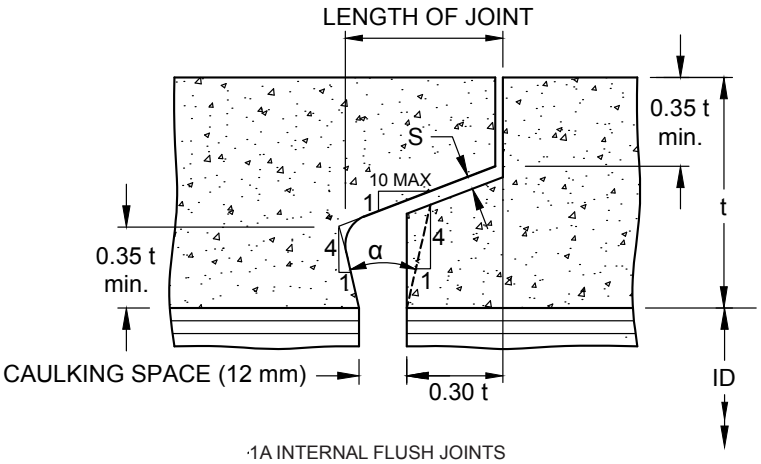
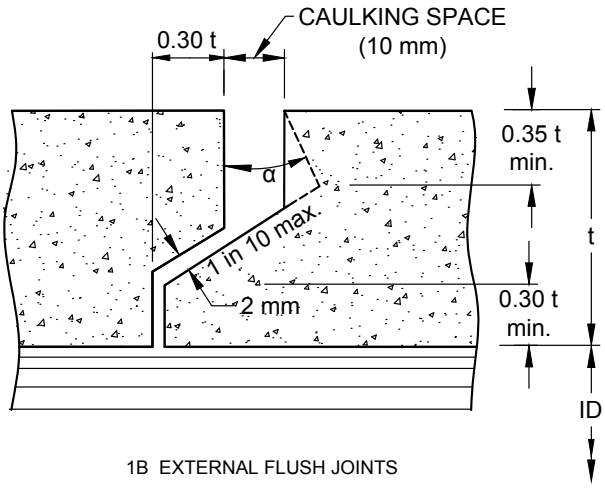
Free Standard provided by BIS via BSB Edge Private Limited to 52 B Theatre Road - Kolkata(agarwal1arjun@gmail.com) 110.225.107.252 [for non-commercial use only].



1A INTERNAL FLUSH JOINTS



1B EXTERNAL FLUSH JOINTS

KEY

t - WALL THICKNESS
s - 0.002 OF INTERNAL DIA. OR 2 mm min.
ID - INTERNAL DIAMETER
α – INCLUDED ANGLE NOT MORE THAN 25° (ONLY FOR DESIGN PURPOSE NOT TO BE MEASURED)

FIG. 1 DETAILS OF FLUSH JOINTS

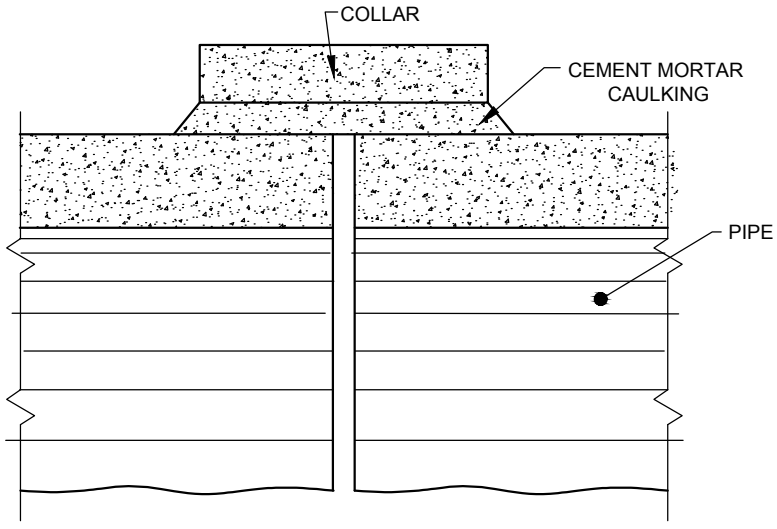


FIG. 2 COLLAR JOINTS (RIGID)

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Table 21 Design Requirements of Reinforced Concrete Collar for Pipes of Class NP2

(*Clauses* 6.3 *and* 8.1)

Nominal Internal Diameter of Pipe	Collar Dimensions			Reinforcements		
	Minimum Caulking Space	Minimum Thickness	Minimum Length	Longitudinal, Mild Steel or Hard Drawn Steel		Spirals Hard Drawn Steel
				Minimum Number	Mass	
mm	mm	mm	mm		kg/collar	kg/collar
(1)	(2)	(3)	(4)	(5)	(6)	(7)
80	13	25	150	6	0.08	0.07
100	13	25	150	6	0.08	0.08
150	13	25	150	6	0.08	0.10
200	13	25	150	6	0.08	0.12
225	13	25	150	6	0.08	0.14
250	13	25	150	6	0.08	0.16
300	16	30	150	8	0.11	0.22
350	16	32	150	8	0.11	0.25
400	16	32	150	8	0.11	0.27
450	19	35	200	8	0.15	0.40
500	19	35	200	8	0.15	0.60
600	19	40	200	8	0.15	0.70
700	19	40	200	8	0.23	1.05
800	19	45	200	8	0.23	1.85
900	19	50	200	8	0.23	2.05
1 000	19	55	200	8	0.33	2.25
1 100	19	60	200	8	0.33	3.09
1 200	19	65	200	8	0.33	4.11
1 400	19	75	200	12	0.50	5.08
1 600	19	80	200	12 or 8+8	0.67	6.55
1 800	19	90	200	12 or 8+8	0.67	9.00
2 000	19	100	200	12 + 12	1.00	12.15
2 200	19	110	200	12 + 12	1.00	13.30

NOTES

1 If mild steel is used for spiral reinforcement, the mass specified under col 7 shall be increased by a factor 140/125.

2 Soft grade mild steel wire may be used for reinforcement for collars of pipes of nominal internal diameter up to 250 mm only, by increasing the mass by a factor 140/84. Where only soft grade mild steel wire is used for making collar cages, the mass of reinforcement shall be total mass of col 6 and col 7 multiplied by 140/84. This is allowed as a process requirement.

3 Internal diameter of collar to suit the actual diameter of pipes with minimum caulking space as given in col 2.