


# TWIN FERRULE UP TO 10,000 PSI TUBE FITTINGS

## FEATURES

- Sizes range from 1/16" to 2" and 2mm to 50mm
- Diverse materials and configurations are available
- Precision machined components ensure perfect deformation of the ferrules and tubing
- Hardened threads and smoothed surface finishes extend fitting life and prevent sticking of the matching threads
- Female nut threads are silver-plated to minimize the friction with body threads
- Radius junction design within elbows provides smooth flow path
- Every fitting is stamped with size, material and heat code
- Fittings are easy to disconnect and retighten




## WORKING PRESSURES OF NPT THREAD ENDS

|  | 316 Stainless Steel and Carbon Steel |     |      |     | Brass |     |      |     |
|---|--------------------------------------|-----|------|-----|-------|-----|------|-----|
|   | psig                                 | bar | psig | bar | psig  | bar | psig | bar |
| 1/16  | 11000                                | 757 | 6700 | 460 | 5500  | 378 | 3300 | 227 |
| 1/8   | 10000                                | 690 | 6500 | 447 | 5000  | 344 | 3200 | 220 |
| 1/4   | 8000                                 | 551 | 6600 | 454 | 4000  | 275 | 3300 | 227 |
| 3/8   | 7800                                 | 537 | 5300 | 365 | 3900  | 268 | 2600 | 179 |
| 1/2   | 7700                                 | 530 | 4900 | 337 | 3800  | 261 | 2400 | 165 |
| 3/4   | 7300                                 | 502 | 4600 | 316 | 3600  | 248 | 2300 | 158 |
| 1   | 5300                                 | 365 | 4400 | 303 | 2600  | 179 | 2200 | 151 |
| 1 1/4   | 6000                                 | 410 | 5000 | 344 | 3000  | 200 | 2500 | 172 |
| 1 1/2   | 5000                                 | 344 | 4600 | 317 | 2500  | 172 | 2300 | 158 |
| 2   | 3900                                 | 268 | 3900 | 268 | 1900  | 130 | 1900 | 130 |

Working pressure is based on ANSI / ASME B31.3 at ambient temperature.

## WORKING PRESSURES OF ADJUSTABLE ISO PARALLEL THREAD ENDS (PP)

|  | 316 Stainless Steel and Carbon Steel |     |
|---|--------------------------------------|-----|
|   | psig                                 | bar |
| 1/8   | 4568                                 | 315 |
| 1/4   |                                      |     |
| 3/8   |                                      |     |
| 1/2   | 2320                                 | 160 |
| 3/4   |                                      |     |
| 1   |                                      |     |


# TWIN FERRULE

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### WORKING PRESSURES OF SAE / MS THREAD ENDS

|  | 316 Stainless Steel and Carbon Steel |     |            |     |
|---|--------------------------------------|-----|------------|-----|
|   | Non-adjustable                       |     | Adjustable |     |
|   | psig                                 | bar | psig       | bar |
| 5/16-24   | 4568                                 | 315 | 4568       | 315 |
| 3/8-24  |                                      |     |            |     |
| 7/16-20   |                                      |     |            |     |
| 1/2-20  |                                      |     | 3626       | 250 |
| 9/16-18   |                                      |     |            |     |
| 3/4-16  | 3626                                 | 250 | 2900       | 200 |
| 7/8-14  |                                      |     |            |     |
| 1 1/16-12   |                                      |     |            |     |
| 1 3/16-12   | 2900                                 | 200 | 2320       | 160 |
| 1 5/16-12   |                                      |     |            |     |
| 1 5/8-12  | 2320                                 | 160 | 1813       | 125 |
| 1 7/8-12  |                                      |     |            |     |
| 2 1/2-12  | 1813                                 | 125 | 1450       | 100 |


















### WORKING PRESSURES FOR MST STUD ENDS

|  | 316 Stainless Steel and Carbon Steel |     |            |     |
|---|--------------------------------------|-----|------------|-----|
|   | Non-adjustable                       |     | Adjustable |     |
|   | psig                                 | bar | psig       | bar |
| M8 x 1  | 5800                                 | 400 | 4568       | 315 |
| M10 x 1   |                                      |     |            |     |
| M12 x 1.5   |                                      |     |            |     |
| M14 x 1.5   |                                      |     |            |     |
| M16 x 1.5   |                                      |     |            |     |
| M18 x 1.5   | 4568                                 | 315 | 3626       | 250 |
| M20 x 1.5   |                                      |     |            |     |
| M22 x 1.5   |                                      |     |            |     |
| M27 x 2   |                                      |     |            |     |
| M30 x 2   | 2900                                 | 200 | 2320       | 160 |
| M33 x 2   |                                      |     |            |     |
| M42 x 2   |                                      |     |            |     |
| M48 x 2   |                                      |     |            |     |
| M60 x 2   |                                      |     |            |     |

### WORKING PRESSURES









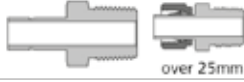








- The maximum working pressures of the tube ends at ambient temperature are determined by the maximum working pressure of the FITOK Tubing that is used. Refer to FITOK Tube and Pipes.
- The maximum working pressure of the whole fitting is determined by the end connection with the lowest pressure rating.

# TWIN FERRULE UP TO 10,000 PSI TUBE FITTINGS

| CONFIGURATION   | FITTING TYPE                 | EXAMPLE         |
|---|------------------------------|-----------------|
|    | Male Connector               | SS-CM-ML12-NS8  |
|    | Bulkhead Male Connector      | S4-BCM-FL8-AN8  |
|    | Thermocouple Connector       | S1-TCM-FL8-NS8  |
|    | Female Connector             | B-CF-FL8-RG6    |
|    | Bulkhead Female Connector    | CS-BCF-ML12-NS8 |
|    | Union                        | M-U-FL12        |
|   | Bulkhead Union               | HC-BU-ML10      |
|  | Male Elbow                   | T-LM-FL8-NS8    |
|  | Positionable Male Elbow      | TI-LP-ML14-ST14 |
|  | Female Elbow                 | PA-LF-FL8-NS8   |
|  | Union Elbow                  | INC-LU-FL8      |
|  | Male Run Tee                 | A20-TMT-FL8-NS8 |
|  | Male Branch Tee              | D5-TTM-ML16-NS8 |
|  | Positionable Male Run Tee    | AL-TPT-FL8-ST14 |
|  | Positionable Male Branch Tee | A65-TTP-FL8-PP8 |
|  | Female Run Tee               | SS-TFT-FL8-NS8  |
|  | Female Branch Tee            | SS-TTF-ML12-NS8 |

# TWIN FERRULE

## UP TO 10,000 PSI TUBE FITTINGS

| CONFIGURATION  | FITTING TYPE                   | EXAMPLE          |
|--|--------------------------------|------------------|
|                 | Union Tee                      | SS-TTT-FL6       |
|                 | Union Cross                    | SS-C-FL8         |
|                 | Cap                            | SS-TC-FL8        |
|                 | Plug                           | SS-TP-ML12       |
|                 | Nut and Ferrules               | SS-NFR-FL8       |
|                 | Reducer                        | SS-R-FL8-MT12    |
|                | Insert for Soft Plastic Tubing | SS-IN-8-6        |
| <br>over 25mm | Port Connector                 | SS-P-FL4         |
| <br>over 25mm | Male Adaptor                   | SS-AM-FT8-RT8    |
| <br>over 25mm | Female Adaptor                 | SS-AF-MT12-NS8   |
|               | Flange Adaptor                 | SS-FA-FL6-F8-300 |
|               | Weld Connector                 | SS-CW-FL8-TS8    |
|               | Weld Elbow                     | SS-LW-FL8-PB8    |
|               | Lapped Flange Connector        | SS-LFC-FL6A      |
|               | Calibrating Fitting            | SS-FC-FL4-1428   |
|               | Dielectric Fitting             | SS-DF-FL6        |
|               | Nut-Ferrule Set                | SS-NFS-FL6       |

# TWIN FERRULE UP TO 10,000 PSI TUBE FITTINGS

| CONFIGURATION   | FITTING TYPE              | EXAMPLE         |
|---|---------------------------|-----------------|
|  | Ferrule Set               | SS-FRS-FL6      |
|  | 45° Male Elbow            | SS-VM-FL5-NS2   |
|  | 45° Adjustable Male Elbow | SS-VP-FL16-ST21 |
|  | Vent Protector            | SS-VPF-NS12     |
|  | Fusible Fittings          | SS-GFTA4-160    |

# TWIN FERRULE

## PART NUMBER DESCRIPTION

SS - CM - ML 12 - NS 8 - [ ] - [ ] - [ ]

| MATERIAL |              | FITTING TYPE |                              | P1 TYPE |                    | P1 SIZE |                | P2 TYPE  |                                      | P2 SIZE  |                     | P3 & P4                       | CLEANING & PACKAGING |       |
|----------|--------------|--------------|------------------------------|---------|--------------------|---------|----------------|--|--------------------------------------|--|---------------------|-------------------------------|----------------------|-------|
| SS       | 316 SS       | CM           | Male Connector               | ML      | Metric Ferrule     | 1       | 1/16"          | Except the same as the P1, the other type follows: |                                      | Except the same as the P1, the other type follows: |                     | Specify in the same way as P2 |                      | FC-01 |
| S4       | 304 SS       | BCM          | Bulkhead Male Connector      | FL      | Fractional Ferrule | 2       | 1/8" or 2mm    | NS   | NPT Thread                           | 5  | M5 x 0.8 or 5/16-24 | F2                            | FC-02                |       |
| S1       | 321 SS       | TCM          | Thermocouple Connector       | MT      | Metric Tube        | 3       | 3/16" or 3mm   | ONS  | O-ring with NPT Thread               | 6  | M6 x 1 or 3/8-24    |                               |                      |       |
| 904L     | 904L SS      | CF           | Female Connector             | FT      | Fractional Tube    | 4       | 1/4" or 4mm    | RT   | ISO Tapered thread                   | 7  | 7/16-20             |                               |                      |       |
| TI       | Titanium     | BCF          | Bulkhead Female Connector    |         |                    | 5       | 5/16"          | RS   | ISO Parallel Thread                  | 8  | M8 x 1 or 1/2-20    |                               |                      |       |
| D5       | Duplex 2205  | U            | Union                        |         |                    | 6       | 3/8" or 6mm    | RP   | ISO Parallel Thread                  | 9  | 9/16-18             |                               |                      |       |
| D7       | Duplex 2507  | BU           | Bulkhead Union               |         |                    | 8       | 1/2" or 8mm    | RG   | ISO Parallel Thread (Gauge)          | 10   | M10 x 1             |                               |                      |       |
| A20      | Alloy 20     | LM           | Male Elbow                   |         |                    | 10      | 5/8" or 10mm   | RJ   | ISO Parallel Thread (Japanese Gauge) | 12   | M12 x 1.5 or 3/4-16 |                               |                      |       |
| M        | Alloy 400    | VM           | 45 Male Elbow                |         |                    | 12      | 3/4" or 12mm   | PP   | Positionable, ISO Parallel Thread    | 14   | M14 x 1.5 or 7/8-14 |                               |                      |       |
| INC      | Alloy 600    | VP           | 45 Adjustable Male Elbow     |         |                    | 14      | 7/8" or 14mm   | ST   | SAE/MS Straight Thread               | 16   | M16 x 1.5           |                               |                      |       |
| A65      | Alloy 625    | LP           | Positionable Male Elbow      |         |                    | 15      | 15mm           | AN   | 37" Flare                            | 17   | 1 1/16-12           |                               |                      |       |
| HC       | Alloy C-276  | LF           | Female Elbow                 |         |                    | 16      | 1" or 16mm     | MS   | Male Metric Thread                   | 18   | M18 x 1.5           |                               |                      |       |
| CS       | Carbon Steel | LU           | Union Elbow                  |         |                    | 18      | 1 1/8" or 18mm | TS   | Fractional Tube Socket Weld          | 19   | 1 3/16-12           |                               |                      |       |
| AL       | Aluminium    | TMT          | Male Run Tee                 |         |                    | 20      | 1 1/4" or 24mm | PB   | Pipe Butt Weld                       | 20   | M20 x 1.5           |                               |                      |       |
| B        | Brass        | TTM          | Male Branch Tee              |         |                    | 22      | 22mm           |  |                                      | 21   | 1 5/16-12           |                               |                      |       |
| PA       | Nylon        | TPT          | Positionable Male Run Tee    |         |                    | 24      | 1 1/2" or 24mm |  |                                      | 22   | M22 x 1.5           |                               |                      |       |
| T        | PTFE         | TTP          | Positionable Male Branch Tee |         |                    | 25      | 25mm           |  |                                      | 24   | M24 x 1.5           |                               |                      |       |
|          |              | TFT          | Female Run Tee               |         |                    | 28      | 28mm           |  |                                      | 26   | 1 5/8-12            |                               |                      |       |
|          |              | TTF          | Female Branch Tee            |         |                    | 30      | 30mm           |  |                                      | 27   | M27 x 2             |                               |                      |       |
|          |              | TTT          | Union Tee                    |         |                    | 32      | 2" or 32mm     |  |                                      | 30   | 1 7/8-12            |                               |                      |       |
|          |              | C            | Union Cross                  |         |                    | 38      | 38mm           |  |                                      |  |                     |                               |                      |       |
|          |              | TC           | Cap                          |         |                    | 50      | 50mm           |  |                                      |  |                     |                               |                      |       |
|          |              | TP           | Plug                         |         |                    |         |                |  |                                      |  |                     |                               |                      |       |
|          |              | R            | Reducer                      |         |                    |         |                |  |                                      |  |                     |                               |                      |       |
|          |              | P            | Port Connector               |         |                    |         |                |  |                                      |  |                     |                               |                      |       |
|          |              | AM           | Male Adaptor                 |         |                    |         |                |  |                                      |  |                     |                               |                      |       |
|          |              | AF           | Female Adaptor               |         |                    |         |                |  |                                      |  |                     |                               |                      |       |
|          |              | CW           | Weld Connector               |         |                    |         |                |  |                                      |  |                     |                               |                      |       |
|          |              | LW           | Weld Elbow                   |         |                    |         |                |  |                                      |  |                     |                               |                      |       |
|          |              | DF           | Dielectric Fitting           |         |                    |         |                |  |                                      |  |                     |                               |                      |       |

NB: "Part Number Description" is used for composition rules of Abdex product model, not suitable for specific product part number selection, not random combinations. If in doubt, please contact Abdex.