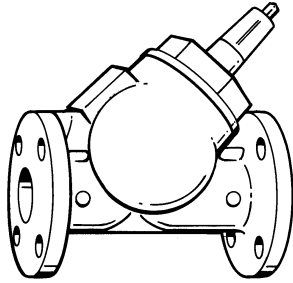


JOB:	REPRESENTATIVE:	
UNIT TAG:	ORDER NO.	DATE:
ENGINEER:	SUBMITTED BY:	DATE:
CONTRACTOR:	APPROVED BY:	DATE:



Centrifugal Pump Accessories
Triple Duty[®] Valve – with Flanged Ends
 Straight Pattern with Soft Seat Nonslam Check Valve,
 Throttling Valve, Calibrated Balance Valve and Shutoff Valve

DESCRIPTION

The Triple Duty Valve is a quiet operating heavy-duty valve which performs all of the functions normally required on the discharge side of hydronic system pumps.

The valve serves as a nonslam check valve as needed for zoned pumping, parallel and standby pumping, and condenser water applications. The spring loaded disk prevents valve chatter, and assures positive shutoff.

Bell & Gossett's Triple Duty Valve has a calibrated nameplate for rough system balance. The Triple Duty Valve is also equipped with Model RV-125A brass readout valves for more accurate system balance.

The calibrated nameplate allows the valve to be returned to the original balance position after shutoff.

To repack under system pressure, turn the valve stem to the fully open position. Turning the valve stem to the closed position provides shutoff.

CONSTRUCTION MATERIALS

- Body: Cast Iron with Bronze Seat
- Disc: Brass with EPDM Seat Insert
- Stem: Stainless Steel
- Spring: Stainless Steel
- Packing: Teflon-Graphite (Asbestos-free)
- Gasket: Asbestos-free
- Readout Valve: Brass with EPT insert, Check Valve & Gasket

SCHEDULE Maximum Working Pressure 175 PSIG (1,207 kPa) – Maximum Operating Temperature 250°F (121°C)

MODEL NO.	PART #	FLANGE SIZE INCHES (mm)	MAXIMUM RECOMMENDED FLOW GPM (m ³ /hr)	TAGGING INFORMATION	QUANTITY
3DS-2S	132121	2 (50.8)	275 (62)		
3DS-2-1/2S	132122	2-1/2 (63.5)	390 (89)		
3DS-3S	132123	3 (76.2)	670 (152)		
3DS-4S	132124	4 (101.6)	1200 (272)		
3DS-5S	132125	5 (127)	1675 (380)		
3DS-6S	132126	6 (152.4)	2500 (568)		
3DS-8S	132127	8 (203.2)	3585 (814)		
3DS-10S	132128	10 (254)	6150 (1397)		
3DS-12S	132129	12 (304.8)	8050 (1828)		
3DS-14S	132120	14 (355.6)	9500 (2159)		

TRIPLE DUTY® VALVE – STRAIGHT PATTERN

B-830F

PERFORMANCE DATA

Cv RATING REFERENCE	Cv RATING AT 100% OF STEM RISE* (m ³ /hr)									
	3DS-2S	3DS-2-1/2S	3DS-3S	3DS-4S	3DS-5S	3DS-6S	3DS-8S	3DS-10S	3DS-12S	3DS-14S
A	83 (18.9)	119 (27.0)	204 (43.6)	365 (82.9)	502 (114.0)	746 (169.4)	1,085 (246.4)	1,851 (420.4)	2,446 (555.5)	3,000 (681.3)
B	77 (17.5)	117 (26.6)	191 (43.4)	320 (72.7)	497 (112.9)	701 (159.2)	1,079 (245.0)	1,826 (414.7)	2,430 (551.9)	3,225 (732.4)

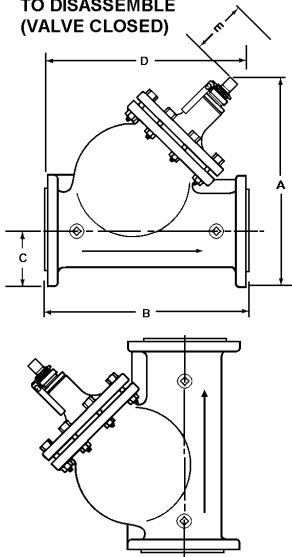
A. FLOWMETER Cv FOR BALANCING. MINIMUM READING OF 3 FEET (.9 m) OF PRESSURE DROP REQUIRED FOR ACCURATE FLOW DETERMINATION.

B. Cv FOR CALCULATING PRESSURE DROP ACCROSS THE VALVE.

NOTE: MAXIMUM RECOMMENDED PRESSURE DROP SHOULD NOT EXCEED 25 FEET (7.6 m).

* CONTACT YOUR LOCAL BELL & GOSSETT REPRESENTATIVE FOR COMPLETE PERFORMANCE CURVE DATA.

DISTANCE REQUIRED TO DISASSEMBLE (VALVE CLOSED)



PROPER INSTALLATION SHOWING STEM UPRIGHT

MODEL NUMBER	FLANGE SIZE*	DIMENSIONS IN INCHES (mm)						APPROX. SHPG. WT. LBS. (Kg)
		A		B	C	D	E	
		OPEN	CLOSED					
3DS-2S	2 (50.8)	10-3/8 (264)	9-3/4 (248)	8-3/8 (213)	3 (76.2)	8-3/4 (222)	3-1/2 (89)	24 (11)
3DS-2-1/2S	2-1/2 (63.5)	11 (279)	10-1/4 (260)	8-7/8 (225)	3-1/2 (89)	8-3/4 (222)	3-1/2 (89)	28 (13)
3DS-3S	3 (76.2)	12-3/8 (314)	11-7/16 (291)	10 (254)	3-3/4 (98)	9-3/4 (248)	3-15/16 (100)	39 (18)
3DS-4S	4 (101.6)	16-7/8 (429)	15-7/8 (403)	14-1/2 (368)	4-1/2 (114)	14-1/16 (357)	6-1/4 (159)	94 (43)
3DS-5S	5 (127)	18-1/2 (470)	17-1/4 (438)	16 (406)	5 (127)	15-3/16 (386)	6-7/8 (175)	114 (52)
3DS-6S	6 (152.4)	20-3/4 (527)	19-1/4 (489)	18 (457)	5-1/2 (140)	17 (432)	8-1/4 (210)	186 (85)
3DS-8S	8 (203.2)	24-3/4 (629)	23-1/4 (591)	21-1/2 (546)	6-3/4 (172)	20-7/16 (519)	10-3/8 (264)	316 (144)
3DS-10S	10 (254)	28-7/8 (733)	26-1/2 (673)	25-1/2 (648)	8 (203)	23-1/4 (590)	12-1/4 (311)	458 (208)
3DS-12S	12 (304.8)	33-1/2 (851)	31-1/8 (791)	30 (762)	9-1/2 (241)	26-9/16 (675)	14-1/2 (368)	662 (301)
3DS-14S	14 (355.6)	37 (940)	35-1/2 (902)	33-3/4 (857)	10-1/2 (267)	29-5/8 (753)	16-1/2 (419)	780 (355)

*STANDARD 125 PSIG (862 kPa) ANSI FLANGES.

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

TYPICAL SPECIFICATIONS

Furnish and install as shown on plans, a straight pattern valve designed to perform the functions of a nonslam check valve, throttling valve, shutoff valve and calibration balancing valve.

The valve shall be a heavy-duty cast iron construction with standard 125 psig (862 kPa) ANSI flanged connections, and rated for a maximum working pressure of 175 psig (1207 kPa) at 250°F (121°C). The valve shall be fitted with a bronze seat, replaceable brass disc with EPDM seat insert, stainless steel stem, and chatter-preventing spring and calibrated nameplate. The valve design shall permit repacking under full system pressure.

The valve shall be equipped with brass readout valve (with integral check valve) for taking differential pressure readings across the orifice for accurate system balance.

Valve Cv rating at full open position not to be less than _____. (Refer to the 100% stem rise value shown in row "B" for required valve.)

All valves shall be ITT Bell & Gossett Model No. 3DS-____S Triple Duty Valve.