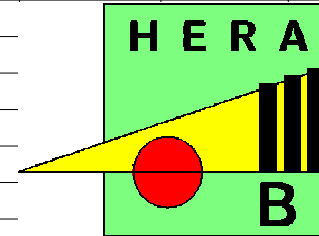


Dimensions of Al proton beam-pipe '98

Beam-pipe segments start at Z0, have a length of ΔZ , inner diameter of D_i and outer diameter D_o . All segments including segment 16 are made from Al.
 Welding joints are positioned at Z0, width of joint = ± 2.5 mm.
 Stiffener rings are positioned at Z1,2,3, width = ± 1.5 mm, outer diameter = D_s .



Seg.	D_i	D_o	Z0	ΔZ	# of rings	D_s	Z1	Z2	Z3	Weight(g)
0	38	41	1929	96						48
										in situ welding joint 0--1*
1*	38	44	2025	5						5
	38	42	2030	25						17
1	38	39	2055	297						48
2	40	41	2352	432						84
3	45	46	2784	307						67
4	50	51	3091	584	1	58,0	3383			144
5	55	56	3675	532	1	63,4	3941			148
6	65	66	4207	420	1	74,2	4417			141
7	70	71	4627	398	1	79,8	4826			143
8	75	76	5025	361	1	85,0	5206			159
8*	75	76	5386	181						80
										new segment, welded to 8
										in situ welding joint 8* - 9*
9*	85	86	5567	156						72
										new segment, welded to 9
9	85	86	5723	311	1	95,8	5879			144
10	90	91	6034	437	2	101,2	6180	6325		225
11	95	96	6471	407	2	106,6	6607	6742		206
12	100	101	6878	522	3	112,0	7009	7139	7269	320
13	105	106	7400	482	3	117,4	7521	7641	7761	297
14	115	116	7882	442	3	128,0	7993	8103	8213	306
15	120	121	8324	106						212
										in situ welding joint 15-16
16	125	135	8430	5840						32199
			14270							
										35066

