

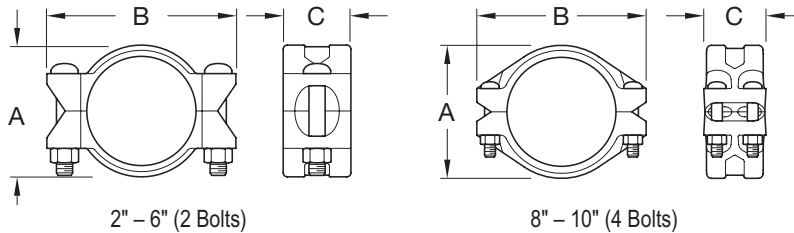
PLAIN END COUPLING

Figure 909 Plain End Coupling

The Grinnell Figure 909 Plain End Coupling utilizes hardened gripping teeth to securely grip onto plain and beveled end pipe surfaces. It is capable of pressures up to 750 psi (51,7 bar) depending on pipe size and wall thickness. The Figure 909 Plain End Coupling is designed for Schedule 40 steel pipe and is not for use with steel pipe with a Brinnell hardness greater than 150, plastic, cast or ductile iron pipes. Contact Tyco Fire & Building Products for recommendations on other materials and pipe schedules.



Tech Data: G190



2" – 6" (2 Bolts)

8" – 10" (4 Bolts)

Nominal Pipe Size		Max. † Pressures psi bar	Max. † End Load lbs kN	Nominal Dimensions			Coupling Bolts			Approx. Weight lbs kg
ANSI Inches DN	O.D. Inches mm			A Inches mm	B Inches mm	C Inches mm	Qty.	Size** Inches mm	Bolt Torque lbs-ft Nm	
2 DN50	2.375 60,3	750 51,7	3322.6 14,78	3.69 93,7	5.75 146,1	3.31 403,4	2	5/8 x 3 1/2 M16 x 90	150 203,0	5.4 2,4
2 1/2 DN65	2.875 73,0	600 41,4	3895.1 17,33	4.17 105,9	6.25 158,8	3.31 403,4	2	5/8 x 3 1/2 M16 x 90	150 203,0	5.9 2,7
3 DN80	3.500 88,9	600 41,4	5772.7 25,68	4.81 122,2	7.56 192,0	3.31 84,1	2	3/4 x 4 3/4 M20 x 121	200 271,0	9.0 4,1
4 DN100	4.500 114,3	450 31,0	7,156.9 31,83	5.93 150,6	8.63 219,2	3.88 98,6	2	3/4 x 4 3/4 M20 x 121	200 271,0	13.5 6,1
6 DN150	6.625 168,3	300 20,7	10,341.5 46,00	8.19 208,0	11.68 296,7	4.25 108,0	2	1 x 6 1/2 M24 x 165	250 339,0	23.5 10,7
8 DN200	8.625 219,1	250 17,2	14,606.6 64,97	10.69 271,5	13.63 346,2	4.91 124,7	4	7/8 x 5 1/2 M22 x 140	250 339,0	35.1 15,9
10 DN250	10.750 273,0	250 17,2	22,690.6 100,93	13.13 333,5	15.88 403,4	4.91 124,7	4	7/8 x 5 1/2 M22 x 140	300 407,0	48.5 22,0

** Gold color coded metric bolt sizes are available upon request

† Maximum pressure and end load are total from all loads based on standard weight steel pipe. Pressure ratings and end loads may differ for other pipe materials and/or wall thickness. Contact Tyco Fire & Building Products for details.

Note: The Figure 909 Plain End Coupling is designed for use with Schedule 40 Steel Pipe and is not for use with steel pipe with a Brinnell hardness greater than 150, Plastic, Cast or Ductile Iron Pipe.

May be used with Schedule 10, Schedule 40 or Schedule 80 Steel Pipe, Stainless Steel Pipe or Grinnell Plain End Fittings.

Please refer to General Notes on page 17.

PLAIN END
PIPING
SYSTEM

PLAIN END FITTINGS

Figures 910, 901, 919 & 960

Plain end fittings are manufactured to provide minimum pressure drop and uniform flow. Fittings are designed for use with the Figure 909 Plain End Couplings only.

Plain end fittings are available in a variety of styles.

Fittings are supplied with a rust inhibiting paint. Hot dip zinc galvanizing is available.

**PLAIN END
PIPING
SYSTEM**



**Figure 910
90° Elbow**



**Figure 901
45° Elbow**



**Figure 919
Tee**



**Figure 960
Bull Plug**

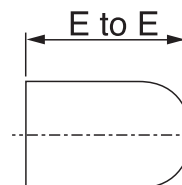
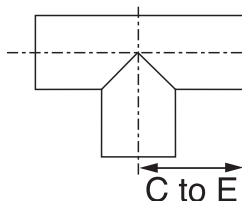
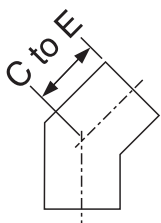
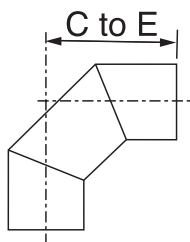


Figure 910 90° Elbow				Figure 901 45° Elbow		Figure 919 Tee		Figure 960 Bull Plug	
Nom. Size Inches mm	Pipe O.D. Inches mm	Center To End Inches mm	Approx. Wt. Ea. lbs kg	Center To End Inches mm	Approx. Wt. Ea. lbs kg	Center To End Inches mm	Approx. Wt. Ea. lbs kg	Center To End Inches mm	Approx. Wt. Ea. lbs kg
2 50	2.375 60.3	4¼ 121	2.7 1.2	3⅜ 79	2.0 0.9	4¼ 108	3.5 1.6	4 102	2.3 1.0
2½ 65	2.875 73.0	5½ 140	4.8 2.2	3½ 89	3.5 1.6	4¾ 121	6.2 2.8	5 127	3.0 1.4
3 80	3.500 88.9	6¼ 159	7.2 3.3	3¾ 95	4.8 2.2	5½ 130	8.6 3.9	6 152	4.5 2.0
4 100	4.500 114.3	7¾ 197	12.3 5.6	4¼ 108	8.0 3.6	5½ 149	13.8 6.3	7 178	7.5 3.4
5 125	5.563 141.3	9½ 241	13.4 6.1	5½ 130	9.2 4.2	6½ 175	21.7 9.8	8½ 216	12.5 5.7
6 150	6.625 168.3	11 279	31 14.1	5¾ 146	18.5 8.4	7½ 194	30.9 14.0	10 254	17.0 7.7
8 200	8.625 219.1	11 279	38.7 17.6	6 152	24.9 11.3	10 254	61.1 27.7	11 279	29.0 13.2

Please refer to General Notes on page 17.

PLAIN END FITTINGS

Figures 910LR & 901LR

PLAIN END
PIPING
SYSTEM



Figure 910LR
90° Elbow Long Radius



Figure 901LR
45° Elbow Long Radius

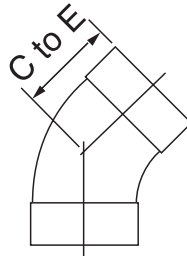
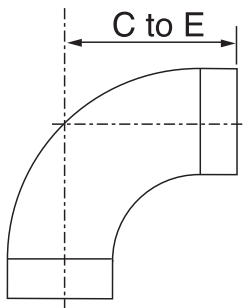


Figure 910LR 90° Elbow				Figure 901LR 45° Elbow	
Nom. Size Inches mm	Pipe O.D. Inches mm	Center To End Inches mm	Approx. Wt. Ea. lbs kg	Center To End Inches mm	Approx. Wt. Ea. lbs kg
2	2.375	5	2.5	3 $\frac{3}{8}$	1.8
50	60.3	127	1.1	86	0.8
2 $\frac{1}{2}$	2.875	5 $\frac{3}{4}$	4.9	3 $\frac{3}{8}$	3.6
65	73.0	146	2.2	95	1.6
3	3.500	6 $\frac{1}{2}$	6.5	4	4.5
80	88.9	165	2.9	102	2.0
4	4.500	8	11.5	4 $\frac{1}{2}$	7.5
100	114.3	203	5.2	114	3.4
5	5.563	9 $\frac{3}{4}$	21.5	5 $\frac{3}{8}$	13.8
125	141.3	248	9.8	137	6.3
6	6.625	11 $\frac{1}{4}$	28.5	6	17.3
150	168.3	286	12.9	152	7.8
8	8.625	15	56.7	8	34.0
200	219.1	381	25.7	203	15.4

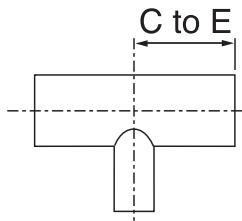
Please refer to General Notes on page 17.

PLAIN END FITTINGS

Figure 921



Figure 921
Reducing Tee



**PLAIN END
PIPING
SYSTEM**

Figure 921 Reducing Tee		
Nominal Size Inches mm	Center To End Inches mm	Approx. Wt. Ea. lbs kg
3 x 3 x 2 80 x 80 x 50	5 1/2 140	7.1 3.2
4 x 4 x 2 100 x 100 x 50	5 7/8 149	11.3 5.1
4 x 4 x 2 1/2 100 x 100 x 65	5 7/8 149	11.6 5.3
4 x 4 x 3 100 x 100 x 80	5 7/8 149	11.9 5.4
6 x 6 x 2 150 x 150 x 50	7 5/8 194	24.6 11.2
6 x 6 x 3 150 x 150 x 80	7 5/8 194	25.4 11.5
6 x 6 x 4 150 x 150 x 100	7 5/8 194	26.2 11.9
8 x 8 x 2 200 x 200 x 50	10 254	42.0 19.1
8 x 8 x 3 200 x 200 x 80	10 254	44.0 20.0
8 x 8 x 4 200 x 200 x 100	10 254	46.0 20.9
8 x 8 x 5 200 x 200 x 125	10 2254	48.0 21.8
8 x 8 x 6 200 x 200 x 150	10 254	50.0 22.7

Please refer to General Notes on page 17.

PLAIN END FITTINGS

Figure 927

PLAIN END
PIPING
SYSTEM



Figure 927
Cross

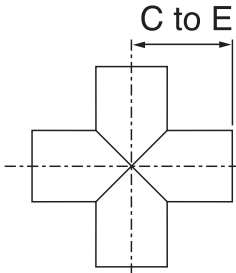


Figure 927 Cross			
Nom. Size	Pipe O.D.	Center To End	Approx. Wt. Ea.
Inches	Inches	Inches	lbs
mm	mm	mm	kg
2	2.375	4¼	4.4
50	60.3	108	2.0
2½	2.875	4¾	7.8
65	73.0	121	3.5
3	3.500	5⅝	10.7
80	88.9	130	4.9
4	4.500	5⅞	17
100	114.3	149	7.7
5	5.563	6⅞	26.7
125	141.3	175	12.1
6	6.625	7⅞	37.7
150	168.3	194	17.1
8	8.625	10	74.6
200	219.1	254	33.8

Please refer to General Notes on page 17.

PLAIN END FITTINGS

Figure 914 & 924



Figure 914
45° Lateral



Figure 924
90° True Wye

PLAIN END
PIPING
SYSTEM

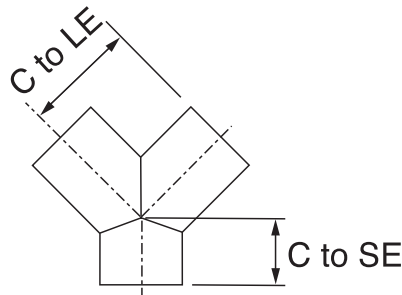
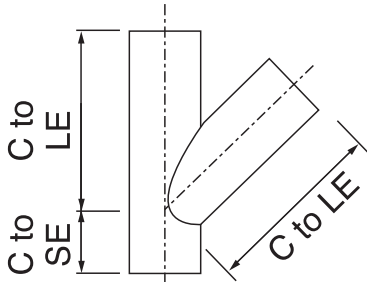


Figure 914 45° Lateral					Figure 924 90° True Wye		
Nom. Size Inches mm	Pipe O.D. Inches mm	Center To Long End Inches mm	Center To Short End Inches mm	Approx. Wt. Ea. lbs kg	Center To Long End Inches mm	Center To Short End Inches mm	Approx. Wt. Ea. lbs kg
2	2.375	7¼	2¾	5.1	4¼	2¾	3.5
50	60.3	184	70	2.3	108	70	1.6
2½	2.875	7¾	3	9.5	4¾	3	6.2
65	73.0	197	76	4.3	121	76	2.8
3	3.500	8¾	3¼	12.8	5½	3¼	8.5
80	88.9	222	83	5.8	130	83	3.9
4	4.500	10¾	3¾	22.2	5¾	3¾	14.0
100	114.3	273	95	10.1	149	95	6.4
5	5.563	12¾	4	38.0	6¾	4	21.6
125	141.3	324	102	17.2	175	102	9.8
6	6.625	14	4½	54.0	7¾	4½	31.2
150	168.3	356	114	24.5	194	114	14.2
8	8.625	18	6	92.0	10	6	53.6
200	219.1	457	152	41.7	254	152	24.3

Please refer to General Notes on page 17.

PLAIN END FITTINGS

Adapter Flanges - Figure 941 & 942



Figure 941
Plain End x Class 150 Flange

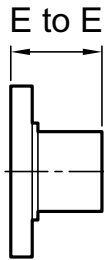


Figure 941 Plain-End Class 150 Flange				Figure 942 Plain-End Class 300 Flange	
Nom. Size Inches mm	Pipe O.D. Inches mm	End To End Inches mm	Approx. Wt. Ea. lbs kg	End To End Inches mm	Approx. Wt. Ea. lbs kg
2	2.375	4	6.0	4	8.2
50	60.3	102	2.7	102	3.7
2½	2.875	4	9.2	4	11.9
65	73.0	102	4.2	102	5.4
3	3.500	4	10.4	4	15.5
80	88.9	102	4.7	102	7.0
4	4.500	6	19.1	6	28.0
100	114.3	152	8.7	152	12.7
5	5.563	6	23.0	6	35.0
125	141.3	152	10.4	152	15.9
6	6.625	6	29.5	6	50.0
150	168.3	152	13.4	152	22.7
8	8.625	6	43.5	6	72.0
200	219.1	152	19.7	152	32.7

Please refer to General Notes on page 17.

**PLAIN END
PIPING
SYSTEM**

PLAIN END FITTINGS

Adapter Nipples - Figure 393, 991 & 993

PLAIN END
PIPING
SYSTEM



Figure 393
Plain x Groove



Figure 991
Plain x Thread



Figure 993
Plain x Plain

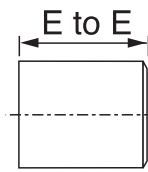
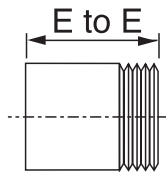
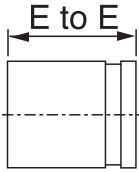


Figure 393, 991, 993 Adapter Nipples			
Nom. Size Inches mm	Pipe O.D. Inches mm	End To End Inches mm	Approx. Wt. Ea. lbs kg
2	2.375	4	1.2
50	60.3	102	0.5
2½	2.875	4	1.9
65	73.0	102	0.9
3	3.500	4	2.5
80	88.9	102	1.1
4	4.500	6	5.5
100	114.3	152	2.5
5	5.563	6	7.4
125	141.3	152	3.4
6	6.625	6	9.5
150	168.3	152	4.3
8	8.625	6	14.2
200	219.1	152	6.4

Please refer to General Notes on page 17.

PLAIN END FITTING

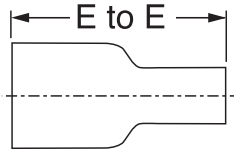
Swagged Nipple – Figure 999

PLAIN END
PIPING
SYSTEM

Figure 999 Swagged Nipple		
Nominal Size Inches mm	End Center To End Inches mm	Approx. Wt. Ea. lbs kg
2½ x 2 65 x 50	7 178	3.0 1.4
3 x 2 80 x 50	8 203	4.5 2.0
3 x 2½ 80 x 65	8 203	4.5 2.0
4 x 2 100 x 50	9 229	7.5 3.4
4 x 2½ 100 x 65	9 229	7.5 3.4
4 x 3 100 x 80	9 229	7.5 3.4
5 x 2 125 x 50	11 279	11.5 5.2
5 x 3 125 x 80	11 279	11.5 5.2
5 x 4 125 x 100	11 279	11.5 5.2
6 x 2 150 x 50	12 305	17.0 7.7
6 x 2½ 150 x 65	12 305	17.0 7.7
6 x 3 150 x 80	12 305	17.0 7.7
6 x 4 150 x 100	12 305	17.0 7.7
6 x 5 150 x 125	12 305	17.0 7.7
8 x 3 200 x 80	13 330	29.0 13.2
8 x 4 200 x 100	13 330	29.0 13.2
8 x 5 200 x 125	13 330	29.0 13.2
8 x 6 200 x 150	13 330	29.0 13.2



Figure 999
Swagged Nipple



Please refer to General Notes on page 17.