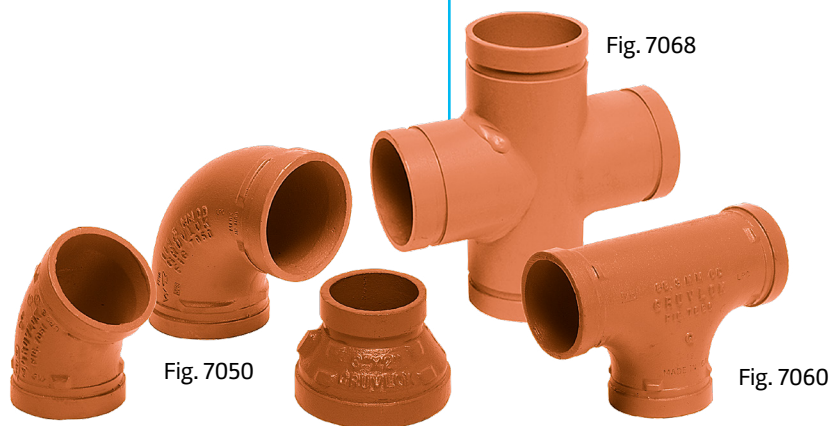


**Fig. 7050-5D** 90° Elbow  
**Fig. 7057-5D** 60° Elbow  
**Fig. 7051-5D** 45° Elbow  
**Fig. 7058-5D** 30° Elbow

**Fig. 7052-5D** 22 1/2° Elbow  
**Fig. 7053-5D** 11 1/4° Elbow



Galvanized Gruvlok Fittings are NSF-61 and Low Lead Approved

## Material Specifications

### Cast Fittings

Ductile iron conforming to ASTM A536, Grade 65-45-12

Malleable iron conforming to ASTM A47

### Fabricated Fittings

1-12" Carbon steel, Schedule 40, conforming to ASTM A53, Grade B

14-24" Carbon steel, 0.375 wall, conforming to ASTM A53, Grade B

### Coatings

Rust inhibiting paint

Color: Orange (standard)

Hot Dipped Zinc Galvanized conforming to ASTM A153 (optional)

Other Colors Available (IE: RAL3000 and RAL9000)

Gruvlok fittings are available through 24" nominal pipe size in a variety of styles. Use the Fitting Size Table to convert nominal pipe size to corresponding pipe O.D.

These fittings are designed to provide minimum pressure drop and uniform strength.

Depending on styles and size, Gruvlok fittings are provided in various materials including ductile iron, forged steel or fabricated steel.

Pressure ratings of Gruvlok standard fittings conform to those of Fig. 7001 Gruvlok coupling.

For Listings/Approval Details and Limitations, visit our website at [www.asc-es.com](http://www.asc-es.com) or contact an ASC Engineered Solutions™ Sales Representative.



PROJECT INFORMATION	APPROVAL STAMP
Project:	Approved
Address:	Approved as noted
Contractor:	Not approved
Engineer:	Remarks:
Submittal Date:	
Notes 1:	
Notes 2:	

## Long Radius Elbows

### Fig. 7050-5D, 7057-5D, 7051-5D, 7058-5D, 7052-5D, 7053-5D

Flow Data - Frictional Resistance (Expressed as Equivalent Straight Pipe)

Nominal Size	O.D.	Pipe Wall Thickness	Elbow		Tee	
			90°	45°	Branch	Run
In./DN(mm)	In./mm	In./mm	Ft./m	Ft./m	Ft./m	Ft./m
1	1.315	0.133	1.7	0.9	4.4	1.7
25	33.4	3.4	0.5	0.3	1.3	0.5
1¼	1.660	0.140	2.3	1.2	5.8	2.3
32	42.2	3.6	0.7	0.4	1.8	0.7
1½	1.900	0.145	2.7	1.3	6.7	2.7
40	48.3	3.7	0.8	0.4	2.0	0.8
2	2.375	0.154	3.4	1.7	8.6	3.4
50	60.3	3.9	1.0	0.5	2.6	1.0
2½	2.875	0.203	4.1	2.1	10.3	4.1
65	73.0	5.2	1.2	0.6	3.1	1.2
3 O.D.	2.996	0.197	4.3	2.2	10.8	4.3
76.1	76.1	5.0	1.3	0.7	3.3	1.3
3	3.500	0.216	5.1	2.6	12.8	5.1
80	88.9	5.5	1.6	0.8	3.9	1.6
4¼ O.D.	4.250	0.220	6.4	3.2	16.1	6.4
108.0	108.0	5.6	2.0	1.0	4.9	2.0
4	4.500	0.237	6.7	3.4	16.8	6.7
100	114.3	6.0	2.0	1.0	5.1	2.0
5¼ O.D.	5.236	0.248	8.0	4.0	20.1	8.0
133.0	133.0	6.3	2.4	1.2	6.1	2.4
5½ O.D.	5.500	0.248	8.3	4.2	20.9	8.3
139.7	139.7	6.3	2.5	1.3	6.4	2.5
5	5.563	0.258	8.4	4.2	21.0	8.4
125	141.3	6.6	2.6	1.3	6.4	2.6
6¼ O.D.	6.259	0.280	9.7	4.9	24.3	9.7
159.0	159.0	7.1	3.0	1.5	7.4	3.0
6½ O.D.	6.500	0.280	10.0	5.0	24.9	10.0
165.1	165.1	7.1	3.0	1.5	7.6	3.0
6	6.625	0.280	10.1	5.1	25.3	10.1
150	168.3	7.1	3.1	1.6	7.7	3.1
8	8.625	0.322	13.3	6.7	33.3	13.3
200	219.1	8.2	4.1	2.0	10.1	4.1
10	10.750	0.365	16.7	8.4	41.8	16.7
250	273.1	9.3	5.1	2.6	12.7	5.1
12	12.750	0.375	20.0	10.0	50.0	20.0
300	323.9	9.5	6.1	3.0	15.2	6.1
14	14.000	0.375	22.2	11.7	64.2	22.9
350	355.6	9.5	6.8	3.4	19.6	7.0
16	16.000	0.375	25.5	12.4	73.9	26.4
400	406.4	9.5	7.8	3.9	22.5	8.0
18	18.000	0.375	28.9	14.1	87.2	31.1
450	457.2	9.5	8.8	4.3	26.6	9.5
20	20.000	0.375	32.2	15.7	97.3	34.8
500	508.0	9.5	9.8	4.8	29.7	10.6
24	24.000	0.375	38.9	19.0	113.0	40.4
600	609.6	9.5	11.9	5.8	34.4	12.3

Fitting Size

Nominal Size	O.D.
In./DN(mm)	In./mm
1	1.315
25	33.4
1¼	1.660
32	42.4
1½	1.900
40	48.3
2	2.375
50	60.3
2½	2.875
65	73.0
3 O.D.	2.996
76.1	76.1
3	3.500
80	88.9
3½	4.000
90	101.6
4¼ O.D.	4.250
108.0	108.0
4	4.500
100	114.3
5¼ O.D.	5.236
133.0	133.0
5½ O.D.	5.500
139.7	139.7
5	5.563
140	141.3
6¼ O.D.	6.259
159.0	159.0
6½ O.D.	6.500
165.1	165.1
6	6.625
150	168.3
8	8.625
200	219.1
10	10.750
250	273.0
12	12.750
300	323.9
14	14.000
350	355.6
16	16.000
400	406.4
18	18.000
450	457.2
20	20.000
500	508.0
24	24.000
600	609.6

**Note:**

For the reducing tee and branches, use the value that is corresponding to the branch size. For example: for 6" x 6" x 3" tee, the branch value of 3" is 12.8 ft (3.9).

The Fitting Size Chart is used to determine the O.D. of the pipe that the fittings is to be used with. Gruvlok Fittings are identified by either the Nominal size in inches or the Pipe O.D. in/mm.



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## Long Radius Elbows

### Fig. 7050-5D, 7057-5D, 7051-5D, 7058-5D, 7052-5D, 7053-5D

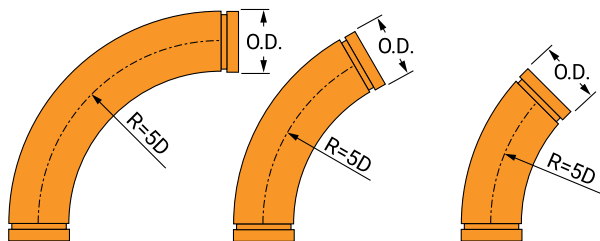


Fig. 7050-5D,  
90° Elbow

Fig. 7057-5D,  
60° Elbow

Fig. 7051-5D,  
45° Elbow

Fig. 7050-5D 90° Elbow

Nominal Size	O.D.	Center to End	Approx. Wt. Ea.
In./DN(mm)	In./mm	In./mm	Lbs./kg
2	2.375	14	7.2
50	60.3	356	3.3
2½	2.875	16½	13.3
65	73.0	419	6.0
3	3.500	19	19.9
80	88.9	483	9.0
3½	4.000	21½	26.9
90	101.6	546	12.2
4	4.500	24	35.4
100	114.3	610	16.1
5	5.563	30	60.0
125	141.3	762	27.2
6	6.625	36	93.5
150	168.3	914	42.4
8	8.625	48	187.6
200	219.1	1219	85.1
10	10.750	60	332.4
250	273.1	1524	150.8
12	12.750	72	488.4
300	323.9	1829	221.5
14	14.000	84	627.4
350	355.6	2134	284.6
16	16.000	96	822.2
400	406.4	2438	372.9
18	18.000	108	1043.4
450	457.2	2743	473.3
20	20.000	120	1290.9
500	508.0	3048	585.5
24	24.000	144	1864.8
600	609.6	3658	845.9

Fig. 7057-5D 60° Elbow

Center to End	Approx. Wt. Ea.
In./mm	Lbs./kg
9¾	5.6
248	2.5
11¼	10.2
286	4.6
12¾	15.0
324	6.8
12¼	20.0
311	9.1
15½	26.0
394	11.8
19½	44.1
495	20.0
23¼	68.6
591	31.1
31	137.7
787	62.5
39	244.1
991	110.7
46¾	358.6
1187	162.7
54½	460.7
1384	209.0
62¼	603.8
1581	273.9
70	766.2
1778	347.5
77¾	947.9
1975	430.0
93¼	1369.3
2369	621.1

Fig. 7051-5D 45° Elbow

Center to End	Approx. Wt. Ea.
In./mm	Lbs./kg
8¼	4.8
210	2.2
9¼	8.6
235	3.9
10¼	12.5
260	5.7
11¼	16.5
286	7.5
12½	21.3
318	9.7
15½	36.1
394	16.4
18½	56.2
470	25.5
24½	112.8
622	51.2
30¾	199.9
781	90.7
37	293.7
940	133.2
43	377.3
1092	171.1
49¼	494.5
1251	224.3
55¼	627.6
1403	284.7
61½	776.4
1562	352.2
73¾	1121.6
1873	508.7

- 5D long radius elbows are available in sizes up to 24". Sizes 4" and below are provided with a 4" (101.6 mm) long integral tangent. Remaining sizes are provided with integral tangents with lengths equal to the nominal pipe size.
- Grooved or plain-end available - specify choice on order.
- Material: standard wall steel pipe to ASTM A 53, Grade B. (Other materials available on request).
- Bends to conform to above radii.
- C to E tolerances: 2" through 6" ± 1/8" (3.2 mm); 8" through 16" ± 1/4" (6.4 mm); 18" through 24" + 3/8" (9.5 mm).
- All weights are approximate, based on calculated weight of pipe.



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## Long Radius Elbows

### Fig. 7050-5D, 7057-5D, 7051-5D, 7058-5D, 7052-5D, 7053-5D

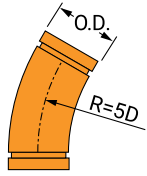


Fig. 7058-5D,  
30° Elbow

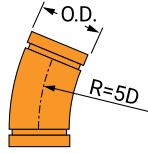


Fig. 7052-5D,  
22 1/2° Elbow

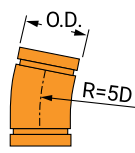


Fig. 7053-5D,  
11 1/4° Elbow

Fig. 7058-5D 30° Elbow

Center to End	Approx. Wt. Ea.
In./mm	Lbs./kg
6 3/4 171	4.0 1.8
7 1/2 191	7.0 3.2
8 203	10.0 4.5
8 3/4 222	13.0 5.9
9 1/2 241	16.6 7.5
11 3/4 298	28.1 12.7
14 356	43.8 19.9
18 3/4 476	87.9 39.9
23 1/2 597	155.8 70.7
28 711	228.9 103.8
32 3/4 832	294.0 133.4
37 1/2 953	385.3 174.8
42 1/4 1073	489.0 221.8
46 3/4 1187	605.0 274.4
56 1/4 1429	873.9 396.4

Fig. 7052-5D 22 1/2° Elbow

Center to End	Approx. Wt. Ea.
In./mm	Lbs./kg
6 152	3.6 1.6
6 1/2 165	6.2 2.8
7 178	8.8 4.0
7 1/2 191	11.3 5.1
8 203	14.3 6.5
10 254	24.1 10.9
12 305	37.6 17.1
16 406	75.4 34.2
20 508	133.7 60.6
24 610	196.4 89.1
28 711	252.3 114.4
32 813	330.7 150.0
36 914	419.7 190.4
40 1016	519.2 235.5
48 1219	750.1 340.2

Fig. 7053-5D 11 1/4° Elbow

Center to End	Approx. Wt. Ea.
In./mm	Lbs./kg
5 127	3.0 1.4
5 1/4 133	5.0 2.3
5 1/2 140	6.9 3.1
5 3/4 146	8.7 3.9
6 152	10.7 4.9
7 1/2 191	18.2 8.3
9 229	28.3 12.8
12 305	56.8 25.8
15 381	100.6 45.6
18 457	147.8 67.0
21 533	189.8 86.1
24 610	248.8 112.9
27 686	315.7 143.2
30 762	390.6 177.2
35 3/4 908	564.3 256.0

- 5D long radius elbows are available in sizes up to 24". Sizes 4" and below are provided with a 4" (101.6 mm) long integral tangent. Remaining sizes are provided with integral tangents with lengths equal to the nominal pipe size.
- Grooved or plain-end available - specify choice on order.
- Material: standard wall steel pipe to ASTM A 53, Grade B. (Other materials available on request).
- Bends to conform to above radii.
- C to E tolerances: 2" through 6" ± 1/8" (3.2 mm); 8" through 16" ± 1/4" (6.4 mm); 18" through 24" + 3/8" (9.5 mm).
- All weights are approximate, based on calculated weight of pipe.



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