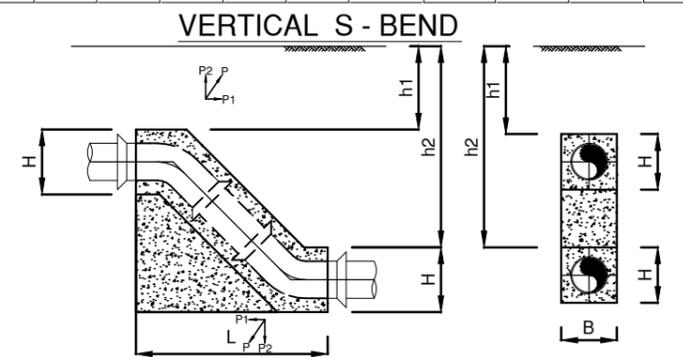


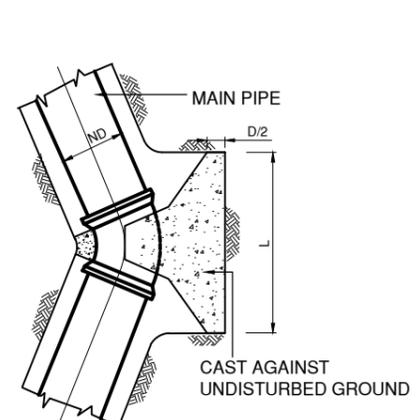
DIMENSIONS OF THRUST BLOCKS FOR DIFFERENT TEST PRESSURES

TEST PRESSURE	D mm DI PIPE	D mm PVC PIPE	BENDS								TEES	
			11 1/4°		22 1/2°		45°		90°		L	H
			L	H	L	H	L	H	L	H		
6 bar	80	90	0.16	0.16	0.16	0.16	0.24	0.16	0.26	0.26	0.22	0.22
	100	110	0.20	0.20	0.20	0.20	0.29	0.20	0.33	0.33	0.27	0.27
	150	160	0.23	0.23	0.28	0.23	0.55	0.23	0.48	0.48	0.40	0.40
	200	225	0.30	0.30	0.36	0.30	0.71	0.30	0.63	0.63	0.53	0.53
	250	280	0.38	0.38	0.43	0.38	0.85	0.38	0.77	0.77	0.64	0.64
10 bar	300	-	0.38	0.38	0.60	0.38	1.17	0.38	0.90	0.90	0.76	0.76
	50	63	0.10	0.10	0.13	0.10	0.25	0.10	0.22	0.22	0.18	0.18
	80	90	0.16	0.16	0.20	0.16	0.39	0.16	0.34	0.34	0.29	0.29
	100	110	0.20	0.20	0.25	0.20	0.48	0.20	0.42	0.42	0.35	0.35
	150	160	0.24	0.23	0.47	0.23	0.91	0.23	0.61	0.62	0.52	0.52
	200	225	0.30	0.30	0.60	0.30	1.18	0.30	0.81	0.81	0.68	0.68
	250	280	0.38	0.38	0.72	0.38	1.41	0.38	0.99	0.99	0.83	0.83
	300	-	0.50	0.38	1.00	0.38	1.96	0.38	1.16	1.16	0.98	0.98

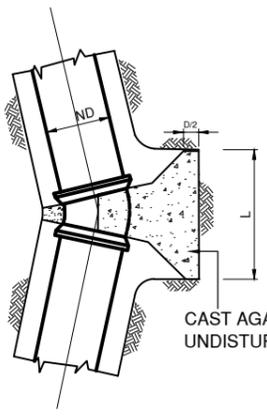
PLAN 90° HORIZONTAL BEND



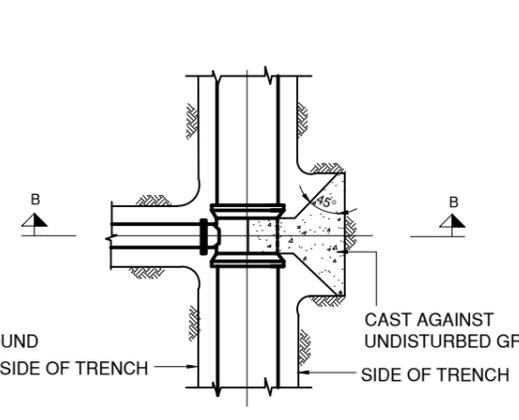
VERTICAL S-BEND



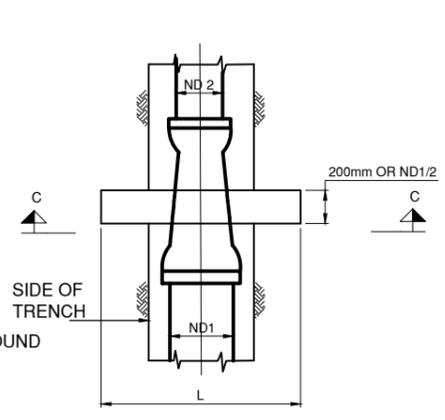
PLAN 45° HORIZONTAL BEND



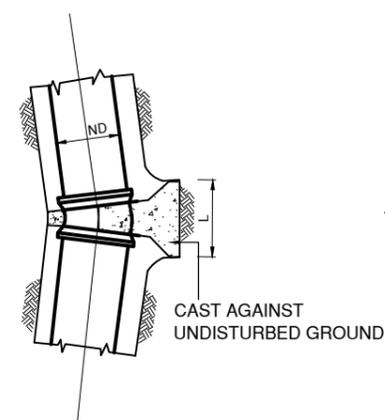
PLAN 22 1/2° HORIZONTAL BEND



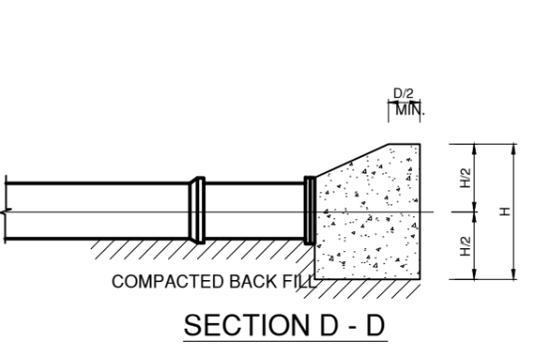
PLAN THRUST BLOCK FOR TEE



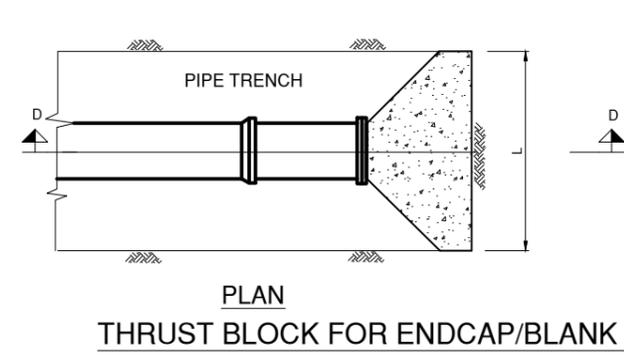
PLAN THRUST BLOCK FOR TAPER



PLAN 11 1/4° HORIZONTAL BEND



SECTION D - D



PLAN THRUST BLOCK FOR ENDCAP/BLANK FLANGE

WATER PRESSURE (Bar)	PIPE NOMINAL OUT SIDE DIAMETER D (mm)	DEGREE OF BEND (Deg)	DIMENSION				
			B (m)	H (m)	L (m)	h1 (m)	h2 (m)
6/10	90	45	0.30	0.30	2.00	0.90	1.90
6/10	100	45	0.60	0.60	2.00	0.75	1.75
6/10	110	45	0.60	0.60	2.00	0.76	1.76
6/10	160	45	0.75	0.60	2.50	0.78	1.78
6/10	200	45	0.80	0.80	3.00	0.70	1.70
6/10	225	45	0.85	0.85	3.00	0.69	1.69
6/10	280	45	1.00	0.90	4.00	0.70	1.70
10/16	150	45	0.80	0.60	2.80	0.78	1.78
10/16	200	45	1.00	0.50	3.20	0.85	1.85
10/16	250	45	1.00	0.70	4.00	0.78	1.78
10/16	300	45	1.00	0.90	5.00	0.70	1.70
10/16	350	45	1.30	0.90	5.00	0.73	1.73
10/16	400	45	1.50	0.70	5.00	0.85	1.85
10/16	500	45	1.80	0.80	5.60	0.85	1.85
10/16	600	45	2.20	0.90	6.00	0.85	1.85

1. THE DIMENSIONS OF THRUST BLOCKS ARE GIVEN IN METERS.
2. WHEN TWO PIPELINES ARE LAID IN COMMON TRENCH, THE BENDS SHALL BE STAGGERED TO MAKE WAY FOR INDEPENDENT THRUST BLOCKS. WHEN STAGGERING OF BENDS IS NOT POSSIBLE, THE THRUST BLOCK SHALL HAVE THE COMBINED AREA OF L X H REQUIRED FOR BOTH BENDS.
3. THE ABOVE DIMENSIONS OF THRUST BLOCKS ARE VALID FOR NON SUBMERGED CONDITION ONLY. FOR SUBMERGED CONDITION, DOUBLE THE EFFECTIVE LATERAL AREA (LXH).
4. L AND H MAY BE ALTERED TO SUIT SITE, BUT THE LATERAL AREA (LXH) SHALL REMAIN THE SAME OR GREATER.
5. WHEN ANCHOR GASKETS ARE USED, THE AREA (LXH) MAY BE REDUCED BY 50%.
6. THE THRUST BLOCKS SHALL EXTEND FROM THE FITTING UP TO THE UNDISTURBED FACE OF THE PIPE TRENCH.
7. ALL THRUST BLOCKS SHALL BE OF GRADE 20 CONCRETE.

	CLIENT: MINISTRY OF ENVIRONMENT AND ENERGY	CONSULTANCY SERVICES FOR DESIGN OF WATER SUPPLY FACILITIES IN Ha.HORAFUSHI, Hdh.HANIMAADHOO, Sh.MILANDHOO, R.UNGOOFAARU, Lh.NAIFARU, Dh.KUDAHUVADHOO, Th.GURAIIDHOO AND Ga.VILLINGILI, MALDIVES	DESIGN	DRAWN	CHECKED	APPROVED	SL.NO	DRWING NO	DESCRIPTION
			GREENTECH CONSULTANTS (Pvt.) Ltd IN ASSOCIATION WITH DEVELOPMENT COLLABORATION PARTNERSHIP (Pvt.) Ltd MALDIVES AND OPTIMUM SOLOUTIONS (Pvt) Ltd, MALDIVES	ENGINEER		DESIGN CHIEF			
	TITLE: THRUST BLOCKS DISTRIBUTION NETWORK		DATE	DRG.NO: NAIFARU/STD/03		SCALE: NOT TO SCALE			