

Pipe Fittings



- ❖ Available in sizes from 1/16 to 2 in. and 6 mm to 30 mm
- ❖ Hikelok pipe Fittings materials include stainless steel, alloy 400/R-405, brass, and carbon steel
- ❖ Hikelok provide NPT, ISO/BSP, SAE and ISO threads configurations
- ❖ Burrfree smooth thread provide optimum sealing and minimize galling

Features

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Materials Standards

| Material | Bar Stock | Forgings |
|---------------------|------------------------------------|------------------------------------|
| 316 stainless steel | ASTM A276 ASME SA479, EN 1.4401 | ASTM A182 ASME SA182, EN 1.4401 |
| Alloy 20 | ASTM B473 | ASTM B462 |
| Alloy 400/R-405 | ASTM B164,ASME SB164 | ASTM B564, ASME SB564 |
| Alloy 600 | ASTM B166,ASME SB166 | ASTM B564, ASME SB564 |
| Alloy 625 | ASTM B446 | ASTM B564, ASME SB564 |
| Alloy 825 | ASTM B425 | ASTM B564, ASME SB564 |
| Alloy C-276 | ASTM B574 | ASTM B564 |
| Aluminum | ASTM B211 | ASTM B247 |
| Brass | ASTM B16, ASTM | ASTM B283 |
| Carbon steel | B453 ASTM A108 | — |

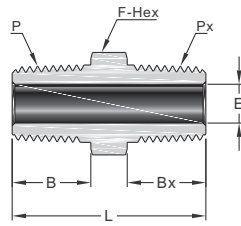
Thread Specifications

| Thread Type(End Connection) | Reference Specification |
|--|---------------------------------|
| NPT | ASME B1.20.1, SAE AS71051 |
| ISO/BSP(parallel) (Based on DIN 3852) (Hikelok PPT,BP,and BS fittings) | ISO 228, JIS B0202 |
| ISO/BSP(tapered) (Based on DIN 3852) (Hikelok BT fittings) | ISO 7, BS EN 10226-1, JIS B0203 |
| ISO/BSP(gauge) (Based on EN 837-1 and 837-3) (Hikelok BG) | ISO 228 |
| Unified (SAE) (Hikelok SA fittings) | ASME B1.1 |

Working Temperature Rating

| Material | Working Temperature Rating °F (°C) |
|--------------------------|------------------------------------|
| 316 stainless steel | -65(-53) to 1000 (537) |
| Brass | -20(-28) to 400 (204) |
| Carbon steel | -65(-53) to 375 (190) |
| BS gaskets(FKM) | -5(-15) to 400 (204) |
| BG BP gaskets (copper) | -5(-15) to 400 (204) |
| SAE O-ring (FKM) | -5(-15) to 400 (204) |

Hex Nipples



Male NPT Threads

| P-NPT Size | Px-NPT Size | Basic Ordering Number | Dimension, mm | | | | | Working Pressure psig (bar) | |
|------------|-------------|-----------------------|---------------|------|------|------|------|-----------------------------|------------|
| | | | L | F | B | Bx | E | 316 SS, Steel | Brass |
| 1/16 | 1/16 | NPT1-THN-NPT1- | 25.6 | 7.9 | 9.7 | 9.7 | 3.0 | 11000 (757) | 5500 (378) |
| 1/8 | 1/16 | NPT2-THN-NPT1- | 25.6 | 11.1 | 9.7 | 9.7 | 3.0 | 11000 (757) | 5500 (378) |
| 1/8 | 1/8 | NPT2-THN-NPT2- | 25.6 | 11.1 | 9.7 | 9.7 | 4.8 | 10000 (689) | 5000 (344) |
| 1/4 | 1/16 | NPT4-THN-NPT1- | 31.0 | 14.3 | 14.2 | 9.7 | 3.0 | 11000 (757) | 5500 (378) |
| 1/4 | 1/8 | NPT4-THN-NPT2- | 31.0 | 14.3 | 14.2 | 9.7 | 4.8 | 10000 (689) | 5000 (344) |
| 1/4 | 1/4 | NPT4-THN-NPT4- | 35.6 | 14.3 | 14.2 | 14.2 | 7.1 | 8000 (551) | 4000 (275) |
| 3/8 | 1/16 | NPT6-THN-NPT1- | 31.8 | 17.5 | 14.2 | 9.7 | 3.0 | 11000 (757) | 5500 (378) |
| 3/8 | 1/8 | NPT6-THN-NPT2- | 31.8 | 17.5 | 14.2 | 9.7 | 4.8 | 10000 (689) | 5000 (344) |
| 3/8 | 1/4 | NPT6-THN-NPT4- | 36.3 | 17.5 | 14.2 | 14.2 | 7.1 | 8000 (551) | 4000 (275) |
| 3/8 | 3/8 | NPT6-THN-NPT6- | 36.3 | 17.5 | 14.2 | 14.2 | 9.7 | 7800 (537) | 3900 (268) |
| 1/2 | 1/8 | NPT8-THN-NPT2- | 37.3 | 22.2 | 19.1 | 9.7 | 4.8 | 7700 (530) | 3800 (261) |
| 1/2 | 1/4 | NPT8-THN-NPT4- | 41.9 | 22.2 | 19.1 | 14.2 | 7.1 | 8000 (551) | 4000 (275) |
| 1/2 | 3/8 | NPT8-THN-NPT6- | 41.9 | 22.2 | 19.1 | 14.2 | 9.7 | 7800 (537) | 3900 (268) |
| 1/2 | 1/2 | NPT8-THN-NPT8- | 46.7 | 22.2 | 19.1 | 19.1 | 11.9 | 7700 (530) | 3800 (261) |
| 3/4 | 1/8 | NPT12-THN-NPT2- | 40.4 | 27.0 | 19.1 | 9.7 | 4.8 | 10000 (689) | 5000 (344) |
| 3/4 | 1/4 | NPT12-THN-NPT4- | 41.9 | 27.0 | 19.1 | 14.2 | 7.1 | 8000 (551) | 4000 (275) |
| 3/4 | 3/8 | NPT12-THN-NPT6- | 45.2 | 27.0 | 19.1 | 14.2 | 9.7 | 7800 (537) | 3900 (268) |
| 3/4 | 1/2 | NPT12-THN-NPT8- | 46.7 | 27.0 | 19.1 | 19.1 | 11.9 | 7700 (530) | 3800 (261) |
| 3/4 | 3/4 | NPT12-THN-NPT12- | 46.7 | 27.0 | 19.1 | 19.1 | 15.7 | 7300 (502) | 3600 (248) |
| 1 | 1/8 | NPT16-THN-NPT2- | 45.2 | 34.9 | 23.9 | 9.7 | 4.8 | 10000 (689) | 5000 (344) |
| 1 | 1/4 | NPT16-THN-NPT4- | 49.3 | 34.9 | 23.9 | 14.2 | 7.1 | 5300 (365) | 2600 (179) |
| 1 | 3/8 | NPT16-THN-NPT6- | 50.0 | 34.9 | 23.9 | 14.2 | 9.7 | 7800 (537) | 3900 (268) |
| 1 | 1/2 | NPT16-THN-NPT8- | 54.1 | 34.9 | 23.9 | 19.1 | 11.9 | 7700 (530) | 3800 (261) |
| 1 | 3/4 | NPT16-THN-NPT12- | 54.1 | 34.9 | 23.9 | 19.1 | 15.7 | 7300 (502) | 3600 (248) |
| 1 | 1 | NPT16-THN-NPT16- | 58.9 | 34.9 | 23.9 | 23.9 | 22.4 | 5300 (365) | 2600 (179) |
| 1 1/4 | 1 | NPT20-THN-NPT16- | 62.2 | 44.5 | 23.9 | 23.9 | 22.4 | 5300 (365) | 2600 (179) |
| 1 1/4 | 1 1/4 | NPT20-THN-NPT20- | 62.9 | 44.5 | 23.9 | 23.9 | 28.6 | 6000 (410) | 3000 (200) |
| 1 1/2 | 1 1/2 | NPT24-THN-NPT24- | 66.3 | 50.8 | 26.2 | 26.2 | 34.0 | 5000 (344) | 2500 (172) |
| 2 | 2 | NPT32-THN-NPT32- | 77.7 | 69.9 | 26.2 | 26.2 | 45.0 | 3900 (268) | 1900 (130) |

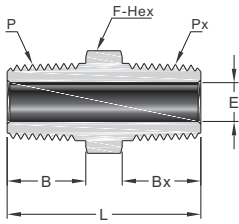
Heavy-Wall Male NPT Threads

| | | | | | | | | | |
|-----|-----|-----------------|------|------|------|------|-----|-------------|---|
| 1/4 | 1/4 | NPT4-THN1-NPT4- | 35.6 | 14.3 | 14.2 | 14.2 | 5.8 | 10000 (689) | — |
| 1/2 | 1/4 | NPT8-THN1-NPT4- | 41.9 | 22.2 | 19.1 | 14.2 | 5.8 | 10000 (689) | — |
| 1/2 | 1/2 | NPT8-THN1-NPT8- | 46.7 | 22.2 | 19.1 | 19.1 | 9.9 | 10000 (689) | — |

Male ISO Tapered Threads

| P-BSPT Size | Px-BSPT Size | Basic Ordering Number | Dimension, mm | | | | | Working Pressure psig (bar) | |
|-------------|--------------|-----------------------|---------------|------|------|------|------|-----------------------------|------------|
| | | | L | F | B | Bx | E | 316 SS, Steel | Brass |
| 1/8 | 1/8 | MBT2-THN-MBT2- | 25.6 | 11.1 | 9.7 | 9.7 | 4.8 | 10000 (689) | 5000 (344) |
| 1/4 | 1/4 | MBT4-THN-MBT4- | 35.6 | 14.3 | 14.2 | 14.2 | 7.1 | 8000 (551) | 4000 (275) |
| 3/8 | 3/8 | MBT6-THN-MBT6- | 36.3 | 17.5 | 14.2 | 14.2 | 9.7 | 7800 (537) | 3900 (268) |
| 1/2 | 1/2 | MBT8-THN-MBT8- | 46.7 | 22.2 | 19.1 | 19.1 | 11.9 | 7700 (530) | 3800 (261) |
| 3/4 | 3/4 | MBT12-THN-MBT12- | 46.7 | 27.0 | 19.1 | 19.1 | 15.7 | 7300 (502) | 3600 (248) |
| 1 | 1 | MBT16-THN-MBT16- | 58.9 | 34.9 | 23.9 | 23.9 | 22.4 | 5300 (365) | 2600 (179) |

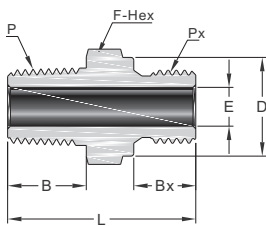
Hex Nipples



Male NPT Threads

Male ISO Tapered Threads

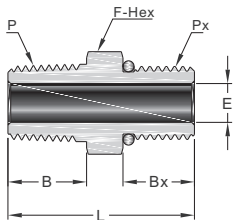
| P-NPT Size | Px-BSPT Size | Basic Ordering Number | Dimension, mm | | | | | Working Pressure psig (bar) | |
|------------|--------------|-----------------------|---------------|------|------|------|------|-----------------------------|------------|
| | | | L | F | B | Bx | E | 316 SS, Steel | Brass |
| 1/8 | 1/8 | NPT2-THN-MBT2- | 25.6 | 11.1 | 9.7 | 9.7 | 4.8 | 10000 (689) | 5000 (344) |
| 1/4 | 1/4 | NPT4-THN-MBT4- | 35.6 | 14.3 | 14.2 | 14.2 | 7.1 | 8000 (551) | 4000 (275) |
| 3/8 | 3/8 | NPT6-THN-MBT6- | 36.3 | 17.5 | 14.2 | 14.2 | 9.7 | 7800 (537) | 3900 (268) |
| 1/2 | 1/2 | NPT8-THN-MBT8- | 46.7 | 22.2 | 19.1 | 19.1 | 11.9 | 7700 (530) | 3800 (261) |
| 3/4 | 3/4 | NPT12-THN-MBT12- | 46.7 | 27.0 | 19.1 | 19.1 | 15.7 | 7300 (502) | 3600 (248) |
| 1 | 1 | NPT16-THN-MBT16- | 58.9 | 34.9 | 23.9 | 23.9 | 22.4 | 5300 (365) | 2600 (179) |



Male NPT Threads

Male ISO parallel Threads

| P-NPT Size | Px-BS Size | Basic Ordering Number | Dimension, mm | | | | | | Working Pressure psig (bar) | |
|------------|------------|-----------------------|---------------|------|------|------|------|------|-----------------------------|------------|
| | | | L | F | B | Bx | E | D | 316 SS, Steel | Brass |
| 1/8 | 1/8 | NPT2-THN-MBS2- | 27.7 | 14.3 | 9.7 | 7.1 | 4.1 | 13.7 | 11400 (785) | 5700 (392) |
| 1/4 | 1/4 | NPT4-THN-MBS4- | 36.8 | 19.1 | 14.2 | 11.2 | 5.8 | 18.0 | 10300 (709) | 5100 (351) |
| 3/8 | 3/8 | NPT6-THN-MBS6- | 37.6 | 22.2 | 14.2 | 11.2 | 7.9 | 21.6 | 10300 (709) | 5100 (351) |
| 1/2 | 1/2 | NPT8-THN-MBS8- | 44.4 | 27.0 | 19.1 | 14.2 | 11.9 | 25.9 | 7600 (523) | 3800 (261) |
| 3/4 | 3/4 | NPT12-THN-MBS12- | 49.0 | 33.3 | 19.1 | 15.7 | 15.7 | 32.0 | 7300 (502) | 3600 (248) |
| 1 | 1 | NPT16-THN-MBS16- | 56.6 | 41.3 | 23.9 | 18.3 | 19.8 | 38.9 | 7400 (509) | 3700 (254) |

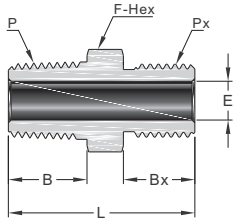


Male NPT Threads

Male SAE/MS Straight Threads

| P-NPT Size | Px-SAE/MS Thread Size | Basic Ordering Number | Dimension, mm | | | | | Working Pressure psig (bar) |
|------------|-----------------------|-----------------------|---------------|------|------|------|------|-----------------------------|
| | | | L | F | B | Bx | E | 316 SS, Steel |
| 1/4 | 7/16-20 | NPT4-THN-OST7- | 30.5 | 14.3 | 14.2 | 9.1 | 5.1 | 4500 (310) |
| 3/8 | 9/16-18 | NPT6-THN-OST9- | 32.0 | 17.5 | 14.2 | 9.1 | 7.1 | 4500 (310) |
| 1/2 | 3/4-16 | NPT8-THN-OST12- | 38.9 | 22.2 | 19.1 | 11.2 | 10.7 | 4500 (310) |
| 3/4 | 1 1/16-12 | NPT12-THN-OST17- | 44.4 | 31.8 | 19.1 | 15.0 | 15.7 | 3600 (248) |
| 1 | 1 5/16-12 | NPT16-THN-OST21- | 50.8 | 38.1 | 23.9 | 15.0 | 22.4 | 2900 (199) |

Hex Nipples



Male NPT Threads

Male Metric Threads

| P-NPT Size | Px-Metric Size | Basic Ordering Number | Dimension, mm | | | | | Working Pressure psig (bar) 316 SS, Steel |
|------------|----------------|-----------------------|---------------|------|------|----|------|--|
| | | | L | F | B | Bx | E | |
| 1/8 | M20 x 1.5 | NPT2-THN-MS20- | 32.7 | 22.2 | 9.7 | 16 | 5.0 | 7700 (530) |
| 1/4 | M8 x 1 | NPT4-THN-MS8- | 29.0 | 14.3 | 14.2 | 9 | 3.2 | 8000 (551) |
| 1/4 | M14 x 1.5 | NPT4-THN-MS14- | 34.2 | 15.9 | 14.2 | 13 | 7.0 | 8000 (551) |
| 1/4 | M16 x 1.5 | NPT4-THN-MS16- | 35.2 | 17.5 | 14.2 | 14 | 7.1 | 7800 (537) |
| 1/4 | M20 x 1.5 | NPT4-THN-MS20- | 37.2 | 22.2 | 14.2 | 16 | 7.0 | 7700 (530) |
| 3/8 | M14 x 1.5 | NPT6-THN-MS14- | 34.2 | 17.5 | 14.2 | 13 | 7.0 | 7800 (537) |
| 3/8 | M20 x 1.5 | NPT6-THN-MS20- | 37.2 | 22.2 | 14.2 | 16 | 9.5 | 7700 (530) |
| 3/8 | M24 x 1.5 | NPT6-THN-MS24- | 38.2 | 27 | 14.2 | 17 | 9.5 | 7400 (509) |
| 1/2 | M14 x 1.5 | NPT8-THN-MS14- | 39.1 | 22.2 | 19.1 | 13 | 7.0 | 7700 (530) |
| 1/2 | M20 x 1.5 | NPT8-THN-MS20- | 42.0 | 22.2 | 19.1 | 16 | 10.0 | 7700 (530) |
| 1/2 | M24 x 1.5 | NPT8-THN-MS24- | 43.5 | 27 | 19.1 | 17 | 11.9 | 7400 (509) |
| 3/4 | M20 x 1.5 | NPT12-THN-MS20- | 42.1 | 27 | 19.1 | 16 | 10.0 | 7300 (502) |
| 3/4 | M27 x 2 | NPT12-THN-MS27- | 46.7 | 31.8 | 19.1 | 18 | 15.8 | 6100 (420) |
| 1 | M30 x 2 | NPT16-THN-MS30- | 55.0 | 34.9 | 23.9 | 20 | 11.9 | 6100 (420) |

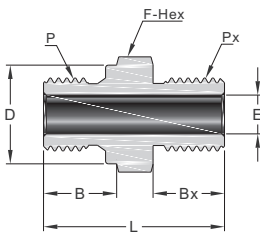
Male ISO Tapered Threads

Male Metric Threads

| P-BSPT Size | Px-Metric Size | Basic Ordering Number | Dimension, mm | | | | | Working Pressure psig (bar) 316 SS, Steel |
|-------------|----------------|-----------------------|---------------|------|------|----|------|--|
| | | | L | F | B | Bx | E | |
| 1/8 | M20 x 1.5 | MBT2-THN-MS20- | 32.7 | 22.2 | 9.7 | 16 | 5.0 | 7700 (530) |
| 1/4 | M12 x 1.5 | MBT4-THN-MS12- | 33.4 | 14.3 | 14.2 | 15 | 5.0 | 8000 (551) |
| 1/4 | M20 x 1.5 | MBT4-THN-MS20- | 37.2 | 22.2 | 14.2 | 16 | 7.0 | 7700 (530) |
| 3/8 | M20 x 1.5 | MBT6-THN-MS20- | 37.2 | 22.2 | 14.2 | 16 | 9.5 | 7700 (530) |
| 1/2 | M20 x 1.5 | MBT8-THN-MS20- | 42.0 | 22.2 | 19.1 | 16 | 10.0 | 7700 (530) |

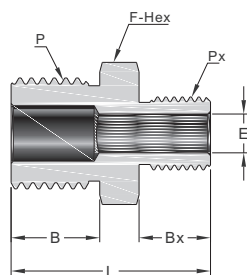
Male ISO Parallel Threads

Male Metric Threads



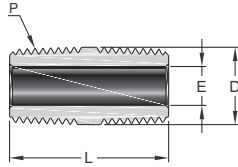
| P-BS Size | Px-Metric Size | Basic Ordering Number | Dimension, mm | | | | | | Working Pressure psig (bar) 316 SS, Steel |
|-----------|----------------|-----------------------|---------------|------|------|----|------|------|--|
| | | | L | F | B | Bx | E | D | |
| 1/8 | M20 x 1.5 | MBS2-THN-MS20- | 30.1 | 22.2 | 7.1 | 16 | 4.0 | 13.7 | |
| 1/4 | M18 x 1.5 | MBS4-THN-MS18- | 34.2 | 20.6 | 11.2 | 15 | 5.9 | 18.0 | |
| 1/4 | M20 x 1.5 | MBS4-THN-MS20- | 36.2 | 22.2 | 11.2 | 16 | 5.9 | 18.0 | 7700 (530) |
| 3/8 | M20 x 1.5 | MBS6-THN-MS20- | 36.2 | 22.2 | 11.2 | 16 | 7.9 | 21.6 | 7800 (537) |
| 1/2 | M20 x 1.5 | MBS8-THN-MS20- | 40.2 | 22.2 | 14.0 | 16 | 11.9 | 25.9 | 7700 (530) |

Male Metric Threads



| P-Metric Size | Px-Metric Size | Basic Ordering Number | Dimension, mm | | | | | Working Pressure psig (bar) 316 SS, Steel |
|---------------|----------------|-----------------------|---------------|------|----|----|------|--|
| | | | L | F | B | Bx | E | |
| M20 x 1.5 | M10 x 1 | MS20-THN-MS10- | 34 | 22.2 | 16 | 11 | 4.0 | |
| M20 x 1.5 | M12 x 1.5 | MS20-THN-MS12- | 35 | 22.2 | 16 | 12 | 6.0 | 10000 (689) |
| M20 x 1.5 | M14 x 1.5 | MS20-THN-MS14- | 36 | 22.2 | 16 | 13 | 8.0 | 9000 (620) |
| M20 x 1.5 | M16 x 1.5 | MS20-THN-MS16- | 37 | 22.2 | 16 | 14 | 9.0 | 8000 (551) |
| M20 x 1.5 | M20 x 1.5 | MS20-THN-MS20- | 39 | 22.2 | 16 | 16 | 10.0 | 7800 (537) |
| M27 x 2 | M27 x 2 | MS27-THN-MS27- | 44.5 | 30.1 | 18 | 18 | 14.0 | 7700 (530) |

Close Nipples



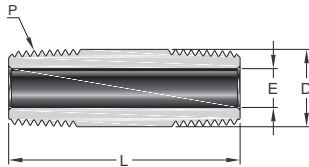
Male NPT Threads

| P-NPT Size | Basic Ordering Number | Dimension, mm | | | Working Pressure psig (bar) | |
|------------|-----------------------|---------------|------|------|-----------------------------|------------|
| | | L | D | E | 316 SS, Steel | Brass |
| 1/16 | NPT1-TCN-NPT1- | 19.1 | 7.9 | 3.0 | 11000 (757) | 5500 (378) |
| 1/8 | NPT2-TCN-NPT2- | 19.1 | 10.3 | 4.8 | 10000 (689) | 5000 (344) |
| 1/4 | NPT4-TCN-NPT4- | 28.4 | 13.7 | 7.1 | 8000 (551) | 4000 (275) |
| 3/8 | NPT6-TCN-NPT6- | 28.4 | 17.1 | 9.6 | 7800 (537) | 3900 (268) |
| 1/2 | NPT8-TCN-NPT8- | 38.1 | 21.3 | 11.9 | 7700 (530) | 3800 (261) |
| 3/4 | NPT12-TCN-NPT12- | 38.1 | 26.7 | 15.7 | 7300 (502) | 3600 (248) |
| 1 | NPT16-TCN-NPT16- | 47.8 | 33.4 | 22.4 | 5300 (365) | 2600 (179) |

Male ISO Tapered Threads

| P-BSPT Size | Basic Ordering Number | Dimension, mm | | | Working Pressure psig (bar) | |
|-------------|-----------------------|---------------|------|------|-----------------------------|------------|
| | | L | D | E | 316 SS, Steel | Brass |
| 1/16 | MBT1-TCN-MBT1- | 19.1 | 7.9 | 3.0 | 11000 (757) | 5500 (378) |
| 1/8 | MBT2-TCN-MBT2- | 19.1 | 10.3 | 4.8 | 10000 (689) | 5000 (344) |
| 1/4 | MBT4-TCN-MBT4- | 28.4 | 13.7 | 7.1 | 8000 (551) | 4000 (275) |
| 3/8 | MBT6-TCN-MBT6- | 28.4 | 17.1 | 9.7 | 7800 (537) | 3900 (268) |
| 1/2 | MBT8-TCN-MBT8- | 38.1 | 21.3 | 11.9 | 7700 (530) | 3800 (261) |
| 3/4 | MBT12-TCN-MBT12- | 38.1 | 26.7 | 15.7 | 7300 (502) | 3600 (248) |
| 1 | MBT16-TCN-MBT16- | 47.8 | 33.4 | 22.4 | 5300 (365) | 2600 (179) |

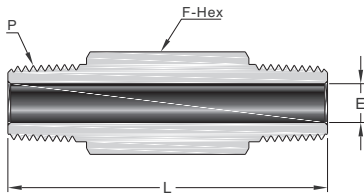
Special Pipe Nipples



Male NPT Threads

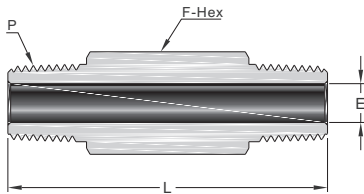
| P-NPT Size | Basic Ordering Number | Dimension, mm | | | Working Pressure psig (bar) | |
|------------|------------------------|---------------|------|------|-----------------------------|------------|
| | | L | D | E | 316 SS, Steel | Brass |
| 1/8 | NPT2-TPN-NPT2-38.1- | 38.1 | 10.3 | 4.8 | 10000 (689) | 5000 (344) |
| 1/8 | NPT2-TPN-NPT2-50.8- | 50.8 | 10.3 | 4.8 | 10000 (689) | 5000 (344) |
| 1/8 | NPT2-TPN-NPT2-63.5- | 63.5 | 10.3 | 4.8 | 10000 (689) | 5000 (344) |
| 1/8 | NPT2-TPN-NPT2-76.2- | 76.2 | 10.3 | 4.8 | 10000 (689) | 5000 (344) |
| 1/4 | NPT4-TPN-NPT4-38.1- | 38.1 | 13.7 | 7.1 | 8000 (551) | 4000 (275) |
| 1/4 | NPT4-TPN-NPT4-50.8- | 50.8 | 13.7 | 7.1 | 8000 (551) | 4000 (275) |
| 1/4 | NPT4-TPN-NPT4-63.5- | 63.5 | 13.7 | 7.1 | 8000 (551) | 4000 (275) |
| 1/4 | NPT4-TPN-NPT4-76.2- | 76.2 | 13.7 | 7.1 | 8000 (551) | 4000 (275) |
| 1/4 | NPT4-TPN-NPT4-101.6- | 101.6 | 13.7 | 7.1 | 8000 (551) | 4000 (275) |
| 3/8 | NPT6-TPN-NPT6-38.1- | 38.1 | 17.1 | 9.7 | 7800 (537) | 3900 (268) |
| 3/8 | NPT6-TPN-NPT6-50.8- | 50.8 | 17.1 | 9.7 | 7800 (537) | 3900 (268) |
| 3/8 | NPT6-TPN-NPT6-63.5- | 63.5 | 17.1 | 9.7 | 7800 (537) | 3900 (268) |
| 3/8 | NPT6-TPN-NPT6-76.2- | 76.2 | 17.1 | 9.7 | 7800 (537) | 3900 (268) |
| 3/8 | NPT6-TPN-NPT6-101.6- | 101.6 | 17.1 | 9.7 | 7800 (537) | 3900 (268) |
| 1/2 | NPT8-TPN-NPT8-50.8- | 50.8 | 21.3 | 11.9 | 7700 (530) | 3800 (261) |
| 1/2 | NPT8-TPN-NPT8-76.2- | 76.2 | 21.3 | 11.9 | 7700 (530) | 3800 (261) |
| 1/2 | NPT8-TPN-NPT8-101.6- | 101.6 | 21.3 | 11.9 | 7700 (530) | 3800 (261) |
| 1/2 | NPT8-TPN-NPT8-152.4- | 152.4 | 21.3 | 11.9 | 7700 (530) | 3800 (261) |
| 3/4 | NPT12-TPN-NPT12-50.8- | 50.8 | 26.7 | 15.7 | 7300 (502) | 3600 (248) |
| 3/4 | NPT12-TPN-NPT12-76.2- | 76.2 | 26.7 | 15.7 | 7300 (502) | 3600 (248) |
| 3/4 | NPT12-TPN-NPT12-101.6- | 101.6 | 26.7 | 15.7 | 7300 (502) | 3600 (248) |
| 1 | NPT16-TPN-NPT16-76.2- | 76.2 | 33.4 | 22.4 | 5300 (365) | 2600 (179) |
| 1 | NPT16-TPN-NPT16-101.6- | 101.6 | 33.4 | 22.4 | 5300 (365) | 2600 (179) |

Hex Long Nipples



Male NPT Threads

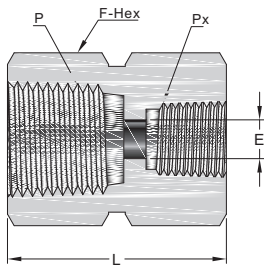
| P-NPT Size | Basic Ordering Number | Dimension, mm | | | Working Pressure psig (bar) | |
|------------|------------------------|---------------|------|------|-----------------------------|------------|
| | | L | F | E | 316 SS, Steel | Brass |
| 1/8 | NPT2-TLN-NPT2-38.1- | 38.1 | 11.1 | 4.8 | 10000 (689) | 5000 (344) |
| 1/8 | NPT2-TLN-NPT2-50.8- | 50.8 | 11.1 | 4.8 | 10000 (689) | 5000 (344) |
| 1/8 | NPT2-TLN-NPT2-63.5- | 63.5 | 11.1 | 4.8 | 10000 (689) | 5000 (344) |
| 1/8 | NPT2-TLN-NPT2-76.2- | 76.2 | 11.1 | 4.8 | 10000 (689) | 5000 (344) |
| 1/4 | NPT4-TLN-NPT4-38.1- | 38.1 | 14.3 | 7.1 | 8000 (551) | 4000 (275) |
| 1/4 | NPT4-TLN-NPT4-50.8- | 50.8 | 14.3 | 7.1 | 8000 (551) | 4000 (275) |
| 1/4 | NPT4-TLN-NPT4-63.5- | 63.5 | 14.3 | 7.1 | 8000 (551) | 4000 (275) |
| 1/4 | NPT4-TLN-NPT4-76.2- | 76.2 | 14.3 | 7.1 | 8000 (551) | 4000 (275) |
| 1/4 | NPT4-TLN-NPT4-101.6- | 101.6 | 14.3 | 7.1 | 8000 (551) | 4000 (275) |
| 3/8 | NPT6-TLN-NPT6-38.1- | 38.1 | 17.5 | 9.7 | 7800 (537) | 3900 (268) |
| 3/8 | NPT6-TLN-NPT6-50.8- | 50.8 | 17.5 | 9.7 | 7800 (537) | 3900 (268) |
| 3/8 | NPT6-TLN-NPT6-63.5- | 63.5 | 17.5 | 9.7 | 7800 (537) | 3900 (268) |
| 3/8 | NPT6-TLN-NPT6-76.2- | 76.2 | 17.5 | 9.7 | 7800 (537) | 3900 (268) |
| 3/8 | NPT6-TLN-NPT6-101.6- | 101.6 | 17.5 | 9.7 | 7800 (537) | 3900 (268) |
| 1/2 | NPT8-TLN-NPT8-50.8- | 50.8 | 22.2 | 11.9 | 7700 (530) | 3800 (261) |
| 1/2 | NPT8-TLN-NPT8-76.2- | 76.2 | 22.2 | 11.9 | 7700 (530) | 3800 (261) |
| 1/2 | NPT8-TLN-NPT8-101.6- | 101.6 | 22.2 | 11.9 | 7700 (530) | 3800 (261) |
| 1/2 | NPT8-TLN-NPT8-152.4- | 152.4 | 22.2 | 11.9 | 7700 (530) | 3800 (261) |
| 3/4 | NPT12-TLN-NPT12-50.8- | 50.8 | 27.0 | 15.7 | 7300 (502) | 3600 (248) |
| 3/4 | NPT12-TLN-NPT12-76.2- | 76.2 | 27.0 | 15.7 | 7300 (502) | 3600 (248) |
| 3/4 | NPT12-TLN-NPT12-101.6- | 101.6 | 27.0 | 15.7 | 7300 (502) | 3600 (248) |
| 1 | NPT16-TLN-NPT16-76.2- | 76.2 | 34.9 | 22.4 | 5300 (365) | 2600 (179) |
| 1 | NPT16-TLN-NPT16-101.6- | 101.6 | 34.9 | 22.4 | 5300 (365) | 2600 (179) |



Male ISO Tapered Threads

| P-BSPT Size | Basic Ordering Number | Dimension, mm | | | Working Pressure psig (bar) | |
|-------------|------------------------|---------------|------|------|-----------------------------|------------|
| | | L | F | E | 316 SS, Steel | Brass |
| 1/8 | MBT2-TLN-MBT2-38.1- | 38.1 | 11.1 | 4.8 | 10000 (689) | 5000 (344) |
| 1/8 | MBT2-TLN-MBT2-50.8- | 50.8 | 11.1 | 4.8 | 10000 (689) | 5000 (344) |
| 1/8 | MBT2-TLN-MBT2-63.5- | 63.5 | 11.1 | 4.8 | 10000 (689) | 5000 (344) |
| 1/8 | MBT2-TLN-MBT2-76.2- | 76.2 | 11.1 | 4.8 | 10000 (689) | 5000 (344) |
| 1/4 | MBT4-TLN-MBT4-38.1- | 38.1 | 14.3 | 7.1 | 8000 (551) | 4000 (275) |
| 1/4 | MBT4-TLN-MBT4-50.8- | 50.8 | 14.3 | 7.1 | 8000 (551) | 4000 (275) |
| 1/4 | MBT4-TLN-MBT4-63.5- | 63.5 | 14.3 | 7.1 | 8000 (551) | 4000 (275) |
| 1/4 | MBT4-TLN-MBT4-76.2- | 76.2 | 14.3 | 7.1 | 8000 (551) | 4000 (275) |
| 1/4 | MBT4-TLN-MBT4-101.6- | 101.6 | 14.3 | 7.1 | 8000 (551) | 4000 (275) |
| 3/8 | MBT6-TLN-MBT6-38.1- | 38.1 | 17.5 | 9.7 | 7800 (537) | 3900 (268) |
| 3/8 | MBT6-TLN-MBT6-50.8- | 50.8 | 17.5 | 9.7 | 7800 (537) | 3900 (268) |
| 3/8 | MBT6-TLN-MBT6-63.5- | 63.5 | 17.5 | 9.7 | 7800 (537) | 3900 (268) |
| 3/8 | MBT6-TLN-MBT6-76.2- | 76.2 | 17.5 | 9.7 | 7800 (537) | 3900 (268) |
| 3/8 | MBT6-TLN-MBT6-101.6- | 101.6 | 17.5 | 9.7 | 7800 (537) | 3900 (268) |
| 1/2 | MBT8-TLN-MBT8-50.8- | 50.8 | 22.2 | 11.9 | 7700 (530) | 3800 (261) |
| 1/2 | MBT8-TLN-MBT8-76.2- | 76.2 | 22.2 | 11.9 | 7700 (530) | 3800 (261) |
| 1/2 | MBT8-TLN-MBT8-101.6- | 101.6 | 22.2 | 11.9 | 7700 (530) | 3800 (261) |
| 1/2 | MBT8-TLN-MBT8-152.4- | 152.4 | 22.2 | 11.9 | 7700 (530) | 3800 (261) |
| 3/4 | MBT12-TLN-MBT12-50.8- | 50.8 | 27.0 | 15.7 | 7300 (502) | 3600 (248) |
| 3/4 | MBT12-TLN-MBT12-76.2- | 76.2 | 27.0 | 15.7 | 7300 (502) | 3600 (248) |
| 3/4 | MBT12-TLN-MBT12-101.6- | 101.6 | 27.0 | 15.7 | 7300 (502) | 3600 (248) |
| 1 | MBT16-TLN-MBT16-76.2- | 76.2 | 34.9 | 22.4 | 5300 (365) | 2600 (179) |
| 1 | MBT16-TLN-MBT16-101.6- | 101.6 | 34.9 | 22.4 | 5300 (365) | 2600 (179) |

Hex Couplings



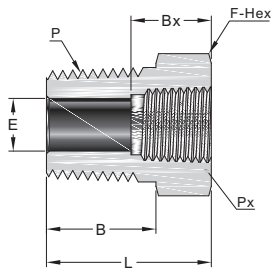
Female FNPT Threads

| P-NPT Size | Px-NPT Size | Basic Ordering Number | Dimension, mm | | | Working Pressure psig (bar) | |
|---------------------------------------|-------------|-----------------------|---------------|------|------|-----------------------------|------------|
| | | | L | F | E | 316 SS, Steel | Brass |
| 1/16 | 1/16 | FNPT1-THC-FNPT1- | 19.8 | 11.1 | 4.8 | 6700 (460) | 3300 (227) |
| 1/8 | 1/8 | FNPT2-THC-FNPT2- | 20.6 | 14.3 | 8.6 | 6500 (447) | 3200 (220) |
| 1/4 | 1/8 | FNPT4-THC-FNPT2- | 31.0 | 19.1 | 8.6 | 6600 (454) | 3300 (227) |
| 1/4 | 1/4 | FNPT4-THC-FNPT4- | 30.2 | 19.1 | 11.4 | 6600 (454) | 3300 (227) |
| 3/8 | 1/4 | FNPT6-THC-FNPT4- | 35.1 | 22.2 | 11.4 | 5300 (365) | 2600 (179) |
| 3/8 | 3/8 | FNPT6-THC-FNPT6- | 33.3 | 22.2 | 15.0 | 5300 (365) | 2600 (179) |
| 1/2 | 1/8 | FNPT8-THC-FNPT2- | 39.6 | 27.0 | 8.6 | 4900 (337) | 2400 (165) |
| 1/2 | 1/4 | FNPT8-THC-FNPT4- | 44.4 | 27.0 | 11.4 | 4900 (337) | 2400 (165) |
| 1/2 | 3/8 | FNPT8-THC-FNPT6- | 45.2 | 27.0 | 15.0 | 4900 (337) | 2400 (165) |
| 1/2 | 1/2 | FNPT8-THC-FNPT8- | 39.6 | 27.0 | 18.5 | 4900 (337) | 2400 (165) |
| 3/4 | 1/4 | FNPT12-THC-FNPT4- | 46.0 | 33.3 | 11.4 | 4600 (316) | 2300 (158) |
| 3/4 | 1/2 | FNPT12-THC-FNPT8- | 52.3 | 33.3 | 18.5 | 4600 (316) | 2300 (158) |
| 3/4 | 3/4 | FNPT12-THC-FNPT12- | 41.1 | 33.3 | 23.9 | 4600 (316) | 2300 (158) |
| 1 | 1/2 | FNPT16-THC-FNPT8- | 55.6 | 41.3 | 18.5 | 4400 (303) | 2200 (151) |
| 1 | 3/4 | FNPT16-THC-FNPT12- | 57.2 | 41.3 | 23.9 | 4400 (303) | 2200 (151) |
| 1 | 1 | FNPT16-THC-FNPT16- | 50.8 | 41.3 | 29.7 | 4400 (303) | 2200 (151) |
| Heavy-Wall Female FNPT Threads | | | | | | | |
| 1/4 | 1/4 | FNPT4-THC1-FNPT4- | 30.2 | 25.4 | 11.4 | 10000 (689) | — |
| 1/2 | 1/2 | FNPT8-THC1-FNPT8- | 39.6 | 38.1 | 18.5 | 10000 (689) | — |
| 1/2 | 1/4 | FNPT8-THC1-FNPT4- | 44.4 | 38.1 | 11.4 | 10000 (689) | — |

Female ISO Tapered Threads

| P-BSPT Size | Px-BSPT Size | Basic Ordering Number | Dimension, mm | | | Working Pressure psig (bar) | |
|-------------|--------------|-----------------------|---------------|------|------|-----------------------------|------------|
| | | | L | F | E | 316 SS, Steel | Brass |
| 1/8 | 1/8 | FBT2-THC-FBT2- | 20.6 | 14.3 | 8.4 | 6500 (447) | 3200 (220) |
| 1/4 | 1/4 | FBT4-THC-FBT4- | 30.2 | 19.1 | 11.2 | 6600 (454) | 3300 (227) |
| 3/8 | 1/4 | FBT6-THC-FBT4- | 35.1 | 22.2 | 11.2 | 5300 (365) | 2600 (179) |
| 3/8 | 3/8 | FBT6-THC-FBT6- | 33.3 | 22.2 | 14.7 | 5300 (365) | 2600 (179) |
| 1/2 | 1/4 | FBT8-THC-FBT4- | 44.4 | 27.0 | 11.2 | 4900 (337) | 2400 (165) |
| 1/2 | 3/8 | FBT8-THC-FBT6- | 45.2 | 27.0 | 14.7 | 4900 (337) | 2400 (165) |
| 1/2 | 1/2 | FBT8-THC-FBT8- | 39.6 | 27.0 | 18.3 | 4900 (337) | 2400 (165) |

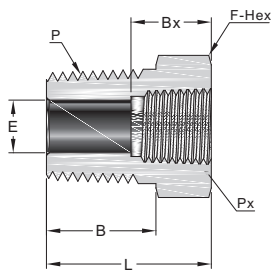
Reducing Bushings



Male NPT Threads

Female NPT Threads

| P-NPT Size | Px-NPT Size | Basic Ordering Number | Dimension, mm | | | | | Working Pressure psig (bar) | |
|------------|-------------|-----------------------|---------------|------|------|------|------|-----------------------------|------------|
| | | | L | F | B | Bx | E | 316 SS, Steel | Brass |
| 1/8 | 1/16 | NPT2-TRB-FNPT1- | 26.2 | 11.1 | 9.7 | 9.9 | 4.8 | 6500 (447) | 3200 (220) |
| 1/4 | 1/16 | NPT4-TRB-FNPT1- | 21.8 | 14.3 | 14.2 | 9.9 | 4.8 | 8000 (551) | 4000 (275) |
| 1/4 | 1/8 | NPT4-TRB-FNPT2- | 26.9 | 14.3 | 14.2 | 10.4 | 7.1 | 6500 (447) | 3300 (227) |
| 3/8 | 1/16 | NPT6-TRB-FNPT1- | 21.8 | 17.5 | 14.2 | 9.9 | 4.8 | 13300 (971) | 6600 (454) |
| 3/8 | 1/8 | NPT6-TRB-FNPT2- | 21.8 | 17.5 | 14.2 | 10.4 | 8.6 | 9200 (633) | 4700 (323) |
| 3/8 | 1/4 | NPT6-TRB-FNPT4- | 30.2 | 19.1 | 14.2 | 15.0 | 9.6 | 6600 (454) | 3300 (227) |
| 1/2 | 1/8 | NPT8-TRB-FNPT2- | 27.4 | 22.2 | 19.1 | 10.4 | 8.6 | 12200 (840) | 6200 (427) |
| 1/2 | 1/4 | NPT8-TRB-FNPT4- | 27.4 | 22.2 | 19.1 | 15.0 | 11.4 | 8300 (571) | 4400 (303) |
| 1/2 | 3/8 | NPT8-TRB-FNPT6- | 35.8 | 22.2 | 19.1 | 15.0 | 11.9 | 5300 (365) | 2600 (179) |
| 3/4 | 1/8 | NPT12-TRB-FNPT2- | 27.4 | 27.0 | 19.1 | 10.4 | 7.1 | 20000(1378) | 10000(689) |
| 3/4 | 1/4 | NPT12-TRB-FNPT4- | 27.4 | 27.0 | 19.1 | 15.0 | 11.4 | 12000 (826) | 6000 (410) |
| 3/4 | 3/8 | NPT12-TRB-FNPT6- | 27.4 | 27.0 | 19.1 | 15.0 | 15.0 | 8200 (564) | 4300 (296) |
| 3/4 | 1/2 | NPT12-TRB-FNPT8- | 41.4 | 27.0 | 19.1 | 19.8 | 15.7 | 4900 (337) | 2400 (165) |
| 1 | 1/8 | NPT16-TRB-FNPT2- | 34.5 | 34.9 | 23.9 | 10.4 | 7.1 | 20000(1378) | 10000(689) |
| 1 | 1/4 | NPT16-TRB-FNPT4- | 34.8 | 34.9 | 23.9 | 15.0 | 11.4 | 14500 (999) | 7400 (509) |
| 1 | 3/8 | NPT16-TRB-FNPT6- | 34.8 | 34.9 | 23.9 | 15.0 | 15.0 | 11600 (799) | 5900 (406) |
| 1 | 1/2 | NPT16-TRB-FNPT8- | 34.8 | 34.9 | 23.9 | 19.8 | 18.5 | 8600 (592) | 4300 (296) |
| 1 | 3/4 | NPT16-TRB-FNPT12- | 47.0 | 34.9 | 23.9 | 20.6 | 22.4 | 5300 (365) | 2600 (179) |
| 1 1/4 | 3/4 | NPT20-TRB-FNPT12- | 37.3 | 44.5 | 23.9 | 20.6 | 22.4 | 7800 (537) | 3900 (268) |
| 1 1/4 | 1 | NPT20-TRB-FNPT16- | 37.3 | 44.5 | 23.9 | 25.4 | 22.4 | 3500 (241) | 1750 (120) |
| 1 1/2 | 1 | NPT24-TRB-FNPT16- | 40.1 | 50.8 | 26.2 | 25.4 | 22.4 | 6600 (454) | 3300 (227) |
| 1 1/2 | 1 1/4 | NPT24-TRB-FNPT20- | 56.0 | 54.0 | 26.2 | 25.4 | 34.0 | 5000 (344) | 2500 (172) |

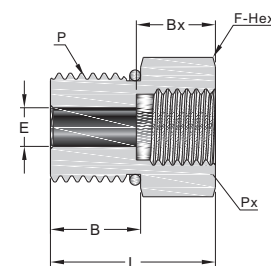
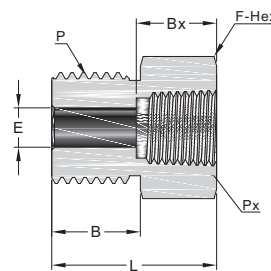
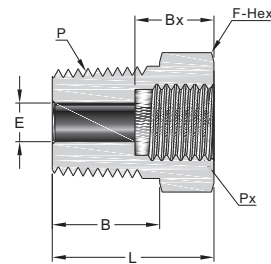
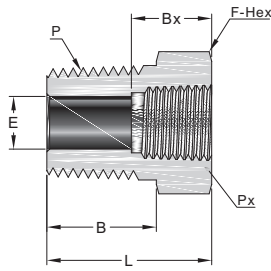


Male NPT Threads

Female ISO Tapered Pipe Threads

| P-NPT Size | Px-BSPT Size | Basic Ordering Number | Dimension, mm | | | | | Working Pressure psig (bar) | |
|------------|--------------|-----------------------|---------------|------|------|------|------|-----------------------------|-------------|
| | | | L | F | B | Bx | E | 316 SS, Steel | Brass |
| 1/8 | 1/16 | NPT2-TRB-FBT1- | 26.2 | 11.1 | 9.7 | 9.9 | 4.8 | 6500 (447) | 3200 (220) |
| 1/4 | 1/16 | NPT4-TRB-FBT1- | 21.8 | 14.3 | 14.2 | 9.9 | 4.8 | 8000 (551) | 4000 (275) |
| 1/4 | 1/8 | NPT4-TRB-FBT2- | 26.9 | 14.3 | 14.2 | 10.4 | 7.1 | 6500 (447) | 3300 (227) |
| 3/8 | 1/16 | NPT6-TRB-FBT1- | 21.8 | 17.5 | 14.2 | 9.9 | 4.8 | 13300 (917) | 6600 (454) |
| 3/8 | 1/8 | NPT6-TRB-FBT2- | 21.8 | 17.5 | 14.2 | 10.4 | 7.1 | 9200 (633) | 4700 (323) |
| 3/8 | 1/4 | NPT6-TRB-FBT4- | 30.2 | 19.1 | 14.2 | 15.0 | 9.7 | 6600 (454) | 3300 (227) |
| 1/2 | 1/8 | NPT8-TRB-FBT2- | 27.4 | 22.2 | 19.1 | 10.4 | 7.1 | 12200 (840) | 6200 (427) |
| 1/2 | 1/4 | NPT8-TRB-FBT4- | 27.4 | 22.2 | 19.1 | 15.0 | 10.4 | 8300 (571) | 4400 (303) |
| 1/2 | 3/8 | NPT8-TRB-FBT6- | 35.8 | 22.2 | 19.1 | 15.0 | 11.9 | 5300 (365) | 2600 (179) |
| 3/4 | 1/8 | NPT12-TRB-FBT2- | 27.4 | 27.0 | 19.1 | 10.4 | 7.1 | 20000 (1378) | 10000 (689) |
| 3/4 | 1/4 | NPT12-TRB-FBT4- | 27.4 | 27.0 | 19.1 | 15.0 | 10.4 | 12000 (826) | 6000 (410) |
| 3/4 | 3/8 | NPT12-TRB-FBT6- | 27.4 | 27.0 | 19.1 | 15.0 | 12.7 | 8200 (564) | 4300 (296) |
| 3/4 | 1/2 | NPT12-TRB-FBT8- | 41.4 | 27.0 | 19.1 | 19.8 | 15.7 | 4900 (337) | 2400 (165) |
| 1 | 1/8 | NPT16-TRB-FBT2- | 34.5 | 34.9 | 23.9 | 10.4 | 7.1 | 20000 (1378) | 10000 (689) |
| 1 | 1/4 | NPT16-TRB-FBT4- | 34.8 | 34.9 | 23.9 | 15.0 | 10.4 | 14500 (999) | 7400 (509) |
| 1 | 3/8 | NPT16-TRB-FBT6- | 34.8 | 34.9 | 23.9 | 15.0 | 12.7 | 11600 (799) | 5900 (406) |
| 1 | 1/2 | NPT16-TRB-FBT8- | 34.8 | 34.9 | 23.9 | 19.8 | 15.7 | 8600 (592) | 4300 (296) |
| 1 | 3/4 | NPT16-TRB-FBT12- | 47.0 | 34.9 | 23.9 | 20.6 | 22.4 | 5300 (365) | 2600 (179) |
| 1 1/4 | 3/4 | NPT20-TRB-FBT12- | 37.3 | 44.5 | 23.9 | 20.6 | 22.4 | 7800 (537) | 3900 (268) |
| 1 1/4 | 1 | NPT20-TRB-FBT16- | 37.3 | 44.5 | 23.9 | 25.4 | 22.4 | 3500 (241) | 1750 (120) |
| 1 1/2 | 1 | NPT24-TRB-FBT16- | 40.1 | 50.8 | 26.2 | 25.4 | 22.4 | 6600 (454) | 3300 (227) |
| 1 1/2 | 1 1/4 | NPT24-TRB-FBT20- | 56.0 | 54.0 | 26.2 | 25.4 | 34.0 | 5000 (344) | 2500 (172) |

Reducing Bushings



Male ISO Tapered Threads

Female ISO Tapered Threads

| P-BSPT Size | Px-BSPT Size | Basic Ordering Number | Dimension, mm | | | | | Working Pressure psig (bar) | |
|-------------|--------------|-----------------------|---------------|------|------|------|------|-----------------------------|------------|
| | | | L | F | B | Bx | E | 316 SS, Steel | Brass |
| 1/4 | 1/8 | MBT4-TRB-FBT2- | 26.9 | 14.3 | 14.2 | 10.4 | 7.1 | 6500 (447) | 3200 (220) |
| 3/8 | 1/4 | MBT6-TRB-FBT4- | 30.2 | 19.1 | 14.2 | 15.0 | 9.6 | 6600 (454) | 3300 (227) |
| 1/2 | 1/4 | MBT8-TRB-FBT4- | 27.4 | 22.2 | 19.1 | 15.0 | 11.2 | 8300 (571) | 4400 (303) |
| 1/2 | 3/8 | MBT8-TRB-FBT6- | 35.8 | 22.2 | 19.1 | 15.0 | 11.9 | 5300 (365) | 2600 (179) |

Male NPT Threads

Female ISO Parallel Threads

| P-NPT Size | Px-BG Size | Basic Ordering Number | Dimension, mm | | | | | Working Pressure psig (bar) 316 SS, Steel |
|------------|------------|-----------------------|---------------|------|------|------|-----|--|
| | | | L | F | B | Bx | E | |
| 3/8 | 1/4 | NPT6-TRB-FBP4- | 30.2 | 19.1 | 14.2 | 12.9 | 5.6 | 5700 (392) |
| 1/2 | 3/8 | NPT8-TRB-FBP6- | 35.8 | 22.2 | 19.1 | 14.2 | 6.6 | 5700 (392) |
| 3/4 | 1/2 | NPT12-TRB-FBP8- | 41.4 | 27.0 | 19.1 | 18.8 | 7.1 | 3900 (268) |

Male ISO Parallel Threads

Female NPT Threads

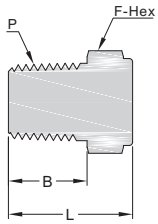
| P-BG Size | Px-NPT Size | Basic Ordering Number | Dimension, mm | | | | | Working Pressure psig (bar) | |
|-----------|-------------|-----------------------|---------------|------|------|------|-----|-----------------------------|------------|
| | | | L | F | B | Bx | E | 316 SS, Steel | Brass |
| 1/4 | 1/8 | MBP4-TRB-FNPT2- | 26.9 | 14.3 | 12.9 | 10.4 | 4.5 | 6500 (447) | 3200 (220) |
| 3/8 | 1/4 | MBP6-TRB-FNPT4- | 31.0 | 19.1 | 14.2 | 15 | 7.1 | 6600 (454) | 3300 (227) |
| 1/2 | 3/8 | MBP8-TRB-FNPT6- | 35.8 | 22.2 | 18.8 | 15 | 6.6 | 5300 (365) | 2600 (179) |

Male SAE Straight Threads

Female MS Straight Threads

| P-SAE/MS Thread Size | Px-SAE/MS Thread Size | Basic Ordering Number | Dimension, mm | | | | | Working Pressure psig (bar) 316 SS, Steel |
|----------------------|-----------------------|-----------------------|---------------|------|------|------|------|--|
| | | | L | F | B | Bx | E | |
| 9/16-18 | 7/16-20 | OST9-TRB-FST7- | 28.4 | 20.6 | 9.9 | 14.0 | 7.1 | 4500 (310) |
| 3/4-16 | 7/16-20 | OST12-TRB-FST7- | 24.9 | 22.2 | 11.2 | 14.0 | 9.9 | 4500 (310) |
| 3/4-16 | 9/16-18 | OST12-TRB-FST9- | 30.2 | 25.4 | 11.2 | 16.0 | 10.7 | 4500 (310) |
| 7/8-14 | 9/16-18 | OST14-TRB-FST9- | 27.9 | 25.4 | 12.7 | 16.0 | 12.7 | 3600 (248) |
| 7/8-14 | 3/4-16 | OST14-TRB-FST12- | 36.1 | 30.2 | 12.7 | 18.0 | 12.7 | 3600 (248) |
| 1 1/16-12 | 3/4-16 | OST17-TRB-FST12- | 32.3 | 31.8 | 15.0 | 18.0 | 16.5 | 3600 (248) |
| 1 5/16-12 | 1 1/16-12 | OST21-TRB-FST17- | 40.9 | 41.3 | 15.0 | 24.0 | 22.1 | 2900 (199) |
| 1 5/8-12 | 1 5/16-12 | OST26-TRB-FST21- | 50.3 | 54.0 | 15.0 | 24.0 | 27.7 | 2300 (158) |
| 1 7/8-12 | 1 5/16-12 | OST30-TRB-FST21- | 50.3 | 54.0 | 15.0 | 24.0 | 31.2 | 2300 (158) |

Pipe Plugs

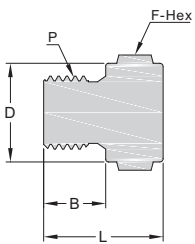


Male NPT Threads

| P-NPT Size | Basic Ordering Number | Dimension, mm | | |
|------------|-----------------------|---------------|------|------|
| | | L | F | B |
| 1/16 | TP-NPT1- | 14.2 | 7.9 | 9.7 |
| 1/8 | TP-NPT2- | 14.2 | 11.1 | 9.7 |
| 1/4 | TP-NPT4- | 19.1 | 14.3 | 14.2 |
| 3/8 | TP-NPT6- | 19.8 | 17.5 | 14.2 |
| 1/2 | TP-NPT8- | 24.6 | 22.2 | 19.1 |
| 3/4 | TP-NPT12- | 30.7 | 27.0 | 19.1 |
| 1 | TP-NPT16- | 38.1 | 34.9 | 23.9 |
| 1 1/4 | TP-NPT20- | 38.4 | 44.5 | 23.9 |
| 1 1/2 | TP-NPT24- | 43.7 | 50.8 | 26.2 |
| 2 | TP-NPT32- | 50.8 | 69.9 | 26.2 |

Male ISO Tapered Threads

| P-BSPT Size | Basic Ordering Number | Dimension, mm | | |
|-------------|-----------------------|---------------|------|------|
| | | L | F | B |
| 1/16 | TP-MBT1- | 14.2 | 7.9 | 9.7 |
| 1/8 | TP-MBT2- | 14.2 | 11.1 | 9.7 |
| 1/4 | TP-MBT4- | 19.1 | 14.3 | 14.2 |
| 3/8 | TP-MBT6- | 19.8 | 17.5 | 14.2 |
| 1/2 | TP-MBT8- | 24.6 | 22.2 | 19.1 |
| 3/4 | TP-MBT12- | 30.7 | 27.0 | 19.1 |
| 1 | TP-MBT16- | 38.1 | 34.9 | 23.9 |
| 1 1/4 | TP-MBT20- | 38.4 | 44.5 | 23.9 |
| 1 1/2 | TP-MBT24- | 43.7 | 50.8 | 26.2 |
| 2 | TP-MBT32- | 50.8 | 69.9 | 26.2 |

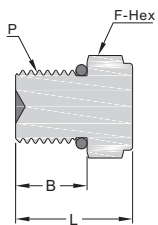


Male ISO parallel Threads

| P-BS Size | Basic Ordering Number | Dimension, mm | | | |
|-----------|-----------------------|---------------|------|------|------|
| | | L | F | B | D |
| 1/8 | TP-MBS2- | 14.0 | 14.3 | 7.1 | 13.7 |
| 1/4 | TP-MBS4- | 19.8 | 19.1 | 11.2 | 18.0 |
| 3/8 | TP-MBS6- | 19.8 | 22.2 | 11.2 | 21.8 |
| 1/2 | TP-MBS8- | 25.1 | 27.0 | 14.0 | 25.9 |
| 3/4 | TP-MBS12- | 28.7 | 33.3 | 15.7 | 32.0 |
| 1 | TP-MBS16- | 30.7 | 41.3 | 18.0 | 39.1 |

Male Metric Threads

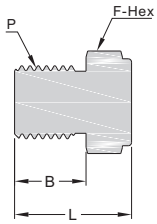
| P-Metric Size | Basic Ordering Number | Dimension, mm | | | |
|---------------|-----------------------|---------------|------|----|------|
| | | L | F | B | D |
| M14 x 1.5 | TP-BSMS14- | 21 | 20.6 | 12 | 18.8 |
| M16 x 1.5 | TP-BSMS16- | 23 | 22.2 | 12 | 20.8 |
| M18 x 1.5 | TP-BSMS18- | 25 | 23.8 | 12 | 22.8 |
| M20 x 1.5 | TP-BSMS20- | 26.5 | 25.4 | 14 | 24.8 |
| M22 x 1.5 | TP-BSMS22- | 28.5 | 28.6 | 14 | 26.8 |
| M24 x 1.5 | TP-BSMS24- | 29 | 35.0 | 14 | 28.8 |
| M27 x 2 | TP-BSMS27- | 30 | 36.5 | 16 | 31.8 |



Male SAE/MS Straight Threads

| P-SAE/MS Thread Size | Basic Ordering Number | Dimension, mm | | |
|----------------------|-----------------------|---------------|------|------|
| | | L | F | B |
| 7/16-20 | TP-OST7- | 19.3 | 14.3 | 9.1 |
| 9/16-18 | TP-OST9- | 20.8 | 17.5 | 9.9 |
| 3/4-16 | TP-OST12- | 22.6 | 22.2 | 11.2 |
| 1 1/16-12 | TP-OST17- | 28.4 | 31.8 | 15.0 |
| 1 5/16-12 | TP-OST21- | 30.0 | 38.1 | 15.0 |

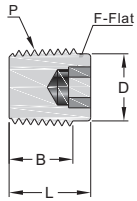
Pipe Plugs



Male Metric Threads

| P-Metric Size | Basic Ordering Number | Dimension, mm | | |
|---------------|-----------------------|---------------|----|----|
| | | L | F | B |
| M14 x 1.5 | TP-MS14- | 18 | 16 | 13 |
| M16 x 1.5 | TP-MS16- | 20 | 18 | 14 |
| M18 x 1.5 | TP-MS18- | 22 | 19 | 15 |
| M20 x 1.5 | TP-MS20- | 24 | 22 | 16 |
| M22 x 1.5 | TP-MS22- | 26 | 24 | 17 |
| M24 x 1.5 | TP-MS24- | 26 | 27 | 17 |
| M27 x 2 | TP-MS27- | 27 | 30 | 18 |
| M30 x 2 | TP-MS30- | 32 | 32 | 20 |

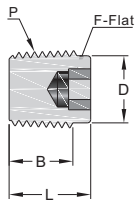
Hollow Hex Plugs



Male ISO Tapered Threads

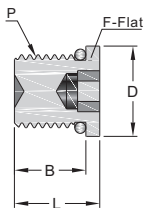
| P-BSPT Size | Basic Ordering Number | Dimension, mm | | | |
|-------------|-----------------------|---------------|------|------|------|
| | | L | F | B | D |
| 1/16 | THP-MBT1- | 7.6 | 4.0 | 7.4 | 7.4 |
| 1/8 | THP-MBT2- | 10.4 | 4.8 | 7.4 | 9.4 |
| 1/4 | THP-MBT4- | 15.5 | 6.4 | 12.4 | 12.1 |
| 3/8 | THP-MBT6- | 15.5 | 7.9 | 12.4 | 15.7 |
| 1/2 | THP-MBT8- | 19.3 | 9.5 | 16.2 | 19.3 |
| 3/4 | THP-MBT12- | 19.8 | 14.3 | 16.7 | 25.7 |
| 1 | THP-MBT16- | 20.8 | 15.9 | 17.7 | 31.8 |

Hollow Hex Plugs



Male NPT Threads

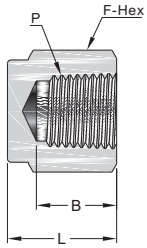
| P-NPT Size | Basic Ordering Number | Dimension, mm | | | |
|------------|-----------------------|---------------|------|------|------|
| | | L | F | B | D |
| 1/16 | THP-NPT1- | 7.6 | 4.0 | 7.4 | 7.4 |
| 1/8 | THP-NPT2- | 10.4 | 4.8 | 7.4 | 9.4 |
| 1/4 | THP-NPT4- | 15.5 | 6.4 | 12.4 | 12.1 |
| 3/8 | THP-NPT6- | 15.0 | 7.9 | 11.9 | 15.7 |
| 1/2 | THP-NPT8- | 19.3 | 9.5 | 16.2 | 19.3 |
| 3/4 | THP-NPT12- | 19.8 | 14.3 | 16.7 | 25.7 |
| 1 | THP-NPT16- | 20.8 | 15.9 | 17.7 | 31.8 |



Male SAE/MS Straight Threads

| P-SAE/MS Thread Size | Basic Ordering Number | Dimension, mm | | | |
|----------------------|-----------------------|---------------|------|------|------|
| | | L | F | B | D |
| 7/16-20 | THP-OST7- | 11.4 | 4.8 | 9.1 | 14.2 |
| 9/16-18 | THP-OST9- | 12.2 | 6.4 | 9.9 | 17.5 |
| 3/4-16 | THP-OST12- | 14.2 | 7.9 | 11.2 | 22.4 |
| 1 1/16-12 | THP-OST17- | 19.1 | 14.3 | 15.0 | 31.8 |
| 1 5/16-12 | THP-OST21- | 19.1 | 15.9 | 15.0 | 38.1 |

Pipe Caps



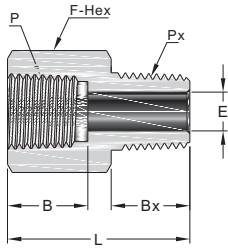
Female NPT Threads

| P-NPT Size | Basic Ordering Number | Dimension, mm | | | Working Pressure psig (bar) | |
|-------------------------------|-----------------------|---------------|------|------|-----------------------------|------------|
| | | L | F | B | 316 SS, Steel | Brass |
| 1/16 | PC-FNPT1- | 12.7 | 11.1 | 9.9 | 6700 (460) | 3300 (227) |
| 1/8 | PC-FNPT2- | 19.1 | 14.3 | 10.4 | 6500 (447) | 3200 (220) |
| 1/4 | PC-FNPT4- | 23.1 | 19.1 | 15.0 | 6600 (454) | 3300 (277) |
| 3/8 | PC-FNPT6- | 26.2 | 22.2 | 15.0 | 5300 (365) | 2600 (179) |
| 1/2 | PC-FNPT8- | 34.0 | 27.0 | 19.8 | 4900 (337) | 2400 (165) |
| 3/4 | PC-FNPT12- | 36.6 | 33.3 | 20.6 | 4600 (316) | 2300 (158) |
| 1 | PC-FNPT16- | 41.1 | 41.3 | 25.4 | 4400 (303) | 2200 (151) |
| Heavy-Wall Female NPT Threads | | | | | | |
| 1/4 | PC1-FNPT4 | 28.2 | 25.4 | 15.0 | 10000 (689) | — |
| 1/2 | PC1-FNPT8 | 40.1 | 38.1 | 19.8 | 10000 (689) | — |

Female ISO Tapered Threads

| P-BSPT Size | Basic Ordering Number | Dimension, mm | | | Working Pressure psig (bar) | |
|-------------|-----------------------|---------------|------|------|-----------------------------|------------|
| | | L | F | B | 316 SS, Steel | Brass |
| 1/16 | PC-FBT1- | 12.7 | 11.1 | 9.9 | 6700 (460) | 3300 (227) |
| 1/8 | PC-FBT2- | 19.1 | 14.3 | 10.4 | 6500 (447) | 3200 (220) |
| 1/4 | PC-FBT4- | 23.1 | 19.1 | 15.0 | 6600 (454) | 3300 (277) |
| 3/8 | PC-FBT6- | 26.2 | 22.2 | 15.0 | 5300 (365) | 2600 (179) |
| 1/2 | PC-FBT8- | 34.0 | 27.0 | 19.8 | 4900 (337) | 2400 (165) |
| 3/4 | PC-FBT12- | 36.6 | 33.3 | 20.6 | 4600 (316) | 2300 (158) |
| 1 | PC-FBT16- | 41.1 | 41.3 | 25.4 | 4400 (303) | 2200 (151) |

Adapters

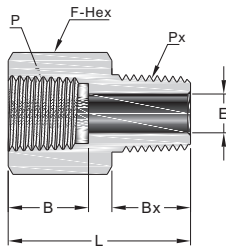


Female NPT Threads

Male NPT Threads

| P-NPT Size | Px-NPT Size | Basic Ordering Number | Dimension, mm | | | | | Working Pressure psig (bar) | |
|--|-------------|-----------------------|---------------|------|------|------|------|-----------------------------|------------|
| | | | L | F | B | Bx | E | 316 SS, Steel | Brass |
| 1/8 | 1/16 | FNPT2-TA-NPT1- | 27.7 | 14.3 | 10.4 | 9.7 | 3.0 | 6500 (447) | 3200 (220) |
| 1/8 | 1/8 | FNPT2-TA-NPT2- | 27.9 | 14.3 | 10.4 | 9.7 | 4.8 | 6500 (447) | 3200 (220) |
| 1/4 | 1/16 | FNPT4-TA-NPT1- | 30.5 | 19.1 | 15.0 | 9.7 | 3.0 | 6600 (454) | 3300 (227) |
| 1/4 | 1/8 | FNPT4-TA-NPT2- | 32.0 | 19.1 | 15.0 | 9.7 | 4.8 | 6600 (454) | 3300 (227) |
| 1/4 | 1/4 | FNPT4-TA-NPT4- | 35.6 | 19.1 | 15.0 | 14.2 | 7.1 | 6600 (454) | 3300 (227) |
| 3/8 | 1/16 | FNPT6-TA-NPT1- | 31.8 | 22.2 | 15.0 | 9.7 | 3.0 | 5300 (365) | 2600 (179) |
| 3/8 | 1/8 | FNPT6-TA-NPT2- | 33.8 | 22.2 | 15.0 | 9.7 | 4.8 | 5300 (365) | 2600 (179) |
| 3/8 | 1/4 | FNPT6-TA-NPT4- | 38.1 | 22.2 | 15.0 | 14.2 | 7.1 | 5300 (365) | 2600 (179) |
| 3/8 | 3/8 | FNPT6-TA-NPT6- | 38.4 | 22.2 | 15.0 | 14.2 | 9.7 | 5300 (365) | 2600 (179) |
| 1/2 | 1/8 | FNPT8-TA-NPT2- | 40.1 | 27.0 | 19.8 | 9.7 | 4.8 | 4900 (337) | 2400 (165) |
| 1/2 | 1/4 | FNPT8-TA-NPT4- | 44.7 | 27.0 | 19.8 | 14.2 | 7.1 | 4900 (337) | 2400 (165) |
| 1/2 | 3/8 | FNPT8-TA-NPT6- | 44.4 | 27.0 | 19.8 | 14.2 | 9.6 | 4900 (337) | 2400 (165) |
| 1/2 | 1/2 | FNPT8-TA-NPT8- | 49.3 | 27.0 | 19.8 | 19.1 | 11.9 | 4900 (337) | 2400 (165) |
| 3/4 | 1/8 | FNPT12-TA-NPT2- | 39.6 | 33.3 | 20.6 | 9.7 | 4.8 | 4600 (316) | 2300 (158) |
| 3/4 | 1/4 | FNPT12-TA-NPT4- | 47.0 | 33.3 | 20.6 | 14.2 | 7.1 | 4600 (316) | 2300 (158) |
| 3/4 | 3/8 | FNPT12-TA-NPT6- | 46.2 | 33.3 | 20.6 | 14.2 | 9.7 | 4600 (316) | 2300 (158) |
| 3/4 | 1/2 | FNPT12-TA-NPT8- | 51.3 | 33.3 | 20.6 | 19.1 | 11.9 | 4600 (316) | 2300 (158) |
| 3/4 | 3/4 | FNPT12-TA-NPT12- | 51.3 | 33.3 | 20.6 | 19.1 | 15.7 | 4600 (316) | 2300 (158) |
| 1 | 1/8 | FNPT16-TA-NPT2- | 46.0 | 41.3 | 25.4 | 9.7 | 4.8 | 4400 (303) | 2200 (151) |
| 1 | 1/4 | FNPT16-TA-NPT4- | 49.8 | 41.3 | 25.4 | 14.2 | 7.1 | 4400 (303) | 2200 (151) |
| 1 | 3/8 | FNPT16-TA-NPT6- | 50.8 | 41.3 | 25.4 | 14.2 | 9.7 | 4400 (303) | 2200 (151) |
| 1 | 1/2 | FNPT16-TA-NPT8- | 54.9 | 41.3 | 25.4 | 19.1 | 11.9 | 4400 (303) | 2200 (151) |
| 1 | 3/4 | FNPT16-TA-NPT12- | 55.1 | 41.3 | 25.4 | 19.1 | 15.7 | 4400 (303) | 2200 (151) |
| 1 | 1 | FNPT16-TA-NPT16- | 57.9 | 41.3 | 25.4 | 23.9 | 22.4 | 4400 (303) | 2200 (151) |
| 1 1/4 | 1 | FNPT20-TA-NPT16- | 62.7 | 54.0 | 25.4 | 23.9 | 22.4 | 5000 (344) | 2500 (172) |
| Heavy-Wall Female to male NPT Threads | | | | | | | | | |
| 1/4 | 1/4 | FNPT4-TA1-NPT4- | 36.3 | 25.4 | 15.0 | 14.2 | 5.8 | 10000 (689) | / |
| 1/2 | 1/4 | FNPT8-TA1-NPT4- | 46.0 | 38.1 | 19.8 | 14.2 | 5.8 | 10000 (689) | / |
| 1/2 | 1/2 | FNPT8-TA1-NPT8- | 51.3 | 38.1 | 19.8 | 19.1 | 9.9 | 10000 (689) | / |

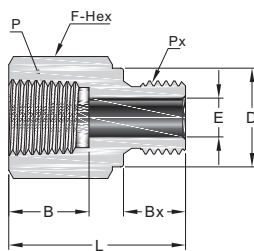
Adapters



Female NPT Threads

Male ISO Tapered Threads

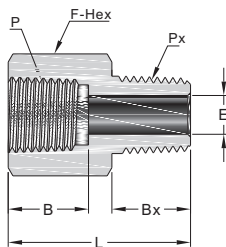
| P-NPT Size | Px-BSPT Size | Basic Ordering Number | Dimension, mm | | | | | Working Pressure psig (bar) | |
|------------|--------------|-----------------------|---------------|------|------|------|------|-----------------------------|------------|
| | | | L | F | B | Bx | E | 316 SS, Steel | Brass |
| 1/8 | 1/8 | FNPT2-TA-MBT2- | 27.7 | 14.3 | 10.4 | 9.7 | 4.8 | 6500 (447) | 3200 (220) |
| 1/4 | 1/4 | FNPT4-TA-MBT4- | 36.1 | 19.1 | 15.0 | 14.2 | 7.1 | 6600 (454) | 3300 (227) |
| 3/8 | 3/8 | FNPT6-TA-MBT6- | 38.1 | 22.2 | 15.0 | 14.2 | 9.7 | 5300 (365) | 2600 (179) |
| 1/2 | 1/2 | FNPT8-TA-MBT8- | 49.3 | 27.0 | 19.8 | 19.1 | 11.9 | 4900 (337) | 2400 (165) |
| 3/4 | 3/4 | FNPT12-TA-MBT12- | 51.3 | 33.3 | 20.6 | 19.1 | 15.7 | 4600 (316) | 2300 (158) |
| 1 | 1 | FNPT16-TA-MBT16- | 58.4 | 41.3 | 25.4 | 23.9 | 22.4 | 4400 (303) | 2200 (151) |



Female NPT Threads

Male ISO Parallel Threads

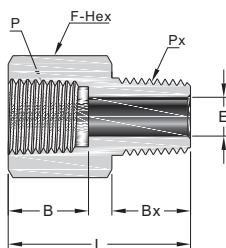
| P-NPT Size | Px-BS Size | Basic Ordering Number | Dimension, mm | | | | | | Working Pressure psig (bar) | |
|------------|------------|-----------------------|---------------|------|------|------|------|------|-----------------------------|------------|
| | | | L | F | B | Bx | D | E | 316 SS, Steel | Brass |
| 1/8 | 1/8 | FNPT2-TA-MBS2- | 25.1 | 14.3 | 9.9 | 7.1 | 13.7 | 4.1 | 6500 (447) | 3200 (220) |
| 1/4 | 1/4 | FNPT4-TA-MBS4- | 33.5 | 19.1 | 10.4 | 11.2 | 18.0 | 5.8 | 6600 (454) | 3300 (227) |
| 3/8 | 3/8 | FNPT6-TA-MBS6- | 35.8 | 22.2 | 15.0 | 11.2 | 21.6 | 7.9 | 5300 (365) | 2600 (179) |
| 1/2 | 1/2 | FNPT8-TA-MBS8- | 44.2 | 27.0 | 15.0 | 14.2 | 25.9 | 11.9 | 4900 (337) | 2400 (165) |
| 3/4 | 3/4 | FNPT12-TA-MBS12- | 48.0 | 33.3 | 20.6 | 15.7 | 32.0 | 15.7 | 4600 (316) | 2300 (158) |
| 1 | 1 | FNPT16-TA-MBS16- | 53.3 | 41.3 | 25.4 | 18.3 | 38.9 | 19.8 | 4400 (303) | 2200 (151) |



Female ISO Tapered Threads

Male ISO Tapered Threads

| P-BSPT Size | Px-BSPT Size | Basic Ordering Number | Dimension, mm | | | | | Working Pressure psig (bar) | |
|-------------|--------------|-----------------------|---------------|------|------|------|------|-----------------------------|------------|
| | | | L | F | B | Bx | E | 316 SS, Steel | Brass |
| 1/8 | 1/8 | FBT2-TA-MBT2- | 27.7 | 14.3 | 10.4 | 9.7 | 4.8 | 6500 (447) | 3200 (220) |
| 1/4 | 1/8 | FBT4-TA-MBT2- | 32.0 | 19.1 | 15.0 | 9.7 | 4.8 | 6600 (454) | 3300 (227) |
| 1/4 | 1/4 | FBT4-TA-MBT4- | 36.1 | 19.1 | 15.0 | 14.2 | 7.1 | 6600 (454) | 3300 (227) |
| 3/8 | 1/4 | FBT6-TA-MBT4- | 38.1 | 22.2 | 15.0 | 14.2 | 7.1 | 5300 (365) | 2600 (179) |
| 3/8 | 3/8 | FBT6-TA-MBT6- | 38.1 | 22.2 | 15.0 | 14.2 | 9.7 | 5300 (365) | 2600 (179) |
| 1/2 | 1/4 | FBT8-TA-MBT4- | 44.7 | 27.0 | 19.8 | 14.2 | 7.1 | 4900 (337) | 2400 (165) |
| 1/2 | 3/8 | FBT8-TA-MBT6- | 44.4 | 27.0 | 19.8 | 14.2 | 9.7 | 4900 (337) | 2400 (165) |
| 1/2 | 1/2 | FBT8-TA-MBT8- | 49.5 | 27.0 | 19.8 | 19.1 | 11.9 | 4900 (337) | 2400 (165) |
| 3/4 | 3/4 | FBT12-TA-MBT12- | 51.3 | 33.3 | 20.6 | 19.1 | 15.7 | 4600 (316) | 2300 (158) |
| 1 | 1 | FBT16-TA-MBT16- | 58.4 | 41.3 | 25.4 | 23.9 | 22.4 | 4400 (303) | 2200 (151) |

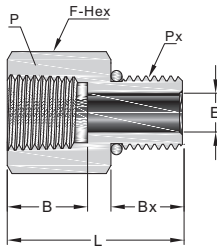


Female ISO Tapered Threads

Male NPT Threads

| P-BSPT Size | Px-NPT Size | Basic Ordering Number | Dimension, mm | | | | | Working Pressure psig (bar) | |
|-------------|-------------|-----------------------|---------------|------|------|------|------|-----------------------------|------------|
| | | | L | F | B | Bx | E | 316 SS, Steel | Brass |
| 1/8 | 1/8 | FBT2-TA-NPT2- | 27.7 | 14.3 | 10.4 | 9.7 | 4.8 | 6500 (447) | 3200 (220) |
| 1/4 | 1/4 | FBT4-TA-NPT4- | 36.3 | 19.1 | 15.0 | 14.2 | 7.1 | 6600 (454) | 3300 (227) |
| 3/8 | 3/8 | FBT6-TA-NPT6- | 38.4 | 22.2 | 15.0 | 14.2 | 9.6 | 5300 (365) | 2600 (179) |
| 1/2 | 1/2 | FBT8-TA-NPT8- | 49.8 | 27.0 | 19.8 | 19.1 | 11.9 | 4900 (337) | 2400 (165) |
| 3/4 | 3/4 | FBT12-TA-NPT12- | 51.3 | 33.3 | 20.6 | 19.1 | 15.7 | 4600 (316) | 2300 (158) |
| 1 | 1 | FBT16-TA-NPT16- | 58.4 | 41.3 | 25.4 | 23.9 | 22.4 | 4400 (303) | 2200 (151) |

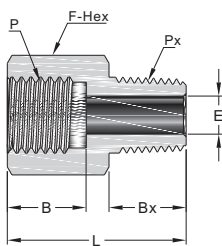
Adapters



Female NPT Threads

Male SAE/MS Straight Threads

| P-NPT Size | Px-SAE/MS Thread Size | Basic Ordering Number | Dimension, mm | | | | | Working Pressure psig (bar) 316 SS, Steel |
|------------|-----------------------|-----------------------|---------------|------|------|------|------|--|
| | | | L | F | B | Bx | E | |
| 1/4 | 7/16-20 | FNPT4-TA-OST7- | 33.5 | 19.1 | 15.0 | 9.1 | 5.1 | 4500 (310) |
| 3/8 | 9/16-18 | FNPT6-TA-OST9- | 35.3 | 23.8 | 15.0 | 9.9 | 7.1 | 4500 (310) |
| 1/2 | 3/4-16 | FNPT8-TA-OST12- | 44.7 | 27.0 | 19.8 | 11.2 | 10.7 | 4500 (310) |
| 3/4 | 1 1/16-12 | FNPT12-TA-OST17- | 50.5 | 34.9 | 20.6 | 15.0 | 16.7 | 3600 (248) |
| 1 | 1 5/16-12 | FNPT16-TA-OST21- | 53.8 | 41.3 | 25.4 | 15.0 | 22.4 | 2900 (199) |

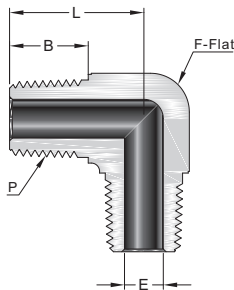


Female ISO Parallel Threads

Male NPT Threads

| P-BG Size | Px-NPT Size | Basic Ordering Number | Dimension, mm | | | | | Working Pressure psig (bar) 316 SS, Steel |
|-----------|-------------|-----------------------|---------------|------|------|------|-----|--|
| | | | L | F | B | Bx | E | |
| 1/8 | 1/8 | FBP2-TA-NPT2- | 21.8 | 14.3 | 6.5 | 9.7 | 4.8 | 6100 (420) |
| 1/4 | 1/4 | FBP4-TA-NPT4- | 30.2 | 19.1 | 12.9 | 14.2 | 5.6 | 5700 (392) |
| 3/8 | 3/8 | FBP6-TA-NPT6- | 32.2 | 23.8 | 14.2 | 14.2 | 6.6 | 5700 (392) |
| 1/2 | 1/2 | FBP8-TA-NPT8- | 42.7 | 27.0 | 18.8 | 19.1 | 7.1 | 3900 (268) |

Male Elbows



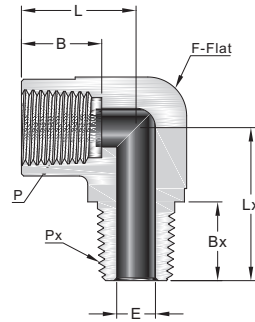
Male NPT Threads

| P-NPT Size | Basic Ordering Number | Dimension, mm | | | | Working Pressure psig (bar) | |
|------------|-----------------------|---------------|------|------|------|-----------------------------|------------|
| | | L | F | B | E | 316 SS, Steel | Brass |
| 1/16 | NPT1-TME-NPT1- | 18.3 | 9.5 | 9.7 | 3.0 | 11000 (757) | 5500 (378) |
| 1/8 | NPT2-TME-NPT2- | 22.4 | 11.1 | 9.7 | 4.8 | 10000 (689) | 5000 (344) |
| 1/4 | NPT4-TME-NPT4- | 26.7 | 12.7 | 14.2 | 7.1 | 8000 (551) | 4000 (275) |
| 3/8 | NPT6-TME-NPT6- | 29.7 | 17.5 | 14.2 | 9.6 | 7800 (537) | 3900 (268) |
| 1/2 | NPT8-TME-NPT8- | 36.8 | 20.6 | 19.1 | 11.9 | 7700 (530) | 3800 (261) |
| 3/4 | NPT12-TME-NPT12- | 40.4 | 27.0 | 19.1 | 15.7 | 7300 (502) | 3600 (248) |
| 1 | NPT16-TME-NPT16- | 50.0 | 34.9 | 23.9 | 22.4 | 5300 (365) | 2600 (179) |

Male ISO Tapered Pipe Threads

| P-BSPT Size | Basic Ordering Number | Dimension, mm | | | | Working Pressure psig (bar) | |
|-------------|-----------------------|---------------|------|------|------|-----------------------------|------------|
| | | L | F | B | E | 316 SS, Steel | Brass |
| 1/16 | MBT1-TME-MBT1- | 18.3 | 9.5 | 9.7 | 3.0 | 11000 (757) | 5500 (378) |
| 1/8 | MBT2-TME-MBT2- | 22.4 | 11.1 | 9.7 | 4.8 | 10000 (689) | 5000 (344) |
| 1/4 | MBT4-TME-MBT4- | 26.7 | 12.7 | 14.2 | 7.1 | 8000 (551) | 4000 (275) |
| 3/8 | MBT6-TME-MBT6- | 29.7 | 17.5 | 14.2 | 9.7 | 7800 (537) | 3900 (268) |
| 1/2 | MBT8-TME-MBT8- | 36.8 | 20.6 | 19.1 | 11.9 | 7700 (530) | 3800 (261) |
| 3/4 | MBT12-TME-MBT12- | 40.4 | 27.0 | 19.1 | 15.7 | 7300 (502) | 3600 (248) |
| 1 | MBT16-TME-MBT16- | 50.0 | 34.9 | 23.9 | 22.4 | 5300 (365) | 2600 (179) |

Street Elbows

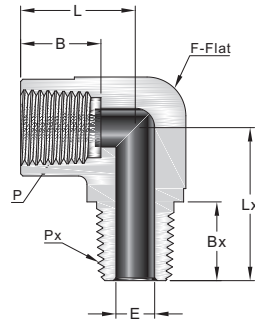


Female NPT Threads

Male NPT Threads

| P-NPT Size | Px-NPT Size | Basic Ordering Number | Dimension, mm | | | | | | Working Pressure psig (bar) | |
|------------|-------------|-----------------------|---------------|------|------|------|------|------|-----------------------------|------------|
| | | | L | F | B | E | Lx | Bx | 316 SS, Steel | Brass |
| 1/16 | 1/16 | FNPT1-TSE-NPT1- | 21.8 | 11.1 | 9.9 | 3.0 | 22.4 | 9.7 | 9200 (633) | 4600 (316) |
| 1/16 | 1/8 | FNPT1-TSE-NPT2- | 21.8 | 11.1 | 9.9 | 4.8 | 22.4 | 9.7 | 9200 (633) | 4600 (316) |
| 1/16 | 1/4 | FNPT1-TSE-NPT4- | 22.4 | 14.3 | 9.9 | 4.8 | 27.7 | 14.2 | 8000 (551) | 4000 (275) |
| 1/16 | 3/8 | FNPT1-TSE-NPT6- | 22.4 | 17.5 | 9.9 | 4.8 | 29.7 | 14.2 | 7800 (537) | 3900 (268) |
| 1/8 | 1/16 | FNPT2-TSE-NPT1- | 26.4 | 12.7 | 10.4 | 3.0 | 22.1 | 9.7 | 6200 (426) | 3100 (213) |
| 1/8 | 1/8 | FNPT2-TSE-NPT2- | 26.4 | 12.7 | 10.4 | 4.8 | 22.1 | 9.7 | 6200 (426) | 3100 (213) |
| 1/8 | 1/4 | FNPT2-TSE-NPT4- | 22.4 | 14.3 | 10.4 | 7.1 | 27.7 | 14.2 | 6500 (447) | 3200 (220) |
| 1/8 | 3/8 | FNPT2-TSE-NPT6- | 22.4 | 17.5 | 10.4 | 7.1 | 29.7 | 14.2 | 7800 (537) | 3900 (268) |
| 1/8 | 1/2 | FNPT2-TSE-NPT8- | 24.1 | 20.6 | 10.4 | 7.1 | 36.8 | 19.1 | 7700 (530) | 3800 (261) |
| 1/8 | 3/4 | FNPT2-TSE-NPT12- | 25.4 | 27.0 | 10.4 | 7.1 | 40.4 | 19.1 | 7300 (502) | 3600 (248) |
| 1/8 | 1 | FNPT2-TSE-NPT16- | 26.4 | 34.9 | 10.4 | 7.1 | 50.0 | 23.9 | 5300 (365) | 2600 (179) |
| 1/4 | 1/8 | FNPT4-TSE-NPT2- | 29.7 | 17.5 | 15.0 | 4.8 | 25.4 | 9.7 | 7200 (496) | 3600 (248) |
| 1/4 | 1/4 | FNPT4-TSE-NPT4- | 29.7 | 17.5 | 15.0 | 7.1 | 29.7 | 14.2 | 7200 (496) | 3600 (248) |
| 1/4 | 3/8 | FNPT4-TSE-NPT6- | 29.7 | 17.5 | 15.0 | 8.6 | 29.7 | 14.2 | 7200 (496) | 3600 (248) |
| 1/4 | 1/2 | FNPT4-TSE-NPT8- | 25.4 | 20.6 | 15.0 | 8.6 | 36.8 | 19.1 | 7200 (496) | 3600 (248) |
| 1/4 | 3/4 | FNPT4-TSE-NPT12- | 25.4 | 27.0 | 15.0 | 8.6 | 40.4 | 19.1 | 7300 (502) | 3600 (248) |
| 1/4 | 1 | FNPT4-TSE-NPT16- | 41.4 | 34.9 | 15.0 | 8.6 | 50.0 | 23.9 | 5300 (365) | 2600 (179) |
| 3/8 | 1/4 | FNPT6-TSE-NPT4- | 36.1 | 20.6 | 15.0 | 7.1 | 32.0 | 14.2 | 5600 (385) | 2800 (192) |
| 3/8 | 3/8 | FNPT6-TSE-NPT6- | 36.1 | 20.6 | 15.0 | 9.6 | 32.0 | 14.2 | 5600 (385) | 2800 (192) |
| 3/8 | 1/2 | FNPT6-TSE-NPT8- | 36.1 | 20.6 | 15.0 | 11.9 | 36.8 | 19.1 | 5600 (385) | 2800 (192) |
| 3/8 | 3/4 | FNPT6-TSE-NPT12- | 31.2 | 27.0 | 15.0 | 11.9 | 40.4 | 19.1 | 7300 (502) | 3600 (248) |
| 3/8 | 1 | FNPT6-TSE-NPT16- | 41.4 | 34.9 | 15.0 | 11.9 | 50.0 | 23.9 | 5300 (365) | 2600 (179) |
| 1/2 | 1/4 | FNPT8-TSE-NPT4- | 39.6 | 25.4 | 19.8 | 7.1 | 35.1 | 14.2 | 5600 (385) | 2800 (192) |
| 1/2 | 3/8 | FNPT8-TSE-NPT6- | 39.6 | 25.4 | 19.8 | 9.6 | 35.1 | 14.2 | 5600 (385) | 2800 (192) |
| 1/2 | 1/2 | FNPT8-TSE-NPT8- | 39.6 | 25.4 | 19.8 | 11.9 | 39.6 | 19.1 | 5600 (385) | 2800 (192) |
| 1/2 | 3/4 | FNPT8-TSE-NPT12- | 31.2 | 27.0 | 19.8 | 15.7 | 40.4 | 19.1 | 5600 (385) | 2800 (192) |
| 1/2 | 1 | FNPT8-TSE-NPT16- | 41.4 | 34.9 | 19.8 | 15.7 | 50.0 | 23.9 | 5300 (365) | 2600 (179) |
| 3/4 | 3/4 | FNPT12-TSE-NPT12- | 48.8 | 31.8 | 20.6 | 15.7 | 42.4 | 19.1 | 5100 (351) | 2500 (172) |
| 3/4 | 1 | FNPT12-TSE-NPT16- | 41.4 | 34.9 | 20.6 | 22.4 | 50.0 | 23.9 | 5100 (351) | 2500 (172) |
| 1 | 1 | FNPT16-TSE-NPT16- | 48.5 | 42.9 | 25.4 | 22.4 | 49.3 | 23.9 | 5300 (365) | 2600 (179) |
| 1 1/4 | 1 1/4 | FNPT20-TSE-NPT20- | 60.5 | 50.8 | 25.4 | 31.8 | 60.5 | 23.9 | 3100 (213) | 1600 (110) |

Street Elbows

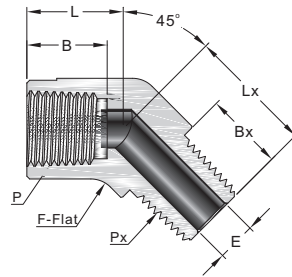


Female ISO Tapered Pipe Threads

Male ISO Tapered Threads

| P-BSPT Size | Px-BSPT Size | Basic Ordering Number | Dimension, mm | | | | | | Working Pressure psig (bar) | |
|-------------|--------------|-----------------------|---------------|------|------|------|------|------|-----------------------------|------------|
| | | | L | F | B | E | Lx | Bx | 316 SS, Steel | Brass |
| 1/16 | 1/16 | FBT1-TSE-MBT1- | 21.8 | 11.1 | 9.9 | 3.0 | 22.4 | 9.7 | 9200 (633) | 4600 (316) |
| 1/16 | 1/8 | FBT1-TSE-MBT2- | 21.8 | 11.1 | 9.9 | 4.8 | 22.4 | 9.7 | 9200 (633) | 4600 (316) |
| 1/16 | 1/4 | FBT1-TSE-MBT4- | 22.4 | 14.3 | 9.9 | 4.8 | 27.7 | 14.2 | 8000 (551) | 4000 (275) |
| 1/16 | 3/8 | FBT1-TSE-MBT6- | 22.4 | 17.5 | 9.9 | 4.8 | 29.7 | 14.2 | 7800 (537) | 3900 (268) |
| 1/8 | 1/16 | FBT2-TSE-MBT1- | 26.4 | 12.7 | 10.4 | 3.0 | 22.1 | 9.7 | 6200 (426) | 3100 (213) |
| 1/8 | 1/8 | FBT2-TSE-MBT2- | 26.4 | 12.7 | 10.4 | 4.8 | 22.1 | 9.7 | 6200 (426) | 3100 (213) |
| 1/8 | 1/4 | FBT2-TSE-MBT4- | 22.4 | 14.3 | 10.4 | 7.1 | 27.7 | 14.2 | 6500 (447) | 3200 (220) |
| 1/8 | 3/8 | FBT2-TSE-MBT6- | 22.4 | 17.5 | 10.4 | 7.1 | 29.7 | 14.2 | 7800 (537) | 3900 (268) |
| 1/8 | 1/2 | FBT2-TSE-MBT8- | 24.1 | 20.6 | 10.4 | 7.1 | 36.8 | 19.1 | 7700 (530) | 3800 (261) |
| 1/8 | 3/4 | FBT2-TSE-MBT12- | 25.4 | 27.0 | 10.4 | 7.1 | 40.4 | 19.1 | 7300 (502) | 3600 (248) |
| 1/8 | 1 | FBT2-TSE-MBT16- | 26.4 | 34.9 | 10.4 | 7.1 | 50.0 | 23.9 | 5300 (365) | 2600 (179) |
| 1/4 | 1/8 | FBT4-TSE-MBT2- | 29.7 | 17.5 | 15.0 | 4.8 | 25.4 | 9.7 | 7200 (496) | 3600 (248) |
| 1/4 | 1/4 | FBT4-TSE-MBT4- | 29.7 | 17.5 | 15.0 | 7.1 | 29.7 | 14.2 | 7200 (496) | 3600 (248) |
| 1/4 | 3/8 | FBT4-TSE-MBT6- | 29.7 | 17.5 | 15.0 | 8.6 | 29.7 | 14.2 | 7200 (496) | 3600 (248) |
| 1/4 | 1/2 | FBT4-TSE-MBT8- | 25.4 | 20.6 | 15.0 | 8.6 | 36.8 | 19.1 | 7200 (496) | 3600 (248) |
| 1/4 | 3/4 | FBT4-TSE-MBT12- | 25.4 | 27.0 | 15.0 | 8.6 | 40.4 | 19.1 | 7300 (502) | 3600 (248) |
| 1/4 | 1 | FBT4-TSE-MBT16- | 41.4 | 34.9 | 15.0 | 8.6 | 50.0 | 23.9 | 5300 (365) | 2600 (179) |
| 3/8 | 1/4 | FBT6-TSE-MBT4- | 36.1 | 20.6 | 15.0 | 7.1 | 32.0 | 14.2 | 5600 (385) | 2800 (192) |
| 3/8 | 3/8 | FBT6-TSE-MBT6- | 36.1 | 20.6 | 15.0 | 9.7 | 32.0 | 14.2 | 5600 (385) | 2800 (192) |
| 3/8 | 1/2 | FBT6-TSE-MBT8- | 36.1 | 20.6 | 15.0 | 11.9 | 36.8 | 19.1 | 5600 (385) | 2800 (192) |
| 3/8 | 3/4 | FBT6-TSE-MBT12- | 31.2 | 27.0 | 15.0 | 11.9 | 40.4 | 19.1 | 7300 (502) | 3600 (248) |
| 3/8 | 1 | FBT6-TSE-MBT16- | 41.4 | 34.9 | 15.0 | 11.9 | 50.0 | 23.9 | 5300 (365) | 2600 (179) |
| 1/2 | 1/4 | FBT8-TSE-MBT4- | 39.6 | 25.4 | 19.8 | 7.1 | 35.1 | 14.2 | 5600 (385) | 2800 (192) |
| 1/2 | 3/8 | FBT8-TSE-MBT6- | 39.6 | 25.4 | 19.8 | 9.7 | 35.1 | 14.2 | 5600 (385) | 2800 (192) |
| 1/2 | 1/2 | FBT8-TSE-MBT8- | 39.6 | 25.4 | 19.8 | 11.9 | 39.6 | 19.1 | 5600 (385) | 2800 (192) |
| 1/2 | 3/4 | FBT8-TSE-MBT12- | 31.2 | 27.0 | 19.8 | 15.7 | 40.4 | 19.1 | 5600 (385) | 2800 (192) |
| 1/2 | 1 | FBT8-TSE-MBT16- | 41.4 | 34.9 | 19.8 | 15.7 | 50.0 | 23.9 | 5300 (365) | 2600 (179) |
| 3/4 | 3/4 | FBT12-TSE-MBT12- | 48.8 | 31.8 | 20.6 | 15.7 | 42.4 | 19.1 | 5100 (351) | 2500 (172) |
| 3/4 | 1 | FBT12-TSE-MBT16- | 41.4 | 34.9 | 20.6 | 22.4 | 50.0 | 23.9 | 5100 (351) | 2500 (172) |
| 1 | 1 | FBT16-TSE-MBT16- | 48.5 | 42.9 | 25.4 | 22.4 | 49.3 | 23.9 | 5300 (365) | 2600 (179) |
| 1 1/4 | 1 1/4 | FBT20-TSE-MBT20- | 60.5 | 50.8 | 25.4 | 31.8 | 60.5 | 23.9 | 3100 (213) | 1600 (110) |

45° Street Elbows

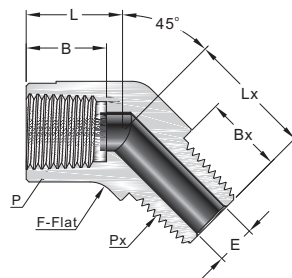


Female NPT Threads

Male NPT Threads

| P-NPT Size | Px-NPT Size | Basic Ordering Number | Dimension, mm | | | | | | Working Pressure psig (bar) | |
|------------|-------------|-----------------------|---------------|------|------|------|------|------|-----------------------------|------------|
| | | | L | F | B | E | Lx | Bx | 316 SS, Steel | Brass |
| 1/16 | 1/16 | FNPT1-T45E-NPT1- | 16.8 | 11.1 | 9.9 | 3.0 | 16.8 | 9.7 | 9200 (633) | 4600 (316) |
| 1/16 | 1/8 | FNPT1-T45E-NPT2- | 16.8 | 11.1 | 9.9 | 4.8 | 16.8 | 9.7 | 9200 (633) | 4600 (316) |
| 1/16 | 1/4 | FNPT1-T45E-NPT4- | 16.8 | 14.3 | 9.9 | 4.8 | 21.8 | 14.2 | 8000 (551) | 4000 (275) |
| 1/16 | 3/8 | FNPT1-T45E-NPT6- | 22.4 | 17.5 | 9.9 | 4.8 | 23.8 | 14.2 | 7800 (537) | 3900 (268) |
| 1/8 | 1/16 | FNPT2-T45E-NPT1- | 20.2 | 12.7 | 10.4 | 3.0 | 17.2 | 9.7 | 6200 (426) | 3100 (213) |
| 1/8 | 1/8 | FNPT2-T45E-NPT2- | 20.2 | 12.7 | 10.4 | 4.8 | 17.2 | 9.7 | 6200 (426) | 3100 (213) |
| 1/8 | 1/4 | FNPT2-T45E-NPT4- | 16.8 | 14.3 | 10.4 | 7.1 | 21.8 | 14.2 | 6500 (447) | 3200 (220) |
| 1/8 | 3/8 | FNPT2-T45E-NPT6- | 22.4 | 17.5 | 10.4 | 7.1 | 23.8 | 14.2 | 7800 (537) | 3900 (268) |
| 1/8 | 1/2 | FNPT2-T45E-NPT8- | 22.2 | 20.6 | 10.4 | 7.1 | 29.0 | 19.1 | 7700 (530) | 3800 (261) |
| 1/8 | 3/4 | FNPT2-T45E-NPT12- | 25.4 | 27.0 | 10.4 | 7.1 | 30.5 | 19.1 | 7300 (502) | 3600 (248) |
| 1/8 | 1 | FNPT2-T45E-NPT16- | 26.4 | 34.9 | 10.4 | 7.1 | 49.3 | 23.9 | 5300 (365) | 2600 (179) |
| 1/4 | 1/8 | FNPT4-T45E-NPT2- | 25.4 | 17.5 | 15.0 | 4.8 | 19.3 | 9.7 | 7200 (496) | 3600 (248) |
| 1/4 | 1/4 | FNPT4-T45E-NPT4- | 25.4 | 17.5 | 15.0 | 7.1 | 19.3 | 14.2 | 7200 (496) | 3600 (248) |
| 1/4 | 3/8 | FNPT4-T45E-NPT6- | 25.4 | 17.5 | 15.0 | 8.6 | 23.8 | 14.2 | 7200 (496) | 3600 (248) |
| 1/4 | 1/2 | FNPT4-T45E-NPT8- | 22.2 | 20.6 | 15.0 | 8.6 | 29.0 | 19.1 | 7200 (496) | 3600 (248) |
| 1/4 | 3/4 | FNPT4-T45E-NPT12- | 25.4 | 27.0 | 15.0 | 8.6 | 30.5 | 19.1 | 7300 (502) | 3600 (248) |
| 1/4 | 1 | FNPT4-T45E-NPT16- | 32.0 | 34.9 | 15.0 | 8.6 | 37.6 | 23.9 | 5300 (365) | 2600 (179) |
| 3/8 | 1/4 | FNPT6-T45E-NPT4- | 27.0 | 20.6 | 15.0 | 7.1 | 24.2 | 14.2 | 5600 (385) | 2800 (192) |
| 3/8 | 3/8 | FNPT6-T45E-NPT6- | 27.0 | 20.6 | 15.0 | 9.7 | 24.2 | 14.2 | 5600 (385) | 2800 (192) |
| 3/8 | 1/2 | FNPT6-T45E-NPT8- | 27.0 | 20.6 | 15.0 | 11.9 | 29.0 | 19.1 | 5600 (385) | 2800 (192) |
| 3/8 | 3/4 | FNPT6-T45E-NPT12- | 27.0 | 27.0 | 15.0 | 11.9 | 30.5 | 19.1 | 7300 (502) | 3600 (248) |
| 3/8 | 1 | FNPT6-T45E-NPT16- | 32.0 | 34.9 | 15.0 | 11.9 | 37.6 | 23.9 | 5300 (365) | 2600 (179) |
| 1/2 | 1/4 | FNPT8-T45E-NPT4- | 32.0 | 25.4 | 19.8 | 7.1 | 25.2 | 14.2 | 5600 (385) | 2800 (192) |
| 1/2 | 3/8 | FNPT8-T45E-NPT6- | 32.0 | 25.4 | 19.8 | 9.7 | 25.2 | 14.2 | 5600 (385) | 2800 (192) |
| 1/2 | 1/2 | FNPT8-T45E-NPT8- | 32.0 | 25.4 | 19.8 | 11.9 | 32.0 | 19.1 | 5600 (385) | 2800 (192) |
| 1/2 | 3/4 | FNPT8-T45E-NPT12- | 32.5 | 27.0 | 19.8 | 15.7 | 30.5 | 19.1 | 5600 (385) | 2800 (192) |
| 1/2 | 1 | FNPT8-T45E-NPT16- | 37.6 | 34.9 | 19.8 | 15.7 | 37.6 | 23.9 | 5300 (365) | 2600 (179) |
| 3/4 | 3/4 | FNPT12-T45E-NPT12- | 34.5 | 31.8 | 20.6 | 15.7 | 34.5 | 19.1 | 5100 (351) | 2500 (172) |
| 3/4 | 1 | FNPT12-T45E-NPT16- | 37.6 | 34.9 | 20.6 | 22.4 | 37.6 | 23.9 | 5100 (351) | 2500 (172) |
| 1 | 1 | FNPT16-T45E-NPT16- | 46.0 | 42.9 | 25.4 | 22.4 | 46.0 | 23.9 | 5300 (365) | 2600 (179) |
| 1 1/4 | 1 1/4 | FNPT20-T45E-NPT20- | 50.8 | 50.8 | 25.4 | 31.8 | 50.8 | 23.9 | 3100 (213) | 1600 (110) |

45° Street Elbows

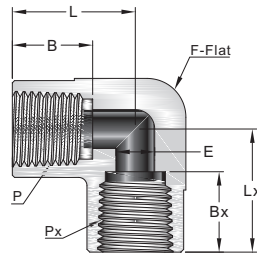


Female ISO Tapered Threads

Male ISO Tapered Threads

| P-BSPT Size | Px-BSPT Size | Basic Ordering Number | Dimension, mm | | | | | | Working Pressure psig (bar) | |
|-------------|--------------|-----------------------|---------------|------|------|------|------|------|-----------------------------|------------|
| | | | L | F | B | E | Lx | Bx | 316 SS, Steel | Brass |
| 1/16 | 1/16 | FBT1-T45E-MBT1- | 16.8 | 11.1 | 9.9 | 3.0 | 16.8 | 9.7 | 9200 (633) | 4600 (316) |
| 1/16 | 1/8 | FBT1-T45E-MBT2- | 16.8 | 11.1 | 9.9 | 4.8 | 16.8 | 9.7 | 9200 (633) | 4600 (316) |
| 1/16 | 1/4 | FBT1-T45E-MBT4- | 16.8 | 14.3 | 9.9 | 4.8 | 21.8 | 14.2 | 8000 (551) | 4000 (275) |
| 1/16 | 3/8 | FBT1-T45E-MBT6- | 22.4 | 17.5 | 9.9 | 4.8 | 23.8 | 14.2 | 7800 (537) | 3900 (268) |
| 1/8 | 1/16 | FBT2-T45E-MBT1- | 20.2 | 12.7 | 10.4 | 3.0 | 17.2 | 9.7 | 6200 (426) | 3100 (213) |
| 1/8 | 1/8 | FBT2-T45E-MBT2- | 20.2 | 12.7 | 10.4 | 4.8 | 17.2 | 9.7 | 6200 (426) | 3100 (213) |
| 1/8 | 1/4 | FBT2-T45E-MBT4- | 16.8 | 14.3 | 10.4 | 7.1 | 21.8 | 14.2 | 6500 (447) | 3200 (220) |
| 1/8 | 3/8 | FBT2-T45E-MBT6- | 22.4 | 17.5 | 10.4 | 7.1 | 23.8 | 14.2 | 7800 (537) | 3900 (268) |
| 1/8 | 1/2 | FBT2-T45E-MBT8- | 22.2 | 20.6 | 10.4 | 7.1 | 29.0 | 19.1 | 7700 (530) | 3800 (261) |
| 1/8 | 3/4 | FBT2-T45E-MBT12- | 25.4 | 27.0 | 10.4 | 7.1 | 30.5 | 19.1 | 7300 (502) | 3600 (248) |
| 1/8 | 1 | FBT2-T45E-MBT16- | 26.4 | 34.9 | 10.4 | 7.1 | 49.3 | 23.9 | 5300 (365) | 2600 (179) |
| 1/4 | 1/8 | FBT4-T45E-MBT2- | 25.4 | 17.5 | 15.0 | 4.8 | 19.3 | 9.7 | 7200 (496) | 3600 (248) |
| 1/4 | 1/4 | FBT4-T45E-MBT4- | 25.4 | 17.5 | 15.0 | 7.1 | 19.3 | 14.2 | 7200 (496) | 3600 (248) |
| 1/4 | 3/8 | FBT4-T45E-MBT6- | 25.4 | 17.5 | 15.0 | 8.6 | 23.8 | 14.2 | 7200 (496) | 3600 (248) |
| 1/4 | 1/2 | FBT4-T45E-MBT8- | 22.2 | 20.6 | 15.0 | 8.6 | 29.0 | 19.1 | 7200 (496) | 3600 (248) |
| 1/4 | 3/4 | FBT4-T45E-MBT12- | 25.4 | 27.0 | 15.0 | 8.6 | 30.5 | 19.1 | 7300 (502) | 3600 (248) |
| 1/4 | 1 | FBT4-T45E-MBT16- | 32.0 | 34.9 | 15.0 | 8.6 | 37.6 | 23.9 | 5300 (365) | 2600 (179) |
| 3/8 | 1/4 | FBT6-T45E-MBT4- | 27.0 | 20.6 | 15.0 | 7.1 | 24.2 | 14.2 | 5600 (385) | 2800 (192) |
| 3/8 | 3/8 | FBT6-T45E-MBT6- | 27.0 | 20.6 | 15.0 | 9.7 | 24.2 | 14.2 | 5600 (385) | 2800 (192) |
| 3/8 | 1/2 | FBT6-T45E-MBT8- | 27.0 | 20.6 | 15.0 | 11.9 | 29.0 | 19.1 | 5600 (385) | 2800 (192) |
| 3/8 | 3/4 | FBT6-T45E-MBT12- | 27.0 | 27.0 | 15.0 | 11.9 | 30.5 | 19.1 | 7300 (502) | 3600 (248) |
| 3/8 | 1 | FBT6-T45E-MBT16- | 32.0 | 34.9 | 15.0 | 11.9 | 37.6 | 23.9 | 5300 (365) | 2600 (179) |
| 1/2 | 1/4 | FBT8-T45E-MBT4- | 32.0 | 25.4 | 19.8 | 7.1 | 25.2 | 14.2 | 5600 (385) | 2800 (192) |
| 1/2 | 3/8 | FBT8-T45E-MBT6- | 32.0 | 25.4 | 19.8 | 9.7 | 25.2 | 14.2 | 5600 (385) | 2800 (192) |
| 1/2 | 1/2 | FBT8-T45E-MBT8- | 32.0 | 25.4 | 19.8 | 11.9 | 32.0 | 19.1 | 5600 (385) | 2800 (192) |
| 1/2 | 3/4 | FBT8-T45E-MBT12- | 32.5 | 27.0 | 19.8 | 15.7 | 30.5 | 19.1 | 5600 (385) | 2800 (192) |
| 1/2 | 1 | FBT8-T45E-MBT16- | 37.6 | 34.9 | 19.8 | 15.7 | 37.6 | 23.9 | 5300 (365) | 2600 (179) |
| 3/4 | 3/4 | FBT12-T45E-MBT12- | 34.5 | 31.8 | 20.6 | 15.7 | 34.5 | 19.1 | 5100 (351) | 2500 (172) |
| 3/4 | 1 | FBT12-T45E-MBT16- | 37.6 | 34.9 | 20.6 | 22.4 | 37.6 | 23.9 | 5100 (351) | 2500 (172) |
| 1 | 1 | FBT16-T45E-MBT16- | 46.0 | 42.9 | 25.4 | 22.4 | 46.0 | 23.9 | 5300 (365) | 2600 (179) |
| 1 1/4 | 1 1/4 | FBT20-T45E-MBT20- | 50.8 | 50.8 | 25.4 | 31.8 | 50.8 | 23.9 | 3100 (213) | 1600 (110) |

Female Elbows



Female FNPT Threads

| P-FNPT Size | Px-FNPT Size | Basic Ordering Number | Dimension, mm | | | | | | Working Pressure psig (bar) | |
|-------------|--------------|-----------------------|---------------|------|------|------|------|------|-----------------------------|------------|
| | | | L | F | B | E | Lx | Bx | 316 SS, Steel | Brass |
| 1/16 | 1/16 | FNPT1-TFE-FNPT1- | 21.8 | 11.1 | 9.9 | 4.8 | 21.8 | 9.9 | 6700 (460) | 3300 (227) |
| 1/8 | 1/16 | FNPT2-TFE-FNPT1- | 26.4 | 12.7 | 10.4 | 4.8 | 26.4 | 9.9 | 6200 (427) | 3100 (213) |
| 1/8 | 1/8 | FNPT2-TFE-FNPT2- | 26.4 | 12.7 | 10.4 | 8.6 | 26.4 | 10.4 | 6200 (427) | 3100 (213) |
| 1/4 | 1/8 | FNPT4-TFE-FNPT2- | 29.7 | 17.5 | 15.0 | 7.1 | 29.7 | 10.4 | 7200 (496) | 3600 (248) |
| 1/4 | 1/4 | FNPT4-TFE-FNPT4- | 29.7 | 17.5 | 15.0 | 11.4 | 29.7 | 15.0 | 7200 (496) | 3600 (248) |
| 3/8 | 3/8 | FNPT6-TFE-FNPT6- | 36.1 | 20.6 | 15.0 | 15.0 | 36.1 | 15.0 | 5600 (385) | 2800 (192) |
| 1/2 | 1/2 | FNPT8-TFE-FNPT8- | 39.6 | 25.4 | 19.8 | 18.5 | 39.6 | 19.8 | 5600 (385) | 2800 (192) |
| 3/4 | 3/4 | FNPT12-TFE-FNPT12- | 48.8 | 31.8 | 20.6 | 23.9 | 48.8 | 20.6 | 5100 (351) | 2500 (172) |
| 1 | 1 | FNPT16-TFE-FNPT16- | 48.5 | 42.9 | 25.4 | 29.7 | 48.5 | 25.4 | 6400 (440) | 3200 (220) |
| 1 1/4 | 1 1/4 | FNPT20-TFE-FNPT20- | 59.8 | 50.8 | 25.4 | 27.7 | 50.8 | 25.4 | 3100 (213) | 1600 (110) |
| 1 1/2 | 1 1/2 | FNPT24-TFE-FNPT24- | 65.0 | 63.5 | 27.7 | 34.0 | 52.8 | 27.7 | 5100 (351) | 2500 (172) |

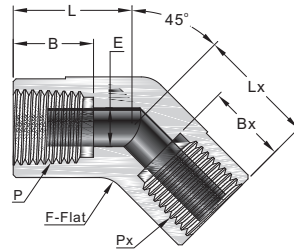
Heavy-Wall Female NPT Threads

| | | | | | | | | | | |
|-----|-----|-------------------|------|------|------|------|------|------|-------------|---|
| 1/4 | 1/4 | FNPT4-TFE1-FNPT4- | 39.6 | 25.4 | 15.0 | 11.4 | 29.7 | 15.0 | 10000 (689) | — |
| 1/2 | 1/2 | FNPT8-TFE1-FNPT8- | 50.0 | 42.9 | 19.8 | 18.5 | 39.6 | 19.8 | 10000 (689) | — |

Female ISO Tapered Threads

| P-BSPT Size | Px-BSPT Size | Basic Ordering Number | Dimension, mm | | | | | | Working Pressure psig (bar) | |
|-------------|--------------|-----------------------|---------------|------|------|------|------|------|-----------------------------|------------|
| | | | L | F | B | E | Lx | Bx | 316 SS, Steel | Brass |
| 1/16 | 1/16 | FBT1-TFE-FBT1- | 21.8 | 11.1 | 9.9 | 4.8 | 21.6 | 9.9 | 6700 (460) | 3300 (227) |
| 1/8 | 1/16 | FBT2-TFE-FBT1- | 16.8 | 12.7 | 10.4 | 4.8 | 16.8 | 9.9 | 6200 (427) | 3100 (213) |
| 1/8 | 1/8 | FBT2-TFE-FBT2- | 26.4 | 12.7 | 10.4 | 7.1 | 26.4 | 10.4 | 6200 (427) | 3100 (213) |
| 1/4 | 1/8 | FBT4-TFE-FBT2- | 29.7 | 17.5 | 15.0 | 7.1 | 29.7 | 10.4 | 7200 (496) | 3600 (248) |
| 1/4 | 1/4 | FBT4-TFE-FBT4- | 29.7 | 17.5 | 15.0 | 10.4 | 29.7 | 15.0 | 7200 (496) | 3600 (248) |
| 3/8 | 3/8 | FBT6-TFE-FBT6- | 36.1 | 20.6 | 15.0 | 12.7 | 36.1 | 15.0 | 5600 (385) | 2800 (192) |
| 1/2 | 1/2 | FBT8-TFE-FBT8- | 39.6 | 25.4 | 19.8 | 15.7 | 39.6 | 19.8 | 5600 (385) | 2800 (192) |
| 3/4 | 3/4 | FBT12-TFE-FBT12- | 48.8 | 31.8 | 20.6 | 22.4 | 48.8 | 20.6 | 5100 (351) | 2500 (172) |
| 1 | 1 | FBT16-TFE-FBT16- | 48.5 | 42.9 | 25.4 | 22.4 | 48.5 | 25.4 | 6400 (440) | 3200 (220) |
| 1 1/4 | 1 1/4 | FBT20-TFE-FBT20- | 59.8 | 50.8 | 25.4 | 27.7 | 50.8 | 25.4 | 3100 (213) | 1600 (110) |
| 1 1/2 | 1 1/2 | FBT24-TFE-FBT24- | 65.0 | 63.5 | 27.7 | 34.0 | 52.8 | 27.7 | 5100 (351) | 2500 (172) |

45° Female Elbows



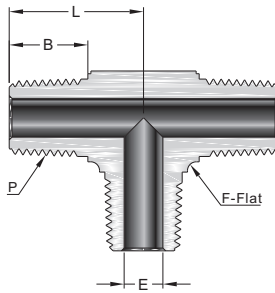
Female NPT Threads

| P-NPT Size | Px-NPT Size | Basic Ordering Number | Dimension, mm | | | | | | Working Pressure psig (bar) | |
|------------|-------------|-----------------------|---------------|------|------|------|------|------|-----------------------------|------------|
| | | | L | F | B | E | Lx | Bx | 316 SS, Steel | Brass |
| 1/16 | 1/16 | FNPT1-T45FE-FNPT1- | 16.8 | 11.1 | 9.9 | 4.8 | 16.8 | 9.9 | 6700 (460) | 3300 (227) |
| 1/8 | 1/16 | FNPT2-T45FE-FNPT1- | 20.2 | 12.7 | 10.4 | 4.8 | 20.2 | 9.9 | 6200 (427) | 3100 (213) |
| 1/8 | 1/8 | FNPT2-T45FE-FNPT2- | 20.2 | 12.7 | 10.4 | 7.1 | 20.2 | 10.4 | 6200 (427) | 3100 (213) |
| 1/4 | 1/8 | FNPT4-T45FE-FNPT2- | 25.4 | 17.5 | 15.0 | 7.1 | 25.4 | 10.4 | 7200 (496) | 3600 (248) |
| 1/4 | 1/4 | FNPT4-T45FE-FNPT4- | 25.4 | 17.5 | 15.0 | 10.4 | 25.4 | 15.0 | 7200 (496) | 3600 (248) |
| 3/8 | 3/8 | FNPT6-T45FE-FNPT6- | 27.0 | 20.6 | 15.0 | 12.7 | 27.0 | 15.0 | 5600 (385) | 2800 (192) |
| 1/2 | 1/2 | FNPT8-T45FE-FNPT8- | 32.0 | 25.4 | 19.8 | 15.7 | 32.0 | 19.8 | 5600 (385) | 2800 (192) |
| 3/4 | 3/4 | FNPT12-T45FE-FNPT12- | 34.5 | 31.8 | 20.6 | 22.4 | 34.5 | 20.6 | 5100 (351) | 2500 (172) |
| 1 | 1 | FNPT16-T45FE-FNPT16- | 46.0 | 42.9 | 25.4 | 22.4 | 46.0 | 25.4 | 6400 (440) | 3200 (220) |
| 1 1/4 | 1 1/4 | FNPT20-T45FE-FNPT20- | 43.2 | 50.8 | 25.4 | 27.7 | 43.2 | 25.4 | 3100 (213) | 1600 (110) |
| 1 1/2 | 1 1/2 | FNPT24-T45FE-FNPT24- | 46.0 | 63.5 | 27.7 | 34.0 | 46.0 | 27.7 | 5100 (351) | 2500 (172) |

Female ISO Tapered Pipe Threads

| P-BSPT Size | Px-BSPT Size | Basic Ordering Number | Dimension, mm | | | | | | Working Pressure psig (bar) | |
|-------------|--------------|-----------------------|---------------|------|------|------|------|------|-----------------------------|------------|
| | | | L | F | B | E | Lx | Bx | 316 SS, Steel | Brass |
| 1/16 | 1/16 | FBT1-T45FE-FBT1- | 16.8 | 11.1 | 9.9 | 4.8 | 16.8 | 9.9 | 6700 (460) | 3300 (227) |
| 1/8 | 1/16 | FBT2-T45FE-FBT1- | 20.2 | 12.7 | 10.4 | 4.8 | 20.2 | 9.9 | 6200 (427) | 3100 (213) |
| 1/8 | 1/8 | FBT2-T45FE-FBT2- | 20.2 | 12.7 | 10.4 | 7.1 | 20.2 | 10.4 | 6200 (427) | 3100 (213) |
| 1/4 | 1/8 | FBT4-T45FE-FBT2- | 25.4 | 17.5 | 15.0 | 7.1 | 25.4 | 10.4 | 7200 (496) | 3600 (248) |
| 1/4 | 1/4 | FBT4-T45FE-FBT4- | 25.4 | 17.5 | 15.0 | 10.4 | 25.4 | 15.0 | 7200 (496) | 3600 (248) |
| 3/8 | 3/8 | FBT6-T45FE-FBT6- | 27.0 | 20.6 | 15.0 | 12.7 | 27.0 | 15.0 | 5600 (385) | 2800 (192) |
| 1/2 | 1/2 | FBT8-T45FE-FBT8- | 32.0 | 25.4 | 19.8 | 15.7 | 32.0 | 19.8 | 5600 (385) | 2800 (192) |
| 3/4 | 3/4 | FBT12-T45FE-FBT12- | 34.5 | 31.8 | 20.6 | 22.4 | 34.5 | 20.6 | 5100 (351) | 2500 (172) |
| 1 | 1 | FBT16-T45FE-FBT16- | 46.0 | 42.9 | 25.4 | 22.4 | 46.0 | 25.4 | 6400 (440) | 3200 (220) |
| 1 1/4 | 1 1/4 | FBT20-T45FE-FBT20- | 43.2 | 50.8 | 25.4 | 27.7 | 43.2 | 25.4 | 3100 (213) | 1600 (110) |
| 1 1/2 | 1 1/2 | FBT24-T45FE-FBT24- | 46.0 | 63.5 | 27.7 | 34.0 | 46.0 | 27.7 | 5100 (351) | 2500 (172) |

Male Tees



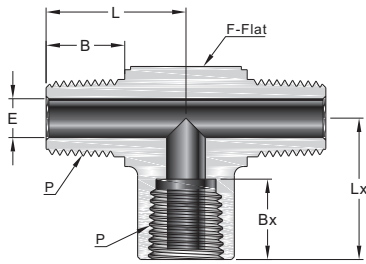
Male NPT Threads

| P-NPT Size | Basic Ordering Number | Dimension, mm | | | | Working Pressure psig (bar) | |
|------------|------------------------|---------------|------|------|------|-----------------------------|------------|
| | | L | F | B | E | 316 SS, Steel | Brass |
| 1/16 | NPT1-TMT-NPT1-NPT1- | 18.3 | 9.5 | 9.7 | 3.0 | 11000 (757) | 5500 (378) |
| 1/8 | NPT2-TMT-NPT2-NPT2- | 22.4 | 11.1 | 9.7 | 4.8 | 10000 (689) | 5000 (344) |
| 1/4 | NPT4-TMT-NPT4-NPT4- | 26.7 | 12.7 | 14.2 | 7.1 | 8000 (551) | 4000 (275) |
| 3/8 | NPT6-TMT-NPT6-NPT6- | 29.7 | 17.5 | 14.2 | 9.6 | 7800 (537) | 3900 (268) |
| 1/2 | NPT8-TMT-NPT8-NPT8- | 36.8 | 20.6 | 19.1 | 11.9 | 7700 (530) | 3800 (261) |
| 3/4 | NPT12-TMT-NPT12-NPT12- | 42.4 | 27.0 | 19.1 | 15.7 | 7300 (502) | 3600 (248) |
| 1 | NPT16-TMT-NPT16-NPT16- | 49.3 | 34.9 | 23.9 | 22.4 | 5300 (365) | 2600 (179) |
| 1 1/4 | NPT20-TMT-NPT20-NPT20- | 56.4 | 42.9 | 23.9 | 27.7 | 6000 (410) | 3000 (200) |
| 1 1/2 | NPT24-TMT-NPT24-NPT24- | 67.1 | 47.6 | 26.2 | 34.0 | 5000 (344) | 2500 (172) |

Male ISO Tapered Threads

| P-BSPT Size | Basic Ordering Number | Dimension, mm | | | | Working Pressure psig (bar) | |
|-------------|------------------------|---------------|------|------|------|-----------------------------|------------|
| | | L | F | B | E | 316 SS, Steel | Brass |
| 1/16 | MBT1-TMT-MBT1-MBT1- | 18.3 | 9.5 | 9.7 | 3.0 | 11000 (757) | 5500 (378) |
| 1/8 | MBT2-TMT-MBT2-MBT2- | 22.4 | 11.1 | 9.7 | 4.8 | 10000 (689) | 5000 (344) |
| 1/4 | MBT4-TMT-MBT4-MBT4- | 26.7 | 12.7 | 14.2 | 7.1 | 8000 (551) | 4000 (275) |
| 3/8 | MBT6-TMT-MBT6-MBT6- | 29.7 | 17.5 | 14.2 | 9.7 | 7800 (537) | 3900 (268) |
| 1/2 | MBT8-TMT-MBT8-MBT8- | 36.8 | 20.6 | 19.1 | 11.9 | 7700 (530) | 3800 (261) |
| 3/4 | MBT12-TMT-MBT12-MBT12- | 42.4 | 27.0 | 19.1 | 15.7 | 7300 (502) | 3600 (248) |
| 1 | MBT16-TMT-MBT16-MBT16- | 49.3 | 34.9 | 23.9 | 22.4 | 5300 (365) | 2600 (179) |
| 1 1/4 | MBT20-TMT-MBT20-MBT20- | 56.4 | 42.9 | 23.9 | 27.7 | 6000 (410) | 3000 (200) |
| 1 1/2 | MBT24-TMT-MBT24-MBT24- | 67.1 | 47.6 | 26.2 | 34.0 | 5000 (344) | 2500 (172) |

Female Branch Tees



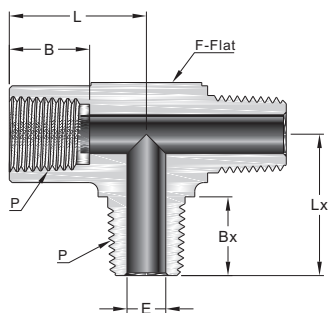
NPT Threads

| P-NPT Size | Basic Ordering Number | Dimension, mm | | | | | | Working Pressure psig (bar) | |
|------------|--------------------------|---------------|------|------|------|------|------|-----------------------------|------------|
| | | L | F | E | B | Lx | Bx | 316 SS, Steel | Brass |
| 1/16 | NPT1-TFBT-NPT1-FNPT1- | 18.3 | 11.1 | 3.0 | 9.7 | 21.8 | 9.9 | 9200 (633) | 4600 (316) |
| 1/8 | NPT2-TFBT-NPT2-FNPT2- | 22.1 | 12.7 | 4.8 | 9.7 | 26.4 | 10.4 | 6200 (427) | 3100 (213) |
| 1/4 | NPT4-TFBT-NPT4-FNPT4- | 29.7 | 17.5 | 7.1 | 14.2 | 29.7 | 15.0 | 7200 (496) | 3600 (248) |
| 3/8 | NPT6-TFBT-NPT6-FNPT6- | 32.0 | 20.6 | 9.7 | 14.2 | 36.1 | 15.0 | 5600 (385) | 2800 (192) |
| 1/2 | NPT8-TFBT-NPT8-FNPT8- | 39.6 | 25.4 | 11.9 | 19.1 | 39.6 | 19.8 | 5600 (385) | 2800 (192) |
| 3/4 | NPT12-TFBT-NPT12-FNPT12- | 42.4 | 31.8 | 15.7 | 19.1 | 48.8 | 20.6 | 5100 (351) | 2500 (172) |
| 1 | NPT16-TFBT-NPT16-FNPT16- | 49.3 | 42.9 | 22.4 | 23.9 | 48.5 | 25.4 | 5300 (365) | 2600 (179) |

ISO Tapered Pipe Threads

| P-BSPT Size | Basic Ordering Number | Dimension, mm | | | | | | Working Pressure psig (bar) | |
|-------------|-------------------------|---------------|------|------|------|------|------|-----------------------------|------------|
| | | L | F | E | B | Lx | Bx | 316 SS, Steel | Brass |
| 1/16 | MBT1-TFBT-MBT1-FBT1- | 18.3 | 11.1 | 3.0 | 9.7 | 21.8 | 9.9 | 9200 (633) | 4600 (316) |
| 1/8 | MBT2-TFBT-MBT2-FBT2- | 22.1 | 12.7 | 4.8 | 9.7 | 26.4 | 10.4 | 6200 (427) | 3100 (213) |
| 1/4 | MBT4-TFBT-MBT4-FBT4- | 29.7 | 17.5 | 7.1 | 14.2 | 29.7 | 15.0 | 7200 (496) | 3600 (248) |
| 3/8 | MBT6-TFBT-MBT6-FBT6- | 32.0 | 20.6 | 9.7 | 14.2 | 36.1 | 15.0 | 5600 (385) | 2800 (192) |
| 1/2 | MBT8-TFBT-MBT8-FBT8- | 39.6 | 25.4 | 11.9 | 19.1 | 39.6 | 19.8 | 5600 (385) | 2800 (192) |
| 3/4 | MBT12-TFBT-MBT12-FBT12- | 42.4 | 31.8 | 15.7 | 19.1 | 48.8 | 20.6 | 5100 (351) | 2500 (172) |
| 1 | MBT16-TFBT-MBT16-FBT16- | 49.3 | 42.9 | 22.4 | 23.9 | 48.5 | 25.4 | 5300 (365) | 2600 (179) |

Female Run Tees



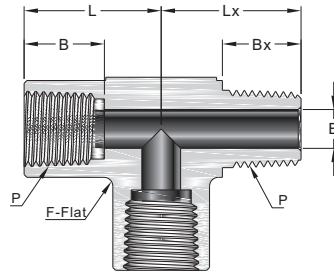
NPT Threads

| P-NPT Size | Basic Ordering Number | Dimension, mm | | | | | | Working Pressure psig (bar) | |
|------------|--------------------------|---------------|------|------|------|------|------|-----------------------------|------------|
| | | L | F | E | B | Lx | Bx | 316 SS, Steel | Brass |
| 1/16 | FNPT1-TFRT-NPT1-NPT1- | 21.8 | 11.1 | 3.0 | 9.9 | 18.3 | 9.7 | 9200 (633) | 4600 (316) |
| 1/8 | FNPT2-TFRT-NPT2-NPT2- | 26.4 | 12.7 | 4.8 | 10.4 | 22.1 | 9.7 | 6200 (427) | 3100 (213) |
| 1/4 | FNPT4-TFRT-NPT4-NPT4- | 29.7 | 17.5 | 7.1 | 15.0 | 29.7 | 14.2 | 7200 (496) | 3600 (248) |
| 3/8 | FNPT6-TFRT-NPT6-NPT6- | 36.1 | 20.6 | 9.7 | 15.0 | 32.0 | 14.2 | 5600 (385) | 2800 (192) |
| 1/2 | FNPT8-TFRT-NPT8-NPT8- | 39.6 | 25.4 | 11.9 | 19.8 | 39.6 | 19.1 | 5600 (385) | 2800 (192) |
| 3/4 | FNPT12-TFRT-NPT12-NPT12- | 48.8 | 31.8 | 15.7 | 20.6 | 42.4 | 19.1 | 5100 (351) | 2500 (172) |
| 1 | FNPT16-TFRT-NPT16-NPT16- | 48.5 | 42.9 | 22.4 | 25.4 | 49.3 | 23.9 | 5300 (365) | 2600 (179) |

ISO Tapered Threads

| P-BSPT Size | Basic Ordering Number | Dimension, mm | | | | | | Working Pressure psig (bar) | |
|-------------|-------------------------|---------------|------|------|------|------|------|-----------------------------|------------|
| | | L | F | E | B | Lx | Bx | 316 SS, Steel | Brass |
| 1/16 | FBT1-TFRT-MBT1-MBT1- | 21.8 | 11.1 | 3.0 | 9.9 | 18.3 | 9.7 | 9200 (633) | 4600 (316) |
| 1/8 | FBT2-TFRT-MBT2-MBT2- | 26.4 | 12.7 | 4.8 | 10.4 | 22.1 | 9.7 | 6200 (427) | 3100 (213) |
| 1/4 | FBT4-TFRT-MBT4-MBT4- | 29.7 | 17.5 | 7.1 | 15.0 | 29.7 | 14.2 | 7200 (496) | 3600 (248) |
| 3/8 | FBT6-TFRT-MBT6-MBT6- | 36.1 | 20.6 | 9.7 | 15.0 | 32.0 | 14.2 | 5600 (385) | 2800 (192) |
| 1/2 | FBT8-TFRT-MBT8-MBT8- | 39.6 | 25.4 | 11.9 | 19.8 | 39.6 | 19.1 | 5600 (385) | 2800 (192) |
| 3/4 | FBT12-TFRT-MBT12-MBT12- | 48.8 | 31.8 | 15.7 | 20.6 | 42.4 | 19.1 | 5100 (351) | 2500 (172) |
| 1 | FBT16-TFRT-MBT16-MBT16- | 48.5 | 42.9 | 22.4 | 25.4 | 49.3 | 23.9 | 5300 (365) | 2600 (179) |

Male Street Tees



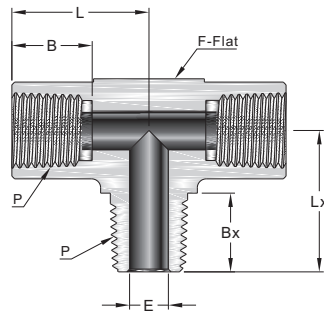
NPT Threads

| P-NPT Size | Basic Ordering Number | Dimension, mm | | | | | | Working Pressure psig (bar) | |
|------------|---------------------------|---------------|------|------|------|------|------|-----------------------------|------------|
| | | L | F | E | B | Lx | Bx | 316 SS, Steel | Brass |
| 1/16 | FNPT1-TMST-NPT1-FNPT1- | 21.8 | 11.1 | 3.0 | 9.9 | 18.3 | 9.7 | 9200 (633) | 4600 (316) |
| 1/8 | FNPT2-TMST-NPT2-FNPT2- | 26.4 | 12.7 | 4.8 | 10.4 | 22.1 | 9.7 | 6200 (427) | 3100 (213) |
| 1/4 | FNPT4-TMST-NPT4-FNPT4- | 29.7 | 17.5 | 7.1 | 15.0 | 29.7 | 14.2 | 7200 (496) | 3600 (248) |
| 3/8 | FNPT6-TMST-NPT6-FNPT6- | 36.1 | 20.6 | 9.6 | 15.0 | 32.0 | 14.2 | 5600 (385) | 2800 (192) |
| 1/2 | FNPT8-TMST-NPT8-FNPT8- | 39.6 | 25.4 | 11.9 | 19.8 | 39.6 | 19.1 | 5600 (385) | 2800 (192) |
| 3/4 | FNPT12-TMST-NPT12-FNPT12- | 48.8 | 31.8 | 15.7 | 20.6 | 42.4 | 19.1 | 5100 (351) | 2500 (172) |
| 1 | FNPT16-TMST-NPT16-FNPT16- | 48.5 | 42.9 | 22.4 | 25.4 | 49.3 | 23.9 | 5300 (365) | 2600 (179) |

ISO Tapered Pipe Threads

| P-BSPT Size | Basic Ordering Number | Dimension, mm | | | | | | Working Pressure psig (bar) | |
|-------------|-------------------------|---------------|------|------|------|------|------|-----------------------------|------------|
| | | L | F | E | B | Lx | Bx | 316 SS, Steel | Brass |
| 1/16 | FBT1-TMST-MBT1-FBT1- | 21.8 | 11.1 | 3.0 | 9.9 | 18.3 | 9.7 | 9200 (633) | 4600 (316) |
| 1/8 | FBT2-TMST-MBT2-FBT2- | 26.4 | 12.7 | 4.8 | 10.4 | 22.1 | 9.7 | 6200 (427) | 3100 (213) |
| 1/4 | FBT4-TMST-MBT4-FBT4- | 29.7 | 17.5 | 7.1 | 15.0 | 29.7 | 14.2 | 7200 (496) | 3600 (248) |
| 3/8 | FBT6-TMST-MBT6-FBT6- | 36.1 | 20.6 | 9.7 | 15.0 | 32.0 | 14.2 | 5600 (385) | 2800 (192) |
| 1/2 | FBT8-TMST-MBT8-FBT8- | 39.6 | 25.4 | 11.9 | 19.8 | 39.6 | 19.1 | 5600 (385) | 2800 (192) |
| 3/4 | FBT12-TMST-MBT12-FBT12- | 48.8 | 31.8 | 15.7 | 20.6 | 42.4 | 19.1 | 5100 (351) | 2500 (172) |
| 1 | FBT16-TMST-MBT16-FBT16- | 48.5 | 42.9 | 22.4 | 25.4 | 49.3 | 23.9 | 5300 (365) | 2600 (179) |

Male Branch Tees



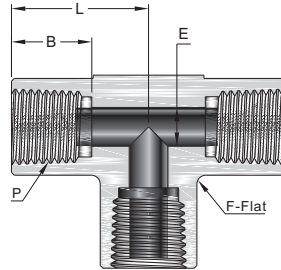
NPT Threads

| P-NPT Size | Basic Ordering Number | Dimension, mm | | | | | | Working Pressure psig (bar) | |
|------------|---------------------------|---------------|------|------|------|------|------|-----------------------------|------------|
| | | L | F | E | B | Lx | Bx | 316 SS, Steel | Brass |
| 1/16 | FNPT1-TMBT-FNPT1-NPT1- | 21.8 | 11.1 | 3.0 | 9.9 | 18.3 | 9.7 | 9200 (633) | 4600 (316) |
| 1/8 | FNPT2-TMBT-FNPT2-NPT2- | 26.4 | 12.7 | 4.8 | 10.4 | 22.1 | 9.7 | 6200 (427) | 3100 (213) |
| 1/4 | FNPT4-TMBT-FNPT4-NPT4- | 29.7 | 17.5 | 7.1 | 15.0 | 29.7 | 14.2 | 7200 (496) | 3600 (248) |
| 3/8 | FNPT6-TMBT-FNPT6-NPT6- | 36.1 | 20.6 | 9.6 | 15.0 | 32.0 | 14.2 | 5600 (385) | 2800 (192) |
| 1/2 | FNPT8-TMBT-FNPT8-NPT8- | 39.6 | 25.4 | 11.9 | 19.8 | 39.6 | 19.1 | 5600 (385) | 2800 (192) |
| 3/4 | FNPT12-TMBT-FNPT12-NPT12- | 48.8 | 31.8 | 15.7 | 20.6 | 42.4 | 19.1 | 5100 (351) | 2500 (172) |
| 1 | FNPT16-TMBT-FNPT16-NPT16- | 48.5 | 42.9 | 22.4 | 25.4 | 49.3 | 23.9 | 5300 (365) | 2600 (179) |

ISO Tapered Pipe Threads

| P-BSPT Size | Basic Ordering Number | Dimension, mm | | | | | | Working Pressure psig (bar) | |
|-------------|-------------------------|---------------|------|------|------|------|------|-----------------------------|------------|
| | | L | F | E | B | Lx | Bx | 316 SS, Steel | Brass |
| 1/16 | FBT1-TMBT-FBT1-MBT1- | 21.8 | 11.1 | 3.0 | 9.9 | 18.3 | 9.7 | 9200 (633) | 4600 (316) |
| 1/8 | FBT2-TMBT-FBT2-MBT2- | 26.4 | 12.7 | 4.8 | 10.4 | 22.1 | 9.7 | 6200 (427) | 3100 (213) |
| 1/4 | FBT4-TMBT-FBT4-MBT4- | 29.7 | 17.5 | 7.1 | 15.0 | 29.7 | 14.2 | 7200 (496) | 3600 (248) |
| 3/8 | FBT6-TMBT-FBT6-MBT6- | 36.1 | 20.6 | 9.7 | 15.0 | 32.0 | 14.2 | 5600 (385) | 2800 (192) |
| 1/2 | FBT8-TMBT-FBT8-MBT8- | 39.6 | 25.4 | 11.9 | 19.8 | 39.6 | 19.1 | 5600 (385) | 2800 (192) |
| 3/4 | FBT12-TMBT-FBT12-MBT12- | 48.8 | 31.8 | 15.7 | 20.6 | 42.4 | 19.1 | 5100 (351) | 2500 (172) |
| 1 | FBT16-TMBT-FBT16-MBT16- | 48.5 | 42.9 | 22.4 | 25.4 | 49.3 | 23.9 | 5300 (365) | 2600 (179) |

Female Tees



Female NPT Threads

| P-NPT Size | Basic Ordering Number | Dimension, mm | | | | Working Pressure psig (bar) | |
|------------|---------------------------|---------------|------|------|------|-----------------------------|------------|
| | | L | F | E | B | 316 SS, Steel | Brass |
| 1/16 | FNPT1-TFT-FNPT1-FNPT1- | 21.8 | 11.1 | 4.8 | 9.9 | 6700 (460) | 3300 (227) |
| 1/8 | FNPT2-TFT-FNPT2-FNPT2- | 26.4 | 12.7 | 8.6 | 10.4 | 6200 (427) | 3100 (213) |
| 1/4 | FNPT4-TFT-FNPT4-FNPT4- | 29.7 | 17.5 | 11.4 | 15.0 | 7200 (496) | 3600 (248) |
| 3/8 | FNPT6-TFT-FNPT6-FNPT6- | 36.1 | 20.6 | 15.0 | 15.0 | 5600 (385) | 2800 (192) |
| 1/2 | FNPT8-TFT-FNPT8-FNPT8- | 39.6 | 25.4 | 18.5 | 19.8 | 5600 (385) | 2800 (192) |
| 3/4 | FNPT12-TFT-FNPT12-FNPT12- | 48.8 | 31.8 | 23.9 | 20.6 | 5100 (351) | 2500 (172) |
| 1 | FNPT16-TFT-FNPT16-FNPT16- | 48.5 | 42.9 | 29.7 | 25.4 | 6400 (440) | 3200 (220) |
| 1 1/4 | FNPT20-TFT-FNPT20-FNPT20- | 59.8 | 50.8 | 37.2 | 25.4 | 3100 (213) | 1600 (110) |
| 1 1/2 | FNPT24-TFT-FNPT24-FNPT24- | 65.0 | 63.5 | 43.3 | 27.7 | 5100 (351) | 2500 (172) |

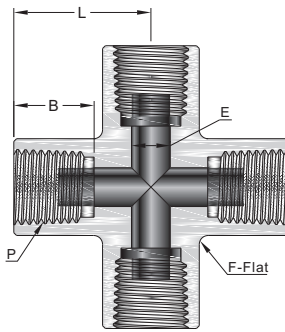
Heavy-Wall Female NPT Threads

| | | | | | | | |
|-----|-------------------------|------|------|------|------|-------------|--|
| 1/4 | FNPT4-TFT1-FNPT4-FNPT4- | 39.6 | 25.4 | 11.4 | 15.0 | 10000 (689) | |
| 1/2 | FNPT8-TFT1-FNPT8-FNPT8- | 50.0 | 27.0 | 18.5 | 19.8 | 10000 (689) | |

Female ISO Tapered Pipe Threads

| P-BSPT Size | Basic Ordering Number | Dimension, mm | | | | Working Pressure psig (bar) | |
|-------------|------------------------|---------------|------|------|------|-----------------------------|------------|
| | | L | F | E | B | 316 SS, Steel | Brass |
| 1/16 | FBT1-TFT-FBT1-FBT1- | 21.8 | 11.1 | 4.8 | 9.9 | 6700 (460) | 3300 (227) |
| 1/8 | FBT2-TFT-FBT2-FBT2- | 26.4 | 12.7 | 8.6 | 10.4 | 6200 (427) | 3100 (213) |
| 1/4 | FBT4-TFT-FBT4-FBT4- | 29.7 | 17.5 | 11.2 | 15.0 | 7200 (496) | 3600 (248) |
| 3/8 | FBT6-TFT-FBT6-FBT6- | 36.1 | 20.6 | 14.7 | 15.0 | 5600 (385) | 2800 (192) |
| 1/2 | FBT8-TFT-FBT8-FBT8- | 39.6 | 25.4 | 18.3 | 19.8 | 5600 (385) | 2800 (192) |
| 3/4 | FBT12-TFT-FBT12-FBT12- | 48.8 | 31.8 | 23.9 | 20.6 | 5100 (351) | 2500 (172) |
| 1 | FBT16-TFT-FBT16-FBT16- | 48.5 | 42.9 | 29.7 | 25.4 | 6400 (440) | 3200 (220) |
| 1 1/4 | FBT20-TFT-FBT20-FBT20- | 59.8 | 50.8 | 37.2 | 25.4 | 3100 (213) | 1600 (110) |
| 1 1/2 | FBT24-TFT-FBT24-FBT24- | 65.0 | 63.5 | 43.3 | 27.7 | 5100 (351) | 2500 (172) |

Female Crosses



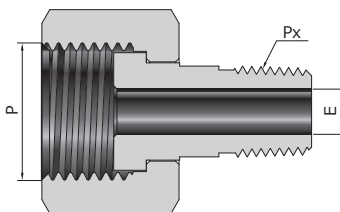
Female NPT Threads

| P-NPT Size | Basic Ordering Number | Dimension, mm | | | | Working Pressure psig (bar) | |
|------------|----------------------------------|---------------|------|------|------|-----------------------------|------------|
| | | L | F | E | B | 316 SS, Steel | Brass |
| 1/16 | FNPT1-TFC-FNPT1-FNPT1-FNPT1- | 21.8 | 11.1 | 4.8 | 9.9 | 6700 (460) | 3300 (227) |
| 1/8 | FNPT2-TFC-FNPT2-FNPT2-FNPT2- | 26.4 | 12.7 | 8.6 | 10.4 | 6200 (427) | 3100 (213) |
| 1/4 | FNPT4-TFC-FNPT4-FNPT4-FNPT4- | 29.7 | 17.5 | 11.4 | 15.0 | 7200 (496) | 3600 (248) |
| 3/8 | FNPT6-TFC-FNPT6-FNPT6-FNPT6- | 36.1 | 20.6 | 15.0 | 15.0 | 5600 (385) | 2800 (192) |
| 1/2 | FNPT8-TFC-FNPT8-FNPT8-FNPT8- | 39.6 | 25.4 | 18.5 | 19.8 | 5600 (385) | 2800 (192) |
| 3/4 | FNPT12-TFC-FNPT12-FNPT12-FNPT12- | 48.8 | 31.8 | 23.9 | 20.6 | 5100 (351) | 2500 (172) |
| 1 | FNPT16-TFC-FNPT16-FNPT16-FNPT16- | 48.5 | 42.9 | 29.7 | 25.4 | 6400 (440) | 3200 (220) |

Female ISO Tapered Threads

| P-BSPT Size | Basic Ordering Number | Dimension, mm | | | | Working Pressure psig (bar) | |
|-------------|------------------------------|---------------|------|------|------|-----------------------------|------------|
| | | L | F | E | B | 316 SS, Steel | Brass |
| 1/16 | FBT1-TFC-FBT1-FBT1-FBT1- | 21.8 | 11.1 | 4.8 | 9.9 | 6700 (460) | 3300 (227) |
| 1/8 | FBT2-TFC-FBT2-FBT2-FBT2- | 26.4 | 12.7 | 8.6 | 10.4 | 6200 (427) | 3100 (213) |
| 1/4 | FBT4-TFC-FBT4-FBT4-FBT4- | 29.7 | 17.5 | 11.4 | 15.0 | 7200 (496) | 3600 (248) |
| 3/8 | FBT6-TFC-FBT6-FBT6-FBT6- | 36.1 | 20.6 | 15.0 | 15.0 | 5600 (385) | 2800 (192) |
| 1/2 | FBT8-TFC-FBT8-FBT8-FBT8- | 39.6 | 25.4 | 18.5 | 19.8 | 5600 (385) | 2800 (192) |
| 3/4 | FBT12-TFC-FBT12-FBT12-FBT12- | 48.8 | 31.8 | 23.9 | 20.6 | 5100 (351) | 2500 (172) |
| 1 | FBT16-TFC-FBT16-FBT16-FBT16- | 48.5 | 42.9 | 29.7 | 25.4 | 6400 (440) | 3200 (220) |

Pipe to Pipe Unions



Metric Thread

NPT Threads

| P-Metric Thread Size | Px-NPT Size | Basic Ordering Number | Dimension, mm | Working Pressure psig (bar) 316 SS, Steel |
|----------------------|-------------|-----------------------|---------------|--|
| | | | E | |
| M20 x 1.5 | 1/8 | FMS20-TPU-NPT2- | 4.8 | 4500 (310) |
| M20 x 1.5 | 1/4 | FMS20-TPU-NPT4- | 7.1 | 4500 (310) |

Metric Thread

ISO Tapered Pipe Threads

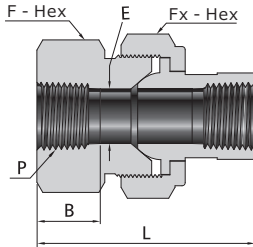
| P-Metric Thread Size | Px-BSPT Size | Basic Ordering Number | Dimension, mm | Working Pressure psig (bar) 316 SS, Steel |
|----------------------|--------------|-----------------------|---------------|--|
| | | | E | |
| M20 x 1.5 | 1/8 | FMS20-TPU-MBT2- | 4.8 | 4500 (310) |
| M20 x 1.5 | 1/4 | FMS20-TPU-MBT4- | 7.1 | 4500 (310) |

ISO Parallel Thread

NPT Threads

| P-BG Size | Px-NPT Size | Basic Ordering Number | Dimension, mm | Working Pressure psig (bar) 316 SS, Steel |
|-----------|-------------|-----------------------|---------------|--|
| | | | E | |
| 1/2 | 1/8 | FBP8-TPU-NPT2 | 4.8 | 4900 (337) |
| 1/2 | 1/4 | FBP8-TPU-NPT4 | 7.1 | 4900 (337) |

Union Ball Joints



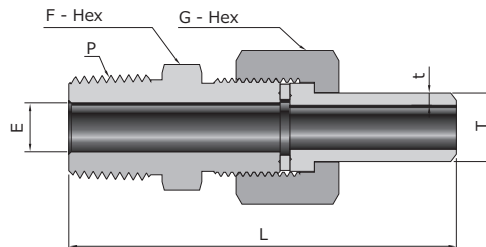
Female NPT Threads

| P-NPT Size | Basic Ordering Number | Dimension, mm | | | | | Working Pressure psig (bar) 316 SS, Steel |
|------------|-----------------------|---------------|------|------|------|------|---|
| | | L | F | Fx | B | E | |
| 1/8 | FNPT2-UBJ-FNPT2- | 46.0 | 23.8 | 28.6 | 10.4 | 6.8 | 8400 (578) |
| 1/4 | FNPT4-UBJ-FNPT4- | 59.4 | 30.2 | 34.9 | 15.0 | 9.1 | 6600 (454) |
| 3/8 | FNPT6-UBJ-FNPT6- | 63.5 | 33.3 | 38.1 | 15.0 | 13.2 | 5300 (365) |
| 1/2 | FNPT8-UBJ-FNPT8- | 68.3 | 41.3 | 44.5 | 19.8 | 15.7 | 6000 (410) |
| 3/4 | FNPT12-UBJ-FNPT12- | 79.2 | 47.6 | 54.0 | 20.6 | 22.4 | 4600 (316) |
| 1 | FNPT16-UBJ-FNPT16- | 90.4 | 60.3 | 63.5 | 25.4 | 26.2 | 6800 (468) |

Female ISO Tapered Threads

| P-BSPT Size | Basic Ordering Number | Dimension, mm | | | | | Working Pressure psig (bar) 316 SS, Steel |
|-------------|-----------------------|---------------|------|------|------|------|---|
| | | L | F | Fx | B | E | |
| 1/8 | FBT2-UBJ-FBT2- | 46.0 | 23.8 | 28.6 | 10.4 | 6.8 | 8400 (578) |
| 1/4 | FBT4-UBJ-FBT4- | 59.4 | 30.2 | 34.9 | 15.0 | 9.1 | 6600 (454) |
| 3/8 | FBT6-UBJ-FBT6- | 63.5 | 33.3 | 38.1 | 15.0 | 13.2 | 5300 (365) |
| 1/2 | FBT8-UBJ-FBT8- | 68.3 | 41.3 | 44.5 | 19.8 | 15.7 | 6000 (410) |
| 3/4 | FBT12-UBJ-FBT12- | 79.2 | 47.6 | 54.0 | 20.6 | 22.4 | 4600 (316) |
| 1 | FBT16-UBJ-FBT16- | 90.4 | 60.3 | 63.5 | 25.4 | 26.2 | 6800 (468) |

Male Pipe to Tube Butt Weld (UGJ)

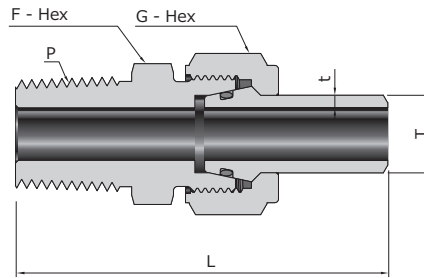


NPT Thread

Metric Tube

| P-NPT Size | T-Tube O.D. (mm) | t-Wall Thickness (mm) | Basic Ordering Number | Dimension, mm | | | | Working Pressure psig (bar) |
|------------|------------------|-----------------------|-----------------------|---------------|-------------|-------------|-------------|--------------------------------|
| | | | | L | F | G | E | |
| 1/8 | 14 | 2.5 | NPT2-UGJ-MBW14- | 69.0 (2.72) | 19.0 (0.75) | 22.0 (0.87) | 4.8 (0.19) | 6280 (433) |
| 1/4 | 6 | 1.8 | NPT4-UGJ-MBW6- | 60.0 (2.36) | 14.0 (0.55) | 14.0 (0.55) | 3.0 (0.12) | 8240 (566) |
| 1/4 | 8 | 1.8 | NPT4-UGJ-MBW8- | 73.2 (2.88) | 14.0 (0.55) | 16.0 (0.63) | 4.0 (0.16) | 8240 (566) |
| 1/4 | 10 | 2.2 | NPT4-UGJ-MBW10- | 73.2 (2.88) | 15.0 (0.59) | 18.0 (0.71) | 6.0 (0.24) | 8160 (563) |
| 1/4 | 12 | 2.2 | NPT4-UGJ-MBW12- | 73.2 (2.88) | 18.0 (0.71) | 22.0 (0.87) | 7.0 (0.28) | 6470 (446) |
| 1/4 | 14 | 2.5 | NPT4-UGJ-MBW14- | 73.2 (2.88) | 19.0 (0.75) | 22.0 (0.87) | 7.1 (0.28) | 6280 (433) |
| 1/4 | 16 | 2.8 | NPT4-UGJ-MBW16- | 73.2 (2.88) | 22.0 (0.87) | 25.0 (0.98) | 7.1 (0.28) | 6140 (423) |
| 1/4 | 18 | 2.8 | NPT4-UGJ-MBW18- | 74.2 (2.92) | 24.0 (0.94) | 27.0 (1.06) | 7.1 (0.28) | 5670 (392) |
| 3/8 | 14 | 2.5 | NPT6-UGJ-MBW14- | 73.2 (2.88) | 19.0 (0.75) | 22.0 (0.87) | 9.7 (0.38) | 6280 (433) |
| 1/2 | 12 | 2.2 | NPT8-UGJ-MBW12- | 78.0 (3.07) | 18.0 (0.71) | 22.0 (0.87) | 7.0 (0.28) | 6470 (446) |
| 1/2 | 14 | 2.5 | NPT8-UGJ-MBW14- | 78.0 (3.07) | 19.0 (0.75) | 22.0 (0.87) | 9.0 (0.35) | 6280 (433) |
| 1/2 | 16 | 2.8 | NPT8-UGJ-MBW16- | 78.0 (3.07) | 22.0 (0.87) | 25.0 (0.98) | 10.0 (0.39) | 6140 (423) |
| 1/2 | 22 | 3.0 | NPT8-UGJ-MBW22- | 82.0 (3.23) | 30.0 (1.18) | 32.0 (1.26) | 11.9 (0.47) | 4620 (319) |
| 1/2 | 25 | 2.8 | NPT8-UGJ-MBW25- | 86.0 (3.39) | 32.0 (1.26) | 35.0 (1.38) | 11.9 (0.47) | 4730 (326) |
| 1 | 25 | 3.5 | NPT16-UGJ-MBW25- | 103.0 (4.06) | 35.0 (1.38) | 35.0 (1.38) | 17.0 (0.67) | 4730 (326) |

Male Pipe to Tube Butt Weld (UOJ)



NPT Thread

Metric Tube

| P-NPT Size | T-Tube O.D. (mm) | t-Wall Thickness (mm) | Basic Ordering Number | Dimension, in. (mm) | | | | Working Pressure psig (bar) |
|------------|------------------|-----------------------|-----------------------|---------------------|-------------|-------------|-------------|-----------------------------|
| | | | | L | F | G | E | |
| 1/8 | 14 | 2.5 | NPT2-UOJ-MBW14- | 69.0 (2.72) | 19.0 (0.75) | 22.0 (0.87) | 4.8 (0.19) | 6280 (433) |
| 1/4 | 6 | 1.8 | NPT4-UOJ-MBW6- | 60.0 (2.36) | 14.0 (0.55) | 14.0 (0.55) | 3.0 (0.12) | 8240 (566) |
| 1/4 | 8 | 1.8 | NPT4-UOJ-MBW8- | 73.2 (2.88) | 14.0 (0.55) | 16.0 (0.63) | 4.0 (0.16) | 8240 (566) |
| 1/4 | 10 | 2.2 | NPT4-UOJ-MBW10- | 73.2 (2.88) | 15.0 (0.59) | 18.0 (0.71) | 6.0 (0.24) | 8160 (563) |
| 1/4 | 12 | 2.2 | NPT4-UOJ-MBW12- | 73.2 (2.88) | 18.0 (0.71) | 22.0 (0.87) | 7.0 (0.28) | 6470 (446) |
| 1/4 | 14 | 2.5 | NPT4-UOJ-MBW14- | 73.2 (2.88) | 19.0 (0.75) | 22.0 (0.87) | 7.1 (0.28) | 6280 (433) |
| 1/4 | 16 | 2.8 | NPT4-UOJ-MBW16- | 73.2 (2.88) | 22.0 (0.87) | 25.0 (0.98) | 7.1 (0.28) | 6140 (423) |
| 1/4 | 18 | 2.8 | NPT4-UOJ-MBW18- | 74.2 (2.92) | 24.0 (0.94) | 27.0 (1.06) | 7.1 (0.28) | 5670 (392) |
| 3/8 | 14 | 2.5 | NPT6-UOJ-MBW14- | 73.2 (2.88) | 19.0 (0.75) | 22.0 (0.87) | 9.7 (0.38) | 6280 (433) |
| 1/2 | 12 | 2.2 | NPT8-UOJ-MBW12- | 78.0 (3.07) | 18.0 (0.71) | 22.0 (0.87) | 7.0 (0.28) | 6470 (446) |
| 1/2 | 14 | 2.5 | NPT8-UOJ-MBW14- | 78.0 (3.07) | 19.0 (0.75) | 22.0 (0.87) | 9.0 (0.35) | 6280 (433) |
| 1/2 | 16 | 2.8 | NPT8-UOJ-MBW16- | 78.0 (3.07) | 22.0 (0.87) | 25.0 (0.98) | 10.0 (0.39) | 6140 (423) |
| 1/2 | 22 | 3.0 | NPT8-UOJ-MBW22- | 82.0 (3.23) | 30.0 (1.18) | 32.0 (1.26) | 11.9 (0.47) | 4620 (319) |
| 1/2 | 25 | 2.8 | NPT8-UOJ-MBW25- | 86.0 (3.39) | 32.0 (1.26) | 35.0 (1.38) | 11.9 (0.47) | 4730 (326) |
| 1 | 25 | 3.5 | NPT16-UOJ-MBW25- | 103.0 (4.06) | 35.0 (1.38) | 35.0 (1.38) | 17.0 (0.67) | 4730 (326) |

How to Order

FNPT8

TSE

NPT4

316

| Port 1 Type | Port 1 Size | Fitting Configuration | Port 2 Port 3 and Port 4 | Material |
|-----------------------------------|---|--------------------------------|---|------------------------|
| FNPT Female NPT | 2 1/8 in. | TP Pipe Plug | Same as the Port 1 or as follow : | 316 316 S.S. |
| NPT Male NPT | 4 1/4 in. | THP Hollow Hex Plug | FMS Female ISO | 316L 316L S.S |
| NPTO O-ring with Male NPT | 5 5/16-24 | TCN Close Nipple | MS Male ISO (for BG) | 304 304 S.S. |
| FBT Female BSPT | 6 3/8 in. or 3/8-24 | TPN Special Pipe Nipple | BPMS Male ISO (for BP) | 304L 304L S.S. |
| MBT Male BSPT | 7 7/16-20 | THN Hex Nipple | BSMS Male ISO (for BS) | A20 Alloy 20 |
| MBTO O-ring with Male BSPT | 8 1/2 in. or M8 x 1 | TLN Hex Long Nipple | MSO O-ring with Male ISO | A400 Alloy 400 |
| FBP Female BSPP | 9 9/16-18 | TRB Reducing Bushing | FST Female SAE | A600 Alloy 600 |
| PMBP Male BSPP (for BP) | 10 M10 x 1 | PC Pipe Cap | MST Male SAE (for BG) | A825 Alloy 825 |
| MBS Male BSPP (for BS) | 12 3/4 in. or M12 x 1.5 or 3/4-16 | THC Hex Coupling | BPST Male SAE (for BP) | A276 Alloy C276 |
| MBP Male BSPP (for BG) | 14 M14 x 1.5 or 7/8-14 | UBJ Union Ball Joints | BSST Male SAE (for BS) | DU7 Duplex 2507 |
| | 16 1 in. or M16 x 1.5 | UGJ Union Gasket Joints | OST O-ring with Male SAE | BR Brass |
| | 17 1 ¹ / ₁₆ -12 | UOJ Union O-Ring Joints | PPT Positionable BSP Parallel Thread | CS Carbon steel |
| | 18 M18 x 1.5 | TA Adapter | PMS Positionable ISO Parallel Thread | TI Titanium |
| | 19 1 ³ / ₁₆ -12 | TME Male Elbow | PST Positionable SAE Parallel Thread | |
| | 20 1 ¹ / ₄ in. or M20 x 1.5 | TSE Street Elbow | | |
| | 21 1 ⁵ / ₁₆ -12 | T45E 45°Street Elbow | | |
| | 22 M22 x 1.5 | TFE Female Elbow | | |
| | 24 1 ¹ / ₂ in. or M24 x 1.5 | T45FE 45°Female Elbow | | |
| | 26 1 ⁵ / ₈ -12 | TMT Male Tee | | |
| | 27 M27 x 2 | TFBT Female Branch Tee | | |
| | 30 1 ⁷ / ₈ -12 or M30 x 2 | TFRT Female Run Tee | | |
| | 32 2 in. | TMST Male Street Tee | | |
| | | TMBT Male Branch Tee | | |
| | | TFT Female Tee | | |
| | | TFC Female Cross | | |

