

399/392 SERIES

Ideal for Sanitary, Chemical and Corrosive Applications

The 300 Series is one of the true sanitary butterfly valves on the market today. The two-piece split body allows for a one-piece investment cast disc/stem with a smooth finish free of porosity, voids or cracks. This design provides complete protection from particle entrapment. A variety of coatings are available for chemical and abrasive service as well as sanitary applications.

All sizes of Cast Iron, Nodular Iron and Aluminum bodies and 8"-12" Stainless Steel bodies have a CNC machined **Top Plate (J)** with standardized drilling for total actuator and operator interchangeability. A handle notch plate is supplied with the manual handle kit.

2"-6" Stainless Steel valve bodies feature an integrally cast **Throttling Top Plate** with a self draining recess ensuring complete drainage of wash-down media.



For high corrosive and sanitary applications, discs/stems are offered in high polish or satin finish 316 Stainless Steel, PTFE encapsulated and a variety of other coatings. Bodies are offered in investment cast 316 Stainless Steel for these demanding applications.

Seats are available as standard in PTFE, Nitrile, EPDM, Buna and FKM. All compounds other than FKM are FDA approved.

All Ultraflo valves are tested to 110% of pressure rating for bubble tight shut off before shipment.

All 399/392 Series valves are designed to meet MSS SP67 dimensional standards.

Components

| Item | Description | Qty. |
|------|---------------|------|
| 1 | Split Body | 1 |
| 2 | Seat | 1 |
| 3 | Disc | 1 |
| 4 | Upper Bushing | 1 |
| 5 | Stem Packing | 1 |
| 6 | Lower Bushing | 1 |
| 7 | Body Bolt | 2 |
| 8 | Lock Washer | 2 |

Materials of Construction

Bodies: Cast Iron, Nodular Iron and Investment Cast 316 Stainless Steel in both wafer and lug style split bodies. Aluminum bodies are available in wafer only.

Seats: PTFE, EPDM, Nitrile, Buna, FKM. Nitrile and EPDM seats are available in FDA food grade white.

Disc/Stems: 17-4 Stainless Steel and Investment Cast 316 Stainless Steel, available with satin or high polish finish. PTFE encapsulated and other custom disc coatings are available.

Upper and Lower Bushings:

Thermoplastic Polymer

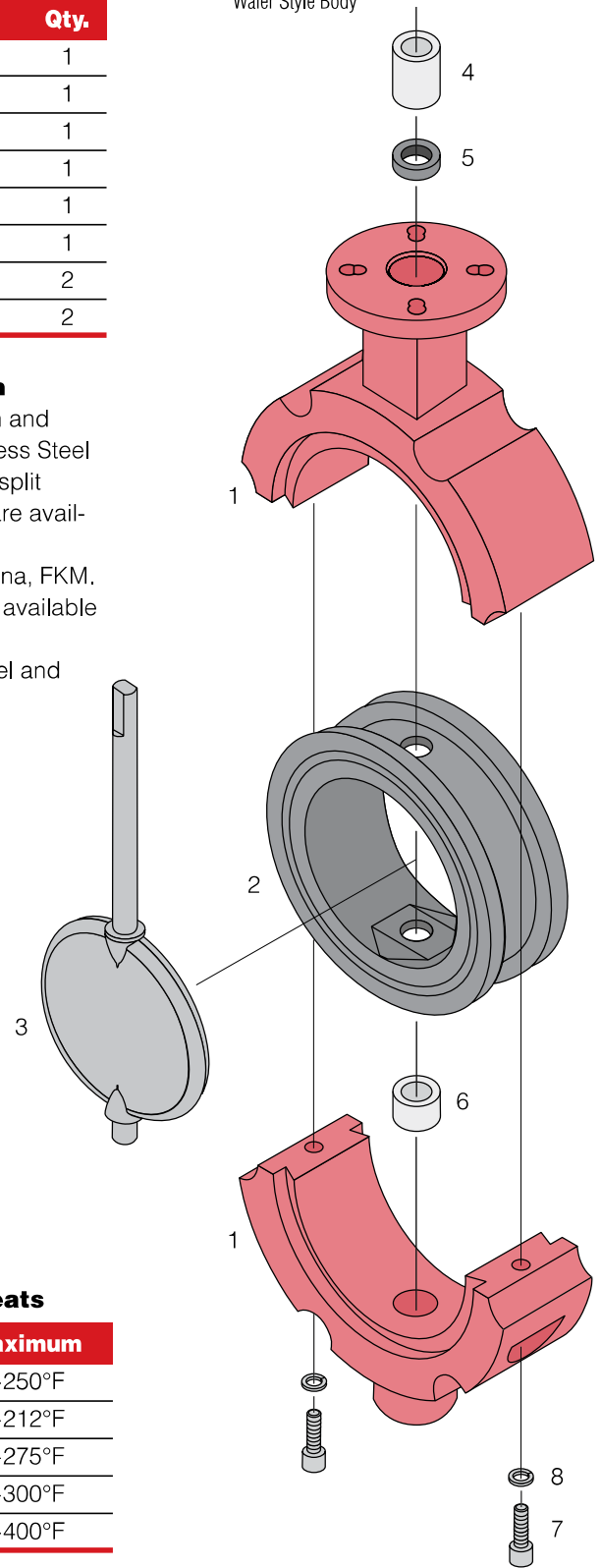
Stem Packing:

Buna-N

Body Bolts and Lock Washers:

Zinc Plated Carbon Steel or Stainless Steel

399 Series Cast Iron Wafer Style Body



Temperature Range of Seats

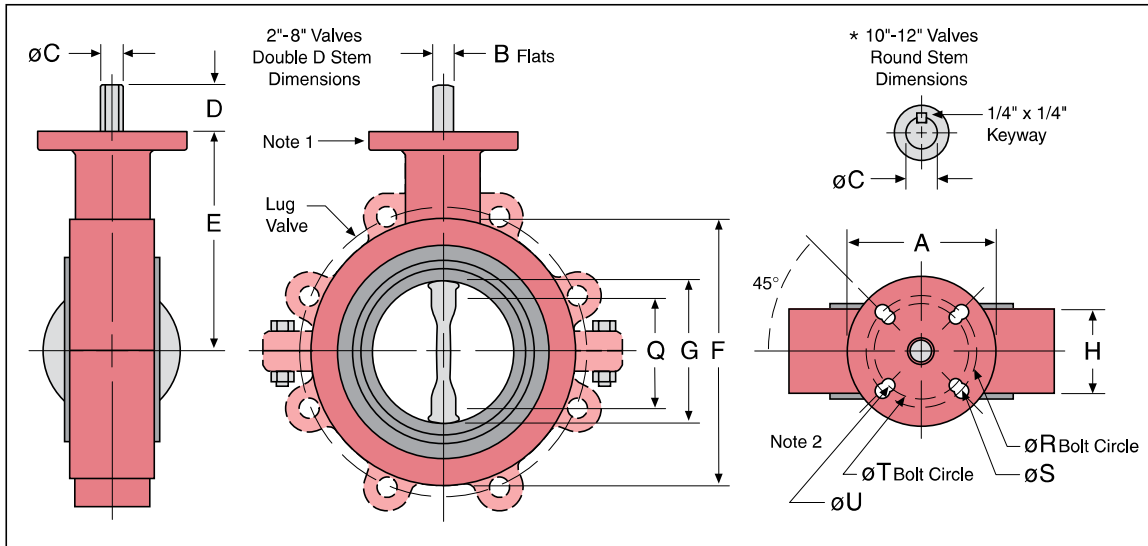
| Type | Minimum | Maximum |
|---------|---------|---------|
| EPDM | -40°F | +250°F |
| Buna | 0°F | +212°F |
| Nitrile | -20°F | +275°F |
| PTFE | -20°F | +300°F |
| FKM | 0°F | +400°F |

399/392 SERIES

Dimensions

| Valve Size ins | mm | A | B | C | D | E | F | G | H | Q | R | S | T | U | Lug Data | |
|-------------------|-----|------|------|--------|-------|--------|--------|--------|-------|-------|-------|------|-------|------|----------|---------|
| | | BC | Tap | | | | | | | | | | | | | |
| 2 | 50 | 4.00 | .375 | .563 | 1.250 | 4.063 | 4.125 | 2.00 | 1.625 | 1.313 | 3.250 | .438 | 2.760 | .375 | 4.750 | .625-11 |
| 3 | 75 | 4.00 | .375 | .563 | 1.250 | 5.00 | 5.375 | 3.00 | 1.750 | 2.563 | 3.250 | .438 | 2.760 | .375 | 6.00 | .625-11 |
| 4 | 100 | 4.00 | .438 | .625 | 1.250 | 6.00 | 6.875 | 4.00 | 2.00 | 3.563 | 3.250 | .438 | 2.760 | .375 | 7.50 | .625-11 |
| 5 | 125 | 4.00 | .438 | .625 | 1.250 | 6.00 | 7.750 | 5.00 | 2.125 | 4.531 | 3.250 | .438 | 2.760 | .375 | 8.50 | .750-10 |
| 6 | 150 | 4.00 | .500 | .750 | 1.250 | 6.625 | 8.750 | 5.750 | 2.125 | 5.438 | 3.250 | .438 | 2.760 | .375 | 9.50 | .750-10 |
| 8 | 200 | 6.00 | .625 | .875 | 1.250 | 8.313 | 11.00 | 7.750 | 2.50 | 7.438 | 5.00 | .563 | 4.020 | .438 | 11.750 | .750-10 |
| 10 | 250 | 6.00 | — | 1.125* | 2.00 | 9.125 | 13.375 | 9.750 | 2.50 | 9.531 | 5.00 | .563 | 4.020 | .438 | 14.250 | .875-9 |
| 12 | 300 | 6.00 | — | 1.125* | 2.00 | 10.645 | 16.125 | 11.750 | 3.00 | 11.50 | 5.00 | .563 | 4.020 | .438 | 17.00 | .875-9 |

All 399/392 Series are designed to meet MSS SP67 dimensional standards.



Notes:

- 2"-6" Stainless Steel Valve Bodies have an integral Throttling Top Plate. 8", 10" and 12" SS Valves, and all sizes Cast Iron, Nodular Iron & Aluminum Valves have standard Top Flanges, notch plates are supplied with handle.
- Bolt Circle T and Hole Diameter U meet ISO 5211 standards for Top Flange Drilling: 2"-6" = F7 8"-12" = F12 Not applicable to Aluminum bodies.



Operator and Actuator Mounting

Ultraflo has designed the 300 Series operator mounting Top Flange to ISO 5211 specifications for direct mounting of manual operators and actuators. Designed to recognized industrial standards, the Double D stem connection provides a secure connection with most actuators eliminating the need for brackets.

Ultraflo offers a wide range of automation products including handles, gear operators, rack and pinion pneumatic actuators, pneumatic cylinder and wrench arm assemblies, electric actuators, pneumatic and electro-pneumatic positioners, solenoids, valve position indicators, proximity and limit switches.

Flange Requirements

The valve O.D. and flange bolt circle must share a common center line. The valve is designed to be placed between ASME/ANSI 125 or 150 lb. flanges.

The data represented in this brochure is for general information only. Manufacturer is not responsible for acceptability of these products in relation to system requirements. Consult your Ultraflo representative for specific performance data and proper materials selection for your particular application.

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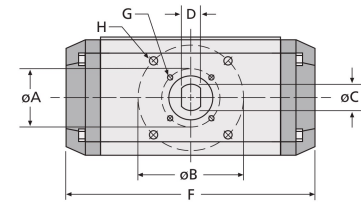
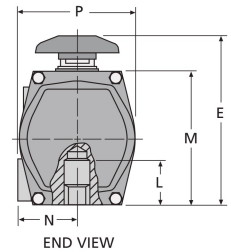
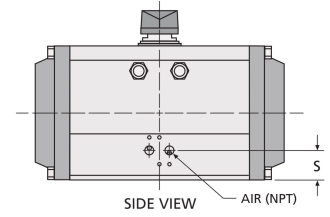
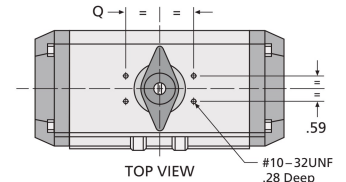
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100 SERIES

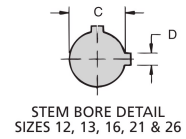
Dimensions

| Size | 06 | 08 | 09 | 12 | 13 | 16* | 21 | 26† |
|---------------|------------------|------------------|-----------------|-----------------|-----------------|-----------------|------------------|--------------------|
| AIR NPT | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 | 1/4 |
| A ISO "F"† | 1.97 F 05 | 1.97 F 05 | — | 3.25 | 3.25 | — | 4.92 F 12 | 6.50 F 16 |
| B ISO "F"† | 2.76 F 07 | 2.76 F 07 | 3.25 | 5.00 | 5.00 | 5.00 | 6.50 F 16 | 7.87x4.72 Rect. |
| C | .563 | .75 | .75 | 1.125 | 1.125 | 1.125 | 1.97 | 2.50 |
| D** | .375 | .50 | .50 | .25 | .25 | .25 | .47 | .62 |
| E | 4.53 | 5.43 | 5.78 | 7.28 | 8.09 | 9.36 | 11.45 | 13.35 |
| F | 5.58 | 7.40 | 8.59 | 11.90 | 12.31 | 15.54 | 17.80 | 26.70 |
| G (UNC) | 1/4-20 x .32 | 1/4-20 x .32 | 3/8-16 x .40 | 3/8-16 x .40 | 3/8-16 x .40 | — | 1/2-13 x .78 | M20x2.5 x 30mm |
| H (UNC) | 5/16-18 x .40 | 5/16-18 x .40 | — | 1/2-13 x .69 | 1/2-13 x .69 | 1/2-13 x .75 | 5/8-11 x 1.11 | M20x2.5 x 30mm |
| J | .38 | .50 | .50 | 1.12 | 1.12 | 1.12 | 1.12 | 1.12 |
| L | 1.38 | 1.46 | 1.46 | 2.20 | 2.20 | 2.20 | 2.76 | 4.25 |
| M | 3.46 | 4.27 | 4.61 | 5.52 | 6.32 | 7.80 | 10.04 | 11.89 |
| N | 1.72 | 2.02 | 2.18 | 2.53 | 2.72 | 3.07 | 4.25 | 4.75 |
| P | 3.11 | 3.83 | 4.17 | 4.91 | 5.44 | 6.82 | 8.83 | 10.75 |
| Q | 3.15 | 3.15 | 3.15 | 3.15 | 3.15 | 5.12 | 5.12 | 5.12 |
| S | .89 | .89 | .94 | 1.36 | 1.36 | 1.39 | 1.44 | 1.50 |
| T | .79 | .79 | .79 | .79 | .79 | 1.18 | 1.18 | 1.18 |
| U | .47 | .47 | .47 | .47 | .47 | .75 | .75 | .75 |

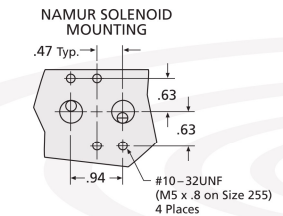
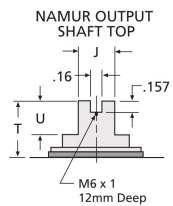
Special Note: Sizes 21 and 26 actuators have endcap travel stops not bi-directional travel stops. Please consult factory for production release date of bi-directional stops for these size 100S actuators.



BOTTOM VIEW
ISO 5211 ACTUATOR
MOUNTING PATTERN



STEM BORE DETAIL
SIZES 12, 13, 16, 21 & 26



Note: Double Acting and Spring Return actuators have the same overall dimensions.

† ISO "F" means mounting flange-drilling pattern.

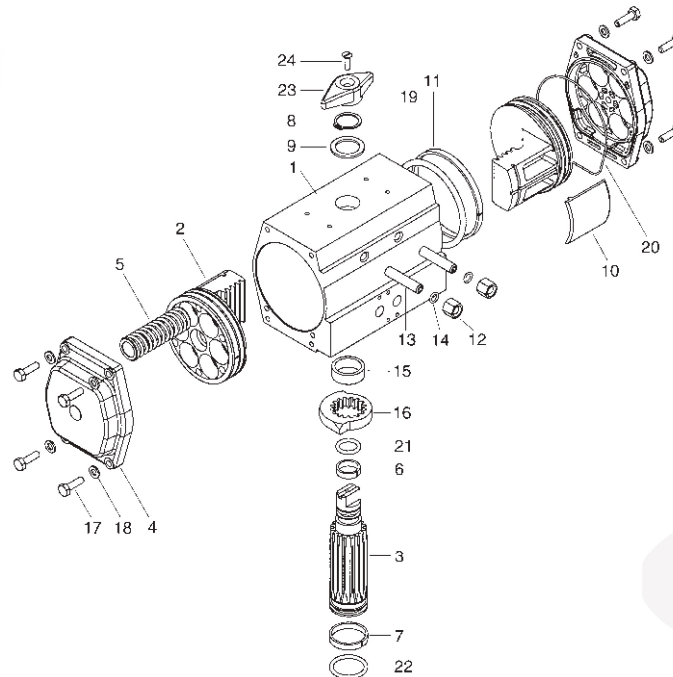
* Dimensions for Size 16A in table. Size 16B (keyed stem version) has C dimension of 1.38 and D dimension of .39.

‡ Sizes for 100 Series 26A in table. The 26B actuator has a C dimension of 3.00 and D dimension of .75.

** "D" dimension is for key size.

Components

| Item | Qty. | Description |
|------|--------|-------------------------|
| 1 | 1 | Body |
| 2 | 2 | Piston |
| 3 | 1 | Pinion |
| 4 | 2 | End Cap |
| 5* | 12 max | Spring Cartridge |
| 6 | 1 | Upper Bearing |
| 7 | 1 | Lower Bearing |
| 8 | 1 | Retaining Ring |
| 9 | 1 | Washer |
| 10 | 2 | Bearing Pad |
| 11 | 2 | Guide Ring |
| 12 | 2 | Stop Nut |
| 13 | 2 | Travel Stop Screw |
| 14 | 2 | Travel Stop O-Ring |
| 15 | 1 | Acetal Spacer |
| 16 | 1 | Travel Stop |
| 17 | 8 | Hex Head Cap Screw |
| 18 | 8 | Washer |
| 19 | 2 | Piston O-Ring |
| 20 | 2 | End Cap O-Ring |
| 21 | 2 | Shaft Top O-Ring |
| 22 | 2 | Shaft Bottom O-Ring |
| 23 | 1 | Indicator Pointer |
| 24 | 1 | Indicator Pointer Screw |



The data represented in this brochure is for general information only. Manufacturer is not responsible for acceptability of these products in relation to system requirements. Consult your Ultraflo representative for specific performance data and proper materials selection for your particular application.



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