



## **STANDARDS**

- 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**

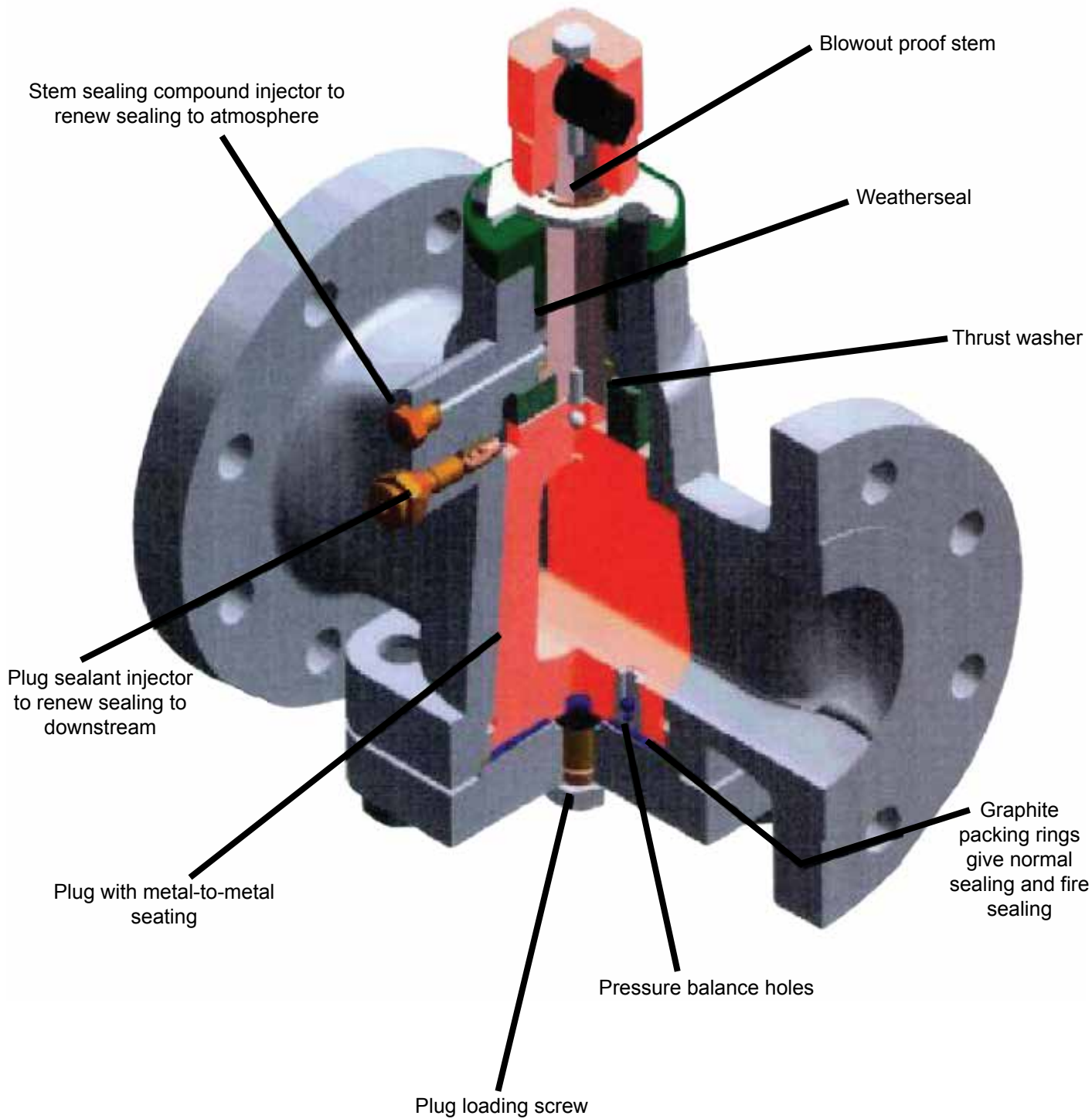
## **FEATURES & BENEFITS**

- 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 <sub>2</sub> S, CO <sub>2</sub>
G-FL5	660		FL-5	fluorocarbon, lubricant oxygen chlorin
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 meta
  4. Remains in a plastic state over a wide range of temperature conditions
  5. No solidification from temperature or chemical reaction
- Lubricant Selection: According to lubricant classification, the below chart shows the temperature range principal services and unsuitable fluids for lubricant

Lubricant No.	Color	Temp. Range	Principal Services	Unsuitable Fluid
G-104	Peanut Butter	-18 to 260°C	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 servic	Aromatic, solvents
G-340	Yellow	-29 to 204°C	Where H <sub>2</sub> S and CO <sub>2</sub> are encountered	Solvents & Amine
G-350A	Yellow	-29 to 204°C	Hydrofluoric acid or mixtures of HF & LP	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
- Face-to-face and end-to-end dimensions conform to ANSI B16.10
- Available pattern going with size and color

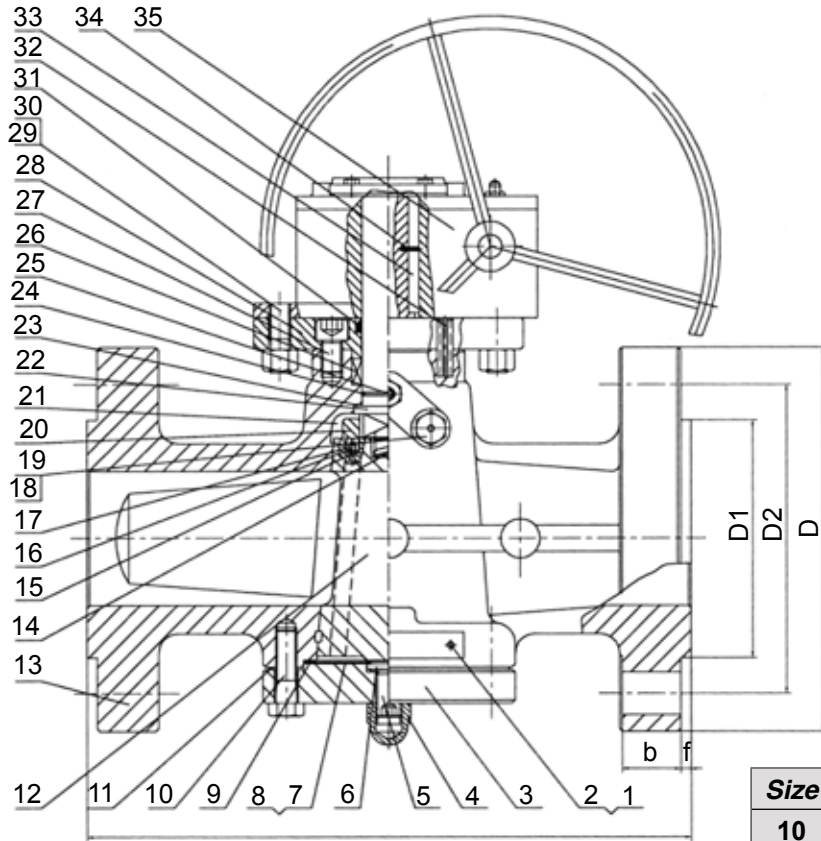
Normal Size		Class			
		ANSI 150#	ANSI 300#	ANSI 600#	ANSI 1500#
IN	MM				
1/2	15			R	R
3/4	20			R	R
1	25			R	R
1-1/2	40		S	R	R
2	50	S	S	R	R
3	80	S	S	R	R
4	100	S	S	R	R
6	150	S	V	R V	R V
8	200	S	V	R V	R V
10	250	S	V	R V	R V
12	300	S	V	R V	R V
14	350	V	V	R V	
16	400	V	V	V	V
18	450	V	V	V	
20	500	V	V	V	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

Notes:

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

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### 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"	<b>55</b>	<b>23</b>	WCB, CF8M Ball & Stem	<b>F</b>	Full	<b>G</b>	Graphoil	<b>G</b>	Graphoil	<b>M</b> Metal
4	3/4"		<b>33</b>	CF8M	<b>R</b>	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*	
<b>F1</b>	ANSI 150
<b>F3</b>	ANSI 300
<b>F6</b>	ANSI 600
<b>F9</b>	ANSI 900
<b>F5</b>	ANSI 1500
<b>F2</b>	ANSI 2500
<b>FT</b>	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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