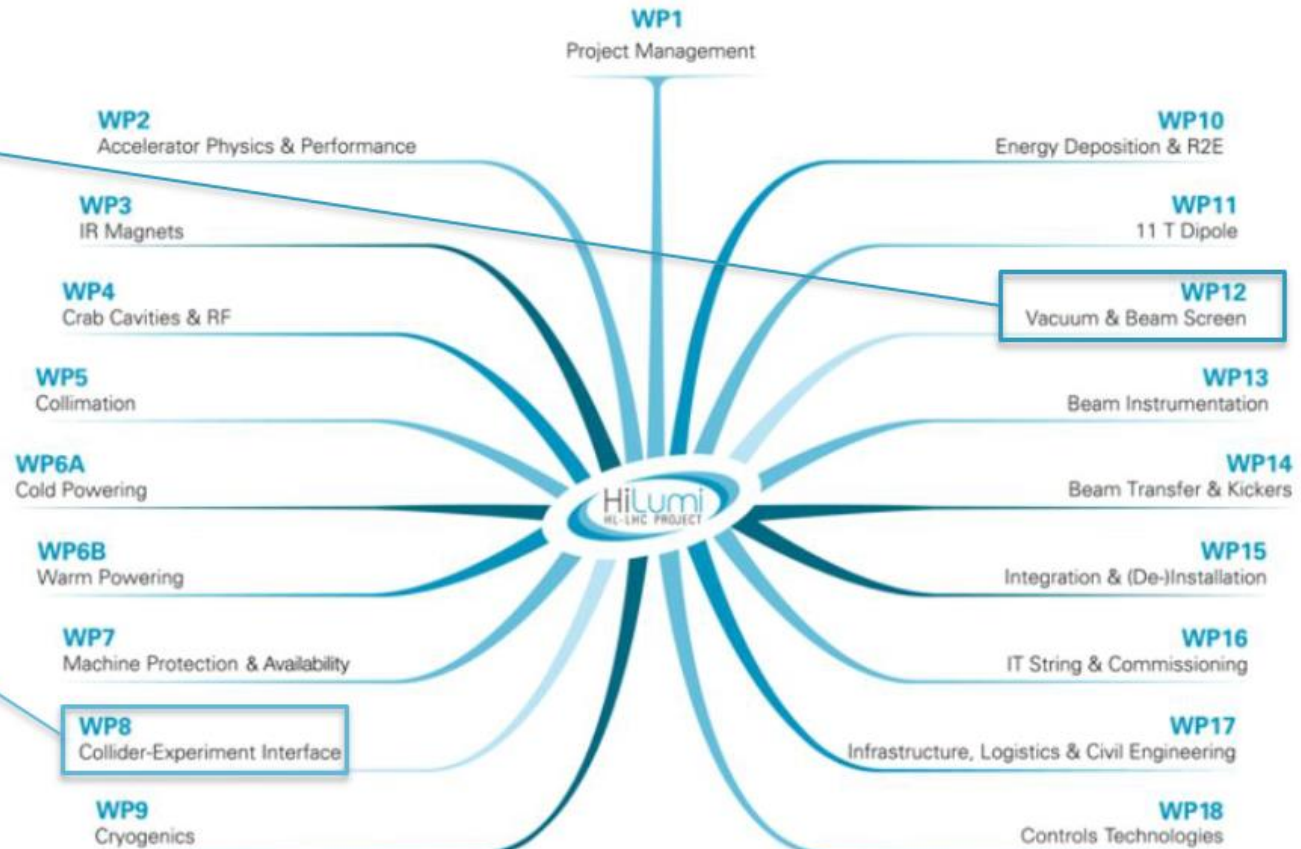
A. Alonso / WP8

HL-WP8

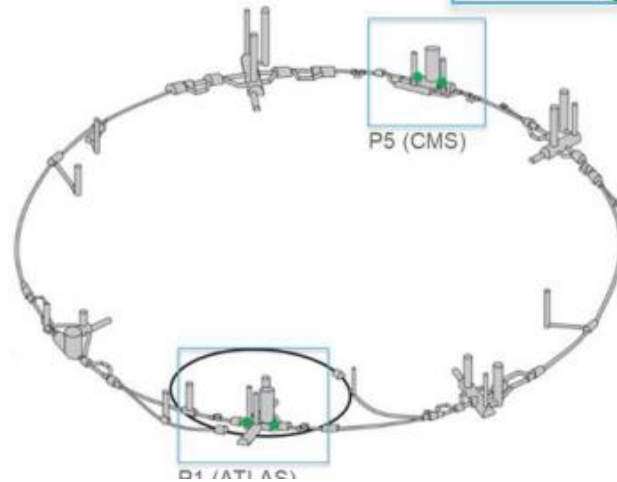
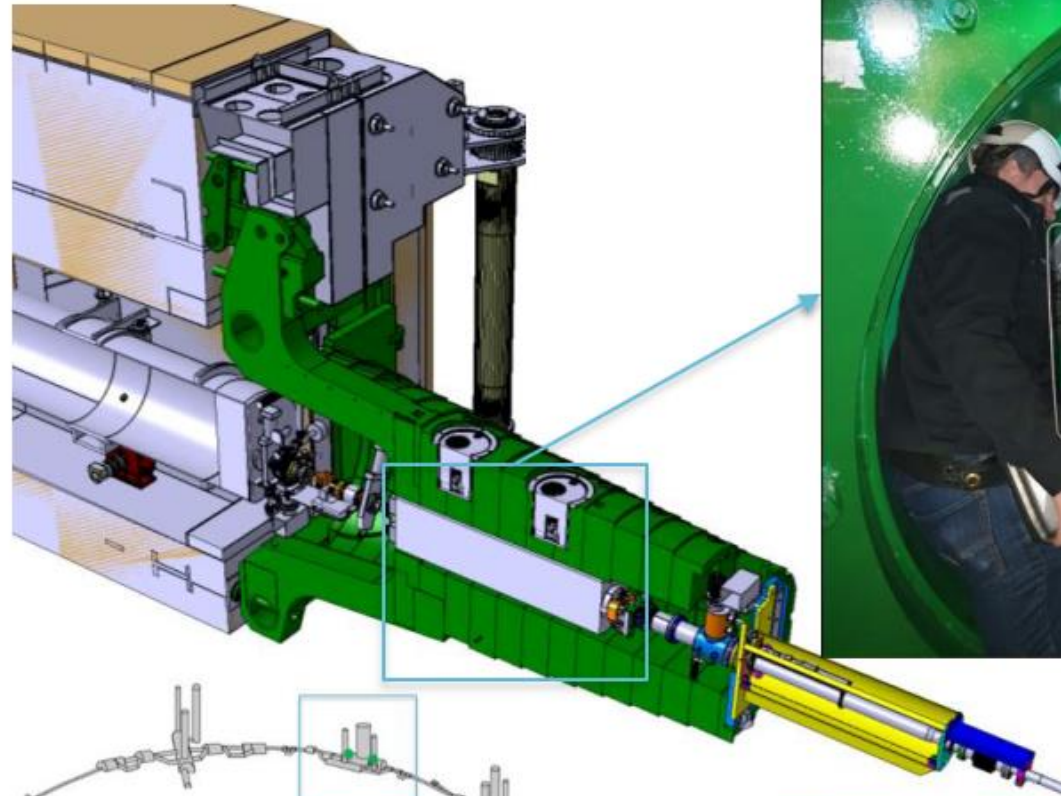
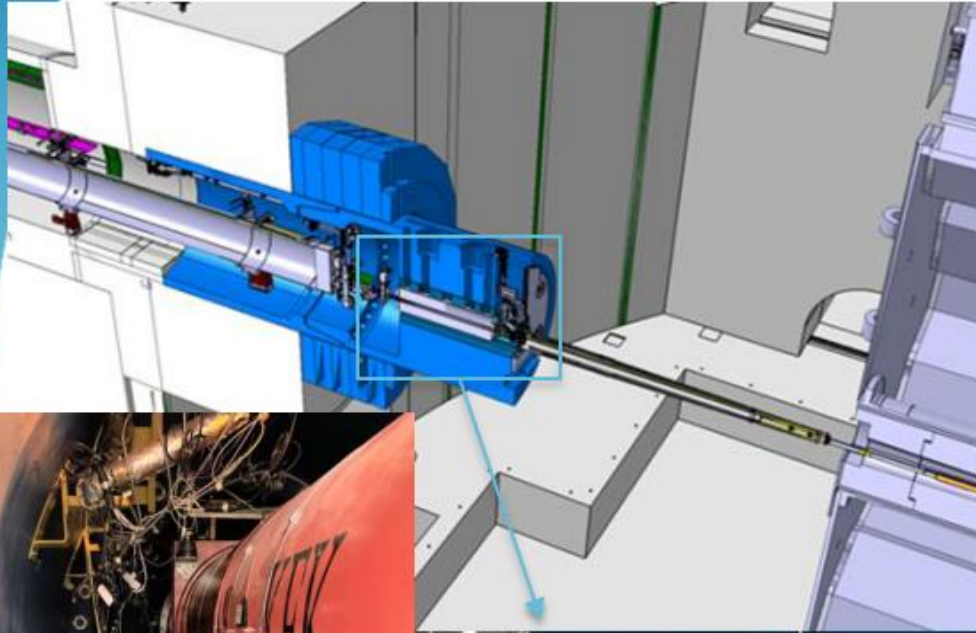
■ Collider experiment interface

... The upgrade of the triplet-forward region of CMS and ATLAS experiments to cope with the increasing radiation dose is also under the mandate of WP12, requiring a newly designed vacuum instrumentation system which can be remotely controlled and connected/disconnected in full compliance with the ALARA approach. ...

... The work package will be in charge of the deinstallation of the TAS and TAN absorbers, the design, manufacturing and installation of the Secondary and Neutral absorbers in the LHC machine, and the optimization of the machine-interface regions. This includes the integration studies performed together with other work packages, teams from vacuum groups, experiments and the machine, and the reporting to the correspondent HL-LHC and machine working groups.



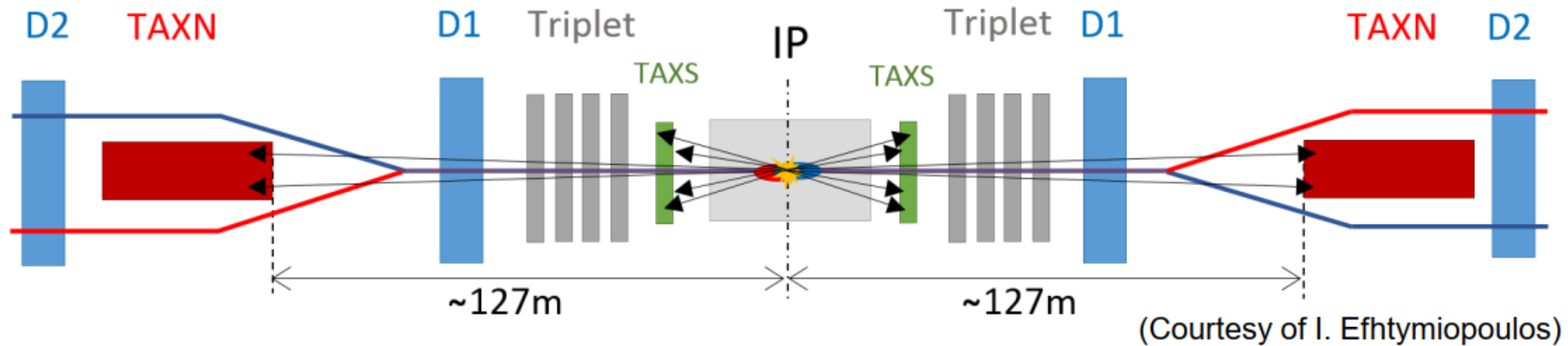
TAS absorbers in IP1 (ATLAS) and IP5 (CMS)



Introduction to Absorbers in the HL-LHC

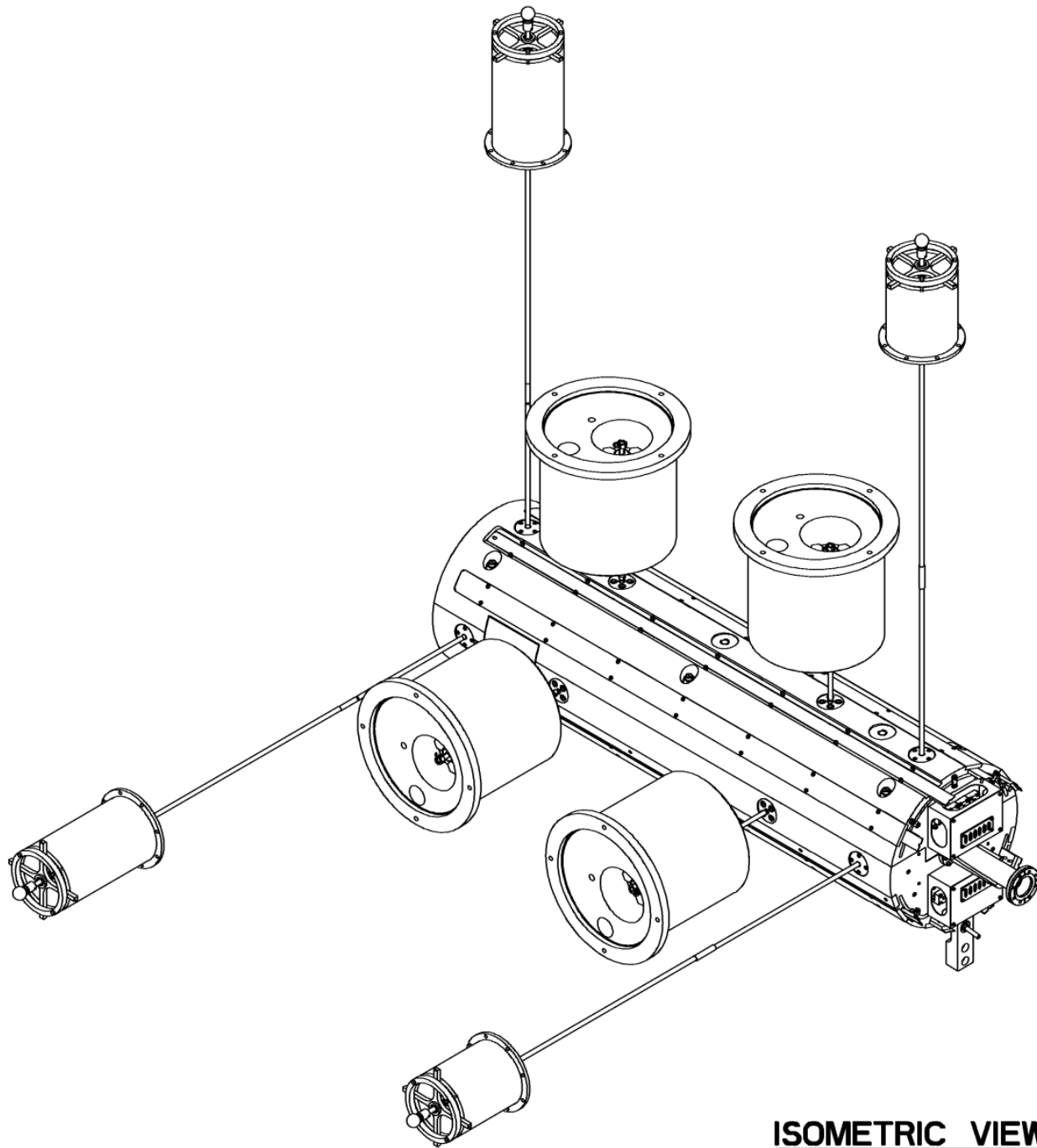
The passive absorbers for charged (TAS) and neutral (TAN) particles are designed to ...

- primarily protect the nearby superconducting magnets from the radiation coming out from the interaction region and to **prevent them from quenching**.
- simultaneously provide a background reduction to the experiments for beam interactions in the collimators and beam gas.
- They are located on either side of IP1 and IP5.



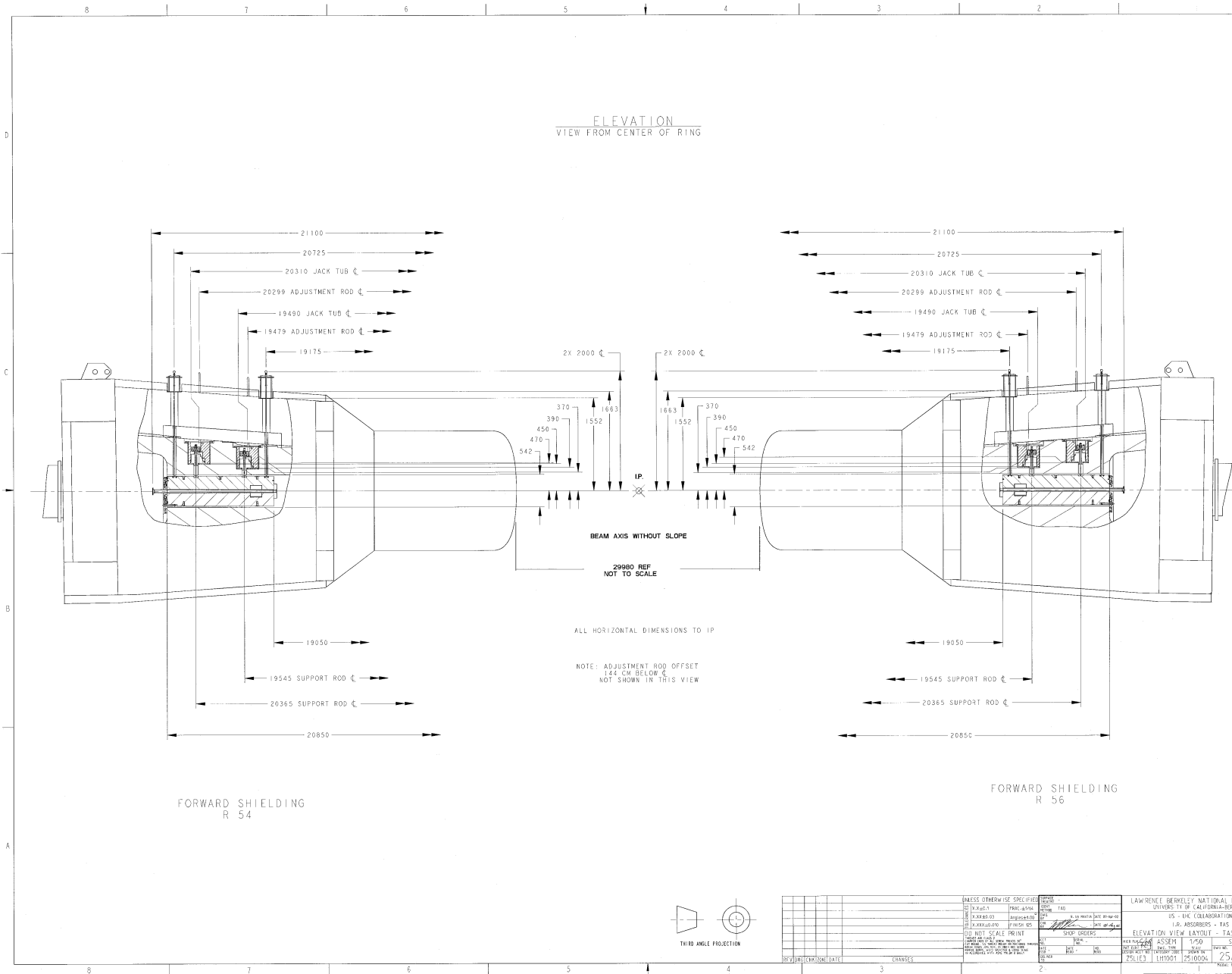


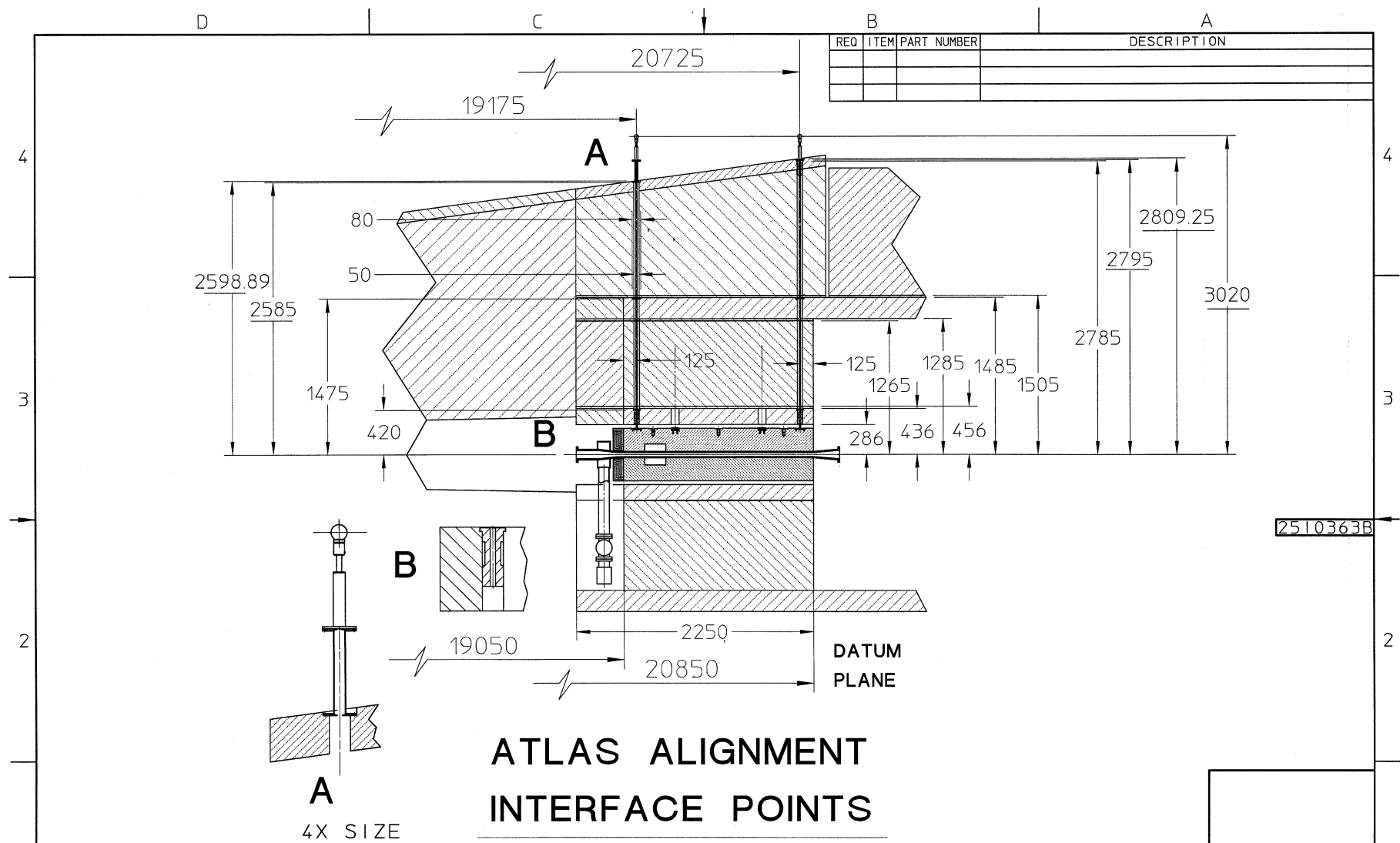




ISOMETRIC VIEW

SCALE 2/25





REQ	ITEM	PART NUMBER	DESCRIPTION

REV	DWG	CHK	ZONE	DATE	CHANGES
B	TC			11/8/00	MOVED INSTRUMENTATION CAVITY 50mm TOWARDS 1P.
A	DV			8-04	SUPPORT TUBE TO CERN NUMBERS

UNLESS OTHERWISE SPECIFIED		SHOP ORDERS	
TOLERANCES	.X ± .1, FRAC. ± 1/64	ACCT. NO.	SERIAL NO.
	.XX ± .01, ANGLES ± .01°	DATE ISSD	DATE RECD.
	.XXX ± .001, FINISH 125	NO. RECD.	DELIVER TO
THREADS ARE CLASS 2	SURFACE TREATMENT	DEGREASE	
CHAMFER ENDS OF ALL SCREW THREADS 30°	IDENT. METH.	TAG	
CUT 1.5 PITCH THRU RELIEF WITH ROUND NOSE TOOL	DWG. BY	DATE	
ON MACHINE CUT THREADS	D. VANECEK	07-05-00	
BREAK EDGES .016 MAX. ON MACHINED WORK	DATE	00-00-00	
REMOVE BURRS WELD SPLATTER & LOOSE SCALE	CHK. BY		
REFERENCES: ANSI Y14.5 & B46.1.			

LAWRENCE BERKELEY LABORATORY			
UNIVERSITY OF CALIFORNIA-BERKELEY			
US - LHC COLLABORATION			
I.R. - ABSORBER - TAS			
ATLAS ALIGNMENT INTERFACE POINTS			
PATENT CLEAR	DWG. TYPE	SHOWN ON	SCALE
	ASSEMBLY	00X0000	FULL
DESIGN ACCT. NO.	CATEGORY CODE	DWG. NO.	DO NOT SCALE PRINTS
Z5LIE3	LH01001	2510363	







