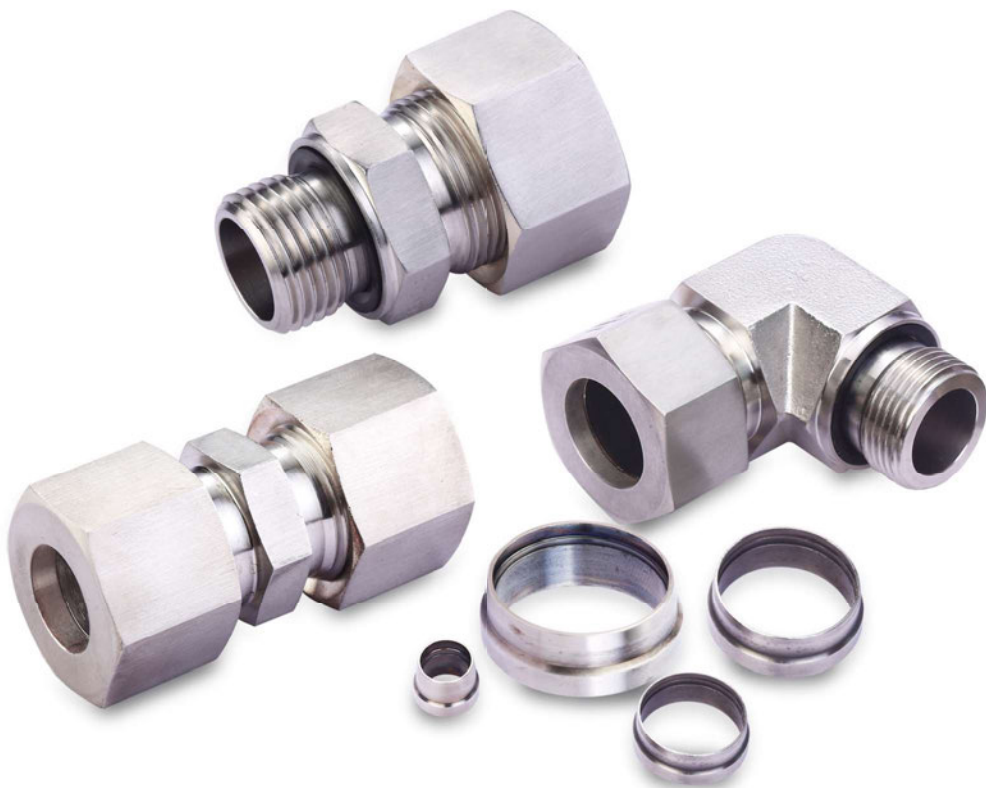
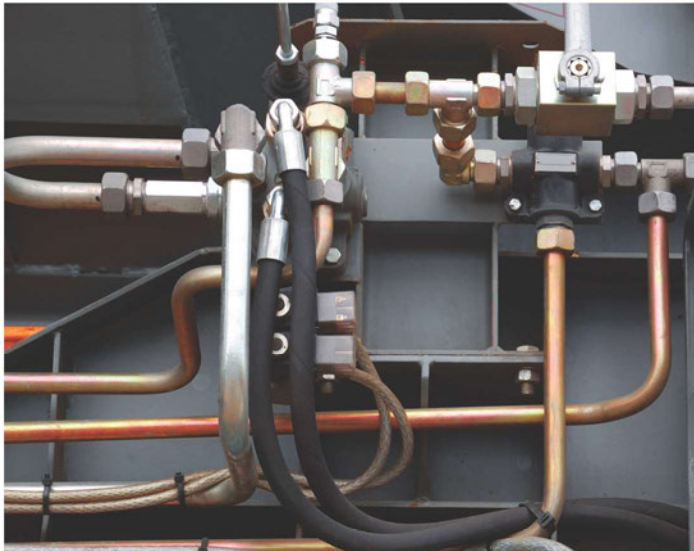




# DIN SINGLE FERRULE FITTINGS





## OUR COMPANY

Established in 1974 by Dr. Y.E. Moochhala, a Ph.D in Mechanical Engineering from Northwestern University, USA, Fluid Controls® is a leading provider of instrumentation products and services for a wide variety of industrial applications. Headquartered in Mumbai, the group has manufacturing facilities in Pune and Goa, including a state-of-the-art R&D centre and testing laboratory.

## RESEARCH & DEVELOPMENT

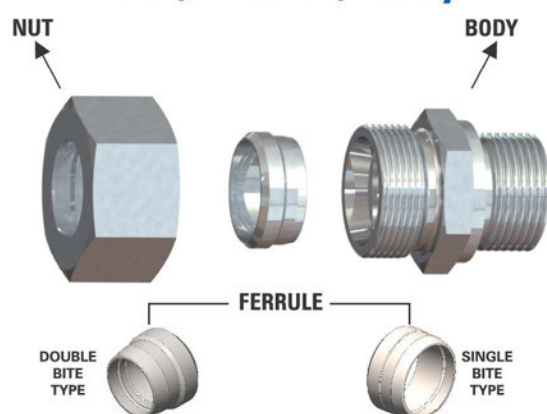
Fluid Controls® offers clients customized solutions based on analytical formulations, 2D and 3D Modelling And Finite Element Analysis. Our commitment to product upgradation and new product development has resulted in the recognition of Fluid Controls® as an “R&D Centre” by the **Department of Scientific & Industrial Research (DSIR)**.

## KEY CERTIFICATIONS

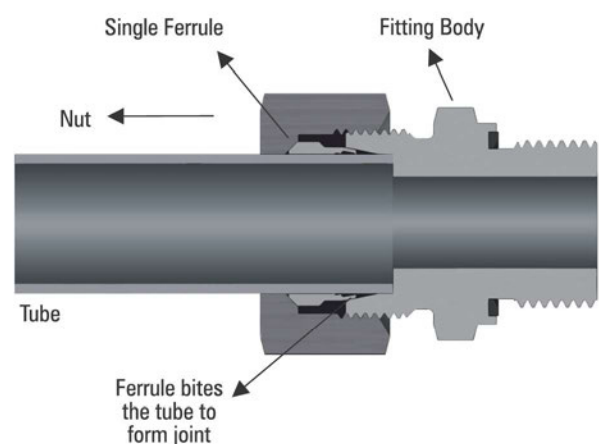
- ISO 9001 : 2015, ISO 14001, OHSAS ISO 18001
- ASTM F1387-99 (2012)
- ISO 19879 / ISO 8434
- NGV 3.1/ ECE R110 / ISO 15500
- Design Appraisal Document : ISO 8434-1 / DIN 2353
- American Bureau of Shipping PDA

## DIN SINGLE FERRULE FITTINGS

### A three piece fitting comprising : Nut, Ferrule, Body



- DIN / ISO 8434 single & double compression fittings
- Stainless steel 304, 316, 316Ti
- Unique hardening process for the ferrule developed in-house
- Design standards – DIN 2353, DIN 3861, DIN 3859 and ISO 8434
- Performance standards – ISO 19879 and DIN 8434-5



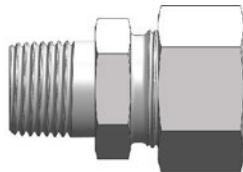
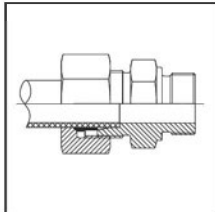
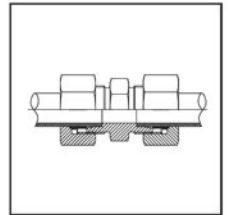
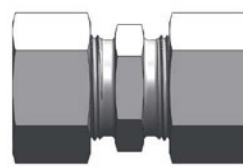
### WORKING MECHANISM

- A single ferrule bites into the tube to create a joint (“bite type fittings”)
- Two types of ferrules:
  - ▶ Single bite type
  - ▶ Double bite type
 (All “S” Series are double bite type)
- There are a variety of fittings: 24° and 37° cone connectors, O-ring face seal connections, weld nipple connections

## PRODUCT RANGE : DIN SINGLE FERRULE FITTINGS

### STRAIGHT UNIONS ▶

Both ends are tube and the assembly is with Ferrule/ Weld Nipple. The joint is made by assembly of fittings with ferrule. A Weld Nipple can be used instead of a ferrule when it is required to join two pipes of an equal size.

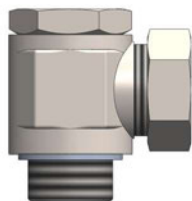
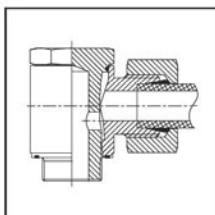
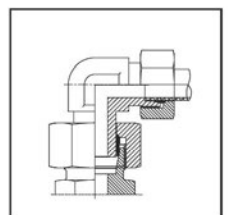


### STRAIGHT MALE STUD COUPLINGS ▶

Tube to Threads (Male/Female): "stud" couplings.

### SWIVEL ELBOWS ▶

During installation, when a swivel end is needed to fit with a fixed line, a special swivel nut is provided which can revolve around the body but will not disengage. Swivel to Swivel connections are also available.

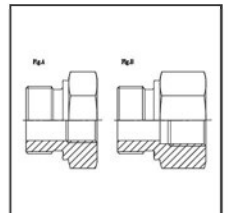


### SWIVEL BANJO ELBOW CONNECTORS ▶

These are used for high pressure applications and provide a 360° rotation facility. These fittings are mainly used for positioning the tube fitting line. The perforated hollow shaped bolts directly on the end and pass through the spherical union body for fluid transfer.

### REDUCING THREAD ADAPTORS ▶

Used to connect fittings with instruments. Fluid Controls® has a wide range of adaptors with different threads - Metric, BSP, BSPT, NPT.



## PRESSURE RATING AS PER DIN 2353

## TECHNICAL DATA

Fluid Controls® fittings are available in Light, Medium and Heavy Series depending on the pipe size. Fittings with weld nipples are available only in Heavy Series.

| LL - LIGHT SERIES      |                    |
|------------------------|--------------------|
| 100 Kg/cm <sup>2</sup> | Tube OD 4 mm - 8mm |

| L - MEDIUM SERIES      |                       |
|------------------------|-----------------------|
| 250 Kg/cm <sup>2</sup> | Tube OD 6 mm - 15 mm  |
| 160 Kg/cm <sup>2</sup> | Tube OD 18 mm - 22 mm |
| 100 Kg/cm <sup>2</sup> | Tube OD 28 mm - 42 mm |

| S - HEAVY SERIES       |                       |
|------------------------|-----------------------|
| 630 Kg/cm <sup>2</sup> | Tube OD 6 mm - 14 mm  |
| 400 Kg/cm <sup>2</sup> | Tube OD 16 mm - 25 mm |
| 250 Kg/cm <sup>2</sup> | Tube OD 30 mm - 38 mm |

## THREADING INFORMATION

| MEDIUM SERIES (L)       |                |                  |                  |                        |                  |                  |                  |              |                  |                  |
|-------------------------|----------------|------------------|------------------|------------------------|------------------|------------------|------------------|--------------|------------------|------------------|
| Tube OD                 | 6              | 8                | 10               | 12                     | 15               | 18               | 22               | 28           | 35               | 42               |
| BSP/NPT/<br>BSPT METRIC | 1/8",<br>M10X1 | 1/4",<br>M12X1.5 | 1/4",<br>M14X1.5 | 3/8", 1/4",<br>M16X1.5 | 1/2",<br>M18X1.5 | 1/2",<br>M22X1.5 | 3/4",<br>M26X1.5 | 1",<br>M33X2 | 1 1/4",<br>M42X2 | 1 1/2",<br>M48X2 |

| HEAVY SERIES (S)        |                  |                  |                        |                  |                  |                  |                |              |                  |                  |
|-------------------------|------------------|------------------|------------------------|------------------|------------------|------------------|----------------|--------------|------------------|------------------|
| Tube OD                 | 6                | 8                | 10                     | 12               | 14               | 16               | 20             | 25           | 30               | 38               |
| BSP/NPT/<br>BSPT METRIC | 1/4",<br>M12X1.5 | 1/4",<br>M14X1.5 | 3/8", 1/4",<br>M16X1.5 | 3/8",<br>M18X1.5 | 1/2",<br>M20X1.5 | 1/2",<br>M22X1.5 | 3/4",<br>M27X2 | 1",<br>M33X2 | 1 1/4",<br>M42X2 | 1 1/2",<br>M48X2 |



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