



STANDARDS

- Fire tested according to API 607 4th Edition
- API 6D certified
- Face-to-face, end-to-end dimensions conform to ANSI B16.10
- BS 5158
- BS 5353

J Flow Controls 5500 Series Lubricated Balancing Plug Valve

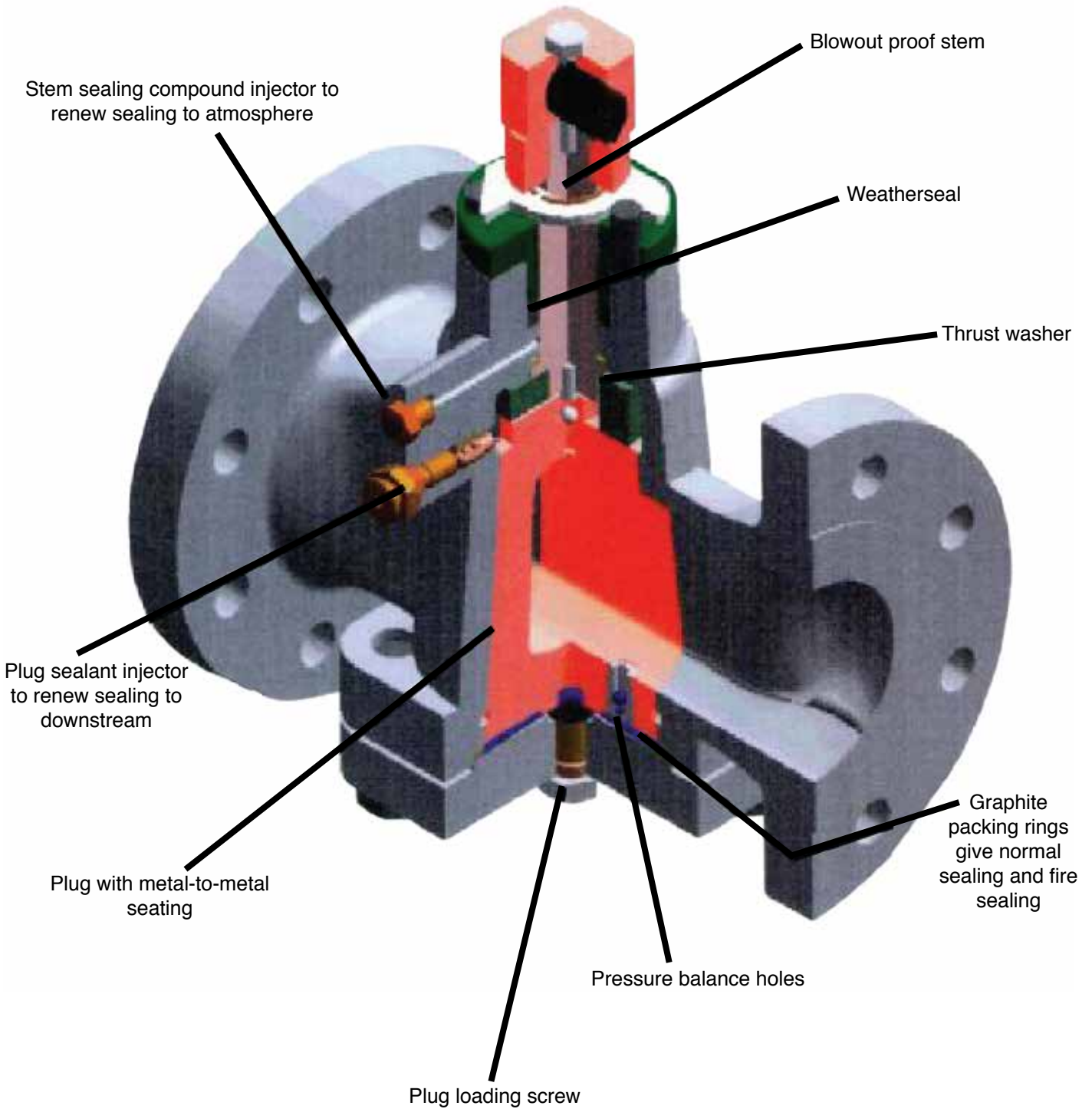
FEATURES & BENEFITS

- Zero leakage: tapered plug valve assures positive bubble-tight shutoff with unique sealant system
- Zero maintenance: tapered plug valve can be adjusted with the valve in line, extending the service life of the valve
- Zero cavity: slurry or sludge doesn't accumulate anywhere in the valve, because the valve has no dead cavity in the flow path
- Pressure balancing system: for maintaining pressure equalization between plug port and bottom of the plug, and for insuring the pressure above the plug being the same or greater than in the plug port, the valve's pressure balance system design is available

APPLICATIONS & INDUSTRIES

- Gas flow throttling
- Chemical service applications
- Natural gas
- Propane gas
- Digester gas
- Liquid asphalt
- Ore slurries

Design Features



5500 Series Lubricated Balancing Plug Valve

Engineering

| Comparison Table of Sealants | | | | |
|------------------------------|----------|------------|----------------|---|
| J Flow | Rockwell | Walworth | Climax | Available Fund |
| G-400/400A | 147-421 | | 400/400A | acids, alcohols, glyserine |
| G-204 | 234 | | 204 | silicone sealant |
| G-711 | 357 | | 711 | gasoline, mineral oils, kerosene |
| G-600 | 386 | | 600 | general gas and water sealant |
| G-650/800/900 | 555 | NO.1 | 650/800/900 | aliphatic hydrocarbon liquids and gases |
| G-650/800/900 | 654 | | 650/800/900 | hot hydrocarbon vapors and gases |
| G-711 | 755 | NO.7 | 711 | benzene, butane, solvent naphthas |
| G-711 | 833 | | 711 | aviation gasoline, jet fuel |
| G-220 | 862 | NO.5, NO.6 | 220 | air and inert gases at sub-zero temp. |
| G-950 | 950 | | 950 | benzene, propylene, styrene, LPGS |
| G-400A | | NO.4 | 400A | strong acids, alkalies |
| G-340 | | | 340 | sour gas, H ₂ S, CO ₂ |
| G-FL5 | 660 | | FL-5 | fluorocarbon, lubricant oxygen chlorine |
| G-PS3 | 921 | | Polyseal No. 3 | hot hydrocarbon gases and vapors |
| G-PS6 | | NO.2 | Polyseal No.6 | steam, high temperature water |

The available fluid is recommended by J Flow Controls. Depending on the conditions, it is possible to change the appropriate sealant.

5500 Series Lubricated Balancing Plug Valve

Lubricants

- Lubricant function:
 1. To minimize friction during operation of valve
 2. To protect seat surfaces from corrosion
 3. To prevent leakage by lubricant encircled with lubricant grooves
- Lubricant properties: Requirements to serve a variety of purposes
 1. Allow the valve to turn easily
 2. Assure tight sealing
 3. Chemically inert in the service fluid and adhesion property to the metal
 4. Remains in a plastic state over a wide range of temperature conditions
 5. No solidification from temperature or chemical reactions
- Lubricant Selection: According to lubricant classification, the below chart shows the temperature range, principal services and unsuitable fluids for lubricants

| Lubricant No. | Color | Temp. Range | Principal Services | Unsuitable Fluid |
|---------------|---------------|--------------|--|------------------------------|
| G-104 | Peanut Butter | -18 to 260°C | API gate valve, bady scored, ball or plug valve | Alkalies |
| G-204 | White | -46 to 204°C | Molten sulfur, acetic anhydride, acetic acid, food & pharmaceutical applications as determined by user | LPG and hydrocarbon solvents |
| G-220 | Clear | -59 to 121°C | Very cold service for pipe lines, compressor stations, gasoline plants and crude oil production fields. For liquid service | Aromatic, solvents |
| G-340 | Yellow | -29 to 204°C | Where H ₂ S and CO ₂ are encountered | Solvents & Amine |
| G-350A | Yellow | -29 to 204°C | Hydrofluoric acid or mixtures of HF & LPG | Hot Air |
| G-400A | Amber | -29 to 204°C | Aqueous solutions of acids and caustics | Liquid Hydrocarbons |
| G-400 | Red | -20 to 232°C | Acids and caustics | Liquid Hydrocarbons |
| G-525 | Clear | -18 to 204°C | Air starting valves; air fractionation | Liquid Hydrocarbons |
| G-600 | Brown | -29 to 260°C | General gas and water, Sealant and general, hydrocarbons service | LPG |
| G-650 | Green | -40 to 260°C | Hydrocarbon and LPG service | Aeromatic, Alkalies Solvents |
| G-711 | White | 0 to 204°C | Aviation gasoline, jet fuel, fuel blends of Alkyl-ate | 100% Bezine |
| G-750 | Black | -18 to 316°C | Asphalt hot oil service salt brine, high temperature steam | Aeromatic, Alalies Solvents |

5500 Series Lubricated Balancing Plug Valve

Application

Chemical, Oil, Gas & Hydrocarbon Process in Industries

Lubricated

Flanged End Plug Valves - Pressure Balanced

- 5500 Series have cast patterns for regular, short and venturi according to API 6D & API 599
- Face-to-face and end-to-end dimensions conform to ANSI B16.10
- Available pattern going with size and color

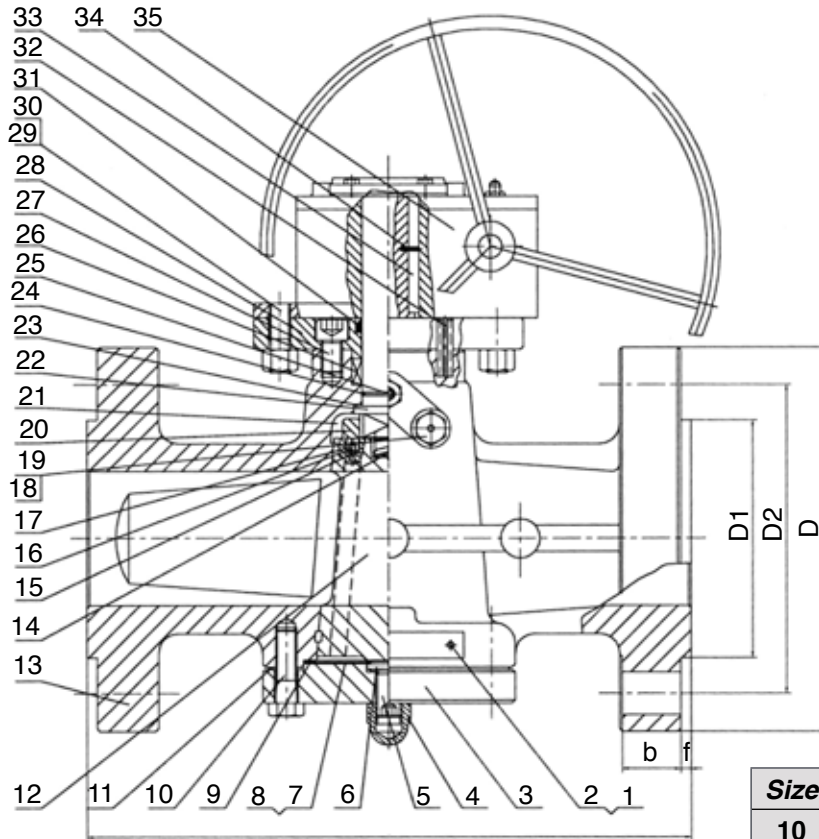
| Normal Size | | Class | | | |
|-------------|-----|-----------|-----------|-----------|------------|
| | | ANSI 150# | ANSI 300# | ANSI 600# | ANSI 1500# |
| IN | MM | | | | |
| 1/2 | 15 | | | R | R |
| 3/4 | 20 | | | R | R |
| 1 | 25 | | | R | R |
| 1-1/2 | 40 | | S | R | R |
| 2 | 50 | S | S | R | R |
| 3 | 80 | S | S | R | R |
| 4 | 100 | S | S | R | R |
| 6 | 150 | S | V | R V | R V |
| 8 | 200 | S | V | R V | R V |
| 10 | 250 | S | V | R V | R V |
| 12 | 300 | S | V | R V | R V |
| 14 | 350 | V | V | R V | |
| 16 | 400 | V | V | V | V |
| 18 | 450 | V | V | V | |
| 20 | 500 | V | V | V | |
| 24 | 600 | V | V | V | |

Notes:

1. Above pattern is available for flanged end type
2. Specific requirement for pattern is available, contact J Flow Controls
3. Above chart symbols means as follows: S: Short; R: Regular, V: Venturi

5500 Series Lubricated Balancing Plug Valve

DIMENSIONS AND BILL OF MATERIALS



| Size | L | D | D1 | D2 | b | f | Z-Ød |
|------|----|----|-------|-------|------|------|--------|
| 10 | 21 | 16 | 14.25 | 12.75 | 1.13 | 0.06 | 12-7/8 |

| No | Part Name | Materials |
|----|------------------|-----------------------|
| 1 | Nameplate | A276 304 |
| 2 | Rivet | T3 |
| 3 | Lower Cap | A216 WCB |
| 4 | Nut | 1025+CR |
| 5 | Adjustable Screw | 1045+Zn |
| 6 | Plate | 1045 |
| 7 | Gasket Plate | A36 |
| 8 | Settel Gasket | A276 304 |
| 9 | Graphite Gasket | Flexible Graphite/304 |
| 10 | Bolt | B |
| 11 | Seat Ring | NBR |
| 12 | Plug | A216 WCB+PTFE |
| 13 | Body | A216 WCB |
| 14 | Spring | 17-7PH |
| 15 | SS Ball | A276 304 |
| 16 | Spring | A276 304 |
| 17 | Bolt Cap | 1025+Zn |
| 18 | Injector | Injector |

| No | Part Name | Materials |
|----|----------------------------|-------------------|
| 19 | Single Way Fitting | |
| 20 | Connector | A182-F6A |
| 21 | Sealant | 7605 |
| 22 | Stem | 4140-FNP |
| 23 | Gasket | RPTFE |
| 24 | Stem Sealant | 7602 |
| 25 | Emergency Stem Injector | Flexible Graphite |
| 26 | Fire Safe Graphite Packing | |
| 27 | Screw | A193-B7 |
| 28 | Connector Plate | A105 |
| 29 | Nut | A194-2H |
| 30 | Bolt | A193-B7 |
| 31 | Stem Seal Ring | NBR |
| 32 | Flexible Parallel Pin | 1065 |
| 33 | Single Flat Pin | 1035 |
| 34 | Flexible parallel pin | 1037 |
| 35 | Gear actuator | |

5500 Series Lubricated Balancing Plug Valve

HOW TO ORDER

| Sizes | | Series | Body, Ball & Stem | | Port | | Packing | | Body Seal | | Seat | |
|-------|--------|--------|-------------------|-----------------------|------|---------|---------|----------|-----------|----------|------|-------|
| 3 | 1/2" | 55 | 23 | WCB, CF8M Ball & Stem | F | Full | G | Graphoil | G | Graphoil | M | Metal |
| 4 | 3/4" | | 33 | CF8M | R | Reduced | | | | | | |
| 5 | 1" | | | | | | | | | | | |
| 0 | 1-1/4" | | | | | | | | | | | |
| 6 | 1-1/2" | | | | | | | | | | | |
| 7 | 2" | | | | | | | | | | | |
| 8 | 3" | | | | | | | | | | | |
| 9 | 4" | | | | | | | | | | | |
| A | 6" | | | | | | | | | | | |
| B | 8" | | | | | | | | | | | |
| C | 10" | | | | | | | | | | | |
| D | 12" | | | | | | | | | | | |
| E | 14" | | | | | | | | | | | |
| F | 16" | | | | | | | | | | | |
| G | 18" | | | | | | | | | | | |
| H | 20" | | | | | | | | | | | |
| I | 22" | | | | | | | | | | | |
| J | 24" | | | | | | | | | | | |
| K | 26" | | | | | | | | | | | |
| L | 28" | | | | | | | | | | | |
| M | 30" | | | | | | | | | | | |

| End Connection* | |
|-----------------|-----------|
| F1 | ANSI 150 |
| F3 | ANSI 300 |
| F6 | ANSI 600 |
| F9 | ANSI 900 |
| F5 | ANSI 1500 |
| F2 | ANSI 2500 |
| FT | Threaded |

- * 1/2" - 30 - 150#
- 1/2" - 24" - 300#
- 1/2" - 24" - 600#
- 1/2" - 20" - 900#
- 1" - 16" - 1500#
- 2" - 16" - 2500#



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