

Manual Butterfly Valves

500 & 522 Series

For General Industrial Applications

Resilient Seated

Full cut disc 150psi • Undercut disc 50 psi

Body - Lug style has drilled and tapped lugs meeting ANSI 125/150 flange standards. Lug body standard with ductile iron. Wafer body standard with ductile iron also available in aluminum.

Sizes
2"-12"

Top Plate Standard ISO 5211

- Accommodates all types of actuators; handles, gear operators, electric and pneumatic actuators.

Disc

- Precision machined and hand polished for positive seal with contoured edges for lower operating torque plus increased seat life. A full line of under cut discs, sizes 2"-12", is offered. Designed for maximum product flow. Available in 50 psi and 150 psi at same cost. Comes in ductile iron, aluminum bronze, 316 stainless steel.

Disc Screw with Locking Assembly - Made of 316 stainless steel. Locking assembly prevents disc screw O-ring distortion.

Stem - Machined from 17-4 PH stainless steel to eliminate twisting of stem. Gives direct disc control of full or partial product flow.

Stem-Seal - A third seal ensuring leak resistance externally or internally for vacuum or pressure service. Matches seat material: Buna-N, EPDM, or Viton®.

Stem Bushing - Composed of full strength, corrosion resistant ertalyte, stem bushings absorb operator side thrust. Top bushing comes standard in all valves, while bottom bushing comes with all valves sizes 4"-12".

Seat - The seat fully encapsulates the valve body thereby preventing corrosion of the body or contamination of the flowing product. The only wetted parts are the seat, disc, and disc screws. Seats are available in EPDM (food grade), black nitrile (food grade), silicone, and Viton®.

Hub Seal or Primary Seal - Occurs when contact is made between the disc hub and the flat surface of the seat. Hub/seat seals prevent product from attacking stem or body.

O-Seal - Two O-seals give a sure secondary seal as the O-seal becomes part of the body and encircles the stem before entering the seat and disc area. O-seals are also located at top and bottom of stem entry to form an absolute secondary seal. Matches seat material except for silicone.

Flange Seal - Sealing O-ring of resilient seat which provides an absolute seal to all flanges within specifications. No other gaskets required.

Part Numbers: Numbering Guide found on page 38.

- **Wafer (500) or Lug (522) Style Bodies**
- **Boot-type Seat to Encapsulate Inner Body**
- **Alignment Notches at Bottom of Wafer Valve**
- **Easy Seat and Disc Replacement**
- **Four Redundant Seals**
- **Stem Design Prevents Blow-out Hazard**

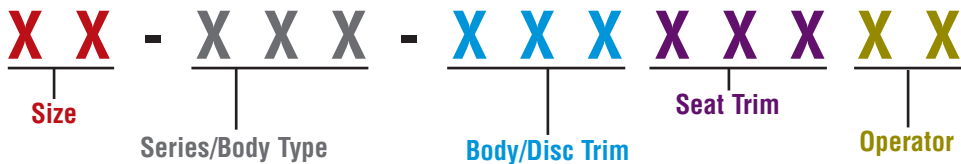
Temperature Range: Dependent on material, see chart page 39.

Operator Options: 5 and 10 position handles
Gear operator
Electric or Pneumatic Actuators



Butterfly Valves Numbering Guide

500/522, 600/622, 340/342, 899/892 Series



| Series |
|---|
| 300 - Wafer Resilient Seat - Nylon |
| 342 - Lug Resilient Seat - Nylon |
| 500 - Wafer Resilient Seat |
| 522 - Lug Resilient Seat |
| 600 - Wafer Cartridge Seat |
| 622 - Lug Cartridge Seat |
| 899 - Wafer Resilient Seat Split Wafer Design |
| 892 - Lug Resilient Seat Split Wafer Design |

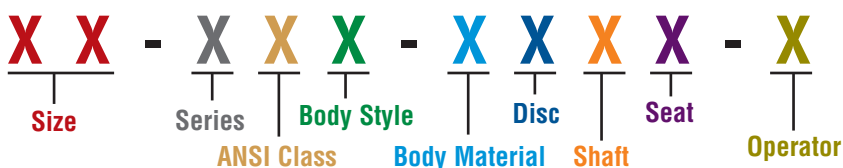
| Seats Trim |
|-----------------------------------|
| See Seat Material Chart (Page 39) |

| Operators |
|----------------------------|
| H10 - 10 position Handle |
| H9 - SS 10 position Handle |
| GI - Gear Operator |
| LH - Lock Handle |

| Body & Disc Trim |
|---|
| <u>340/342 Series</u> |
| 170 - Ductile Iron/Nylon 11/17-4 SS |
| <u>500/522 Series</u> |
| 174 - Aluminum/Ductile Iron |
| 175 - Aluminum/Alum-Bronze |
| 182 - Ductile Iron/Ductile Iron |
| 185 - Ductile Iron/Aluminum Bronze |
| 822 - Ductile Iron/Stainless |
| 828 - Aluminum/Stainless |
| <u>600/622 Series</u> |
| 163 - (600)Cast Iron/Aluminum Bronze |
| 169 - Cast Iron/Ductile |
| 182 - Ductile Iron/Ductile Iron |
| 185 - (622)Ductile Iron/Aluminum Bronze |
| 822 - (622)Ductile Iron/Stainless |
| 823 - (600)Cast Iron/Stainless |

| Body/Disc Trim |
|--------------------------------------|
| <u>899/892 Series</u> |
| 434 - Ductile/Buna-N/255 SS |
| 435 - SS/Buna-N/255 SS |
| 437 - Alum/Buna-N/255SS |
| 495 - SS/EPDM/255 SS |
| 497 - Alum/EPDM/255SS |
| 498 - Ductile/EPDM/255 SS |
| 508 - Ductile/Teflon®/255 SS |
| 544 - Ductile/Viton®/255 SS |
| 545 - SS/Viton®/255 SS |
| 547 - Alum/Viton®/255 SS |
| 705 - SS/Teflon®/255 SS |
| 755 - SS/ - /SS |
| 712 - Ductile /4140 Steel |
| 788 - Alum/Teflon®/255 SS |
| 822 - Ductile Iron/no coat/Stainless |
| 828 - Aluminum/no coat/Stainless |
| Add "U" for undercut disc |

High Seal Series



| Series |
|---------|
| G - GTD |
| F - FSD |
| M - MTD |

| ANSI Class |
|------------|
| 1 - 150 |
| 3 - 300 |
| 6 - 600 |

| Body Style |
|------------|
| W - Wafer |
| L - Lug |

| Body Material |
|---------------|
| C - Carbon |
| S - Stainless |

| Disc |
|---------------|
| C - Carbon |
| S - Stainless |

| Shaft |
|-------------------|
| S - 316 Stainless |

| Seat |
|-------------------|
| R - RTFE |
| S - 316 Stainless |

| Operator |
|----------------------|
| H - Locklever Handle |
| G - Worm Gear |
| B - Bare Stem |

AVAILABLE SEAT MATERIALS FOR BUTTERFLY VALVES

| DESC. OF TYPES | TYPES OF SEATS | | | | | |
|---|--|--|---|---|---|--|
| | ALL SEASON NITRILE | EPDM | VITON® | PTFE EPDM | PTFE BUNA-N | SILICONE |
| AVAILABLE ON SERIES | 899 892 500 522 *600 *622 340 342 | 899 892 500 522 600 622 340 342 | 899 892 500 522 | 899 892 | 899 892 | 899 892 500 522 |
| COMPOUND NUMBER | 700 | 515 | 540 | 650 | 652 | 561 |
| COMMON NAMES | Special formulation of nitrile for dry bulk and other abrasive services. | EPT EPR | Fluoro- elastome | PTFE | PTFE (See BUNA-N) | None |
| COLOR | Black | Black | Black | Black/white PTFE bonded to EPDM | Black/white PTFE bonded to BUNA-N | White |
| CHEMICAL TYPE | Special nitrile blend | Ethylene- propylene- diene- monomer | Poly-tetra- fluorinated hydrocarbon | Poly- fluoro- ethylene | Tetra- fluoro- ethylene | Polysiloxane |
| TEMP RATING | -40°F to 300°F | -40°F to 250°F | 0°F to 350°F | -20°F to 300°F | 0°F to 250°F | -50°F to 350°F |
| GENERALLY SUITABLE FOR | Used for abrasion resistance approaching that of urethane. Very resistant to extrusion at high pressures. Used in petroleum oils and water. | Less than 10% acids- inorganic and organic, alcohols, alkaline salts and solutions, dry bulk, water. | All aromatic, aliphatic and halogenated hydrocarbons. | For highly oxidizing acids (nitric, sulfuric) and alkalis. | For acids, hydrocarbons containing less than 40% aromatics. | Used primarily on high temp. applications. Usually hot air. |
| GENERALLY NOT SUITABLE FOR | Acids | Hydrocarbons | Ketones, esters or in combination with hot water and oil. | Abrasive service, or hydrocarbon service | Abrasive service | Do not use in applications over 50 PSI. |

Notes:

1. Compound number is imprinted on O.D. Dove Trail Flat.
2. Other special compounds available on request.
3. Standard stem packing produced in compound #570.

* Indicates Black Buna-N.

To be used only as a guide in selecting the most satisfactory combination of elastomers for resistance to various chemical solutions. It must be stressed that this information is offered only as a guide, and because of variables in actual service conditions, the accuracy of the ratings cannot be guaranteed. Actual service life can be determined only by the elastomers in actual service conditions.

This chart should be used as a GENERAL GUIDE for a particular group of compounds. It does not mean that the seat rating necessarily applies to every possible compound that could be classified in the group.