

▲ Model 765  
6" Flanged x 4" Port Shown

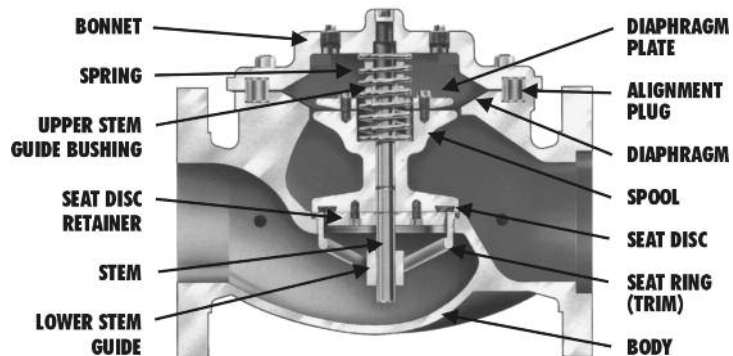
The OCV 765 Control Valve is a globe pattern, reduced port engineered valve. The body, bonnet, internals and seat area are a size smaller than the flange size. Reduced port valves address the need for correctly sized valves without the use of pipeline reducers, allowing the valve to handle an application that demands flow rates of a smaller valve. An example would be an application where the flow rate dictates a 3" valve is used but the line size is 4 inches; thus a Model 765, 4" flanged body with 3" internals appropriately fits this condition.

When equipped with a variety of pilots and accessories the 765 valve performs a wide range of automatic fluid control, making it a specified valve in many applications. Reduced port valves are not applicable for all applications; consult factory for proper sizing assistance. Most common applications are found in modulating or regulating valves; i.e. pressure reducing, pressure relief and among others.

Reduced port valves are available in most OCV valve series. Valve models using the reduced port basic valve start with a number 7. For example: Model 127-3 (full port pressure reducing) would become a Model 727-3 (reduced port pressure reducing).

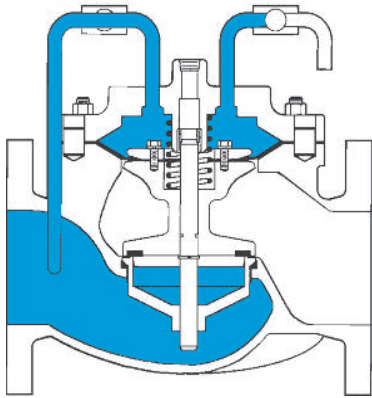
## FEATURES / BENEFITS

- ▶ Operates automatically off of line pressure
- ▶ Heavy-duty, nylon-reinforced diaphragm
- ▶ Rectangular-shaped, soft seat seal provides drip-tight Class VI closure
- ▶ Diaphragm assemble guided top and bottom
- ▶ Throttling seat retainer for flow and pressure stability
- ▶ Easily maintained without removal from the line
- ▶ Diaphragm replaced without removing internal stem assembly
- ▶ Replaceable seat ring
- ▶ Alignment pins assure proper reassembly after maintenance
- ▶ Center-tapped bonnet facilitates installation of position indicator or valve-actuated switches
- ▶ Ductile iron and steel valves are epoxy coated inside and outside for maximum corrosion protection
- ▶ Factory tested
- ▶ Serial numbered and registered to facilitate replacement parts and factory support
- ▶ Use is dictated by flow rate instead of line size, which allows for the correct valve sizing without the use of pipeline reducers



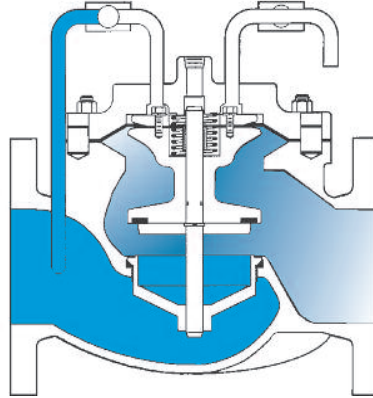
TOLL FREE 1.888.628.8258 • phone: (918)627.1942 • fax: (918)622.8916 • 7400 East 42nd Place, Tulsa, OK 74145  
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## VALVE OPERATION



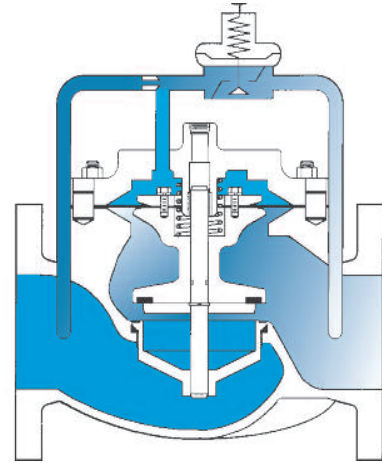
### Valve Closed

When line pressure from the valve inlet is applied to the cover chamber, pressuring the diaphragm, the valve is closed drip-tight.



### Valve Open

When diaphragm chamber pressure is vented the valve travels to the full open position.



### Valve Modulating

The valve is between full open and closed. The valve's control pilot modulates the pressure in the diaphragm chamber, positioning the valve to control the desired pressure or flow. OCV pilot systems provide accurate control in a wide range of performance requirements.

## BASIC VALVE FLOW CHARACTERISTICS

FLANGE SIZE (INCHES)	3"	4"	6"	8"	10" *	12" *	16" *	18"	20"	24"
INTERIOR PORT (INCHES)	2"	3"	4"	6"	8"	10"	12"	16"	16"	16"
FLANGE SIZE (METRIC)	DN80	DN100	DN150	DN200	DN250	DN300	DN400	DN450	DN500	DN600
INTERIOR PORT (METRIC)	50	80	100	150	200	250	300	400	400	400
C <sub>v</sub> (US Gal@ 1 PSID)	70	135	215	480	--	--	--	3000	3300	3600
C <sub>v</sub> (L/Sec @ 1 bar)	16.7	32.3	51.4	114.7	--	--	--	717	789	860

\*Consult factory

$$DP = sg \left( \frac{Q}{C_v} \right)^2$$

where:

Q = Flow Rate in USGPM (U.S.) or Q = Flow Rate in liters/sec (Metric)

C<sub>v</sub> = Flow Rate in USGPM @ 1 psi pressure drop (U.S.) or C<sub>v</sub> = Flow Rate in liter/sec @ 1 bar pressure drop (Metric)

DP = Pressure drop in psi (U.S.) or DP = Pressure drop in bar (Metric)

sg = specific gravity of line fluid

## ABOUT YOUR VALVE

OCV Control Valves was founded more than 50 years ago with a vision and commitment to quality and reliability. From modest beginnings, the company has grown to be a global leader just a half 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 from oil refineries in Russia to water supply systems in the USA and Canada. You will also find our valves in irrigation systems in Europe, South America and the Middle East.

The original foundation on 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. Including approvals by:



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.

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## SPECIFICATIONS

VALVE BODY & BONNET	DUCTILE IRON		CAST STEEL		CAST BRONZE		STAINLESS STEEL	
<b>Material Specifications</b>	ASTM A536 (epoxy coated)		ASTM A216/WCB (epoxy coated)		ASTM		ASTM A743/CF8M	
<b>END CONNECTIONS</b>								
Flange Standard (also available in metric)	ANSI B16.42		ANSI B16.5		ANSI B16.24		ANSI B16.5	
Flange Class	150#	300#	150#	300#	150#	300#	150#	300#
Flange Face	Flat	Raised	Raised	Raised	Flat	Flat	Raised	Raised
Maximum Working Pressure	250 psi	640 psi	285 psi	740 psi	225 psi	500 psi	285 psi	740 psi
<b>INTERNALS</b>								
Stem	STAINLESS STEEL AISI 303				OPTIONAL MONEL			
Spring	STAINLESS STEEL AISI 302							
Spool	DUCTILE IRON ASTM A536 (epoxy coated)						STN. STL. ASTM A 743/CF8M	
Seat Disc Retainer	DUCTILE IRON ASTM A536 (epoxy coated) 4" & SMALLER VALVES - STAINLESS STEEL						STAINLESS STEEL	
Diaphragm Plate	DUCTILE IRON ASTM A536 (epoxy coated)						STAINLESS STEEL	
Seat Ring (Trim)	BRONZE OPTIONAL STAINLESS STEEL ASTM A743/CF8M						STN. STL. ASTM A 743/CF8M	
Upper Stem Bushing	STANDARD BRONZE ASTM B438		VALVE W/ STAINLESS STEEL SEAT RING-TEFLON				TEFLON	
Lower Stem Bushing	SEAT MATERIAL VALVES W/ STAINLESS STEEL SEAT RING-TEFLON						TEFLON	
<b>ELASTOMER PARTS (Rubber)</b>								
Diaphragm/Seat Disc/O-Rings	STANDARD - BUNA-N NYLON REINFORCED				OPTIONAL - VITON®		OPTIONAL - EPDM	
Operating Temperature	-40°F to 180°F				32°F to 400°F		0°F to 300°F	
<b>COATINGS</b>								
WIDE RANGE OF COATING PER YOUR FLUID APPLICATION. COATINGS HANDLE MUNICIPAL POTABLE WATER, SEAWATER, PETROLEUM AND REFINED PRODUCTS.								

VITON® is a registered trademark of DuPont Dow Elastomers.

**SALTWATER SERVICE VALVE MATERIALS** Cast Steel Special Coatings  
 --Ni Aluminum Bronze ASTM B148  
 --Super Duplex Stainless Steel



### Globe Flanged Sizes - Flange X Port

3" x 2"	4" x 3"	6" x 4"	8" x 6"	10" x 8"*	12" x 10"*	16" x 12"*	18" x 16"	20" x 16"	24" x 16"
80x50mm	100x80mm	150x100mm	200x150mm	250x200mm	300x250mm	400x300mm	450x400mm	500x400mm	600x400mm

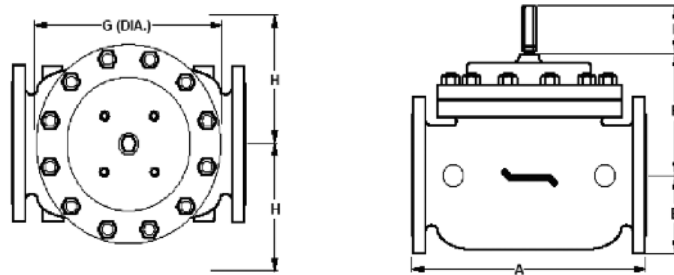
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## DIMENSIONS

DIM	ANSI CLASS	VALVE SIZE									
		3	4	6	8	10*	12*	16*	18	20	24
A	150	10.50	13.50	15.50	21.62	26.00	30.00	35.00	48.00	48.00	48.00
	300	10.88	14.12	16.38	22.62	27.38	31.50	36.62	49.62	49.62	49.75
B	150	3.75	4.50	5.50	6.75	8.00	9.50	11.75	12.50	13.75	16.00
	300	4.12	5.00	6.25	7.50	8.75	10.25	12.75	14.00	15.25	18.00
E	ALL	6.00	6.50	7.92	10.00	11.88	15.38	17.00	19.00	19.00	19.00
F	ALL	3.88	3.88	3.88	3.88	6.38	6.38	6.38	6.38	6.38	6.38
G	ALL	6.75	8.75	11.75	14.00	21.00	24.50	28.00	34.50	34.50	34.50
H	ALL	11.00	11.00	12.00	13.00	14.00	17.00	18.00	20.00	20.00	20.00
INTERIOR PORT		2"	3"	4"	6"	8"	10"	12"	16"	16"	16"
Cv		70	135	215	480	--	--	--	3000	3300	3600

\*Consult factory



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 10" and larger flanged 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 - Class - Flanged Trim Material - Pilot Options - Special needs / or Installation Requirements.

Refer to model sheet for specific options.

Represented by:

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