

JOB:	REPRESENTATIVE:	
UNIT TAG:	ORDER NO.	DATE:
ENGINEER:	SUBMITTED BY:	DATE:
	SUBMITTED BT.	
CONTRACTOR:	APPROVED BY:	DATE:



Centrifugal Pump Accessories

# Triple Duty® Valve

## Model 3DX

Nonslam Check Valve, Throttling Valve, Calibrated Balance Valve and Shutoff Valve

#### **DESCRIPTION**

The Bell & Gossett 3DX Triple Duty Valve is a quiet operating multipurpose valve that performs all the required functions on the discharge side of hydronic system pumps.

The 3DX Triple Duty Valve is a cast iron straight /angle pattern valve that can be installed with bottom or side inlet, and has a maximum working pressure of 125 psig at 250 °F.

This unique valve is a spring-loaded non-slam check valve that is used for multiple zoning, parallel pumping, and condenser water applications. The spring-loaded disc prevents valve chatter and induced secondary flow in primary-secondary applications, and assures shut-off.

The Bell & Gossett 3DX Triple Duty Valve has a calibrated nameplate for rough system balance. The 3DX is also equipped with model RV-125A brass readout vales for more accurate system balance.

The calibrated nameplate enables the valve to be returned to the original balance position after shutoff. The valve may be repacked under system pressure by turning the valve stem to the fully open position. This also provides gravity circulation. Turning the valve stem to the closed position provide positive shutoff.

#### **CONSTRUCTION MATERIALS**

Body: Cast Iron with Bronze Seat

Disc: Brass

Soft Seat: EPDM Against Brass

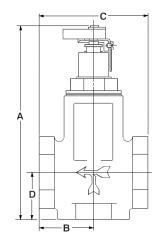
Spring: Stainless Steel

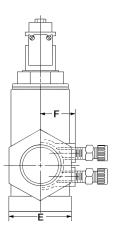
Packing: Aramid (Asbestos & Teflon Free)

Stem: Brass

### SCHEDULE Maximum Working Pressure 125 PSIG (862 kPa) - Maximum Operating Temperature 250°F (121°C)

MODEL NO.	PART #.	TAGGING INFORMATION	QUANTITY
3DX-1	132072		
3DX-1-1/4	132159		
3DX-1-1/2	132074		





		DIMENSIONS IN INCHES**(mm)									
			Α						APPROX. SHPG. WT.		
MODEL NUMBER	SIZE	OPEN	CLOSED	В	С	D	E	F	LBS. (Kg)		
3DX-1	1	7	6-3/8	1-3/4	3-1/2	1-1/2	2	1-1/8	3		
JDX-1	'	(177.8)	(161.9)	(44.4)	(88.9)	(38.1)	(50.8)	(28.6)	(1.4)		
3DX-1-1/4	1-1/4	8	7-1/4	2	4	1-7/8	2-1/2	1-1/4	5		
3DA-1-1/4	1-1/4	(203.2)	(184.1)	(50.8)	(101.6)	(47.6)	(63.5) (31.8) (2.	(2.3)			
3DX-1-1/2	1-1/2	8-3/4 8		2-1/2	5	2-1/4	2-5/8	1-1/2	7		
	1-1/2	(222.2)	(203.2)	(63.5)	(127.0)	(57.2)	(66.7)	(38.1)	(3.2)		

Dimensions are subject to change. Not to be used for construction purposes unless certified.

			BELL & GOSSETT 3DX TRIPLE DUTY VALVES Cv RATINGS VS. PERCENT OF STEM RISE (m³/hr)																
		20%		30%		40%		50%		60%		70%		80%		90%		100%	
MODEL NO.	VALVE PATTERN	Α	В	Α	В	Α	В	Α	В	Α	В	Α	В	Α	В	Α	В	Α	В
3DX-1	ANGLE	2.00 2	2 00	2.65	2 50	3.50	3.40	4.25	3.92	5.15	4.60	5.55	5.05	6.00	5.50	6.60	6.15	7.35	6.80
	STRAIGHT		2.00	2.03	2.56			4.23											
3DX-1-1/4	ANGLE	4 20	4 20	F 60	5.50	7.40	7.20	8.40	8.00	9.40	9.00	10.03	9.60	11.00	10.30	11.75	11.00	12.25	11.70
	STRAIGHT	4.20 2	4.20	5.00															
3DX-1-1/2	ANGLE	6 90	90 7 10	8.90	0.10	12.20	11.60	14 50	12.50	17 20	15.80	19.50	17.25	21.50	18.50	23.50	19.50	26.00	20.50
	STRAIGHT	0.60	7.10		9.10		11.60	14.50	13.50	17.20									

A Flowmeter Cv for balancing **B** Cv for calculating pressure drop across the valve.

Note: Maximum recommended pressure drop should not exceed 25 feet.

#### TYPICAL SPECIFICATIONS

Furnish and install as shown on plans, a combination straight /angle pattern valve designed to perform the functions of a non-slam check valve, throttling valve, shutoff valve, calibrated balancing valve and system flowmeter.

The valve shall be of heavy duty cast iron construction and rated for a maximum working pressure of 125 psig at 250°F.

The valve shall be fitted with a soft seat (EPDM on brass), replaceable brass disc, brass stem, and chatter preventing stainless steal spring. The valve design shall permit repacking under full system pressure.

Each valve shall be equipped with brass readout valves (with integral check valve) for taking differential pressure readings across the orifice to accurately balance the system to specified design conditions.

All valves shall be Xylem Bell & Gossett Model No. 3DX-\_\_\_\_\_ Triple Duty® Valve.



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