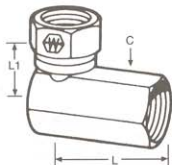


90° Elbow - Female Pipe Swivel to
Female Pipe

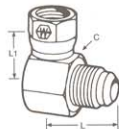
(Ref. SAE No. 140231)



| NPSM Swivel Nut | Fem. Pipe Thread | Catalog Number | Hex C | L | L1 |
|--------------------|---------------------|-------------------|----------|-------|-------|
| 1/8-27 | 1/8-27 | 9455x2x2 | 9/16 | .640 | .700 |
| 1/4-18 | 1/4-18 | 9455x4x4 | 11/16 | .870 | .750 |
| 1/4-18 | 3/8-18 | 9455x4x6 | 13/16 | 1.000 | .810 |
| 1/4-18 | 1/2-14 | 9455x4x8 | 1 | 1.250 | .940 |
| 3/8-18 | 1/4-18 | 9455x6x4 | 13/16 | 1.000 | .900 |
| 3/8-18 | 3/8-18 | 9455x6x6 | 13/16 | 1.000 | .900 |
| 3/8-18 | 1/2-14 | 9455x6x8 | 1 | 1.250 | 1.000 |
| 1/2-14 | 3/8-18 | 9455x8x6 | 1 | 1.220 | 1.020 |
| 1/2-14 | 1/2-14 | 9455x8x8 | 1 | 1.250 | 1.000 |
| 1/2-14 | 3/4-14 | 9455x8x12 | 1-1/4 | 1.440 | 1.120 |
| 3/4-14 | 1/2-14 | 9455x12x8 | 1-1/4 | 1.440 | 1.250 |
| 3/4-14 | 3/4-14 | 9455x12x12 | 1-1/4 | 1.490 | 1.200 |
| 3/4-14 | 1-11/12 | 9455x12x16 | 1-1/2 | 1.750 | 1.380 |
| 1-11/12 | 3/4-14 | 9455x16x12 | 1-1/2 | 1.750 | 1.380 |
| 1-11/12 | 1-11/12 | 9455x16x16 | 1-1/2 | 1.690 | 1.460 |
| 1-1/4-11/12 | 1-1/4-11/12 | 9455x20x20 | 1-7/8 | 1.850 | 1.630 |
| 1-1/2-11/12 | 1-1/2-11/12 | 9455x24x24 | 2-1/8 | 2.250 | 1.750 |
| 2-11/12 | 2-11/12 | 9455x32x32 | 2-5/8 | 2.500 | 2.310 |

90° Elbow - SAE 45° Female Swivel to
Male SAE 45°

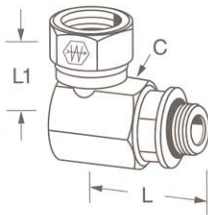
(Steel)



| Tube O.D. | Catalog Number | Hex C | L | L1 |
|--------------|-------------------|----------|------|------|
| 3/8 | 9151x6x6 | 3/4 | 1.00 | .69 |
| 1/2 | 9151x8x8 | 1 | 1.25 | .99 |
| 5/8 | 9151x10x10 | 1-1/4 | 1.44 | 1.09 |

90° Elbow - Male Straight Thread to
Female Pipe Swivel

(Ref. SAE No. 140257)



| Straight Thread | NPSM Swivel Nut | Catalog Number | Hex C | L | L1 |
|--------------------|--------------------|-------------------|----------|-------|-------|
| 7/16-20 | 1/4-18 | 9515x4x4 | 11/16 | 1.090 | .781 |
| 7/16-20 | 3/8-18 | 9515x4x6 | 7/8 | 1.100 | .900 |
| 9/16-18 | 1/4-18 | 9515x6x4 | 11/16 | 1.187 | .781 |
| 9/16-18 | 3/8-18 | 9515x6x6 | 7/8 | 1.296 | .937 |
| 9/16-18 | 1/2-14 | 9515x6x8 | 1 | 1.484 | 1.000 |
| 3/4-16 | 3/8-18 | 9515x8x6 | 1 | 1.515 | 1.000 |
| 3/4-16 | 1/2-14 | 9515x8x8 | 1 | 1.515 | 1.000 |
| 3/4-16 | 3/4-14 | 9515x8x12 | 1-1/4 | 1.656 | 1.250 |
| 7/8-14 | 3/8-18 | 9515x10x6 | 1 | 1.640 | 1.000 |
| 7/8-14 | 1/2-14 | 9515x10x8 | 1 | 1.640 | 1.025 |
| 7/8-14 | 3/4-14 | 9515x10x12 | 1-1/4 | 1.781 | 1.250 |
| 1-1/16-12 | 1/2-14 | 9515x12x8 | 1-1/4 | 1.921 | 1.125 |
| 1-1/16-12 | 3/4-14 | 9515x12x12 | 1-1/4 | 1.921 | 1.250 |
| 1-3/16-12 | 3/4-14 | 9515x14x12 | 1-1/4 | 1.921 | 1.250 |
| 1-5/16-12 | 3/4-14 | 9515x16x12 | 1-1/2 | 2.093 | 1.375 |
| 1-5/16-12 | 1-11/12 | 9515x16x16 | 1-1/2 | 2.093 | 1.390 |
| 1-5/8-12 | 3/4-14 | 9515x20x12 | 1-7/8 | 2.484 | 1.562 |
| 1-5/8-12 | 1-1/4-11/12 | 9515x20x20 | 1-7/8 | 2.484 | 1.656 |
| 1-7/8-12 | 1-1/2-11/12 | 9515x24x24 | 2-1/8 | 2.609 | 1.734 |
| 2-1/2-12 | 2-11/12 | 9515x32x32 | 2-5/8 | 3.250 | 2.312 |

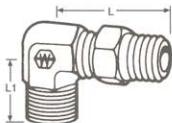
Replacement O-rings page 194.

NOTE: C and L dimensions subject to change.

NPSM Female Swivel Adapters

Steel
Fittings

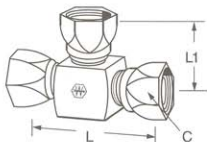
90° Elbow - Male Pipe Swivel to Male Pipe Rigid



Not for use with liquids over 212°F.

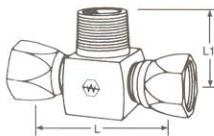
| Male Pipe Swivel | Male Pipe | Catalog Number | Hex C | L | L1 |
|------------------|-----------|----------------|-------|-------|-------|
| 1/4-18 | 1/4-18 | 9435x4x4 | 9/16 | 1.870 | 1.060 |
| 3/8-18 | 3/8-18 | 9435x6x6 | 3/4 | 1.950 | 1.220 |
| 1/2-14 | 1/2-14 | 9435x8x8 | 7/8 | 2.250 | 1.470 |

Female Pipe Swivel Tee



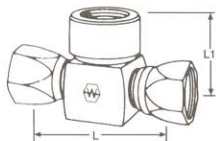
| NPSM Swivel Nut | Catalog Number | Across Flats | L | L1 | Hex C |
|-----------------|----------------|--------------|-------|-------|-------|
| 1/8-27 | 9705x2x2x2 | 1/2 | 1.406 | .660 | 9/16 |
| 1/4-18 | 9705x4x4x4 | 11/16 | 1.720 | .780 | 11/16 |
| 3/8-18 | 9705x6x6x6 | 7/8 | 1.720 | .940 | 7/8 |
| 1/2-14 | 9705x8x8x8 | 1 | 2.200 | 1.000 | 1 |
| 3/4-14 | 9705x12x12x12 | 1-1/4 | 2.780 | 1.250 | 1-1/4 |
| 1-11-1/2 | 9705x16x16x16 | 1-1/2 | 3.060 | 1.390 | 1-1/2 |
| 1-1/4-11-1/2 | 9705x20x20x20 | 1-7/8 | 3.320 | 1.660 | 1-7/8 |

Female Pipe Swivel to Male Pipe Branch Tee



| NPSM Swivel Nut | Male Pipe | Catalog Number | Across Flats | L | L1 |
|-----------------|--------------|----------------|--------------|-------|-------|
| 1/8-27 | 1/8-27 | 9406x2x2x2 | 9/16 | 1.380 | .940 |
| 1/4-18 | 1/4-18 | 9406x4x4x4 | 11/16 | 1.500 | 1.190 |
| 1/4-18 | 3/8-18 | 9406x4x4x6 | 7/8 | 1.744 | 1.500 |
| 1/4-18 | 1/2-14 | 9406x4x4x8 | 7/8 | 1.880 | 1.750 |
| 3/8-18 | 3/8-18 | 9406x6x6x6 | 1 | 1.880 | 1.750 |
| 3/8-18 | 1/2-14 | 9406x6x6x8 | 1 | 2.000 | 1.750 |
| 1/2-14 | 1/2-14 | 9406x8x8x8 | 1 | 2.000 | 1.810 |
| 1/2-14 | 3/4-14 | 9406x8x8x12 | 1-1/4 | 2.250 | 2.000 |
| 3/4-14 | 3/4-14 | 9406x12x12x12 | 1-1/4 | 2.380 | 2.000 |
| 3/4-14 | 1-11-1/2 | 9406x12x12x16 | 1-1/2 | 2.756 | 2.375 |
| 1-11-1/2 | 3/4-14 | 9406x16x16x12 | 1-1/2 | 2.780 | 2.187 |
| 1-11-1/2 | 1-11-1/2 | 9406x16x16x16 | 1-1/2 | 2.880 | 2.380 |
| 1-1/4-11-1/2 | 1-1/4-11-1/2 | 9406x20x20x20 | 1-7/8 | 3.240 | 2.620 |
| 1-1/2-11-1/2 | 1-1/2-11-1/2 | 9406x24x24x24 | 2-1/8 | 3.500 | 2.810 |

Female Pipe Swivel to Female Pipe Branch Tee



| NPSM Swivel Nut | Female Pipe | Catalog Number | Across Flats | L | L1 |
|-----------------|--------------|----------------|--------------|-------|-------|
| 1/8-27 | 1/8-27 | 9456x2x2x2 | 1/2 | 1.312 | .687 |
| 1/4-18 | 1/4-18 | 9456x4x4x4 | 11/16 | 1.625 | .937 |
| 1/4-18 | 3/8-18 | 9456x4x4x6 | 7/8 | 1.744 | 1.062 |
| 3/8-18 | 3/8-18 | 9456x6x6x6 | 7/8 | 1.874 | 1.062 |
| 3/8-18 | 1/2-14 | 9456x6x6x8 | 1 | 2.000 | 1.250 |
| 1/2-14 | 1/2-14 | 9456x8x8x8 | 1 | 2.000 | 1.250 |
| 1/2-14 | 3/4-14 | 9456x8x8x12 | 1-1/4 | 2.250 | 1.437 |
| 3/4-14 | 3/4-14 | 9456x12x12x12 | 1-1/4 | 2.500 | 1.437 |
| 3/4-14 | 1-11-1/2 | 9456x12x12x16 | 1-1/2 | 2.750 | 1.750 |
| 1-11-1/2 | 1-11-1/2 | 9456x16x16x16 | 1-1/2 | 2.780 | 1.750 |
| 1-1/4-11-1/2 | 1-1/4-11-1/2 | 9456x20x20x20 | 1-7/8 | 3.312 | 2.000 |

NOTE: C and L dimensions subject to change.

1 mm = 10