

Figures 397, 398 & 399 Concentric Swaged Nipples

Figure 397
Fabricated Swaged Nipple
Groove x Groove

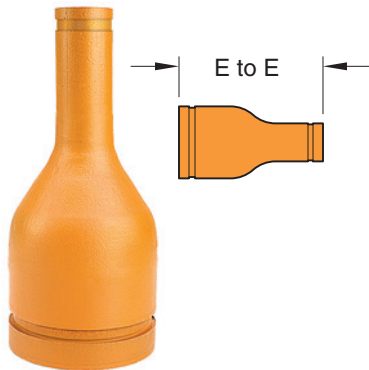
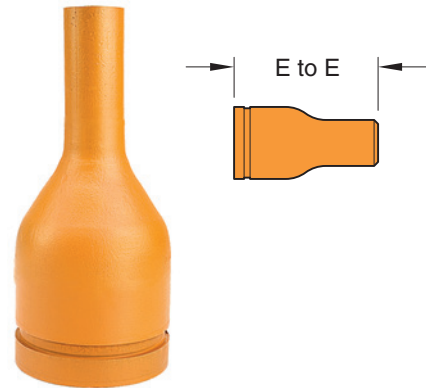


Figure 398
Fabricated Swaged Nipple
Groove x Male Thread



Figure 399
Fabricated Swaged Nipple
Groove x Plain End



| Pipe Size | | Figure 397 Groove x Groove | | Figure 398 Groove x Male Thread | | Figure 399 Groove x Plain End | |
|----------------------|-------------------|-------------------------------|---------------------------|------------------------------------|---------------------------|----------------------------------|---------------------------|
| Nominal Inches mm | O.D. Inches mm | E to E Inches mm | Approx. Weight Lbs. kg | E to E Inches mm | Approx. Weight Lbs. kg | E to E Inches mm | Approx. Weight Lbs. kg |
| 2 x 1 | 2.37 x 1.31 | 6.50 | 2.0 | 6.50 | 2.0 | 6.50 | 2.0 |
| 50 x 25 | 60,3 x 33,4 | 165,1 | 0,9 | 165,1 | 0,9 | 165,1 | 0,9 |
| 2 x 1-1/4 | 2.37 x 1.66 | 6.50 | 2.0 | 6.50 | 2.0 | 6.50 | 2.0 |
| 50 x 32 | 60,3 x 42,4 | 165,1 | 0,9 | 165,1 | 0,9 | 165,1 | 0,9 |
| 2 x 1-1/2 | 2.37 x 1.90 | 6.50 | 2.0 | 6.50 | 2.0 | 6.50 | 2.0 |
| 50 x 40 | 60,3 x 48,3 | 165,1 | 0,9 | 165,1 | 0,9 | 165,1 | 0,9 |
| 2-1/2 x 1 | 2.87 x 1.31 | 7.00 | 3.5 | 7.00 | 3.5 | 7.00 | 3.5 |
| 65 x 25 | 73,0 x 33,4 | 177,8 | 1,6 | 177,8 | 1,6 | 177,8 | 1,6 |
| 2-1/2 x 1-1/4 | 2.87 x 1.66 | 7.00 | 3.5 | 7.00 | 3.5 | 7.00 | 3.5 |
| 65 x 32 | 73,0 x 42,4 | 177,8 | 1,6 | 177,8 | 1,6 | 177,8 | 1,6 |
| 2-1/2 x 1-1/2 | 2.87 x 1.90 | 7.00 | 3.5 | 7.00 | 3.5 | 7.00 | 3.5 |
| 65 x 40 | 73,0 x 48,3 | 177,8 | 1,6 | 177,8 | 1,6 | 177,8 | 1,6 |
| 2-1/2 x 2 | 2.87 x 2.37 | 7.00 | 3.5 | 7.00 | 3.5 | 7.00 | 3.5 |
| 65 x 50 | 73,0 x 60,3 | 177,8 | 1,6 | 177,8 | 1,6 | 177,8 | 1,6 |
| 76mm x 1 | 3.00 x 1.31 | 7.00 | - | 7.00 | - | 7.00 | - |
| 65 x 25 | 76,1 x 33,4 | 177,8 | - | 177,8 | - | 177,8 | - |

MATERIAL SPECIFICATIONS

Material

Fabricated Steel

- Carbon Steel conforming to ASTM A 53, ASTM A 135, and ASTM A 795.

Wall Thickness

- Sizes 1" – 10" (25 – 250mm) Schedule 40
- Sizes 12" – 24" (300 – 600mm) Standard Wall 0.375

Protective Coatings

- Orange – Non-lead paint (standard)
- Hot-Dipped, Zinc Galvanized conforming to ASTM A 153 (optional)

Threads

- NPT (standard)
- BSPT (optional, regional)

| PROJECT INFORMATION: | | APPROVAL STAMP: |
|------------------------------|---------------|-----------------|
| Project: | | |
| Date: | Phone: | |
| Architect / Engineer: | | |
| Contractor: | | |
| Address: | | |
| Notes: | | |

Figures 397, 398 & 399 Concentric Swaged Nipples

Figure 397
Fabricated Swaged Nipple
Groove x Groove

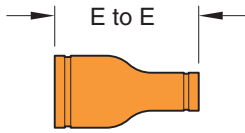


Figure 398
Fabricated Swaged Nipple
Groove x Male Thread

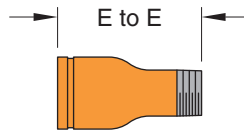
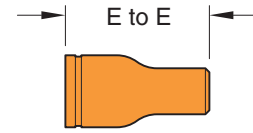


Figure 399
Fabricated Swaged Nipple
Groove x Plain End



| Pipe Size | | Figure 397 Groove x Groove | | Figure 398 Groove x Male Thread | | Figure 399 Groove x Plain End | |
|-------------------------|----------------------|-------------------------------|---------------------------------|------------------------------------|---------------------------------|----------------------------------|---------------------------------|
| Nominal Inches mm | O.D. Inches mm | E to E Inches mm | Approx. Weight Lbs. kg | E to E Inches mm | Approx. Weight Lbs. kg | E to E Inches mm | Approx. Weight Lbs. kg |
| 76mm x 1-1/4 | 3.00 x 1.66 | 7.00 | - | 7.00 | - | 7.00 | - |
| 65 x 32 | 76,1 x 42,4 | 177,8 | - | 177,8 | - | 177,8 | - |
| 76mm x 1-1/2 | 3.00 x 1.90 | 7.00 | - | 7.00 | - | 7.00 | - |
| 65 x 40 | 76,1 x 48,3 | 177,8 | - | 177,8 | - | 177,8 | - |
| 76mm x 2 | 3.00 x 2.37 | 7.00 | - | 7.00 | - | 7.00 | - |
| 65 x 50 | 76,1 x 60,3 | 177,8 | - | 177,8 | - | 177,8 | - |
| 3 x 1 | 3.50 x 1.31 | 8.00 | 5.0 | 8.00 | 5.0 | 8.00 | 5.0 |
| 80 x 25 | 88,9 x 33,4 | 203,2 | 2,3 | 203,2 | 2,3 | 203,2 | 2,3 |
| 3 x 1-1/4 | 3.50 x 1.60 | 8.00 | 5.0 | 8.00 | 5.0 | 8.00 | 5.0 |
| 80 x 32 | 88,9 x 42,4 | 203,2 | 2,3 | 203,2 | 2,3 | 203,2 | 2,3 |
| 3 x 1-1/2 | 3.50 x 1.90 | 8.00 | 5.0 | 8.00 | 5.0 | 8.00 | 5.0 |
| 80 x 40 | 88,9 x 48,3 | 203,2 | 2,3 | 203,2 | 2,3 | 203,2 | 2,3 |
| 3 x 2 | 3.50 x 2.37 | 8.00 | 5.0 | 8.00 | 5.0 | 8.00 | 5.0 |
| 80 x 50 | 88,9 x 60,3 | 203,2 | 2,3 | 203,2 | 2,3 | 203,2 | 2,3 |
| 3 x 2-1/2 | 3.50 x 2.87 | 8.00 | 5.0 | 8.00 | 5.0 | 8.00 | 5.0 |
| 80 x 65 | 88,9 x 73,0 | 203,2 | 2,3 | 203,2 | 2,3 | 203,2 | 2,3 |
| 3 x 76mm | 3.50 x 3.00 | 8.00 | - | 8.00 | - | 8.00 | - |
| 80 x 65 | 88,9 x 73,0 | 203,2 | - | 203,2 | - | 203,2 | - |
| 108mm x 1 | 4.25 x 1.31 | 9.00 | - | 9.00 | - | 9.00 | - |
| 100 x 25 | 108,0 x 33,4 | 228,6 | - | 228,6 | - | 228,6 | - |
| 108mm x 1-1/4 | 4.25 x 1.66 | 9.00 | - | 9.00 | - | 9.00 | - |
| 100 x 32 | 108,0 x 42,4 | 228,6 | - | 228,6 | - | 228,6 | - |
| 108mm x 1-1/2 | 4.25 x 1.90 | 9.00 | - | 9.00 | - | 9.00 | - |
| 100 x 40 | 108,0 x 48,3 | 228,6 | - | 228,6 | - | 228,6 | - |
| 108mm x 2 | 4.25 x 2.37 | 9.00 | - | 9.00 | - | 9.00 | - |
| 100 x 50 | 108,0 x 60,3 | 228,6 | - | 228,6 | - | 228,6 | - |
| 108mm x 2-1/2 | 4.25 x 2.87 | 9.00 | - | 9.00 | - | 9.00 | - |
| 100 x 65 | 108,0 x 73,0 | 228,6 | - | 228,6 | - | 228,6 | - |
| 108mm x 76mm | 4.25 x 3.00 | 9.00 | - | 9.00 | - | 9.00 | - |
| 100 x 65 | 108,0 x 76,1 | 228,6 | - | 228,6 | - | 228,6 | - |
| 108mm x 3 | 4.25 x 3.50 | 9.00 | - | 9.00 | - | 9.00 | - |
| 100 x 80 | 108,0 x 88,9 | 228,6 | - | 228,6 | - | 228,6 | - |
| 4 x 1 | 4.50 x 1.31 | 9.00 | 8.0 | 9.00 | 8.0 | 9.00 | 8.0 |
| 100 x 25 | 114,3 x 33,4 | 228,6 | 3,6 | 228,6 | 3,6 | 228,6 | 3,6 |
| 4 x 1-1/4 | 4.50 x 1.66 | 9.00 | 8.0 | 9.00 | 8.0 | 9.00 | 8.0 |
| 100 x 32 | 114,3 x 42,4 | 228,6 | 3,6 | 228,6 | 3,6 | 228,6 | 3,6 |
| 4 x 1-1/2 | 4.50 x 1.90 | 9.00 | 8.0 | 9.00 | 8.0 | 9.00 | 8.0 |
| 100 x 40 | 114,3 x 48,3 | 228,6 | 3,6 | 228,6 | 3,6 | 228,6 | 3,6 |
| 4 x 2 | 4.50 x 2.37 | 9.00 | 8.0 | 9.00 | 8.0 | 9.00 | 8.0 |
| 100 x 50 | 114,3 x 60,3 | 228,6 | 3,6 | 228,6 | 3,6 | 228,6 | 3,6 |
| 4 x 2-1/2 | 4.50 x 2.87 | 9.00 | 8.0 | 9.00 | 8.0 | 9.00 | 8.0 |
| 100 x 65 | 114,3 x 73,0 | 228,6 | 3,6 | 228,6 | 3,6 | 228,6 | 3,6 |
| 4 x 76mm | 4.50 x 3.00 | 9.00 | - | 9.00 | - | 9.00 | - |
| 100 x 65 | 114,3 x 76,1 | 228,6 | - | 228,6 | - | 228,6 | - |

Figures 397, 398 & 399 Concentric Swaged Nipples

Figure 397
Fabricated Swaged Nipple
Groove x Groove

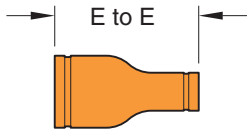


Figure 398
Fabricated Swaged Nipple
Groove x Male Thread

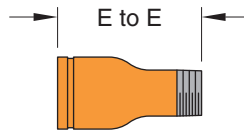
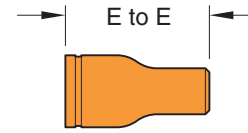


Figure 399
Fabricated Swaged Nipple
Groove x Plain End



| Pipe Size | | Figure 397 Groove x Groove | | Figure 398 Groove x Male Thread | | Figure 399 Groove x Plain End | |
|-------------------------|----------------------|-------------------------------|---------------------------------|------------------------------------|---------------------------------|----------------------------------|---------------------------------|
| Nominal Inches mm | O.D. Inches mm | E to E Inches mm | Approx. Weight Lbs. kg | E to E Inches mm | Approx. Weight Lbs. kg | E to E Inches mm | Approx. Weight Lbs. kg |
| 4 x 3 | 4.50 x 3.50 | 9.00 | 8.0 | 9.00 | 8.0 | 9.00 | 8.0 |
| 100 x 80 | 114,3 x 88,9 | 228,6 | 3,6 | 228,6 | 3,6 | 228,6 | 3,6 |
| 133mm x 1-1/2 | 5.25 x 1.90 | 11.00 | - | 11.00 | - | - | - |
| 125 x 40 | 133,0 x 48,3 | 279,4 | - | 279,4 | - | - | - |
| 133mm x 2 | 5.25 x 2.37 | 11.00 | - | 11.00 | - | 11.00 | - |
| 125 x 50 | 133,0 x 60,3 | 279,4 | - | 279,4 | - | 279,4 | - |
| 133mm x 2-1/2 | 5.25 x 2.87 | 11.00 | - | 11.00 | - | 11.00 | - |
| 125 x 65 | 133,0 x 73,0 | 279,4 | - | 279,4 | - | 279,4 | - |
| 133mm x 76mm | 5.25 x 3.00 | 11.00 | - | 11.00 | - | 11.00 | - |
| 125 x 65 | 133,0 x 76,1 | 279,4 | - | 279,4 | - | 279,4 | - |
| 133mm x 3 | 5.25 x 3.50 | 11.00 | - | 11.00 | - | 11.00 | - |
| 125 x 80 | 133,0 x 88,9 | 279,4 | - | 279,4 | - | 279,4 | - |
| 133mm x 108mm | 5.25 x 4.25 | 11.00 | - | - | - | 11.00 | - |
| 125 x 100 | 133,0 x 108,0 | 279,4 | - | - | - | 279,4 | - |
| 133mm x 4 | 5.25 x 4.50 | 11.00 | - | 11.00 | - | 11.00 | - |
| 125 x 100 | 133,0 x 114,3 | 279,4 | - | 279,4 | - | 279,4 | - |
| 139mm x 1-1/2 | 5.50 x 1.90 | 11.00 | - | 11.00 | - | 11.00 | - |
| 125 x 40 | 139,7 x 48,3 | 279,4 | - | 279,4 | - | 279,4 | - |
| 139mm x 2 | 5.50 x 2.37 | 11.00 | - | 11.00 | - | 11.00 | - |
| 125 x 50 | 139,7 x 60,3 | 279,4 | - | 279,4 | - | 279,4 | - |
| 139mm x 2-1/2 | 5.50 x 2.87 | 11.00 | - | 11.00 | - | 11.00 | - |
| 125 x 65 | 139,7 x 73,0 | 279,4 | - | 279,4 | - | 279,4 | - |
| 139mm x 76mm | 5.50 x 3.00 | 11.00 | - | 11.00 | - | 11.00 | - |
| 125 x 65 | 139,7 x 76,1 | 279,4 | - | 279,4 | - | 279,4 | - |
| 139mm x 3 | 5.50 x 3.50 | 11.00 | - | 11.00 | - | 11.00 | - |
| 125 x 80 | 139,7 x 88,9 | 279,4 | - | 279,4 | - | 279,4 | - |
| 139mm x 108mm | 5.50 x 4.25 | 11.00 | - | - | - | 11.00 | - |
| 125 x 100 | 139,7 x 108,0 | 279,4 | - | - | - | 279,4 | - |
| 139mm x 4 | 5.50 x 4.50 | 11.00 | - | 11.00 | - | 11.00 | - |
| 125 x 100 | 139,7 x 114,3 | 279,4 | - | 279,4 | - | 279,4 | - |
| 5 x 1-1/2 | 5.56 x 1.90 | 11.00 | - | 11.00 | - | 11.00 | - |
| 125 x 40 | 141,3 x 48,3 | 279,4 | - | 279,4 | - | 279,4 | - |
| 5 x 2 | 5.56 x 2.37 | 11.00 | 12.0 | 11.00 | 12.0 | 11.00 | 12.0 |
| 125 x 50 | 141,3 x 60,3 | 279,4 | 5,4 | 279,4 | 5,4 | 279,4 | 5,4 |
| 5 x 2-1/2 | 5.56 x 2.87 | 11.00 | 12.0 | 11.00 | 12.0 | 11.00 | 12.0 |
| 125 x 65 | 141,3 x 73,0 | 279,4 | 5,4 | 279,4 | 5,4 | 279,4 | 5,4 |
| 5 x 76mm | 5.56 x 3.00 | 11.00 | - | 11.00 | - | 11.00 | - |
| 125 x 65 | 141,3 x 76,1 | 279,4 | - | 279,4 | - | 279,4 | - |
| 5 x 3 | 5.56 x 3.50 | 11.00 | 12.0 | 11.00 | 12.0 | 11.00 | 12.0 |
| 125 x 80 | 141,3 x 88,9 | 279,4 | 5,4 | 279,4 | 5,4 | 279,4 | 5,4 |
| 5 x 108mm | 5.56 x 4.25 | 11.00 | - | - | - | 11.00 | - |
| 125 x 100 | 141,3 x 108,0 | 279,4 | - | - | - | 279,4 | - |
| 5 x 4 | 5.56 x 4.50 | 11.00 | 12.0 | 11.00 | 12.0 | 11.00 | 12.0 |
| 125 x 100 | 141,3 x 114,3 | 279,4 | 5,4 | 279,4 | 5,4 | 279,4 | 5,4 |

Figures 397, 398 & 399 Concentric Swaged Nipples

Figure 397
Fabricated Swaged Nipple
Groove x Groove

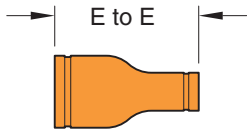


Figure 398
Fabricated Swaged Nipple
Groove x Male Thread

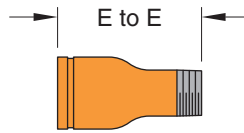
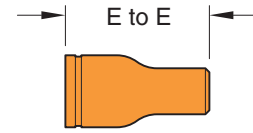


Figure 399
Fabricated Swaged Nipple
Groove x Plain End



| Pipe Size | | Figure 397 Groove x Groove | | Figure 398 Groove x Male Thread | | Figure 399 Groove x Plain End | |
|-------------------------|----------------------|-------------------------------|---------------------------------|------------------------------------|---------------------------------|----------------------------------|---------------------------------|
| Nominal Inches mm | O.D. Inches mm | E to E Inches mm | Approx. Weight Lbs. kg | E to E Inches mm | Approx. Weight Lbs. kg | E to E Inches mm | Approx. Weight Lbs. kg |
| 159mm x 1 | 6.25 x 1.31 | 12.00 | - | 12.00 | - | 12.00 | - |
| 150 x 25 | 159,0 x 33,4 | 304,8 | - | 304,8 | - | 304,8 | - |
| 159mm x 1-1/4 | 6.25 x 1.66 | 12.00 | - | 12.00 | - | 12.00 | - |
| 150 x 32 | 159,0 x 42,4 | 304,8 | - | 304,8 | - | 304,8 | - |
| 159mm x 1-1/2 | 6.25 x 1.90 | 12.00 | - | 12.00 | - | 12.00 | - |
| 150 x 40 | 159,0 x 48,3 | 304,8 | - | 304,8 | - | 304,8 | - |
| 159mm x 2 | 6.25 x 2.37 | 12.00 | - | 12.00 | - | 12.00 | - |
| 150 x 50 | 159,0 x 60,3 | 304,8 | - | 304,8 | - | 304,8 | - |
| 159mm x 2-1/2 | 6.25 x 2.87 | 12.00 | - | 12.00 | - | 12.00 | - |
| 150 x 65 | 159,0 x 73,0 | 304,8 | - | 304,8 | - | 304,8 | - |
| 159mm x 76mm | 6.25 x 3.00 | 12.00 | - | 12.00 | - | 12.00 | - |
| 150 x 65 | 159,0 x 76,1 | 304,8 | - | 304,8 | - | 304,8 | - |
| 159mm x 3 | 6.25 x 3.50 | 12.00 | - | 12.00 | - | 12.00 | - |
| 150 x 80 | 159,0 x 88,9 | 304,8 | - | 304,8 | - | 304,8 | - |
| 159mm x 108mm | 6.25 x 4.25 | 12.00 | - | - | - | 12.00 | - |
| 150 x 100 | 159,0 x 108,0 | 304,8 | - | - | - | 304,8 | - |
| 159mm x 4 | 6.25 x 4.50 | 12.00 | - | 12.00 | - | 12.00 | - |
| 150 x 100 | 159,0 x 114,3 | 304,8 | - | 304,8 | - | 304,8 | - |
| 159mm x 133mm | 6.25 x 5.25 | 12.00 | - | - | - | 12.00 | - |
| 150 x 125 | 159,0 x 133,0 | 304,8 | - | - | - | 304,8 | - |
| 159mm x 139mm | 6.25 x 5.50 | - | - | 12.00 | - | - | - |
| 150 x 125 | 159,0 x 139,7 | - | - | 304,8 | - | - | - |
| 159mm x 5 | 6.25 x 5.56 | 12.00 | - | 12.00 | - | 12.00 | - |
| 150 x 125 | 159,0 x 141,3 | 304,8 | - | 304,8 | - | 304,8 | - |
| 165mm x 1 | 6.50 x 1.31 | 12.00 | - | 12.00 | - | 12.00 | - |
| 150 x 25 | 165,1 x 33,4 | 304,8 | - | 304,8 | - | 304,8 | - |
| 165mm x 1-1/4 | 6.50 x 1.66 | 12.00 | - | 12.00 | - | 12.00 | - |
| 150 x 32 | 165,1 x 42,4 | 304,8 | - | 304,8 | - | 304,8 | - |
| 165mm x 1-1/2 | 6.50 x 1.90 | 12.00 | - | 12.00 | - | 12.00 | - |
| 150 x 40 | 165,1 x 48,3 | 304,8 | - | 304,8 | - | 304,8 | - |
| 165mm x 2 | 6.50 x 2.37 | 12.00 | - | 12.00 | - | 12.00 | - |
| 150 x 50 | 165,1 x 60,3 | 304,8 | - | 304,8 | - | 304,8 | - |
| 165mm x 2-1/2 | 6.50 x 2.87 | 12.00 | - | 12.00 | - | 12.00 | - |
| 150 x 65 | 165,1 x 73,0 | 304,8 | - | 304,8 | - | 304,8 | - |
| 165mm x 76mm | 6.50 x 3.00 | 12.00 | - | 12.00 | - | 12.00 | - |
| 150 x 65 | 165,1 x 76,1 | 304,8 | - | 304,8 | - | 304,8 | - |
| 165mm x 3 | 6.50 x 3.50 | 12.00 | - | 12.00 | - | 12.00 | - |
| 150 x 80 | 165,1 x 88,9 | 304,8 | - | 304,8 | - | 304,8 | - |
| 165mm x 108mm | 6.50 x 4.25 | 12.00 | - | - | - | 12.00 | - |
| 150 x 100 | 165,1 x 108,0 | 304,8 | - | - | - | 304,8 | - |
| 165mm x 4 | 6.50 x 4.50 | 12.00 | - | 12.00 | - | 12.00 | - |
| 150 x 100 | 165,1 x 114,3 | 304,8 | - | 304,8 | - | 304,8 | - |
| 165mm x 133mm | 6.50 x 5.25 | 12.00 | - | - | - | 12.00 | - |
| 150 x 125 | 165,1 x 133,0 | 304,8 | - | - | - | 304,8 | - |

Figures 397, 398 & 399 Concentric Swaged Nipples

Figure 397
Fabricated Swaged Nipple
Groove x Groove

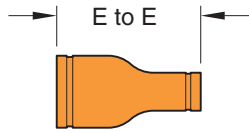


Figure 398
Fabricated Swaged Nipple
Groove x Male Thread

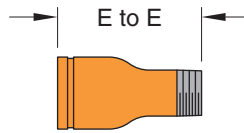
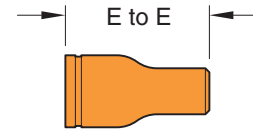


Figure 399
Fabricated Swaged Nipple
Groove x Plain End



| Pipe Size | | Figure 397 Groove x Groove | | Figure 398 Groove x Male Thread | | Figure 399 Groove x Plain End | |
|-------------------------|----------------------|-------------------------------|---------------------------------|------------------------------------|---------------------------------|----------------------------------|---------------------------------|
| Nominal Inches mm | O.D. Inches mm | E to E Inches mm | Approx. Weight Lbs. kg | E to E Inches mm | Approx. Weight Lbs. kg | E to E Inches mm | Approx. Weight Lbs. kg |
| 165mm x 139mm | 6.50 x 5.50 | 12.00 | – | 12.00 | – | 12.00 | – |
| 150 x 125 | 165,1 x 139,7 | 304,8 | – | 304,8 | – | 304,8 | – |
| 165mm x 5 | 6.50 x 5.56 | 12.00 | – | 12.00 | – | 12.00 | – |
| 150 x 125 | 165,1 x 141,3 | 304,8 | – | 304,8 | – | 304,8 | – |
| 6 x 1 | 6.63 x 1.31 | 12.00 | 19.0 | 12.00 | 19.0 | 12.00 | 19.0 |
| 150 x 25 | 168,3 x 33,4 | 304,8 | 8,6 | 304,8 | 8,6 | 304,8 | 8,6 |
| 6 x 1-1/4 | 6.63 x 1.66 | 12.00 | 19.0 | 12.00 | 19.0 | 12.00 | 19.0 |
| 150 x 32 | 168,3 x 42,4 | 304,8 | 8,6 | 304,8 | 8,6 | 304,8 | 8,6 |
| 6 x 1-1/2 | 6.63 x 1.90 | 12.00 | 19.0 | 12.00 | 19.0 | 12.00 | 19.0 |
| 150 x 40 | 168,3 x 48,3 | 304,8 | 8,6 | 304,8 | 8,6 | 304,8 | 8,6 |
| 6 x 2 | 6.63 x 2.37 | 12.00 | 19.0 | 12.00 | 19.0 | 12.00 | 19.0 |
| 150 x 50 | 168,3 x 60,3 | 304,8 | 8,6 | 304,8 | 8,6 | 304,8 | 8,6 |
| 6 x 2-1/2 | 6.63 x 2.87 | 12.00 | 19.0 | 12.00 | 19.0 | 12.00 | 19.0 |
| 150 x 65 | 168,3 x 73,0 | 304,8 | 8,6 | 304,8 | 8,6 | 304,8 | 8,6 |
| 6 x 76mm | 6.63 x 3.00 | 12.00 | 19.0 | 12.00 | 19.0 | 12.00 | 19.0 |
| 150 x 65 | 168,3 x 76,1 | 304,8 | 8,6 | 304,8 | 8,6 | 304,8 | 8,6 |
| 6 x 3 | 6.63 x 3.50 | 12.00 | 19.0 | 12.00 | 19.0 | 12.00 | 19.0 |
| 150 x 80 | 168,3 x 88,9 | 304,8 | 8,6 | 304,8 | 8,6 | 304,8 | 8,6 |
| 6 x 108mm | 6.63 x 4.50 | 12.00 | 19.0 | – | – | 12.00 | 19.0 |
| 150 x 100 | 168,3 x 108,0 | 304,8 | 8,6 | – | – | 304,8 | 8,6 |
| 6 x 4 | 6.63 x 4.50 | 12.00 | 19.0 | 12.00 | 19.0 | 12.00 | 19.0 |
| 150 x 100 | 168,3 x 114,3 | 304,8 | 8,6 | 304,8 | 8,6 | 304,8 | 8,6 |
| 6 x 133mm | 6.63 x 5.25 | 12.00 | 19.0 | – | – | 12.00 | 19.0 |
| 150 x 125 | 168,3 x 133,0 | 304,8 | 8,6 | – | – | 304,8 | 8,6 |
| 6 x 139mm | 6.63 x 5.50 | 12.00 | 19.0 | 12.00 | 19.0 | 12.00 | 19.0 |
| 150 x 125 | 168,3 x 139,7 | 304,8 | 8,6 | 304,8 | 8,6 | 304,8 | 8,6 |
| 6 x 5 | 6.63 x 5.56 | 12.00 | 19.0 | 12.00 | 19.0 | 12.00 | 19.0 |
| 150 x 125 | 168,3 x 141,3 | 304,8 | 8,6 | 304,8 | 8,6 | 304,8 | 8,6 |
| 216mm x 165mm | 8.52 x 6.50 | 12.00 | – | 12.00 | – | 12.00 | – |
| 200 x 150 | 216,3 x 165,1 | 304,8 | – | 304,8 | – | 304,8 | – |
| 216mm x 6 | 8.52 x 6.63 | 12.00 | – | 12.00 | – | 12.00 | – |
| 200 x 150 | 216,3 x 168,3 | 304,8 | – | 304,8 | – | 304,8 | – |
| 8 x 165mm | 8.63 x 6.50 | 12.00 | – | 12.00 | – | 12.00 | – |
| 200 x 150 | 219,1 x 165,1 | 304,8 | – | 304,8 | – | 304,8 | – |
| 8 x 6 | 8.63 x 6.63 | 12.00 | – | 12.00 | – | 12.00 | – |
| 200 x 150 | 219,1 x 168,3 | 304,8 | – | 304,8 | – | 304,8 | – |

For information on larger sizes, contact GRINNELL Mechanical Products.
See page 39 for fitting specifications.