

TR FLEX®

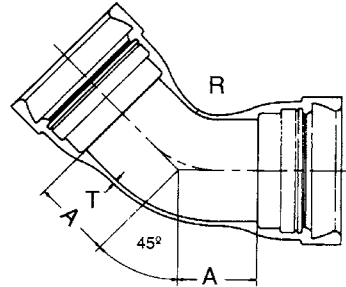
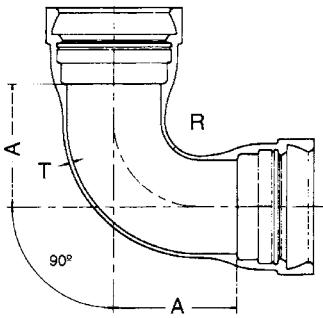
RESTRAINED JOINT DUCTILE IRON PIPE AND FITTINGS



2009 EDITION

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TR FLEX Fittings Thickness & Dimensions Bends



TR FLEX 90° Bends

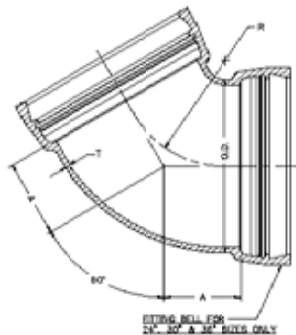
SIZE Inches	PRESSURE RATING psi	DIMENSIONS Inches			WEIGHT Pounds
		T	A	R	
4	350	0.34	5.66	3.99	35
6	350	0.36	6.78	4.99	70
8	350	0.39	8.83	6.97	125
10	350	0.41	10.63	8.71	180
12	350	0.44	12.60	10.61	255
14	350	0.66	14.00	11.50	435
16	350	0.70	15.00	12.50	520
18	350	0.75	16.50	14.00	670
20	350	0.80	14.00	12.38	745
24	350	0.89	17.00	16.70	1070
30	250	1.03	23.00	21.00	1870
36	250	1.15	26.00	24.00	2740

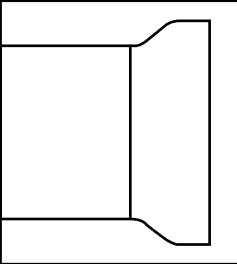
TR FLEX 45° Bends

SIZE Inches	PRESSURE RATING psi	DIMENSIONS Inches			WEIGHT Pounds
		T	A	R	
4	350	0.34	3.33	3.99	30
6	350	0.36	3.86	4.99	55
8	350	0.39	4.74	6.97	90
10	350	0.41	5.22	7.98	125
12	350	0.44	5.91	9.47	170
14	350	0.66	7.50	12.06	370
16	350	0.70	8.00	13.25	430
18	350	0.75	8.50	14.50	550
20	350	0.80	9.50	16.88	685
24	350	0.89	6.00	18.12	970
30	250	1.03	10.50	20.52	1452
36	250	1.15	11.50	22.94	1864

TR FLEX 60° Bends

SIZE Inches	PRESSURE RATING psi	DIMENSIONS Inches			WEIGHT Pounds
		T	A	R	
24	350	0.89	15.00	18.41	1020
30	250	1.03	15.00	20.19	1645
36	250	1.15	17.00	23.38	2390





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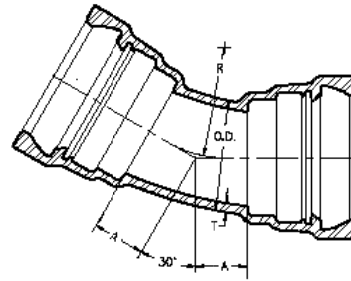
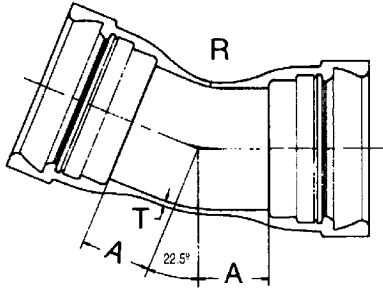
RESTRAINED JOINT DUCTILE IRON PIPE AND FITTINGS



2009 EDITION

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TR FLEX Fittings Thickness & Dimensions Bends (cont.)



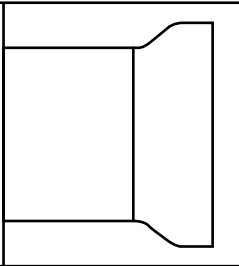
TR FLEX 22.5° Bends

SIZE Inches	PRESSURE RATING psi	DIMENSIONS Inches			WEIGHT Pounds
		T	A	R	
4	350	0.34	2.47	3.99	30
6	350	0.36	3.07	6.41	55
8	350	0.39	3.24	6.97	80
10	350	0.41	3.51	7.98	115
12	350	0.44	3.76	8.95	155
14	350	0.66	7.50	25.12	375
16	350	0.70	8.00	27.62	435
18	350	0.75	8.50	30.19	560
20	350	0.80	9.50	35.19	695
24	350	0.89	4.50	14.45	750
30	250	1.03	7.00	25.14	1305
36	250	1.15	8.00	30.16	1855

TR FLEX 30° Bends

SIZE Inches	PRESSURE RATING psi	DIMENSIONS Inches			WEIGHT Pounds
		T	A	R	
24	350	0.89	8.00	21.01	870
30	250	1.03	9.50	22.97	1419
36	250	1.15	11.00	27.99	2052

†Actual weight of fitting may exceed those shown.



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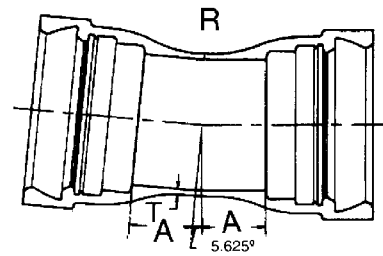
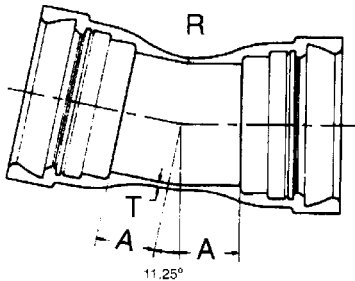
RESTRAINED JOINT DUCTILE IRON PIPE AND FITTINGS



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TR FLEX Fittings Thickness & Dimensions Bends (cont.)



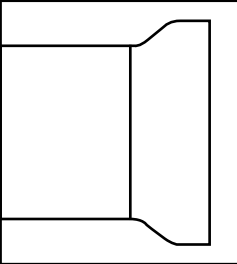
TR FLEX 11.25° Bends

SIZE Inches	PRESSURE RATING psi	DIMENSIONS Inches			WEIGHT Pounds
		T	A	R	
4	350	0.34	2.07	3.99	30
6	350	0.36	2.42	6.35	50
8	350	0.39	2.55	6.97	75
10	350	0.41	2.71	7.98	110
12	350	0.44	2.87	8.95	145
14	350	0.66	7.50	50.75	375
16	350	0.70	8.00	55.81	440
18	350	0.75	8.50	60.94	560
20	350	0.80	9.50	71.06	695
24	350	0.89	3.00	13.96	700
30	250	1.03	7.00	50.77	1305
36	250	1.15	8.00	60.92	1860

TR FLEX 5.625° Bends

SIZE Inches	PRESSURE RATING psi	DIMENSIONS Inches			WEIGHT Pounds
		T	A	R	
20	350	0.80	5.00	57.59	575
24	350	0.89	6.00	73.87	805
30	250	1.03	7.00	74.38	1310
36	250	1.15	8.00	91.60	1860

†Actual weight of fitting may exceed those shown.



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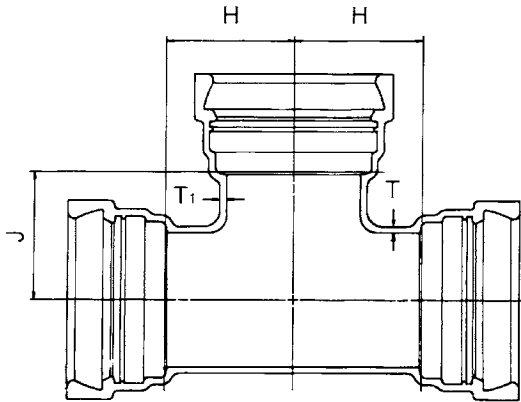
RESTRAINED JOINT DUCTILE IRON PIPE AND FITTINGS



2009 EDITION

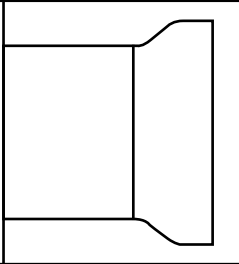
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TR FLEX Fittings Thickness & Dimensions Tees



SIZE Inches		PRESSURE RATING psi	DIMENSIONS Inches				WEIGHT Pounds
RUN	BRANCH		T	T ₁	H	J	
4	4	350	0.34	0.34	5.16	5.16	50
6	4	350	0.36	0.34	5.17	6.15	85
6	6	350	0.36	0.36	6.16	6.16	100
8	4	350	0.39	0.34	5.18	7.64	125
8	6	350	0.39	0.36	6.20	7.65	145
8	8	350	0.39	0.39	7.65	7.65	170
10	4	350	0.41	0.34	5.24	8.63	165
10	6	350	0.41	0.36	6.27	9.03	190
10	8	350	0.41	0.39	7.66	8.65	215
10	10	350	0.41	0.41	8.65	8.65	235
12	4	350	0.44	0.34	5.30	9.63	220
12	6	350	0.44	0.36	6.33	10.23	245
12	8	350	0.44	0.39	7.66	9.64	270
12	10	350	0.44	0.41	8.66	9.64	295
12	12	350	0.44	0.44	9.65	9.65	325
14	6	350	0.66	0.55	14.00	14.00	515
14	8	350	0.66	0.60	14.00	14.00	535
14	10	350	0.66	0.68	14.00	14.00	560
14	12	350	0.66	0.75	14.00	14.00	590
14	14	350	0.66	0.66	14.00	14.00	630
16	6	350	0.70	0.55	12.25	13.25	550
16	8	350	0.70	0.60	12.25	13.25	570
16	10	350	0.70	0.68	12.25	13.25	590

SIZE Inches		PRESSURE RATING psi	DIMENSIONS Inches				WEIGHT Pounds
RUN	BRANCH		T	T ₁	H	J	
16	12	350	0.70	0.75	12.25	13.25	620
16	14	350	0.70	0.66	12.25	13.25	665
16	16	350	0.70	0.70	12.25	13.25	675
18	6	350	0.75	0.55	13.00	15.50	700
18	8	350	0.75	0.60	13.00	15.50	720
18	10	350	0.75	0.68	13.00	15.50	740
18	12	350	0.75	0.75	13.00	15.50	770
18	14	350	0.75	0.66	16.50	16.50	900
18	16	350	0.75	0.70	16.50	16.50	920
18	18	350	0.75	0.75	16.50	16.50	955
20	6	350	0.80	0.55	11.00	16.00	770
20	8	350	0.80	0.60	11.00	16.00	790
20	10	350	0.80	0.68	11.00	16.00	810
20	12	350	0.80	0.75	11.00	16.00	835
20	14	350	0.80	0.66	14.00	17.00	970
20	16	350	0.80	0.70	15.00	15.00	995
20	18	350	0.80	0.75	18.00	18.00	1150
20	20	350	0.80	0.80	15.00	15.00	1065



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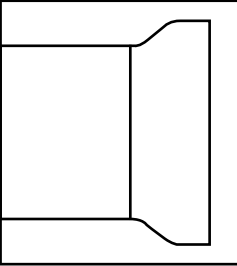
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TR FLEX Fittings Thickness & Dimensions Tees (cont.)

SIZE Inches		PRESSURE RATING psi	DIMENSIONS Inches				WEIGHT Pounds
RUN	BRANCH		T	T _i	H	J	
24	6	350	0.89	0.55	15.00	19.00	1160
24	8	350	0.89	0.60	15.00	19.00	1180
24	10	350	0.89	0.68	15.00	19.00	1205
24	12	350	0.89	0.75	15.00	19.00	1230
24	14	350	0.89	0.66	15.00	19.00	1270
24	16	350	0.89	0.70	15.00	19.00	1290
24	18	350	0.89	0.75	17.00	21.00	1430
24	20	350	0.89	0.80	17.00	21.00	1475
24	24	350	0.89	0.89	17.00	21.00	1545
30	6	250	1.03	0.55	11.00	23.00	1550
30	8	250	1.03	0.60	11.00	23.00	1570
30	10	250	1.03	0.68	11.00	23.00	1595
30	12	250	1.03	0.75	11.00	23.00	1620
30	14	250	1.03	0.66	13.50	23.00	1790
30	16	250	1.03	0.70	13.50	23.00	1805
30	18	250	1.03	0.75	18.00	23.00	2080
30	20	250	1.03	0.80	18.00	23.00	2120
30	24	250	1.03	0.89	21.00	25.00	2390
30	30	250	1.03	1.03	21.00	25.00	2565
36	6	250	1.15	0.55	17.50	26.00	2545
36	8	250	1.15	0.60	17.50	26.00	2565
36	10	250	1.15	0.68	17.50	26.00	2584
36	12	250	1.15	0.75	17.50	26.00	2609
36	14	250	1.15	0.66	17.50	26.00	2651
36	16	250	1.15	0.70	17.50	26.00	2679
36	18	250	1.15	0.75	17.50	26.00	2707
36	20	250	1.15	0.80	17.50	26.00	2747
36	24	250	1.15	0.89	17.50	26.00	2833
36	30	250	1.15	1.03	20.00	26.00	3217
36	36	250	1.15	1.15	20.00	26.00	3589

†Actual weight of fitting may exceed those shown.



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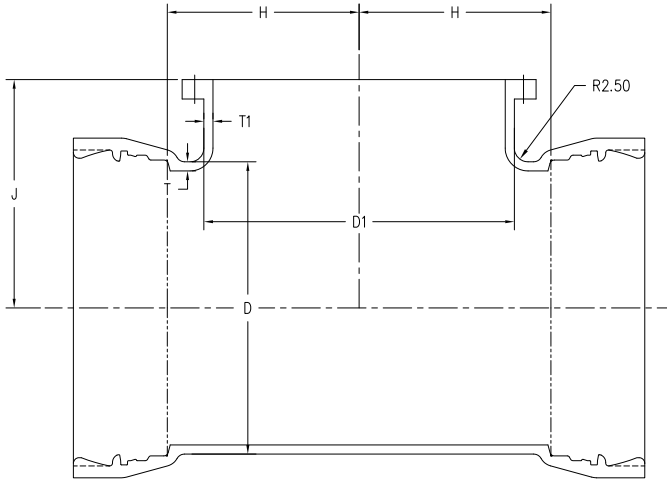
RESTRAINED JOINT DUCTILE IRON PIPE AND FITTINGS



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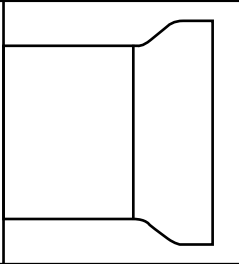
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TR FLEX Tees with Flange Branch



SIZE Inches		DIMENSIONS Inches						WEIGHT Pounds
RUN	BRANCH	D	D ₁	T	T ₁	H	J	
4	4	4.66	4.66	0.34	0.34	5.16	6.5	49
6	4	6.74	4.66	0.36	0.34	5.17	8.0	84
6	6	6.74	6.74	0.36	0.36	6.16	8.0	107
8	4	8.88	4.66	0.39	0.34	5.18	9.0	124
8	6	8.88	6.74	0.39	0.36	6.20	9.0	152
8	8	8.88	8.88	0.39	0.39	7.65	9.0	185
10	4	10.86	4.66	0.41	0.34	5.24	11.0	164
10	6	10.86	6.74	0.41	0.36	6.27	11.0	197
10	8	10.86	8.88	0.41	0.39	7.66	11.0	230
10	10	10.86	10.86	0.41	0.41	8.65	11.0	257
12	4	12.86	4.66	0.44	0.34	5.30	12.0	219
12	6	12.86	6.74	0.44	0.36	6.33	12.0	252
12	8	12.86	8.88	0.44	0.39	7.66	12.0	285
12	10	12.86	10.86	0.44	0.41	8.66	12.0	317
12	12	12.86	12.86	0.44	0.44	9.65	12.0	350
14	6	15.30	7.10	0.66	0.55	14.0	14.0	508
14	8	15.30	9.30	0.66	0.60	14.0	14.0	522
14	10	15.30	10.86	0.66	0.68	14.0	14.0	536
14	12	15.30	12.86	0.66	0.75	14.0	14.0	560
14	14	15.30	15.30	0.66	0.66	14.0	14.0	566

SIZE Inches		DIMENSIONS Inches						WEIGHT Pounds
RUN	BRANCH	D	D ₁	T	T ₁	H	J	
16	6	17.40	7.10	0.70	0.55	12.25	15.0	628
16	8	17.40	9.30	0.70	0.60	12.25	15.0	642
16	10	17.40	11.40	0.70	0.68	12.25	15.0	655
16	12	17.40	12.86	0.70	0.75	12.25	15.0	678
16	14	17.40	15.30	0.70	0.66	12.25	15.0	685
16	16	17.40	17.40	0.70	0.70	12.25	15.0	703
18	6	19.50	7.10	0.75	0.55	13.0	15.5	690
18	8	19.50	9.30	0.75	0.60	13.0	15.5	702
18	10	19.50	11.40	0.75	0.68	13.0	15.5	715
18	12	19.50	12.86	0.75	0.75	13.0	15.5	737
18	14	19.50	15.30	0.75	0.66	16.5	16.5	829
18	16	19.50	17.40	0.75	0.70	16.5	16.5	848
18	18	19.50	19.50	0.75	0.75	16.5	16.5	855
20	6	21.60	7.10	0.80	0.55	11.0	17.0	845
20	8	21.60	9.30	0.80	0.60	11.0	17.0	858
20	10	21.60	11.40	0.80	0.68	11.0	17.0	871
20	12	21.60	12.86	0.80	0.75	11.0	17.0	893
20	14	21.60	15.30	0.80	0.66	14.0	17.0	898
20	16	21.60	17.40	0.80	0.70	15.0	18.0	1031
20	18	21.60	19.50	0.80	0.75	18.0	18.0	1039



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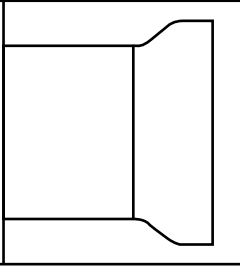


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TR FLEX Tees with Flange Branch (cont.)

SIZE Inches		DIMENSIONS Inches						WEIGHT Pounds
RUN	BRANCH	D	D _i	T	T _i	H	J	
24	6	25.80	7.10	0.89	0.55	15.0	19.0	1159
24	8	25.80	9.30	0.89	0.60	15.0	19.0	1172
24	10	25.80	11.40	0.89	0.68	15.0	19.0	1183
24	12	25.80	13.50	0.89	0.75	15.0	19.0	1204
24	14	25.80	15.30	0.89	0.66	15.0	19.0	1209
24	16	25.80	17.40	0.89	0.70	15.0	19.0	1225
24	18	25.80	19.50	0.89	0.75	17.0	22.0	1514
24	20	25.80	21.60	0.89	0.80	17.0	22.0	1542
24	24	25.80	25.80	0.89	0.89	17.0	22.0	1591
30	6	32.0	7.10	1.00	0.55	13.50	23.0	1527
30	8	32.0	9.30	1.00	0.60	13.50	23.0	1541
30	10	32.0	11.40	1.00	0.68	13.50	23.0	1554
30	12	32.0	13.50	1.00	0.75	13.50	23.0	1578
30	14	32.0	15.30	1.00	0.66	13.50	23.0	1707
30	16	32.0	17.40	1.00	0.70	13.50	23.0	1728
30	18	32.0	19.50	1.00	0.75	18.00	23.0	1962
30	20	32.0	21.60	1.00	0.80	18.00	23.0	1993
30	24	32.0	25.80	1.00	0.89	21.00	25.0	2243
30	30	32.0	32.00	1.00	1.00	21.00	25.0	2630
36	6	38.30	7.10	1.15	0.55	17.50	26.0	—
36	8	38.30	9.30	1.15	0.60	17.50	26.0	2550
36	10	38.30	11.40	1.15	0.68	17.50	26.0	2562
36	12	38.30	13.50	1.15	0.75	17.50	26.0	2584
36	14	38.30	15.30	1.15	0.66	17.50	26.0	2588
36	16	38.30	17.40	1.15	0.70	17.50	26.0	2605
36	18	38.30	19.50	1.15	0.75	17.50	26.0	2612
36	20	38.30	21.60	1.15	0.80	17.50	26.0	2638
36	24	38.30	25.80	1.15	0.89	17.50	26.0	2690
36	30	38.30	32.00	1.15	1.00	28.00	28.0	3564
36	36	38.30	38.30	1.15	1.15	28.00	28.0	3891



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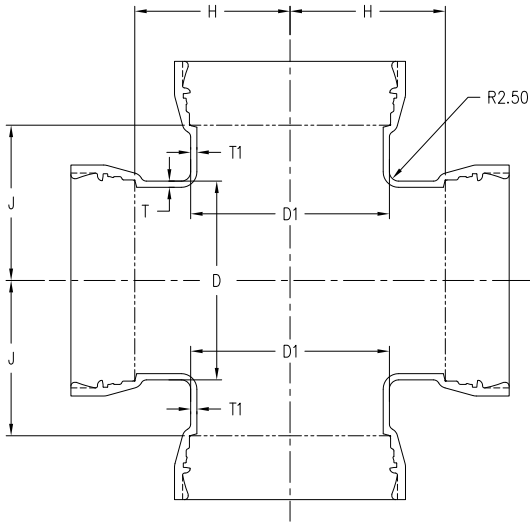
RESTRAINED JOINT DUCTILE IRON PIPE AND FITTINGS



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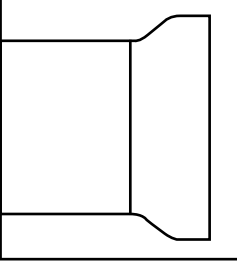
P 35

TR FLEX Crosses



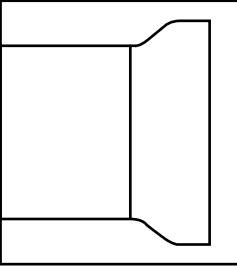
SIZE Inches		DIMENSIONS Inches						WEIGHT Pounds
RUN	BRANCH	D	D ₁	T	T ₁	H	J	
14	6	15.30	7.10	0.66	0.55	14.0	14.0	553
14	8	15.30	9.30	0.66	0.60	14.0	14.0	598
14	10	15.30	11.40	0.66	0.68	14.0	14.0	640
14	12	15.30	13.50	0.66	0.75	14.0	14.0	693
14	14	15.30	15.30	0.66	0.66	14.0	14.0	782
16	6	17.40	7.10	0.70	0.55	15.0	15.0	673
16	8	17.40	9.30	0.70	0.60	15.0	15.0	717
16	10	17.40	11.40	0.70	0.68	15.0	15.0	757
16	12	17.40	13.50	0.70	0.75	15.0	15.0	810
16	14	17.40	15.30	0.70	0.66	15.0	15.0	899
16	16	17.40	17.40	0.70	0.70	15.0	15.0	958
18	6	19.50	7.10	0.75	0.55	13.0	15.5	733
18	8	19.50	9.30	0.75	0.60	13.0	15.5	774
18	10	19.50	11.40	0.75	0.68	13.0	15.5	813
18	12	19.50	13.50	0.75	0.75	13.0	15.5	863
18	14	19.50	15.30	0.75	0.66	16.5	16.5	1044
18	16	19.50	17.40	0.75	0.70	16.5	16.5	1104
18	18	19.50	19.50	0.75	0.75	16.5	16.5	1161
20	6	21.60	7.10	0.80	0.55	14.0	17.0	889

SIZE Inches		DIMENSIONS Inches						WEIGHT Pounds
RUN	BRANCH	D	D ₁	T	T ₁	H	J	
20	8	21.60	9.30	0.80	0.60	14.0	17.0	931
20	10	21.60	11.40	0.80	0.68	14.0	17.0	970
20	12	21.60	13.50	0.80	0.75	14.0	17.0	1021
20	14	21.60	15.30	0.80	0.66	14.0	17.0	1108
20	16	21.60	17.40	0.80	0.70	18.0	18.0	1289
20	18	21.60	19.50	0.80	0.75	18.0	18.0	1347
20	20	21.60	21.60	0.80	0.80	18.0	18.0	1426
24	6	25.80	7.10	0.89	0.55	15.0	19.0	1202
24	8	25.80	9.30	0.89	0.60	15.0	19.0	1243
24	10	25.80	11.40	0.89	0.68	15.0	19.0	1280
24	12	25.80	13.50	0.89	0.75	15.0	19.0	1329
24	14	25.80	15.30	0.89	0.66	15.0	19.0	1413
24	16	25.80	17.40	0.89	0.70	15.0	19.0	1467
24	18	25.80	19.50	0.89	0.75	22.0	22.0	1836
24	20	25.80	21.60	0.89	0.80	22.0	22.0	1920
24	24	25.80	25.80	0.89	0.89	22.0	22.0	2087

866. DIP . PIPE**TR FLEX®****RESTRAINED JOINT DUCTILE IRON PIPE AND FITTINGS****2009 EDITION****P 36****TR FLEX Crosses (cont.)**

SIZE Inches		DIMENSIONS Inches						WEIGHT Pounds
RUN	BRANCH	D	D ₁	T	T ₁	H	J	
30	6	32.00	7.10	1.00	0.55	18.0	23.0	1919
30	8	32.0	9.30	1.00	0.60	18.0	23.0	1963
30	10	32.0	11.40	1.00	0.68	18.0	23.0	2004
30	12	32.0	13.50	1.00	0.75	18.0	23.0	2058
30	14	32.0	15.30	1.00	0.66	18.0	23.0	2144
30	16	32.0	17.40	1.00	0.70	18.0	23.0	2207
30	18	32.0	19.50	1.00	0.75	18.0	23.0	2271
30	20	32.0	21.60	1.00	0.80	18.0	23.0	2361
30	24	32.0	25.80	1.00	0.89	25.0	25.0	2978
30	30	32.0	32.00	1.00	1.00	25.0	25.0	3247
36	6	38.30	7.10	1.15	0.55	20.0	26.0	2752
36	8	38.30	9.30	1.15	0.60	20.0	26.0	2793
36	10	38.30	11.40	1.15	0.68	20.0	26.0	2831
36	12	38.30	13.50	1.15	0.75	20.0	26.0	2881
36	14	38.30	15.30	1.15	0.66	20.0	26.0	2963
36	16	38.30	17.40	1.15	0.70	20.0	26.0	3020
36	18	38.30	19.50	1.15	0.75	20.0	26.0	3076
36	20	38.30	21.60	1.15	0.80	20.0	26.0	3157
36	24	38.30	25.80	1.15	0.89	20.0	26.0	3328
36	30	38.30	32.00	1.15	1.00	28.0	28.0	4402
36	36	38.30	38.30	1.15	1.15	28.0	28.0	5183

866.DIP.PIPE



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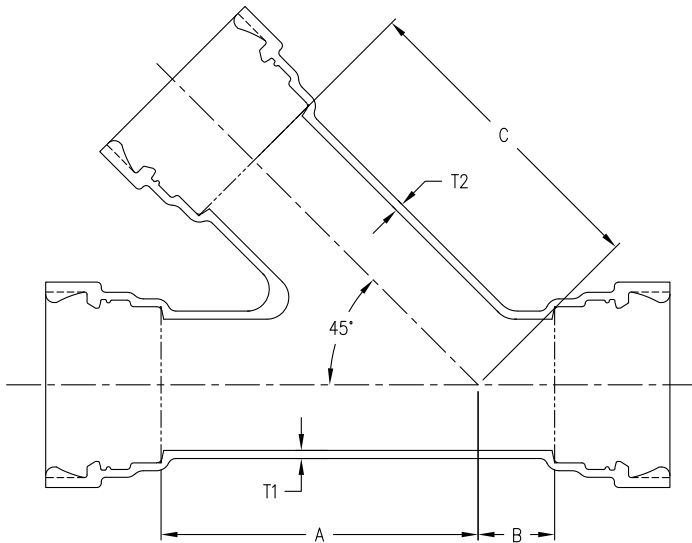
RESTRAINED JOINT DUCTILE IRON PIPE AND FITTINGS



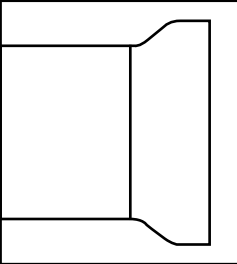
2009 EDITION

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TR FLEX Wye Branches



SIZE Inches		THICKNESS		DIMENSIONS Inches			WEIGHT Pounds
RUN	BRANCH	T ₁	T ₂	A	B	C	
10	4	0.68	0.52	20.5	5	20.5	—
10	6	0.68	0.55	20.5	5	20.5	—
10	8	0.68	0.60	20.5	5	20.5	—
10	10	0.80	0.80	20.5	5	20.5	—
12	4	0.75	0.52	24.5	5.5	24.5	—
12	12	0.75	0.75	24.5	5.5	24.5	570



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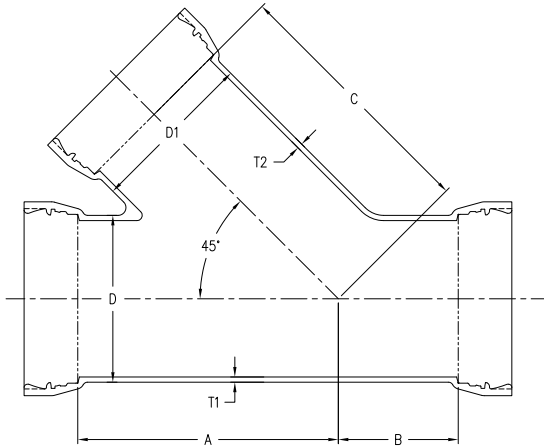
RESTRAINED JOINT DUCTILE IRON PIPE AND FITTINGS



2009 EDITION

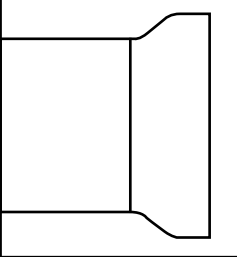
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TR FLEX Wyes



SIZE Inches		THICKNESS				DIMENSIONS Inches		WEIGHT Pounds
RUN	BRANCH	D	D ₁	T	T ₁	A & C	B	
14	6	15.65	7.10	0.82	0.55	27.0	6.0	608
14	8	15.65	9.30	0.82	0.60	27.0	6.0	641
14	10	15.65	11.40	0.82	0.68	27.0	6.0	673
14	12	15.65	13.50	0.82	0.75	27.0	6.0	721
14	14	15.65	15.30	0.82	0.82	27.0	6.0	794
16	6	17.80	7.10	0.89	0.55	30.0	6.5	775
16	8	17.80	9.30	0.89	0.60	30.0	6.5	808
16	10	17.80	11.40	0.89	0.68	30.0	6.5	845
16	12	17.80	13.50	0.89	0.75	30.0	6.5	888
16	14	17.80	15.30	0.89	0.82	30.0	6.5	966
16	16	17.80	17.40	0.89	0.89	30.0	6.5	1027
18	6	19.92	7.10	0.96	0.55	32.0	7.0	952
18	8	19.92	9.30	0.96	0.60	32.0	7.0	985
18	10	19.92	11.40	0.96	0.68	32.0	7.0	1022
18	12	19.92	13.50	0.96	0.75	32.0	7.0	1065
18	14	19.92	15.30	0.96	0.82	32.0	7.0	1138
18	16	19.92	17.40	0.96	0.89	32.0	7.0	1199
18	18	19.92	19.50	0.96	0.96	32.0	7.0	1265
20	8	22.06	9.30	1.03	0.60	35.0	8.0	1228
20	10	22.06	11.40	1.03	0.68	35.0	8.0	1265
20	12	22.06	13.50	1.03	0.75	35.0	8.0	1308

SIZE Inches		THICKNESS				DIMENSIONS Inches		WEIGHT Pounds
RUN	BRANCH	D	D ₁	T	T ₁	A & C	B	
20	14	22.06	15.30	1.03	0.82	35.0	8.0	1391
20	16	22.06	17.40	1.03	0.89	35.0	8.0	1447
20	18	22.06	19.50	1.03	0.96	35.0	8.0	1513
20	20	22.06	21.60	1.03	1.03	35.0	8.0	1592
24	8	26.32	9.30	1.16	0.60	40.5	9.0	1781
24	10	26.32	11.40	1.16	0.68	40.5	9.0	1854
24	12	26.32	13.50	1.16	0.75	40.5	9.0	1910
24	14	26.32	15.30	1.16	0.82	40.5	9.0	1971
24	16	26.32	17.40	1.16	0.89	40.5	9.0	2035
24	18	26.32	19.50	1.16	0.96	40.5	9.0	2114
24	20	26.32	21.60	1.16	1.03	40.5	9.0	2288
24	24	26.32	25.80	1.16	1.16	40.5	9.0	2505
30	12	32.74	13.50	1.37	0.75	49.0	10.0	3070
30	14	32.74	15.30	1.37	0.82	49.0	10.0	3153
30	16	32.74	17.40	1.37	0.89	49.0	10.0	3219
30	18	32.74	19.50	1.37	0.96	49.0	10.0	3285
30	20	32.74	21.60	1.37	1.03	49.0	10.0	3369
30	24	32.74	25.80	1.37	1.16	49.0	10.0	3558
30	30	32.74	32.00	1.37	1.37	49.0	10.0	3975
36	12	39.16	13.50	1.58	0.75	60.0	19.5	5143
36	14	39.16	15.30	1.58	0.82	60.0	19.5	5336
36	16	39.16	17.40	1.58	0.89	60.0	19.5	5312
36	18	39.16	19.50	1.58	0.96	60.0	19.5	5393
36	20	39.16	21.60	1.58	1.03	60.0	19.5	5487
36	24	39.16	25.80	1.58	1.16	60.0	19.5	5691
36	30	39.16	32.00	1.58	1.37	60.0	19.5	6133
36	36	39.16	38.30	1.58	1.58	60.0	19.5	6682



TR FLEX®

RESTRAINED JOINT DUCTILE IRON PIPE AND FITTINGS



2009 EDITION

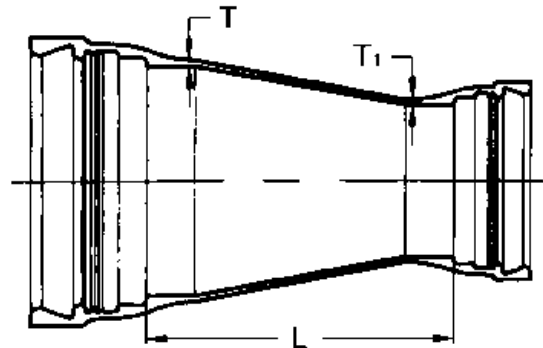
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TR FLEX Fittings Thickness & Dimensions Reducers

TR FLEX Concentric Reducers

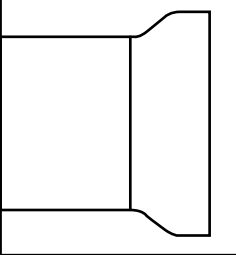
SIZE Inches		PRESSURE RATING psi	DIMENSIONS Inches			WEIGHT Pounds
LARGE	SMALL		T	T ₁	L	
6	4	350	0.36	0.34	6.62	50
8	4	350	0.39	0.34	9.84	75
8	6	350	0.39	0.36	5.91	80
10	4	350	0.41	0.34	12.92	100
10	6	350	0.41	0.36	10.02	110
10	8	350	0.41	0.39	6.93	120
12	4	350	0.44	0.34	16.13	140
12	6	350	0.44	0.36	13.23	145
12	8	350	0.44	0.39	10.15	155
12	10	350	0.44	0.41	7.06	165
14	6	350	0.66	0.55	16.00	240
14	8	350	0.66	0.60	16.00	265
14	10	350	0.66	0.68	16.00	295
14	12	350	0.66	0.75	16.00	330
16	6	350	0.70	0.55	18.00	280
16	8	350	0.70	0.60	18.00	305
16	10	350	0.70	0.68	18.00	340
16	12	350	0.70	0.75	18.00	375
16	14	350	0.70	0.66	18.00	425
18	6	350	0.75	0.55	19.00	-
18	8	350	0.75	0.60	19.00	370
18	10	350	0.75	0.68	19.00	405
18	12	350	0.75	0.75	19.00	445
18	14	350	0.75	0.66	19.00	495
18	16	350	0.75	0.70	19.00	525
20	6	350	0.80	0.55	20.00	-
20	8	350	0.80	0.60	20.00	-
20	10	350	0.80	0.68	20.00	470
20	12	350	0.80	0.75	20.00	510
20	14	350	0.80	0.66	20.00	560
20	16	350	0.80	0.70	20.00	590
20	18	350	0.80	0.75	20.00	650
24	8	350	0.89	0.60	24.00	-
24	10	350	0.89	0.68	24.00	-
24	12	350	0.89	0.75	24.00	680
24	14	350	0.89	0.66	24.00	730

†Actual weight of fittings may exceed those shown.



TR FLEX Concentric Reducers

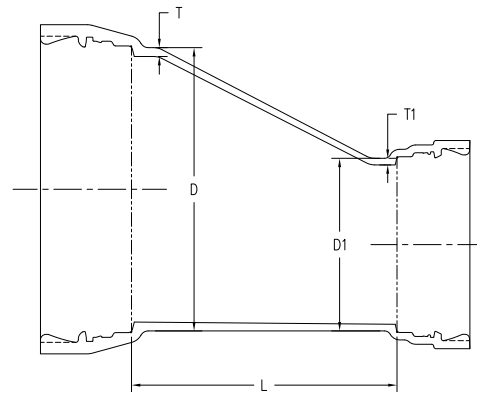
SIZE Inches		PRESSURE RATING psi	DIMENSIONS Inches			WEIGHT Pounds
LARGE	SMALL		T	T ₁	L	
24	16	350	0.89	0.70	24.00	765
24	18	350	0.89	0.75	24.00	830
24	20	350	0.89	0.80	24.00	890
30	12	250	1.03	0.75	30.00	1046
30	16	250	1.03	0.70	30.00	1149
30	18	250	1.03	0.75	24.00	1225
30	20	250	1.03	0.80	24.00	1165
30	24	250	1.03	0.89	24.00	1290
36	18	250	1.15	0.75	24.00	1635
36	20	250	1.15	0.80	36.00	1733
36	24	250	1.15	0.89	24.00	1568
36	30	250	1.15	1.03	24.00	1837



TR FLEX Fittings Thickness & Dimensions Reducers

TR FLEX Eccentric Reducers

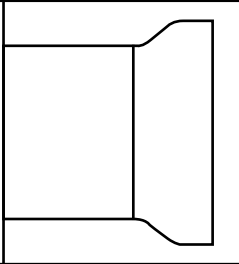
SIZE Inches		PRESSURE RATING psi	DIMENSIONS Inches			WEIGHT Pounds
LARGE	SMALL		T	T ₁	L	
10	8	350	0.68	0.60	12.0	162
12	4	350	0.75	0.52	14.0	159
12	6	350	0.75	0.55	14.0	180
12	8	350	0.75	0.60	14.0	203
12	10	350	0.75	0.68	14.0	235
14	6	350	0.66	0.55	16.0	243
14	8	350	0.66	0.60	16.0	271
14	10	350	0.66	0.68	16.0	298
14	12	350	0.66	0.75	16.0	334
16	6	350	0.70	0.55	18.0	290
16	8	350	0.70	0.60	18.0	318
16	10	350	0.70	0.68	18.0	355
16	12	350	0.70	0.75	18.0	391
16	14	350	0.70	0.66	18.0	444
18	8	350	0.75	0.60	19.0	372
18	10	350	0.75	0.68	19.0	409
18	12	350	0.75	0.75	19.0	445
18	14	350	0.75	0.66	19.0	498
18	16	350	0.75	0.70	19.0	540
20	10	350	0.80	0.68	20.0	473
20	12	350	0.80	0.75	20.0	514
20	14	350	0.80	0.66	20.0	562
20	16	350	0.80	0.70	20.0	609
20	18	350	0.80	0.75	20.0	658
24	12	350	0.89	0.75	24.0	689
24	14	350	0.89	0.66	24.0	737
24	16	350	0.89	0.70	24.0	784



TR FLEX Eccentric Reducers

SIZE Inches		PRESSURE RATING psi	DIMENSIONS Inches			WEIGHT Pounds
LARGE	SMALL		T	T ₁	L	
24	18	350	0.89	0.75	24.0	838
24	20	350	0.89	0.80	24.0	897
30	18	250	1.03	0.75	30.0	1217
30	20	250	1.03	0.80	30.0	1291
30	24	250	1.03	0.89	30.0	1436
36	20	250	1.15	0.80	36.0	1742
36	24	250	1.15	0.89	36.0	1902
36	30	250	1.15	1.03	36.0	2226

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RESTRAINED JOINT DUCTILE IRON PIPE AND FITTINGS

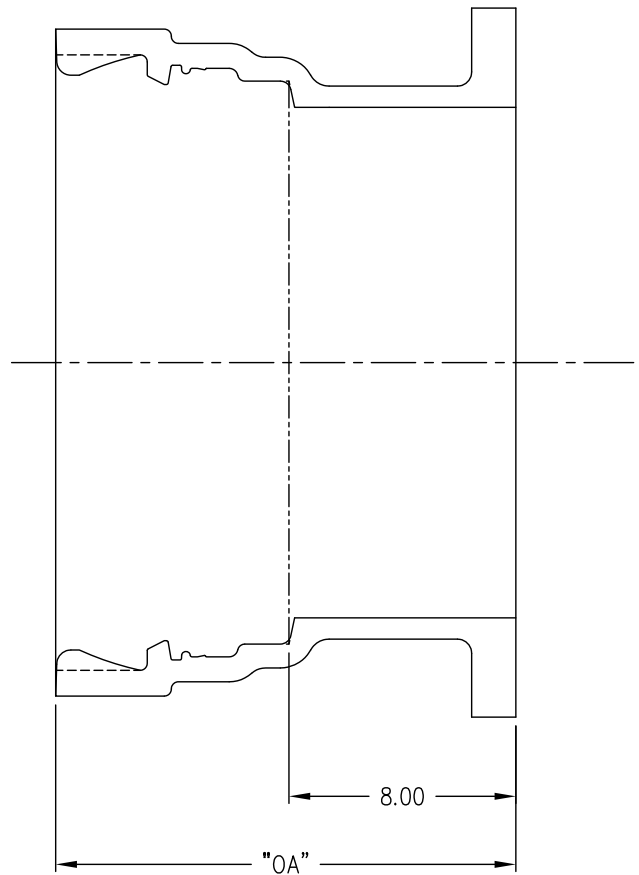


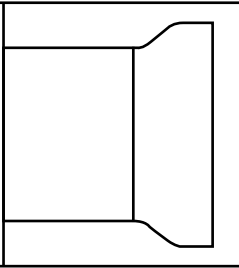
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TR FLEX Flange Connecting Piece

SIZE Inches	OA Inches	WEIGHT Pounds (125)	WEIGHT Pounds (250)
4"	12.84	45	-
6"	13.27	65	-
8"	13.82	95	-
10"	14.03	135	-
12"	14.30	185	-
14"	15.75	250	-
16"	15.95	300	390
18"	16.19	350	470
20"	16.40	425	570
24"	16.86	570	795





TR FLEX®

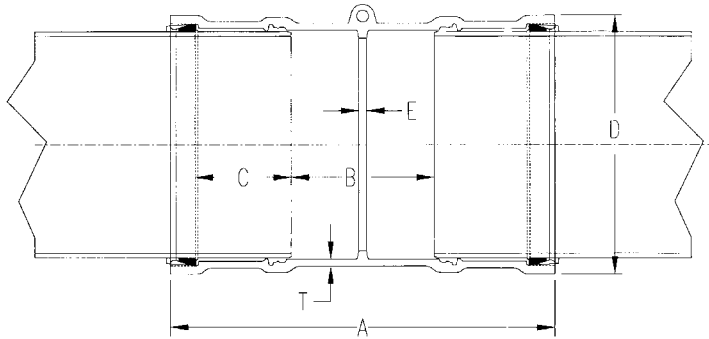
RESTRAINED JOINT DUCTILE IRON PIPE AND FITTINGS



2009 EDITION

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TR FLEX Telescoping Sleeves Thickness & Dimensions

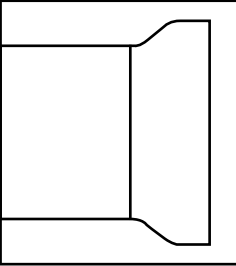


SIZE Inches	PRESSURE RATING psi	DIMENSIONS Inches						WEIGHT Pounds
		A	B	C*	D	E	T	
4	350	29.10	10.68	7.72	7.10	1.00	0.34	55
6	350	31.70	11.54	8.39	9.39	1.00	0.36	90
8	350	35.48	12.64	9.49	11.84	1.00	0.39	145
10	350	37.14	13.06	9.96	14.12	1.00	0.41	195
12	350	38.96	13.60	10.33	16.45	1.00	0.44	260
14	350	46.26	16.50	12.38	19.12	1.00	0.47	395
16	350	49.00	17.10	13.25	21.32	1.00	0.50	490
18	350	49.40	17.88	12.82	23.52	1.50	0.75	745
20	350	50.80	18.44	13.03	25.74	1.64	0.80	875
24	350	53.60	19.40	13.49	30.14	1.68	0.89	1180
30	250	61.40	22.32	15.51	37.18	1.76	1.03	2190
36	250	65.00	23.56	16.20	43.86	1.82	1.15	3060

*Weld bead location for Telescoping Sleeve end pieces.

The U.S. Pipe TR FLEX Telescoping Sleeve is a Ductile Iron restrained joint fitting. The TR FLEX Telescoping Sleeve may be used in lieu of a mechanical joint sleeve where joint restraint of a Ductile Iron pipeline is required. The TR FLEX Telescoping Sleeve is ideally suited for use as a closure piece when connecting a new restrained joint pipeline to an existing one. Repairs to an existing restrained joint pipeline can be made with the use of a TR FLEX Telescoping Sleeve. This sleeve may also be used to facilitate the installation of fittings or valves in an existing restrained joint pipeline.

For additional information on TR FLEX Telescoping Sleeves, see U.S. Pipe's Telescoping Sleeve Brochure or contact your U.S. Pipe representative.



TR FLEX®

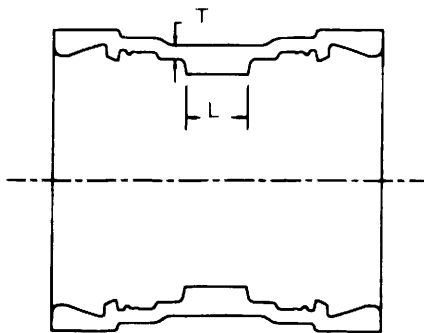
RESTRAINED JOINT DUCTILE IRON PIPE AND FITTINGS



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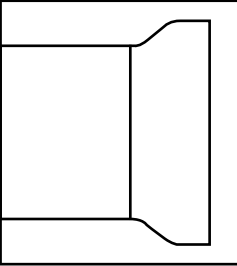
TR FLEX Sleeve/Connecting Piece



TR FLEX Sleeve/Connecting Piece

SIZE Inches	PRESSURE RATING psi	DIMENSIONS Inches		WEIGHT Pounds
		T	L	
6	350	0.36	1.00	55
8	350	0.39	1.00	90
10	350	0.41	1.00	125
12	350	0.44	1.50	175
14	350	0.66	1.50	285
16	350	0.70	1.50	325
18	350	0.75	4.00	430
20	350	0.80	4.36	510
24	350	0.89	4.74	695
30	250	1.03	7.00	1125

The above sleeves are used to connect TR FLEX Pipe spigots and have an internal stop of laying length L. They are a component part of the XTRA FLEX® High Deflection Fitting. Please request our XTRA FLEX® Restrained Joint High Deflection Fittings brochure for additional information or contact your U.S. Pipe Representative.



TR FLEX®

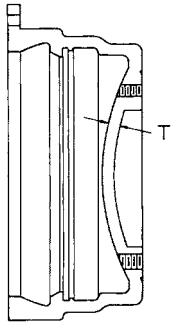
RESTRAINED JOINT DUCTILE IRON PIPE AND FITTINGS



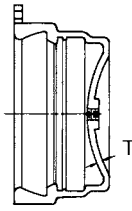
2009 EDITION

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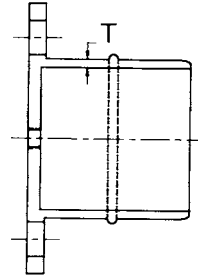
TR FLEX Fittings Thickness & Dimensions Caps & Plugs



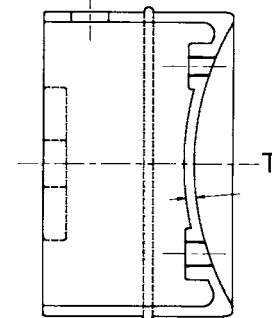
14" - 36"



4" - 12"



4" - 10"



12" - 36"

TR FLEX Fittings Thickness & Dimensions Caps

SIZE Inches	PRESSURE RATING psi	T Inches	WEIGHT Pounds
4	350	0.34	15
6	350	0.36	25
8	350	0.39	40
10	350	0.41	60
12	350	0.44	90
14	350	0.66	165
16	350	0.70	205
18	350	0.75	250
20	350	0.80	305
24	350	0.89	440
30	250	1.03	780
36	250	1.15	1250

TR FLEX Fittings Thickness & Dimensions Plugs

SIZE Inches	PRESSURE RATING psi	T Inches	WEIGHT Pounds
4	350	0.33	16
6	350	0.36	28
8	350	0.39	43
10	350	0.41	70
12	350	0.44	64
14	350	0.47	89
16	350	0.50	108
18	350	0.75	290
20	350	0.80	362
24	350	0.89	520
30	250	1.03	922
36	250	1.15	1302

†Actual weight of fittings may exceed those shown.