



— MODEL — **3D Series**

**Pilot Operated  
Backflow Preventer**

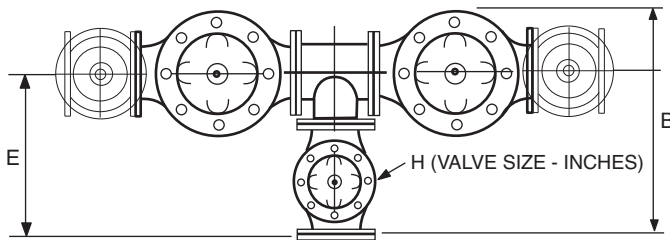
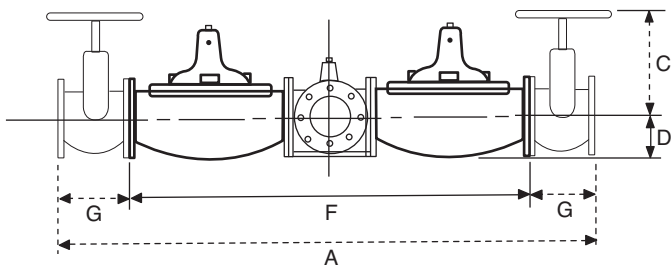
**DESCRIPTION**



The Cla-Val Model 3D, Superior Pressure Principal Type, Backflow Preventor, provides protection against back-pressure, backflow and back-siphonage when safe water can become polluted or contaminated. It is ideally suited where a large size ( 12" to 36" ) unit is required, High pressures are an issue or head loss may be critical. These units provide positive protection against all backflow conditions and are suitable where potable water can become contaminated. The 3D consists of two, independently operated, Cla-Val Check Valves

Under normal flow conditions, both check valves are open and pressure within the "protection zone" is less than inlet pressure. When a backflow Condition occurs, both checks close tightly, the differential relief valve discharges to atmosphere, venting the reverse flowing water. Relief of the protection zone to atmosphere makes it impossible for enough pressure to build up to cause reverse flow through the first check.

**DIMENSIONS**



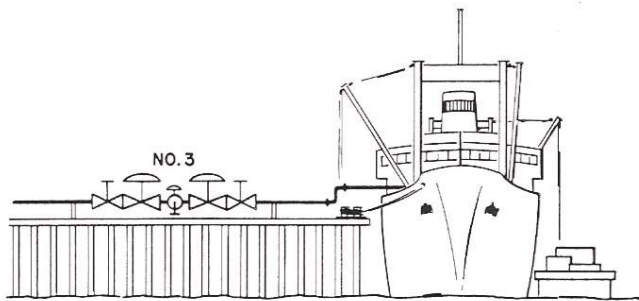
Min. installation height is 36" above adequate drain or overflow area.

**SPECIFICATIONS**

<b>SIZES</b>	12"-14"-16"-20"-24"-30" flanged
<b>END DETAILS</b>	150 Lb.: ANSI B16.42
<b>PRESSURE RATINGS</b>	150 Class -250 psi Max. 300 Class -400 psi Max. Available
<b>TEMPERATURE RANGE</b>	+32°F. to +180°F.
<b>FLUIDS</b>	Water
<b>MATERIALS</b>	<i>main valve body and cover:</i> Ductile Iron ASTM A536 Cast Steel Available  <i>main valve trim:</i> Bronze 303 Stainless Steel Available  <i>pilot control system:</i> Cast Brass ASTM B62 with 303 Stainless Steel Trim  <i>Other Materials Available on Special Order</i>
<b>Epoxy (Optional)</b>	8 Mil Fusion-Bonded
<b>GATE VALVES (Optional)</b>	OS & Y Gates Available on request.

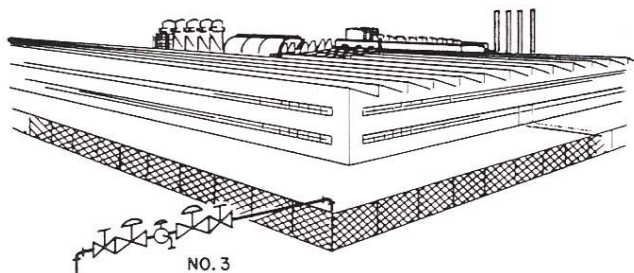
VALVE SIZE IN INCHES		12	14	16	20	24	30
DIMENSIONS IN INCHES	A	111 1/4	124 1/4	134 3/4	168.75	204.25	220.25
	B	45 9/16	49 7/16	57	49.78	65.64	69.64
	C	36 7/8	42	48	91.25	109.63	131.00
	D	10 3/4	12 3/4	15 1/2	13.75	19.25	19.88
	E	31 9/16	33 1/16	39 7/16	32.06	39.06	43.06
	F	83 1/8	94 1/8	101 7/8	124.13	153.13	162.63
	G	14 1/16	15 1/16	16 1/16	22.25	25.50	28.75
	H	3	3	4	4	6	6

## TYPICAL APPLICATION



### PIER AND DOCK HYDRANTS

At dockside; prevent shipboard water from being returned to the potable water lines.



### INDUSTRIAL PLANTS

Water supplies to industry, of all kinds, must have adequate backflow protection to prevent plant water, which may be contaminated, from returning to the public water supply.

## VALVE CAPACITY CHART

VALVE SIZE IN INCHES	12	14	16	20	24	30
WATER FLOW RATE (gpm) 15FPS	5000	6000	8000	8500	19000	25000

Velocities of up to 15 fps are normal, with a maximum intermittent flow of 20 fps.

## SHIPPING WEIGHTS

VALVE SIZE IN INCHES	12	14	16	20	24	30
SHIPPING WEIGHT IN LBS.	5500	7400	9200	10200	14500	15000

## PURCHASE SPECIFICATIONS

The Backflow Preventer shall be a Superior Pressure Principal Unit. The complete assembly shall consist of two diaphragm actuated check valves with a "protection zone" between the two check valves. This zone shall be controlled by an automatic, pilot operated, diaphragm type differential control valve. The pilot control shall be set to open the differential valve to discharge any water which

might flow in a reverse direction through either check. Test cocks shall be installed on each end of each check valve. The Backflow Preventer shall be similar in all respects to the Cla-Val Model 3D Series, Backflow Preventer, as manufactured by Cla-Val Newport Beach, Calif., or approved equal.



**CLA-VAL**<sup>TM</sup>

E-3D Series (R-5/09)

## CLA-VAL

PO Box 1325 Newport Beach CA 92659-0325  
Phone: 949-722-4800 • Fax: 949-548-5441

### CLA-VAL CANADA

4687 Christie Drive  
Beamsville, Ontario  
Canada L0R 1B4  
Phone: 905-563-4963  
Fax: 905-563-4040

### CLA-VAL EUROPE

Chemin des Mesanges 1  
CH-1032 Romanel/  
Lausanne, Switzerland  
Phone: 41-21-643-15-55  
Fax: 41-21-643-15-50

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