

Fluorocarbon resin and SUS316 compact fluid control components

The primary components of Flowell products are constructed of all fluorocarbon resin and SUS316, which makes them ideal for special fluid piping.

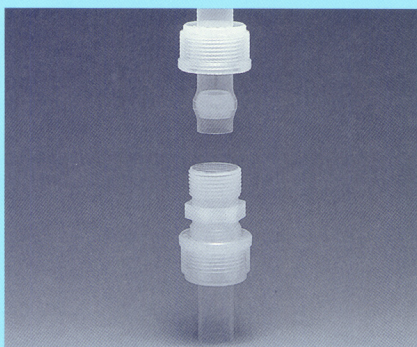
They have superior corrosion-resistance characteristics and free from contamination, and have therefore gained approval in all fields such as chemical solution, corrosive gases, high purity fluids and foods.

Applications

Semiconductor device manufacturing equipment and chemical solution
Laboratory equipment and biotechnology related applications
Food industry, D.I. water manufacturing equipment, painting industry
Medical and instrumentation related applications.

Product guide

20 and 20A Series Fluorocarbon resin tube fittings (for high temperature)

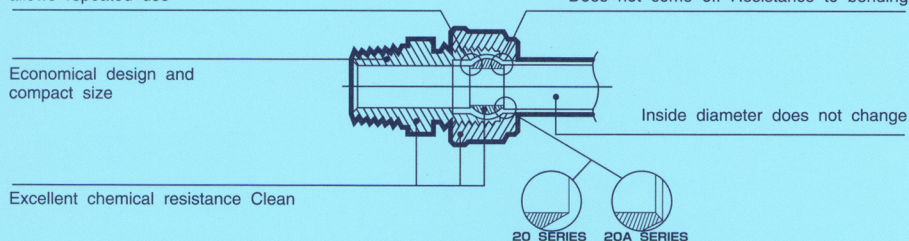


Withstands high pressure
Ease of removing and mounting
allows repeated use

Economical design and
compact size

Excellent chemical resistance Clean

Less fluid trapping
Withstands high temperatures
Does not come off Resistance to bending



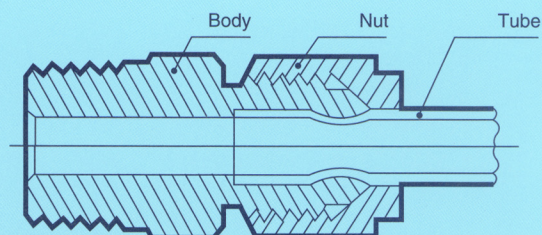
- The 20A Series models, sisters to the 20 Series, have been born. The body and nuts are completely common
- The 20A Series has a smooth flow, and there is little fluid trapping (Refer to the above sketch concerning the ring shape)

- The maximum temperature for use is 200 °C. For the maximum pressure for use, see the 20 Series catalog
- Sizes are from 3mm to 25mm (1"). The 20A Series is from 10mm (3/8") to 25mm (1")
- The main types MC, ME, U, UE and UT, from 10mm (3/8") to 25mm (1"), are fluorocarbon resin PFA injection molded products

30 Series Fluorocarbon resin tube fittings (general use)

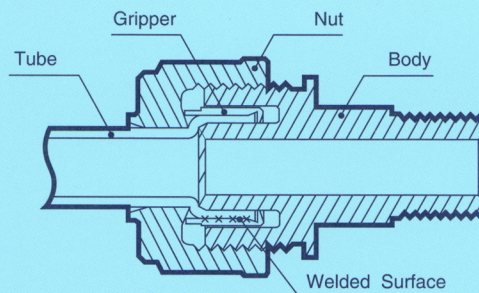
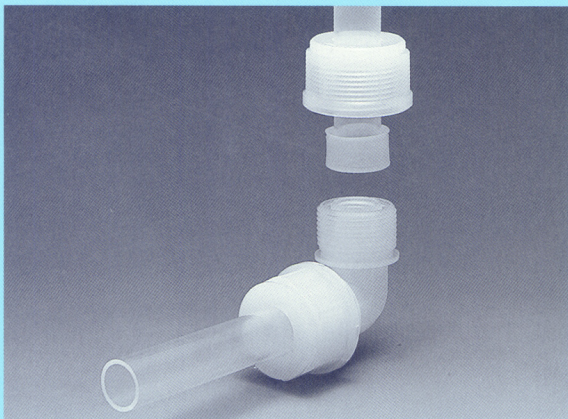


- Standard fluorocarbon resin tube fittings
- Taper swaging seal
- The body is a PTFE fluorocarbon resin and precision NC processed product



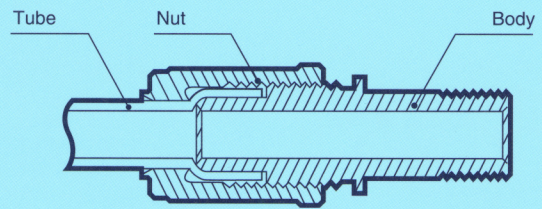
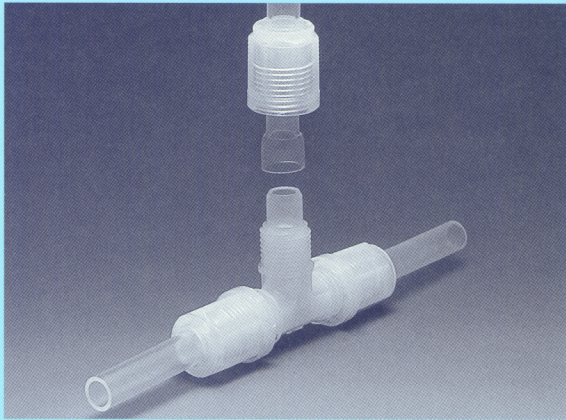
- The nuts are pure ECTFE fluorocarbon resin injection molded products
- The maximum temperature for use is 100 °C. For the maximum pressure for use, see the 30 Series catalog
- Quick delivery and reasonable price
- Sizes are from 3mm to 13mm. Other sizes are available by special order
- There are more than 300 types

11 Series Fluorocarbon resin tube fitting (for high temperature)



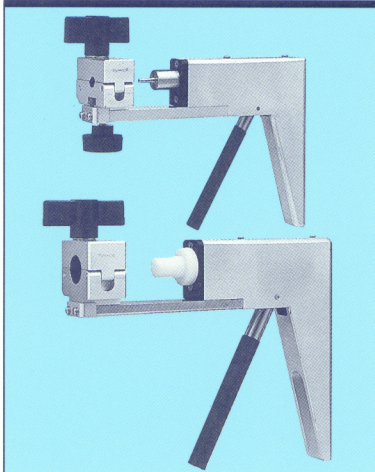
- Flare type fitting for high temperature
- Weld the gripper directly on the flared tube
- Superior tensile strength & smooth liquid flow
- Maximum working temperature of 200 °C
- Automatic welder is fully equipped
- Applicable tube sizes : 1/4" ~ 1"

60 Series Fluorocarbon resin tube fittings (for middle temperature)

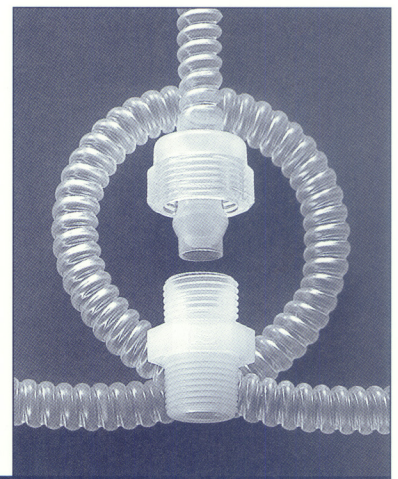


- High performance flare type fitting
- The end edge of body & the nut inside are tapered
- Excellent liquid displacement characteristics
- 2 ways to assemble (HOT & COLD flaring)
- Maximum working temperature of 100 °C
- Applicable tube sizes : 1/8" ~ 1" 3mm ~ 25mm

Ring Insertion tool for 20, 20A Series (Lever type)

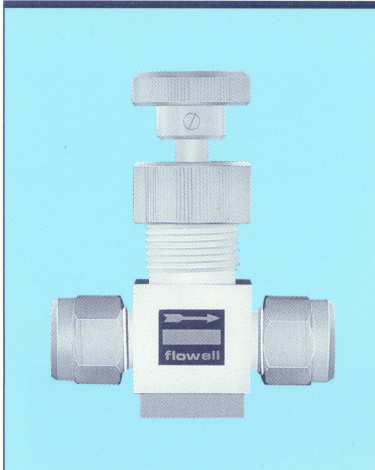


- Exclusive ring insertion tool for 20, 20A Series tube fittings
- There are two types of insertion jigs, the Lever type & the Handy type
- Simply available for insertion of the ring only by changing the attachment per respective sizes
- They are all fluorocarbon resin flexible tubes
- They do not break because they are flexible
- 20 Series tube fittings are set at both ends, allowing simple pipe connection
- The tube fittings have unique construction in that a ring is inserted into tube I.D., and so they do not leak easily and have superior tensile strength performance
- Available to see the media through the tube because of translucency

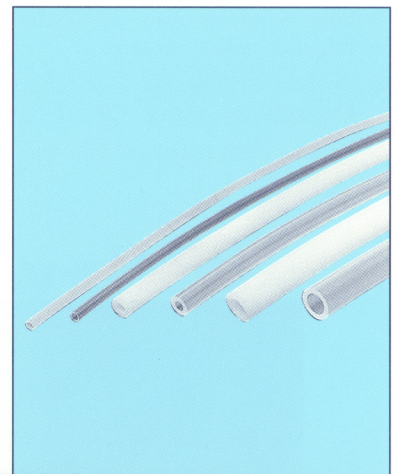


Pliant tubes (20 Series End Connection)

4600 Series (20 Series End Connection)



- All wetted parts are made of fluorocarbon resins
- Light & compact design
- Available for Panel mounting and Base mounting
- Straight type and angle type
- Connections are all 20 Series tube fitting type
- Tube sizes 1/4" to 1", 6mm to 19mm.
- Excellent heat resistance and freezing resistance
- They are non-adhesive so no residue is left behind, which makes them ideal for adhesive fluid piping
- They are inert to most industrial chemicals and solvents, and therefore have excellent non-corrosive properties
- Their electrical properties are extremely stable
- They have excellent weather resistance. They are not influenced by outdoor weather almost indefinitely



Heat hose

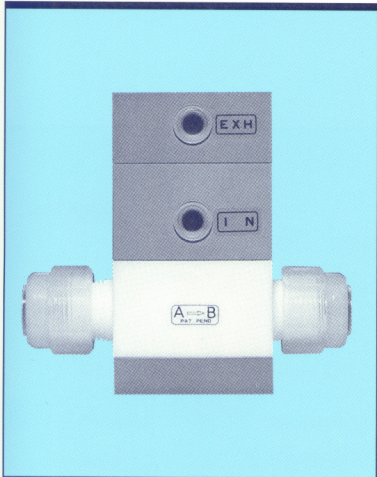


- Ideal for heating and maintaining the temperature of fluids
- The inner tubes are available for PTFE or SUS316 materials
- They are produced in accordance with customer specifications
- Internal hose diameters are from 1/4" to 1"
- There are two types of body, fluorocarbon resin and PVC resin
- Many port patterns (7 types)
- Panel mountable
- Compact and light
- Rc (PT) 1/8



6100 Series small multiple switching valves (fluorocarbon resin)

Fluorocarbon resin pneumatic valves (20 Series End Connection)

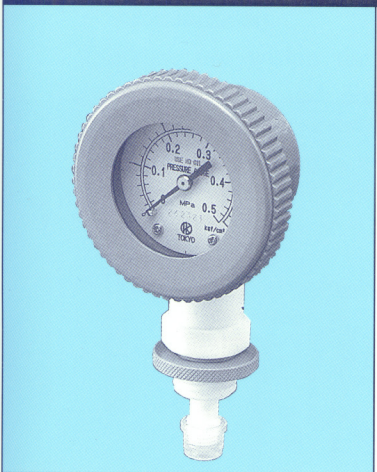


- All wetted parts are made of fluorocarbon resins
 - Highly reliable and long-life diaphragm type and bellows type
 - Light and compact design
 - There are flow control and water saving mechanism supply valves and high speed drainage valves, and for high temperatures too
 - Connections are all 20 Series tube fitting type
 - Tube sizes 1/4" to 1", 6mm to 25mm.
 - All wetted parts are made of fluorocarbon resins
 - Highly reliable and long-life diaphragm type and bellows type
 - Light and compact design
 - There are two-way and three-way valves
 - Female thread M6, Rc (PT) 1/8, Rc (PT) 1/4, Rc (PT) 3/8, Rc (PT) 1/2
 - Tube connections 3mm, 4mm.
- (Manufactured by Advance Electric Co., Inc.)



Fluorocarbon resin solenoid valves (30 Series End Connection)

Fluorocarbon resin pressure gage (20 Series End Connection)



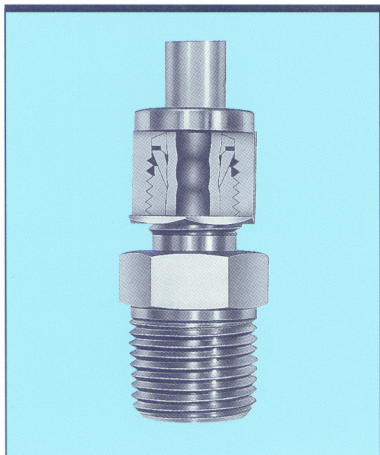
- All wetted parts are made of fluorocarbon resins (PTFE)
 - It is a bellows type, and no necessity of gauge fluid and no trapping area
 - Sealed hard PVC case enables to use even in corrosive conditions
- (Manufactured by the Sanyo Instrument Co., Ltd.)
- Cut fluorocarbon resins tubes at a right angle
 - Applicable tube size is from 3mm to 25mm
 - Applicable tube materials are PFA, PTFE and FEP
- (Manufactured by Hanazono Tools MFG. Co., Ltd.)



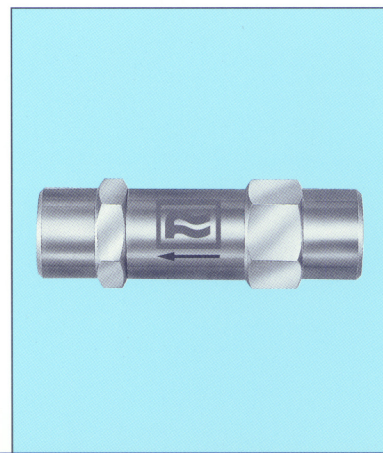
Tube Cutter (VF-25)

Stainless Steel products

IW Series SUS316 tube fittings

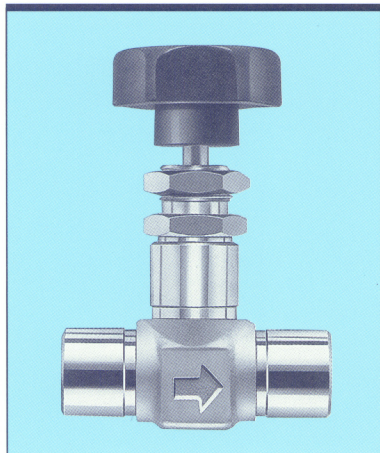


- A great variety of models
 - A special hardening treatment is carried out on the rear ferrule tip to make bite-action extremely reliable
 - Special design for minimum tightening torque
 - Simple installation
 - Quick delivery and reasonable price
 - Sizes are from 3mm to 25mm
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- The poppets function accurately with minute pressures
 - Continuous service life
 - Available use for vacuum to high pressure conditions
 - Compact and functional design
 - SUS316 and Fluorocarbon elastomer
 - Rc (PT) 1/8 ~ Rc (PT) 3/8

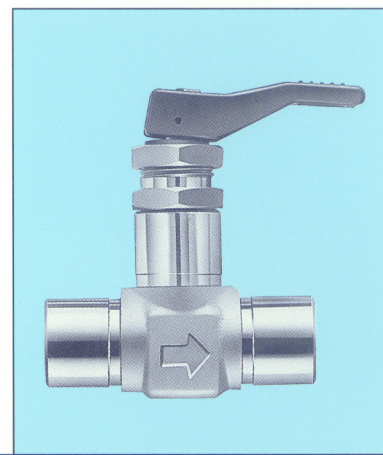


3100 Series Check valves

4410 Series Compact control valves

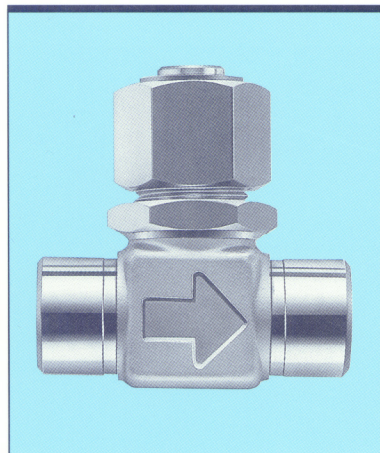


- SUS316 wide application regulating valves
 - Highly reliable soft seal (No metal seal is used)
 - Panel mount type is standard
 - There are many types at low prices
 - Rc (PT) 1/8 ~ Rc (PT) 1/4
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- ON/OFF control is simple and quick
 - The unique O-ring seal type keeps dead volume to a minimum
 - Panel mount type is standard
 - SUS316 and Fluorocarbon elastomer
 - Rc (PT) 1/8 ~ Rc (PT) 1/4



5510 Series Toggle valves

1110 Series Inline filters



- Available use for vacuum to high pressure conditions
 - Available use for low and high temperature service
 - There are many kinds of filter elements
 - In particular, the 1111 model's filter can be replaced easily without removing the piping
 - SUS316 and Fluorocarbon elastomer
 - Rc (PT) 1/8 ~ Rc (PT) 1/4
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- SUS316 gauze sintering
 - There are two kinds, Absolter (general) and Poremet (low pressure loss, for high pressure)
 - Micron range (2~300 μ m), many shapes

