



mining & industrial



Global performance. **Personal** touch.



Certified to NSF/ANSI 372

OCV Control Valves was founded more than 60 years ago with a vision and commitment to quality and reliability. From modest beginnings, the company has grown to be a global leader just half a century later. In fact, OCV valves can be found in some capacity in nearly every country around the world. From fire protection systems in Malaysia, to aircraft fueling systems in Africa, and oil refineries in Russia to water supply systems in the USA and Canada along with irrigation systems in Europe, South America and the Middle East, our valves provide superior fluid handling solutions.

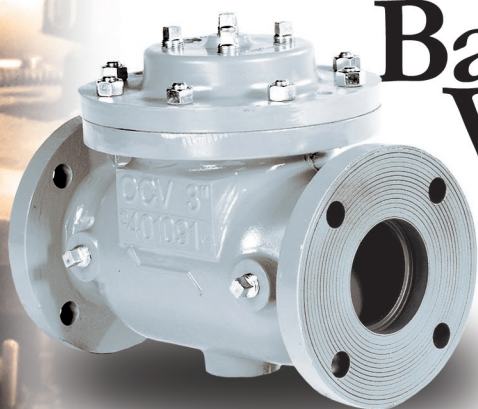
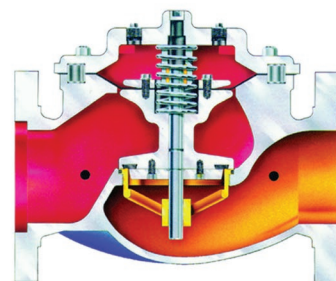
The foundation upon which the company was built allows our team of professionals to not only provide the service required to be a worldwide supplier, but, more importantly, the opportunity to afford the personal touch necessary to be each of our customers' best partner. Simply stated, we take pride in all that we do.

Committed to the work they do, our employees average over 15 years of service. This wealth of knowledge allows us to provide quality engineering, expert support, exacting control and the know-how to create valves known for their long life.

Being ISO 9001 certified means we are committed to a quality assurance program. Our policy is to supply each customer with consistent quality products and ensure that the process is right every time. Our valves meet and exceed industry standards around the world.

All valves are not created equal. OCV Control Valves proves that day in and day out. We stand behind our valves and are ready to serve your needs.

OCV control valves are hydraulically operated, diaphragm actuated globe or angle valves that operate automatically from either line pressure or an independent hydraulic source. Internal moving parts are minimal and all valves can be adjusted and serviced without removal from the line.



Basic Valve

Series 65 Basic Valve

The OCV Basic Control Valve 65 Globe and 65 Angle is a full port engineered valve. When equipped with a variety of pilots and accessories, the valve performs a wide range of automatic fluid control, making it a specified valve in municipal water, fire protection, irrigation, industrial, petroleum, mining and aviation fueling systems.

- Dependable and hard working, with a simplicity of design that ensures minimal part wear for exceptional performance and longevity.
- Self-contained, the valve operates automatically off of line pressure.
- The 65 consists of three major components: body, bonnet, diaphragm assembly.

Series 66 Power Actuated

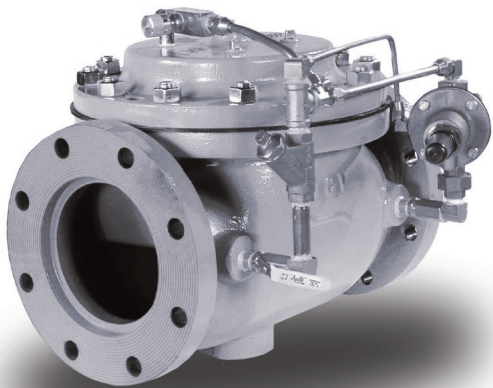
The Basic Control Valve 66 Globe and 66 Angle is a full port engineered valve equipped with two diaphragm chambers, sealed from each other by the diaphragm, and isolated from the valve's main flow passage by an intermediate plate. By pressurizing one control chamber while simultaneously venting the other, the valve is positively powered to both open and close.

A large majority of OCV valves have a single diaphragm chamber and operate off of line pressure; more specifically, off the pressure differential between the inlet and the outlet ports of the valve. There are, however, conditions that do not lend themselves to such an operation. For example, adequate differential to properly actuate the valve may not exist, the liquid being handled may be extremely dirty or otherwise unsuitable, or design of the system may, for some reason, make it preferable to use an outside hydraulic source. Under such conditions, the OCV Power Actuated Valve 66/66A provides an excellent solution.

Power Actuated



Pressure Relief



Series 108 Pressure Relief

In many liquid piping systems, it is vital that line pressure is maintained within relatively narrow limits. This is the function of the 108 Pressure Relief / Back Pressure Series of the OCV control valves. Installed in the main flow line, the standard Model 108-2 acts as a back-pressure or pressure sustaining valve. In this configuration, the valve maintains a constant upstream pressure regardless of fluctuating downstream demand. When used in a bypass line, the same model will function as a relief valve, protecting the system against potentially damaging surges.

Series Features:

- Relief: Maintains a constant inlet pressure by relieving excess high pressure.
- Sustaining: Prevents pressure from dropping below a minimum.
- Upstream pressure is adjustable with a complete range of control springs.
- Upstream pressure is accurate over a wide range of flow.
- Quick opening with controlled closing.

Surge Anticipation

Series 118 Surge Anticipation

The OCV Series 118/108SA-3 surge anticipation valves are designed to be installed in a bypass line and provide protection against damaging surges that can occur in pumping systems when a pump is suddenly stopped. Unlike conventional relief valves, which open only when a high pressure wave hits, surge anticipation valves sense the precursor of the high pressure wave (pump power failure or low pressure wave) and open in anticipation of the returning high pressure wave that follows. By opening, the valve prevents the buildup of pressure before it occurs.

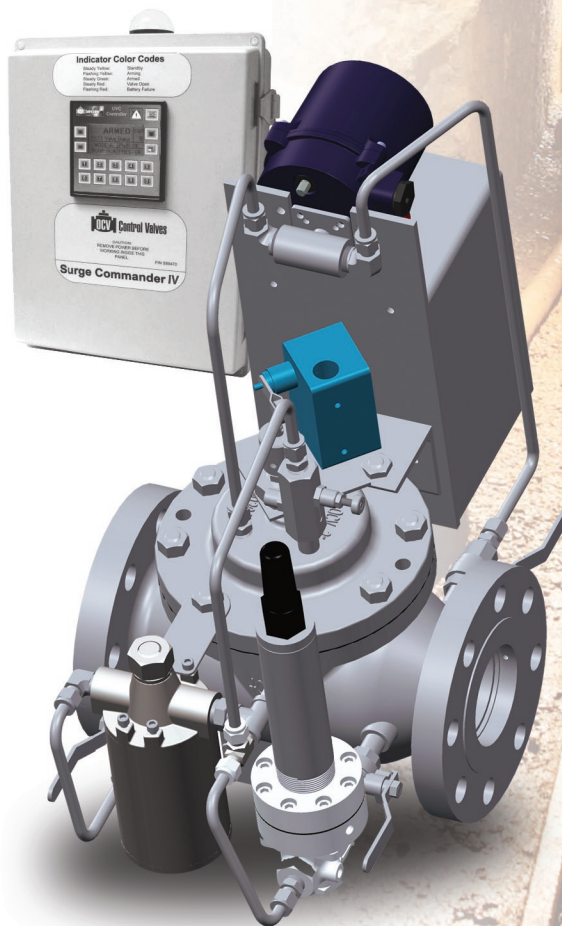
Series Features:

Electro-hydraulic Series 118

- Electrical power connection to pumping system for opening on loss of power or on a pressure switch low-pressure signal.
- Valve closes after (adjustable) predetermined time on power failure or low-pressure opening.
- Hydraulic, pilot operated, high-pressure relief opening.
- Uses Surge Commander electronics package (Model 118-4).

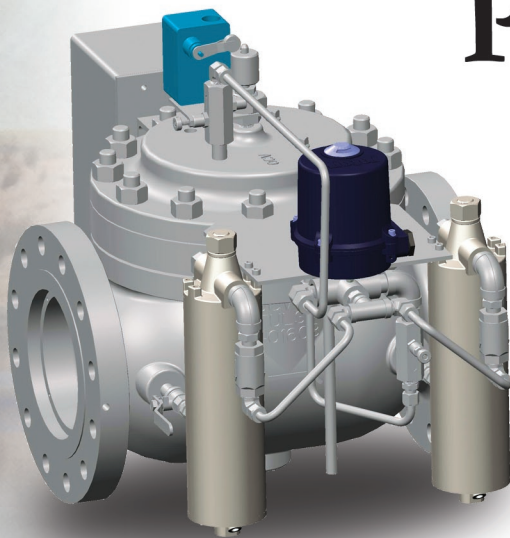
Fully Hydraulic Model 108SA-3

- No electrical requirements.
- Low-pressure opening pilot.
- High-pressure relief pilot.



Pump Control

Series 125 Pump Control



The OCV Series 125 Pump Control Valves are designed to effectively eliminate the surges associated with the starting and stopping of the pump. Electrically interfaced with the pump motor, the valve opens and closes at an adjustable speed, providing a smooth, predictable transition of pump discharge pressure and volume into the system.

Series Features:

- Valve opening speed is adjustable to pump and system requirements for smooth increase in pressure.
- Valve closing speed is adjustable, gradually decreasing pressure to the system as the valve closes.
- Valve is interlocked with the pump motor to perform unified pump and valve operation.
- Built-in reverse flow check feature.
- Valve automatically shuts off pump motor on loss of pump discharge pressure (shaft lock-up).
- Two simple field adjustments: opening speed and closing speed.

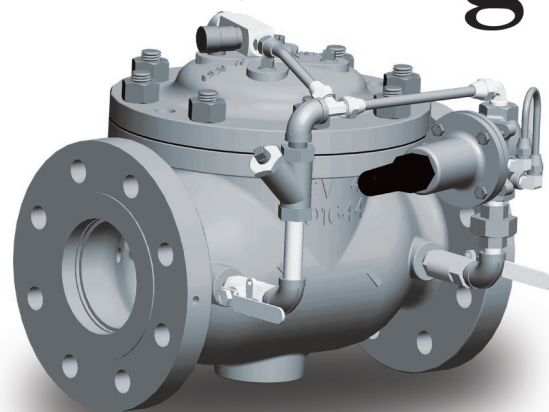
Series 127 Pressure Reducing

The OCV Pressure Reducing Valve is used in many applications worldwide. The primary function of the 127 series is to reduce a greater upstream pressure to a lesser, more manageable downstream pressure, operating without regard to either upstream supply or downstream demand.

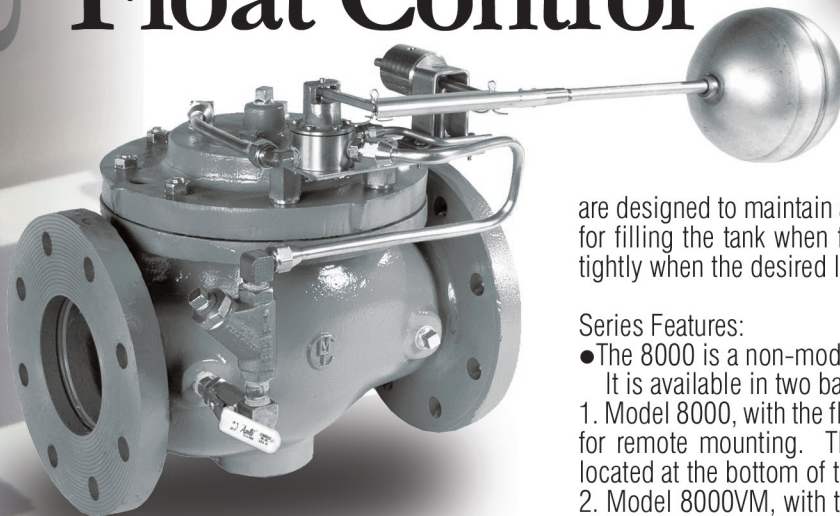
Series Features:

- Reduces higher inlet pressure to a constant lower outlet pressure.
- Outlet pressure is accurate over wide range of flow.
- Pilot-operated main valve is not subject to pressure fall-off characteristic of direct-acting PRV's.
- Outlet pressure is adjustable over complete range of control spring.

Pressure Reducing



Float Control



Series 8000 Float Control

The OCV Series 8000 Float Control valves are designed to maintain a desired level in a tank or reservoir by opening for filling the tank when fluid is below the high level point and closing tightly when the desired level is reached.

Series Features:

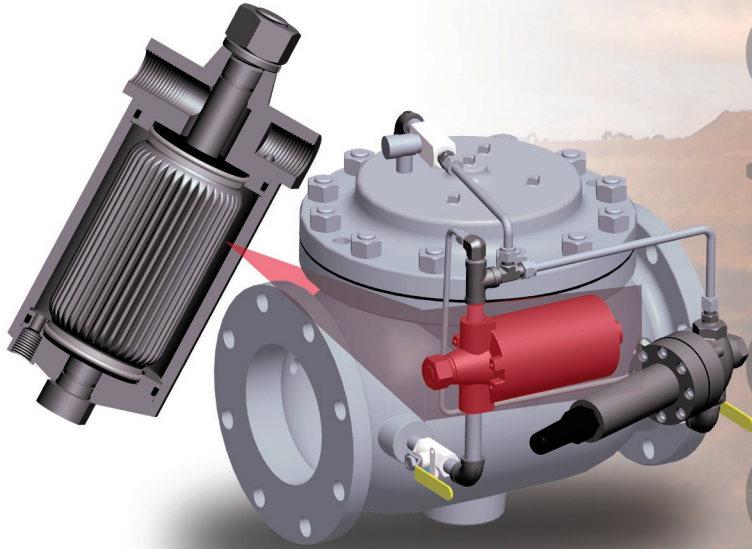
- The 8000 is a non-modulating valve; either full open or full closed.
- It is available in two basic configurations:
1. Model 8000, with the float pilot provided separate from the main valve for remote mounting. This configuration is used when the fill line is located at the bottom of the tank.
 2. Model 8000VM, with the float pilot mounted on the main valve. This configuration is typically used when the fill line is located at the top of the tank.
- All Series 8000 valves include an OCV Basic 65 Valve assembly and a Model 814 three-way rotary float pilot. For faster operation, valves 8" and larger also include a Model 3600 three-way auxiliary pilot.

Optional Accessories

Model 170 Filter & 170L High Pressure Filter

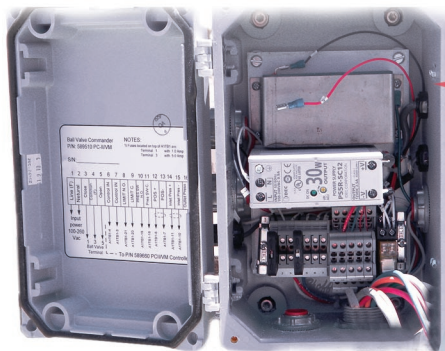
The Models 170 and 170L Filters install in the inlet piping of the control valve pilot system and protect the pilot system from solid contaminants in the line fluid. The high capacity, pleated element makes the 170 and 170L ideal for those applications where the fluid being controlled has a relatively high percentage of suspended solids. Its robust design and all stainless steel construction allows for operation at high pressures and in corrosive environments.

The longer 170L filter has twice the capacity of the standard 170, allowing for longer times between cleanings



Model 2400 High Pressure Relief Pilot

The Model 2400 is a two-way, normally closed pilot that senses pressure under its diaphragm and balances it against an adjustable spring load. An increase in pressure above the spring set point tends to make the pilot open. The Model 2400 is designed for high pressure applications.



Motorized Ball Valves

Certain solutions are incompatible with conventional solenoids and motorized ball valves are used in their place. Operating on 12VDC, they are typically provided with a Ball Valve Commander that converts the AC control signals into 12VDC and ensures ball valve closure on electrical power failure.



Specifications

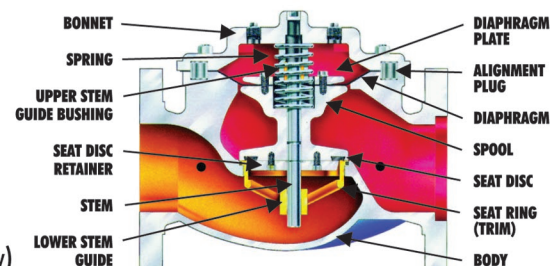
VALVE BODY & BONNET		DUCTILE IRON		CAST STEEL		STAINLESS STEEL	
Material Specifications		ASTM A536/65-45-12 (epoxy coated)		ASTM A216/WCB (epoxy coated)		ASTM A351/CF8M	
END CONNECTIONS							
Flange Standard (also available in metric)		ANSI B16.42		ANSI B16.5		ANSI B16.5	
Flange Class		150#	300#	150#	300#	150#	300#
Flange Face		Flat	Raised	Raised	Raised	Raised	Raised
Maximum Working Pressure		250 psi	640 psi	285 psi	740 psi	285 psi	740 psi
Screwed Working Pressure:		ANSI B1.20.1	640 psi	Grooved End Working Pressure:		300 psi	
INTERNALS							
Stem		STAINLESS STEEL					
Spring		STAINLESS STEEL					
Spool		DUCTILE IRON (epoxy coated) / OPTIONAL - STAINLESS STEEL				STAINLESS STEEL	
Seat Disc Retainer		DUCTILE IRON (epoxy coated) (10" & LARGER) STAINLESS STEEL (8" & SMALLER / OPTIONAL - ALL SIZES)				STAINLESS STEEL	
Diaphragm Plate		DUCTILE IRON (epoxy coated) / OPTIONAL - STAINLESS STEEL				STAINLESS STEEL	
Seat Ring (Trim)		LOW-LEAD BRONZE OR STAINLESS STEEL				STN. STL. ASTM A351/CF8M	
Upper Stem Bushing		BRONZE OR TEFLON®				TEFLON®	
Lower Stem Bushing		NOT APPLICABLE FOR LOW-LEAD BRONZE SEAT RINGS / TEFLON® FOR STN.STL. SEAT RINGS					
ELASTOMER PARTS (Rubber)							
Diaphragm/Seat Disc/O-Rings		EPDM / OPTIONAL - VITON®					
Operating Temperature (Consult factory when temperatures approach low or high temperature allowance.)		32°F to 230°F					
COATINGS		EPOXY COATING					
ELECTRICAL SOLENOIDS							
Bodies		BRASS / OPTIONAL - STAINLESS STEEL					
Enclosures		WATER TIGHT, NEMA 1, 3, 4, & 4X					
Power		AC, 60HZ - 24, 120, 240, 480 VOLTS		AC, 50HZ - In 110 VOLT MULTIPLES		DC, 6, 12, 24, 240 VOLTS	
Operation		ENERGIZE TO OPEN (NORMALLY CLOSED)		DE-ENERGIZE TO OPEN (NORMALLY OPEN)			
CONTROL PILOTS							
Bodies		LOW-LEAD BRONZE	STN. STL. / ASTM A351/CF8M				
Internal		STAINLESS STEEL	STAINLESS STEEL				
CONTROL CIRCUITS							
Tubing		COPPER	STAINLESS STEEL				
Fittings		LOW-LEAD BRASS	STAINLESS STEEL				

TEFLON® is a registered trademark of DuPont

The diagram shows a cross-section of a valve assembly. Labels with arrows point to various components: BONNET (top), SPRING (above the stem), UPPER STEM GUIDE BUSHING (on the left side of the stem), SEAT DISC RETAINER (at the bottom of the stem), DIAPHRAGM PLATE (top of the diaphragm), ALIGNMENT PLUG (on the right side of the diaphragm), DIAPHRAGM (the main flexible part), SPOOL (the central part of the diaphragm), and SEAT DISC (at the bottom of the diaphragm).

Special Service Valve Materials: Duplex Stainless Steel,
Super Duplex Stainless Steel (Contact factory)

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Globe Flanged Sizes

1.25"	1.5"	2"	2.5"	3"	4"	6"	8"	10"	12"	14"	16"	18"*	20"*	24"
32mm	40mm	50mm	65mm	80mm	100mm	150mm	200mm	250mm	300mm	350mm	400mm	450mm*	500mm*	600mm

*CONSULT FACTORY



Angle Flanged Sizes

1.25"	1.5"	2"	2.5"	3"	4"	6"	8"	10"	12"	16"
32mm	40mm	50mm	65mm	80mm	100mm	150mm	200mm	250mm	300mm	400mm



Globe/Angle Screwed Sizes

1.25"	1.5"	2"	2.5"	3"
32mm	40mm	50mm	65mm	80mm



Globe/Angle Grooved Sizes

1.5"	2"	2.5"	3"	4"	6"*
32mm	50mm	65mm	80mm	100mm	150mm*

*GLOBE ONLY

Dimensions

U.S. DIMENSIONS - INCHES

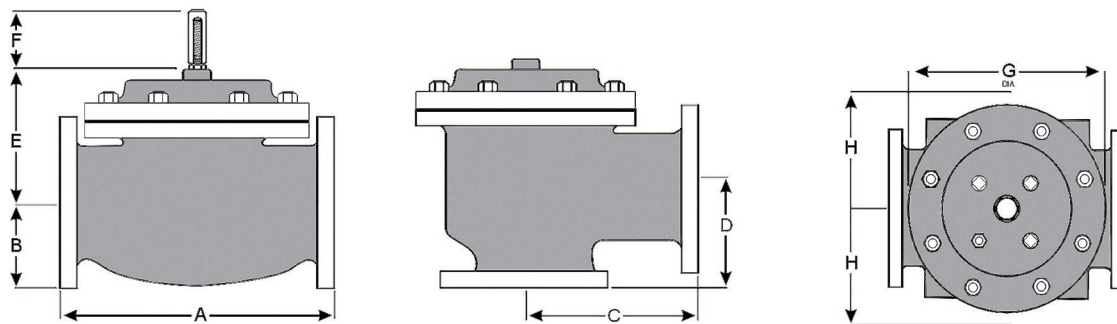
DIM	END CONN.	1 1/4-1 1/2	2	2 1/2	3	4	6	8	10	12	14	16	24
A	SCREWED	8 3/4	9 7/8	10 1/2	13	--	--	--	--	--	--	--	--
	GROOVED	8 3/4	9 7/8	10 1/2	13	15 1/4	20	--	--	--	--	--	--
	150# FLGD	8 1/2	9 3/8	10 1/2	12	15	17 3/4	25 3/8	29 3/4	34	39	40 3/8	62
	300# FLGD	8 3/4	9 7/8	11 1/8	12 3/4	15 5/8	18 5/8	26 3/8	31 1/8	35 1/2	40 1/2	42	63 3/4
B	SCREWED	1 7/16	1 11/16	1 7/8	2 1/4	--	--	--	--	--	--	--	--
	GROOVED	1*	1 3/16	1 7/16	1 3/4	2 1/4	3 5/16	--	--	--	--	--	--
	150# FLGD	2 5/16-2 1/2	3	3 1/2	3 3/4	4 1/2	5 1/2	6 3/4	8	9 1/2	10 5/8	11 3/4	16
	300# FLGD	2 5/8-3 1/16	3 1/4	3 3/4	4 1/8	5	6 1/4	7 1/2	8 3/4	10 1/4	11 1/2	12 3/4	18
C ANGLE	SCREWED	4 3/8	4 3/4	6	6 1/2	--	--	--	--	--	--	--	--
	GROOVED	4 3/8*	4 3/4	6	6 1/2	7 5/8	--	--	--	--	--	--	--
	150# FLGD	4 1/4	4 3/4	6	6	7 1/2	10	12 11/16	14 7/8	17	--	20 13/16	--
	300# FLGD	4 3/8	5	6 3/8	6 3/8	7 13/16	10 1/2	13 3/16	15 9/16	17 3/4	--	21 5/8	--
D ANGLE	SCREWED	3 1/8	3 7/8	4	4 1/2	--	--	--	--	--	--	--	--
	GROOVED	3 1/8*	3 7/8	4	4 1/2	5 5/8	--	--	--	--	--	--	--
	150# FLGD	3	3 7/8	4	4	5 1/2	6	8	11 3/8	11	--	15 11/16	--
	300# FLGD	3 1/8	4 1/8	4 3/8	4 3/8	5 13/16	6 1/2	8 1/2	12 1/16	11 3/4	--	16 1/2	--
E	ALL	6	6	7	6 1/2	8	10	11 7/8	15 3/8	17	18	19	27
F	ALL	3 7/8	3 7/8	3 7/8	3 7/8	3 7/8	3 7/8	6 3/8	6 3/8	6 3/8	6 3/8	6 3/8	8
G	ALL	6	6 3/4	7 11/16	8 3/4	11 3/4	14	21	24 1/2	28	31 1/4	34 1/2	52
H	ALL	10	11	11	11	12	13	14	17	18	20	20	28 1/2

*GROOVED END NOT AVAILABLE IN 1 1/4"

METRIC DIMENSIONS - MM

DIM	END CONN.	DN32-DN40	DN50	DN65	DN80	DN100	DN150	DN200	DN250	DN300	DN350	DN400	DN600
A	SCREWED	222	251	267	330	--	--	--	--	--	--	--	--
	GROOVED	222	251	267	330	387	508	--	--	--	--	--	--
	150# FLGD	216	238	267	305	381	451	645	756	864	991	1026	1575
	300# FLGD	222	251	283	324	397	473	670	791	902	1029	1067	1619
B	SCREWED	37	43	48	57	--	--	--	--	--	--	--	--
	GROOVED	25*	30	37	44	57	84	--	--	--	--	--	--
	150# FLGD	59-64	76	89	95	114	140	171	203	241	270	298	406
	300# FLGD	67-78	83	95	105	127	159	191	222	260	292	324	457
C ANGLE	SCREWED	111	121	152	165	--	--	--	--	--	--	--	--
	GROOVED	111*	121	152	165	194	--	--	--	--	--	--	--
	150# FLGD	108	121	152	152	191	254	322	378	432	--	529	--
	300# FLGD	111	127	162	162	198	267	335	395	451	--	549	--
D ANGLE	SCREWED	79	98	102	114	--	--	--	--	--	--	--	--
	GROOVED	79*	98	102	114	143	--	--	--	--	--	--	--
	150# FLGD	76	98	102	102	140	152	203	289	279	--	398	--
	300# FLGD	79	105	111	111	148	165	216	306	298	--	419	--
E	ALL	152	152	178	165	203	254	302	391	432	457	483	686
F	ALL	98	98	98	98	98	98	162	162	162	162	162	203
G	ALL	152	171	195	222	298	356	533	622	711	794	876	1321
H	ALL	254	279	279	279	305	330	356	432	457	508	508	724

*GROOVED END NOT AVAILABLE IN DN32



For maximum efficiency, the OCV control valve should be mounted in a piping system so that the valve bonnet (cover) is in the top position. Other positions are acceptable but may not allow the valve to function to its fullest and safest potential. In particular, please consult the factory before installing 8" and larger valves, or any valves with a limit switch, in positions other than described. Space should be taken into consideration when mounting valves and their pilot systems.

A routine inspection & maintenance program should be established and conducted yearly by a qualified technician. Consult our factory @ 1-888-628-8258 for parts and service.

How to order your valve

When ordering please provide: - Series Number - Valve Size - Globe or Angle - Pressure Class - Screwed, Flanged, Grooved - Trim Material - Adjustment Range - Pilot Options - Fluid to be Controlled - Elastomer Material - Special Needs / or Installation Requirements.

mining & industrial

Represented by:



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