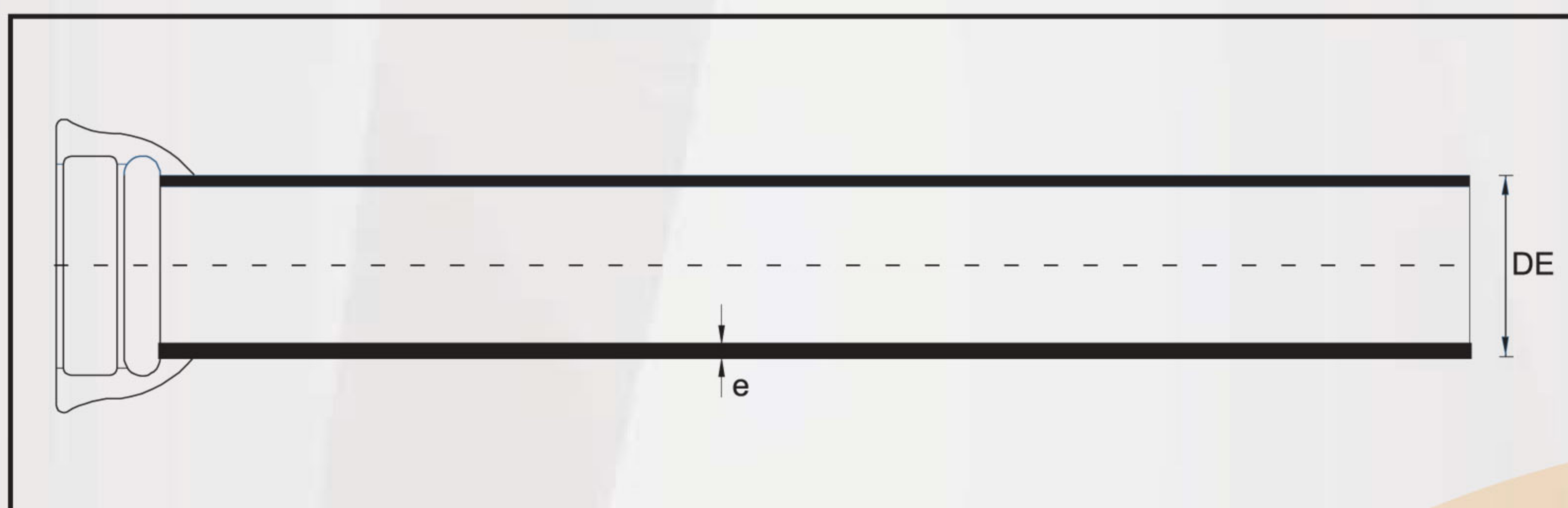


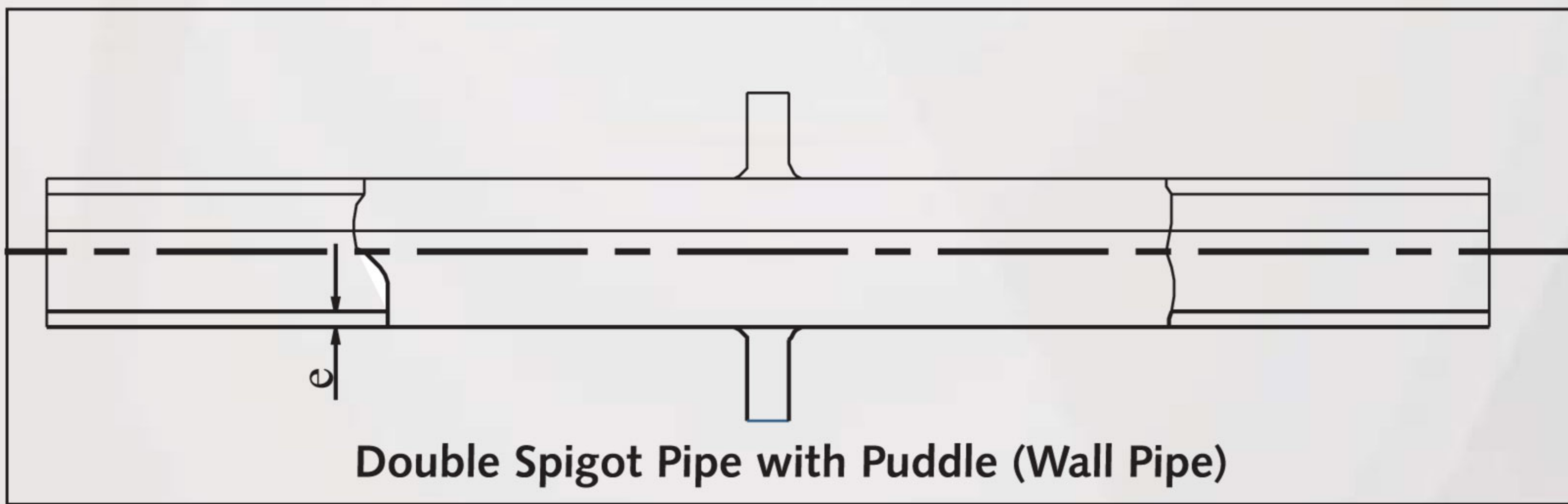
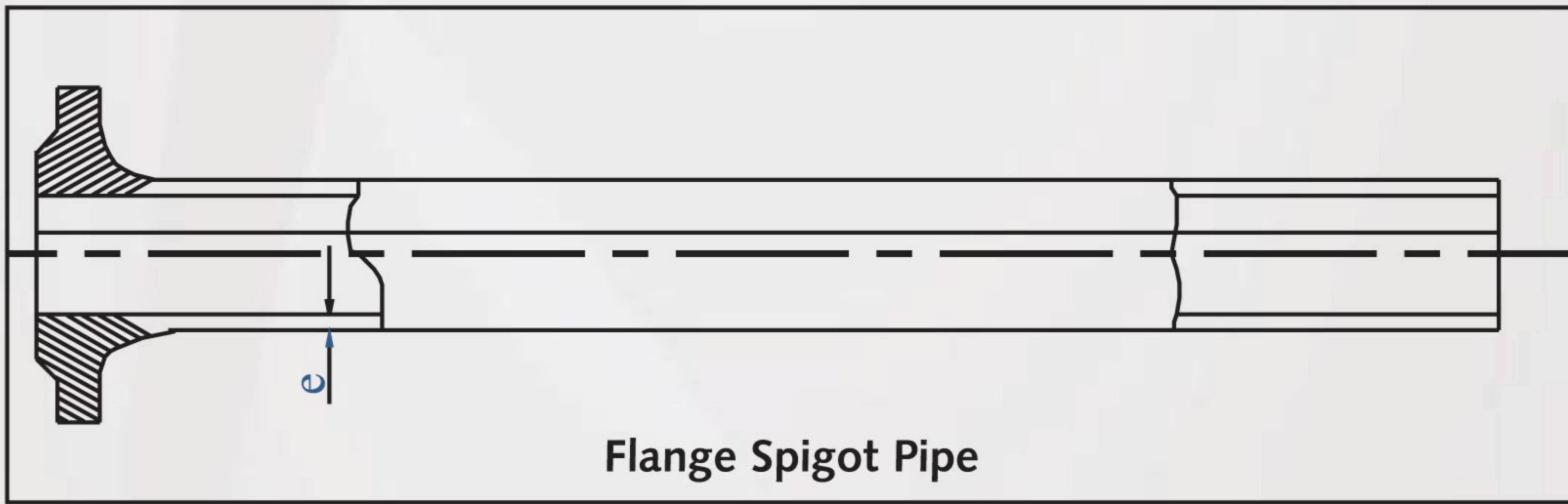
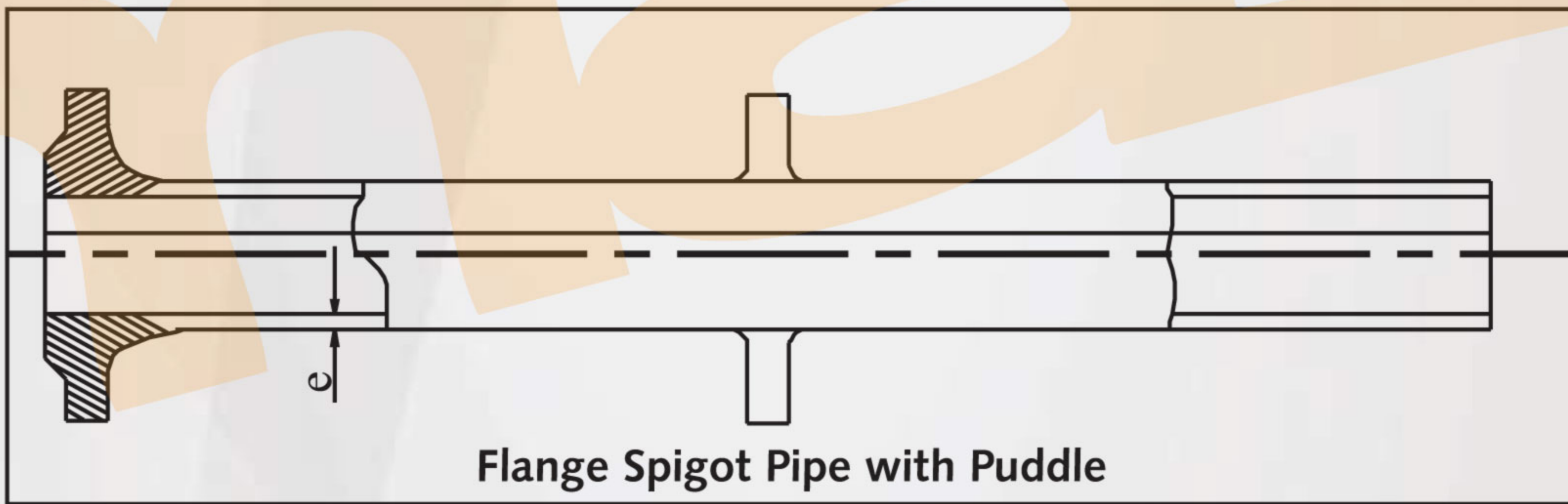
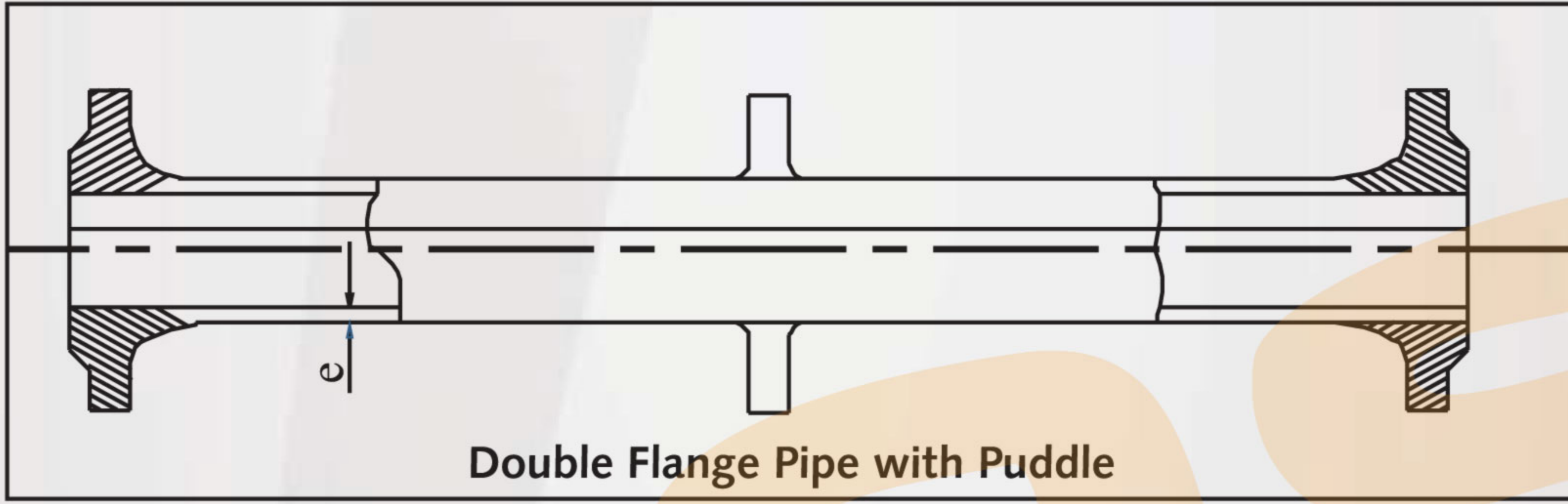
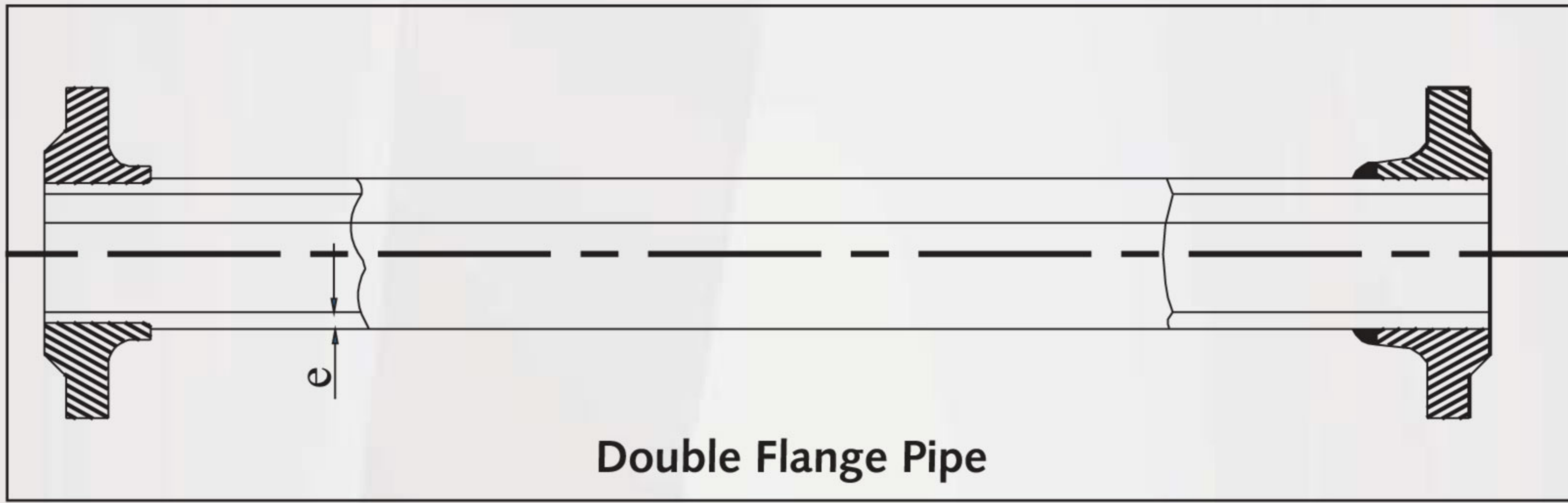
Socket Spigot Pipe (K9)



Dimensions in millimeters

Mass (Weight) in Kilograms

Nominal Size DN	Mass Per Mtr Kg		Cement Thickness	Socket Mass Kg	Total Mass (Kg) Including Socket , Casting & Cement For one working length of Pipe ...					
	Casting	Cement			4 Mtr	5 Mtr	6 Mtr	7 Mtr	8 Mtr	9 Mtr
65	-	-	-	2.7	-	-	-	-	-	-
80	12.2	1.7	3.0	3.4	59.0	72.9	86.8	100.7	114.6	128.5
100	15.1	2.1	3.0	4.3	73.1	90.3	107.5	124.7	141.9	159.1
125	18.9	2.7	3.0	5.7	92.1	113.7	135.3	156.9	178.5	200.1
150	22.8	3.2	3.0	7.1	111.1	137.1	163.1	189.1	215.1	241.1
200	30.6	4.2	3.0	10.3	149.5	184.3	219.1	253.9	288.7	323.5
250	40.2	5.2	3.0	14.2	195.8	241.2	286.6	332.0	377.4	422.8
300	50.8	6.3	3.0	18.6	247.0	304.1	361.2	418.3	475.4	532.5
350	63.2	12.3	5.0	23.7	325.7	401.2	476.7	552.2	627.7	703.2
400	75.5	14.0	5.0	29.3	387.3	476.8	566.3	655.8	745.3	834.8
450	89.4	15.9	5.0	34.6	455.8	561.1	666.4	771.7	877.0	982.3
500	104.3	17.5	5.0	42.8	530.0	651.8	773.6	895.4	1017	1139
600	137.3	20.9	5.0	59.3	692.1	850.3	1009	1167	1325	1483
700	173.9	29.3	6.0	79.1	891.9	1095	1298	1502	1705	1908
800	215.2	33.4	6.0	102.6	1097	1346	1594	1843	2091	2340
900	260.2	37.6	6.0	129.9	1321	1619	1917	2215	2512	2810
1000	309.3	41.7	6.0	161.3	1565	1916	2267	2618	2969	3320
1100	363.7	46.4	6.0	189.8	1830	2240	2650	3061	3471	3881
1200	420.1	50.0	6.0	237.7	2118	2588	3058	3528	3999	4469
1400	547.2	87.6	9.0	279.3	2819	3453	4088	4723	5358	5993
1500	619.1	78.0	9.0	300.4	3089	3786	4483	5180	5877	6574
1600	690.3	100.1	9.0	375.4	3537	4327	5118	5908	6699	7489
1800	850.1	112.5	9.0	490.6	4341	5304	6266	7229	8191	9154
2000	1026.3	135.0	9.0	626.4	5272	6433	7594	8756	9917	11078
2200	1218.3	183.5	12.0	784.2	6391	7793	9195	10597	11999	13400
2400	1427.2	200.0	12.0	966.2	7475	9102	10729	12357	13984	15611
2600	1652.4	216.6	12.0	1173.7	8650	10519	12388	14257	16126	17995



Flanged Pipes

Beside the standard pipes and fittings, customers usually need a non standard pipes (flanged pipes) to satisfy some special requirements, this short pieces could be manufactured according to the special designs that may be requested by the customer.

Four types of flanges are provided, corresponding to the nominal pressure PN 10, PN 16, PN 25 and PN 40, and these can be connected to pipes in a fixed or removable way. The later arrangement has the advantage of making casting mounting and PN change easier.

- For short lengths flanged pipes, it could be manufactured with integral flanges or welded flanges.

- For long lengths flanged pipes, it should be manufactured with screwed flanges or with welded flanges (welding neck flanges or slip on flanges for welding).

The wall thickness e has been calculated as a function of the nominal size DN using the linear formula
$$e = K (0.5 + 0.001 DN)$$

Where:

$K = 12$ and 14 for pipes with integral flanges;

$K = 10$ and 12 for pipes with screwed flanges;

$K = 9$ for pipes with welded flanges (welding neck flanges or slip-on flanges or welding).

As for spigot and socket pipes, the wall thickness for small diameter pipes is calculated using a complementary formula;

$$e = 5.8 + 0.003 DN$$
 (with a minimum value of 6 mm)

Which is applicable to DN 40 to DN 200 for pipes of class $K = 9$ and DN 40 to DN 125 for pipes of class $K = 10$.

Lengths and tolerance length

The maximum length for this type of pipes (flanged pipes) is normally 5.8 meter, the manufacturing working lengths of flanged pipes shall be those specified in national standard, or, when not so specified, in the manufacturer catalogues.

The standard tolerance on manufacturing working lengths is ± 10 mm.

Welding procedures

At first, flange has been prepared for welding by removing scale, sponginess, and other defects from both inside and outside flange around weld line using disc grinder in order to obtain optimum quality weldments, weld area of pipe was cleaned and ground to remove paint, casting skin and dirt before fitting of pipe with flange was done.

The weld joint was locally preheated to 200oC using oxy-acetylene torch and the temperature was checked by temperature indicating crayons.

Preheating castings before welding has the following advantages.

- Improve fusion of weld metal to groove face to obtain complete fusion.

- Prevents cracking caused by temperature gradients and thermal stresses.
- Reduces residual stresses.
- Reduces distortion.
- Reduces hardness of HAZ due to limiting of martensite formation to a minimum.
- Reduces temperature gradients when welding thin to thick base metals.
- Reduces temperature gradients when welding dissimilar base metals.

