

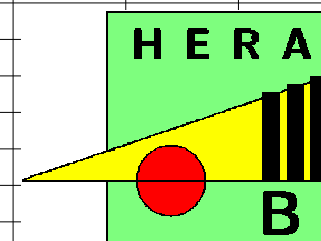
Dimensions of Al proton beam-pipe 2000

Beam-pipe segments start at Z0, have a length of ΔZ , inner diameter of Di and outer diameter Do. All segments are made from Al.

Welding joints are positioned at Z0, width of joint = ± 2.5 mm. Welding joint at Z0+ ΔZ has diameter Dw.

Stiffener rings are positioned at Z1,2,3, width = ± 1.5 mm, outer diameter = Ds.

Vertex vessel shifted backwards by 2 mm.



Version: 17.02.2000 Positions of MS10 - MS13 updated

Seg.	Di	Do	Z0	ΔZ	# of rings	Ds	Z1	Z2	Z3	Z4	Z5	Z6	Z7	Z8	Dw	Weight (g)
0	38	41	1927	96	0											48
1*	38	44	2023	5	0											5
1	38	41	2028	9,5	0											5
	38	39	2037,5	531,5	0										48,4	89
<i>MS01</i>	65		2091	85												
2	40	41	2569	432	0										55,4	81
3	45	46	3001	307	0										60,4	67
<i>MS03</i>	65		3098	42												
4	50	51	3308	584	1	58,0	3600								65,4	139
5	55	56	3892	532	2	63,4	4069	4247							75,4	148
<i>MS05</i>	65		4153	42												
6	65	66	4424	420	1	74,2	4634								80,4	135
7	70	71	4844	398	1	79,8	5043								85,4	139
8	75	76	5242	542	2	85,0	5423	5603							95,4	207
<i>MS06</i>	91		5318	42												
9	85	86	5784	467	2	95,8	5940	6095							100,6	206
10	90	91	6251	437	2	101,2	6397	6542							105,8	208
11	95	96	6688	407	2	106,6	6824	6959							111,0	208
<i>MS10</i>	116		6839	171												
12	100	101	7095	572	4	112,0	7210	7324	7438	7552					111,0	317
<i>MS11</i>	116		7327	85												

