

## FIG. 7073 & FIG. 7097

Eccentric Reducers

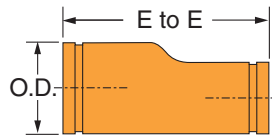


Fig. 7073— Gr. x Gr.  
Fabricated

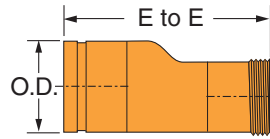


Fig. 7097 – Gr. x Thd.  
Fabricated

FIGURE 7073 & 7097 ECCENTRIC REDUCER

| 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         |
| 1¼ x 1       | 8½         | 1.5             | 3½ x 3       | 9½         | 6.6             | 8 x 3        | 12         | 17.9            | 16 x 12      | 14         | 99              |
| 32 x 25      | 216        | 0.7             | 90 x 80      | 241        | 3.0             | 200 x 80     | 305        | 8.1             | 400 x 300    | 356        | 44.9            |
| 1½ x ¾       | 8½         | 1.6             | 4 x 1        | 10         | 5.9             | 8 x 4        | 12         | 19.7            | 16 x 14      | 14         | 104             |
| 40 x 20      | 216        | 0.7             | 100 x 25     | 254        | 2.7             | 200 x 100    | 305        | 8.9             | 400 x 350    | 356        | 47.2            |
| 1½ x 1       | 8½         | 1.7             | 4 x 1½       | 10         | 6.4             | 8 x 5        | 12         | 21.4            | 18 x 10      | 15         | 110             |
| 40 x 25      | 216        | 0.8             | 100 x 40     | 254        | 2.9             | 200 x 125    | 305        | 9.7             | 450 x 250    | 381        | 49.9            |
| 1½ x 1¼      | 8½         | 4.5             | 4 x 2        | 10         | 6.7             | 8 x 6        | 12         | 23.2            | 18 x 12      | 15         | 113             |
| 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 2½       | 10         | 7.3             | 10 x 4       | 13         | 29.7            | 18 x 14      | 15         | 117             |
| 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             |
| 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 1¼       | 9          | 2.4             | 5 x 2        | 11         | 9.3             | 10 x 6       | 13         | 34.0            | 20 x 10      | 20         | 145             |
| 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 1½       | 9          | 2.5             | 5 x 2½       | 11         | 9.9             | 10 x 8       | 13         | 34.4            | 20 x 12      | 20         | 149             |
| 50 x 40      | 229        | 1.1             | 125 x 65     | 279        | 4.5             | 250 x 200    | 330        | 15.6            | 500 x 300    | 508        | 67.6            |
| 2½ x 1       | 9½         | 3.2             | 5 x 3        | 11         | 10.7            | 12 x 6       | 14         | 45.2            | 20 x 14      | 20         | 152             |
| 65 x 25      | 241        | 1.5             | 125 x 80     | 279        | 4.9             | 300 x 150    | 356        | 20.5            | 500 x 350    | 508        | 68.9            |
| 2½ x 1¼      | 9½         | 3.4             | 5 x 4        | 11         | 11.9            | 12 x 8       | 14         | 47.7            | 20 x 16      | 20         | 156             |
| 65 x 32      | 241        | 1.5             | 125 x 100    | 279        | 5.4             | 300 x 200    | 356        | 21.6            | 500 x 400    | 508        | 70.8            |
| 2½ x 1½      | 9½         | 3.6             | 6 x 1        | 11½        | 12.0            | 12 x 10      | 14         | 52.0            | 20 x 18      | 20         | 160             |
| 65 x 40      | 241        | 1.6             | 150 x 25     | 292        | 5.4             | 300 x 250    | 356        | 23.6            | 500 x 450    | 508        | 72.6            |
| 2½ x 2       | 9½         | 4.0             | 6 x 1½       | 11½        | 12.1            | 14 x 6       | 13         | 78              | 24 x 12      | 20         | 179             |
| 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        | 9½         | 4.0             | 6 x 2        | 11½        | 12.2            | 14 x 8       | 13         | 80              | 24 x 14      | 20         | 184             |
| 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 1¼       | 9½         | 4.3             | 6 x 2½       | 11½        | 12.8            | 14 x 10      | 13         | 84              | 24 x 16      | 20         | 189             |
| 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 1½       | 9½         | 4.5             | 6 x 3        | 11½        | 13.6            | 14 x 12      | 13         | 88              | 24 x 18      | 20         | 194             |
| 80 x 40      | 241        | 2.0             | 150 x 80     | 292        | 6.2             | 350 x 300    | 330        | 39.9            | 600 x 450    | 508        | 88              |
| 3 x 2        | 9½         | 4.8             | 6 x 4        | 11½        | 14.9            | 16 x 8       | 14         | 91              | 24 x 20      | 20         | 199             |
| 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 2½       | 9½         | 5.6             | 6 x 5        | 11½        | 16.2            | 16 x 10      | 14         | 96              |              |            |                 |
| 80 x 65      | 241        | 2.5             | 150 x 125    | 292        | 7.3             | 400 x 250    | 356        | 43.5            |              |            |                 |

Fabricated Steel \*Figure 7097 is available in sizes 1¼ x 1 through 12 x 10.

Center to end dimensions may differ from those shown above. Contact an Anvil Representative for more information.

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



For Listings/Approval Details and Limitations,  
visit our website at [www.anvilint.com](http://www.anvilint.com) or  
contact an Anvil® Sales Representative.

### PROJECT INFORMATION

### APPROVAL STAMP

|                        |                                            |
|------------------------|--------------------------------------------|
| <b>Project:</b>        | <input type="checkbox"/> Approved          |
| <b>Address:</b>        | <input type="checkbox"/> Approved as noted |
| <b>Contractor:</b>     | <input type="checkbox"/> Not approved      |
| <b>Engineer:</b>       | <b>Remarks:</b>                            |
| <b>Submittal Date:</b> |                                            |
| <b>Notes 1:</b>        |                                            |
| <b>Notes 2:</b>        |                                            |

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.

Not for use in copper systems.



## FLOW DATA – FRICTIONAL RESISTANCE (EXPRESSED AS EQUIVALENT STRAIGHT PIPE)

| Nom. 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   |
| 1 1/4      | 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   |
| 1 1/2      | 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   |
| 2 1/2      | 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   |
| 4 1/4 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   |
| 5 1/4 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   |
| 5 1/2 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   |
| 6 1/4 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   |
| 6 1/2 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  | 17.7  | 64.2   | 22.9  |
| 350        | 355.6  | 9.5                 | 6.8   | 5.4   | 19.6   | 7.0   |
| 16         | 16.000 | 0.375               | 25.5  | 20.4  | 73.9   | 26.4  |
| 400        | 406.4  | 9.5                 | 7.8   | 6.2   | 22.5   | 8.0   |
| 18         | 18.000 | 0.375               | 28.9  | 23.1  | 87.2   | 31.1  |
| 450        | 457.2  | 9.5                 | 8.8   | 7.0   | 26.6   | 9.5   |
| 20         | 20.000 | 0.375               | 32.2  | 25.7  | 97.3   | 34.8  |
| 500        | 508.0  | 9.5                 | 9.8   | 7.8   | 29.7   | 10.6  |
| 24         | 24.000 | 0.375               | 38.9  | 31.1  | 113.0  | 40.4  |
| 600        | 609.6  | 9.5                 | 11.9  | 9.5   | 34.4   | 12.3  |

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).

## MATERIAL SPECIFICATIONS

### CAST FITTINGS:

Ductile iron conforming to ASTM A 536, Grade 65-45-12

Malleable iron conforming to ASTM A 47

### FABRICATED FITTINGS:

1-12" Carbon steel, Schedule 40, conforming to ASTM A 53, Grade B

14-24" Carbon steel, 0.375 wall, conforming to ASTM A 53, Grade B

### COATINGS:

Rust inhibiting paint – Color: ORANGE (standard)

Hot Dipped Zinc Galvanized conforming to ASTM A 153 (optional)

Other Colors Available (IE: RAL3000 and RAL9000)

## FITTING SIZE

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

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.