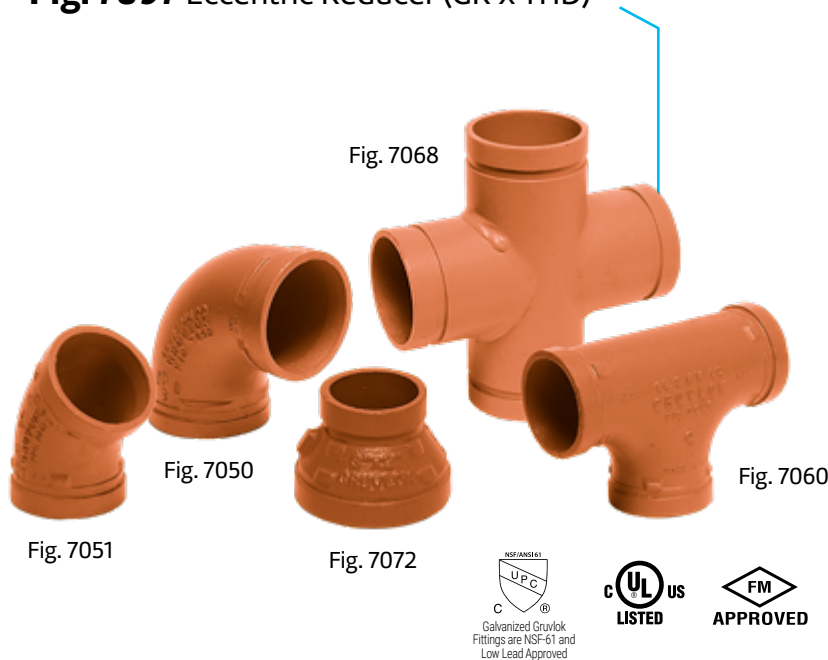


Fig. 7073 Eccentric Reducer (GR x GR)
Fig. 7097 Eccentric Reducer (GR x THD)



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 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:	

Eccentric Reducers Fig. 7073, 7097

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	5.4	19.6	7.0
16	16.000	0.375	25.5	12.4	73.9	26.4
400	406.4	9.5	7.8	6.2	22.5	8.0
18	18.000	0.375	28.9	14.1	87.2	31.1
450	457.2	9.5	8.8	7.0	26.6	9.5
20	20.000	0.375	32.2	15.7	97.3	34.8
500	508.0	9.5	9.8	7.8	29.7	10.6
24	24.000	0.375	38.9	19.1	113.0	40.4
600	609.6	9.5	11.9	9.5	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).

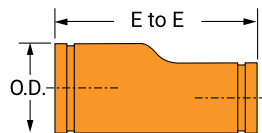
The Fitting Size Chart is used to determine the O.D. of the pipe that the fittings is to be used with. Gruvlok Fittings are identified by either the Nominal size in inches or the Pipe O.D. in/mm.



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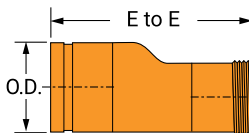
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Fig. 7073
Eccentric Reducer (GR x GR)



Fabricated

Fig. 7097
Eccentric Reducer (GR x THD)



Fabricated



Nominal Size	End to End	Approx. Wt. Ea.	Nominal Size	End to End	Approx. Wt. Ea.	Nominal Size	End to End	Approx. Wt. Ea.	Nominal Size	End to End	Approx. Wt. Ea.
In./DN(mm)	In./mm	Lbs./kg	In./DN(mm)	In./mm	Lbs./kg	In./DN(mm)	In./mm	Lbs./kg	In./DN(mm)	In./mm	Lbs./kg
1 ¼ x 1	8 ½	1.5	3 ½ x 3	9 ½	6.6	8 x 3	12	17.9	16 x 12	14	99.0
32 x 25	216	0.7	90 x 80	241	3.0	200 x 80	305	8.1	400 x 300	356	44.9
1 ½ x ¾	8 ½	1.6	4 x 1	10	5.9	8 x 4	12	19.7	16 x 14	14	104.0
40 x 20	216	0.7	100 x 25	254	2.7	200 x 100	305	8.9	400 x 350	356	47.2
1 ½ x 1	8 ½	1.7	4 x 1 ½	10	6.4	8 x 5	12	21.4	18 x 10	15	110.0
40 x 25	216	0.8	100 x 40	254	2.9	200 x 125	305	9.7	450 x 250	381	49.9
1 ½ x 1 ¼	8 ½	4.5	4 x 2	10	6.7	8 x 6	12	23.2	18 x 12	15	113.0
40 x 32	216	2.0	100 x 50	254	3.0	200 x 150	305	10.5	450 x 300	381	51.3
2 x ¾	9	2.1	4 x 2 ½	10	7.3	10 x 4	13	29.7	18 x 14	15	117.0
50 x 80	229	1.0	100 x 65	254	3.3	250 x 100	330	13.5	450 x 350	381	53.1
2 x 1	9	2.2	4 x 3	10	7.9	10 x 5	13	31.7	18 x 16	15	121.0
50 x 25	229	1.0	100 x 80	254	3.6	250 x 125	330	14.4	450 x 400	381	54.9
2 x 1 ¼	9	2.4	5 x 2	11	9.3	10 x 6	13	34.0	20 x 10	20	145.0
50 x 32	229	1.1	125 x 50	279	4.2	250 x 150	330	15.4	500 x 250	508	65.8
2 x 1 ½	9	2.5	5 x 2 ½	11	9.9	10 x 8	13	34.4	20 x 12	20	149.0
50 x 40	229	1.1	125 x 65	279	4.5	250 x 200	330	15.6	500 x 300	508	67.6
2 ½ x 1	9 ½	3.2	5 x 3	11	10.7	12 x 6	14	45.2	20 x 14	20	152.0
65 x 25	241	1.5	125 x 80	279	4.9	300 x 150	356	20.5	500 x 350	508	68.9
2 ½ x 1 ¼	9 ½	3.4	5 x 4	11	11.9	12 x 8	14	47.7	20 x 16	20	156.0
65 x 32	241	1.5	125 x 100	279	5.4	300 x 200	356	21.6	500 x 400	508	70.8
2 ½ x 1 ½	9 ½	3.6	6 x 1	11 ½	12.0	12 x 10	14	52.0	20 x 18	20	160.0
65 x 40	241	1.6	150 x 25	292	5.4	300 x 250	356	23.6	500 x 450	508	72.6
2 ½ x 2	9 ½	4.0	6 x 1 ½	11 ½	12.1	14 x 6	13	78.0	24 x 12	20	179.0
65 x 50	241	1.8	150 x 40	292	5.5	350 x 150	330	35.4	600 x 300	508	81.2
3 x 1	9 ½	4.0	6 x 2	11 ½	12.2	14 x 8	13	80.0	24 x 14	20	184.0
80 x 25	241	1.8	150 x 50	292	5.5	350 x 200	330	36.3	600 x 350	508	83.5
3 x 1 ¼	9 ½	4.3	6 x 2 ½	11 ½	12.8	14 x 10	13	84.0	24 x 16	20	189.0
80 x 32	241	2.0	150 x 65	292	5.8	350 x 250	330	38.1	600 x 400	508	85.7
3 x 1 ½	9 ½	4.5	6 x 3	11 ½	13.6	14 x 12	13	88.0	24 x 18	20	194.0
80 x 40	241	2.0	150 x 80	292	6.2	350 x 300	330	39.9	600 x 450	508	88.0
3 x 2	9 ½	4.8	6 x 4	11 ½	14.9	16 x 8	14	91.0	24 x 20	20	199.0
80 x 50	241	2.2	150 x 100	292	6.8	400 x 200	356	41.3	600 x 500	508	90.3
3 x 2 ½	9 ½	5.6	6 x 5	11 ½	16.2	16 x 10	14	96.0			
80 x 65	241	2.5	150 x 125	292	7.3	400 x 250	356	43.5			

Note:

Fabricated Steel *Figure 7097 is available in sizes 1 ¼ x 1 through 12 x 10.

Center to end dimensions may differ from those shown above. Contact an ASC Engineered Solutions™ Representative for more information.

See Fitting Size chart on next page for O.D.



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