



— MODEL — Series 403-11

Pneumatically Operated Remote Control Valve For Freshwater and Seawater Service



- **Single Seat with Resilient Disc Insures Tight Seal**
- **Simply Designed with Few Working Parts**
- **Quick Response to Remote Control**
- **Fully Supported Frictionless Diaphragm**
- **Leak-proof Service Assured – No Packing Glands**
- **Single Tube Line Required for Control**
- **Opens Wide for Minimum Flow Resistance**

The Cla-Val 403 Series Remote Control Valve is used where “on-off” control is required. Pressure signals from a remote control “open or close” a small auxiliary valve installed on the main valve cover, which in turn opens or closes the main valve. Only the small amount of fluid in the auxiliary valve cover must pass through the remote control pilot in order to fully open or close the larger main valve.

The Model 403 Series consists of a 100G/2100G UL listed Hytrol main valve and a small Hytrol auxiliary valve. Both the main valve and the auxiliary valve are single-seated, diaphragm operated globe type valves. Line pressure applied to the auxiliary valve cover closes the main valve drip tight.

Certifications & Approvals



Specifications

Sizes	Globe: 3” - 12” flanged Angle: 3” - 12” flanged
End Details	125 and 250 ANSI B16.1
Pressure Ratings	150 class - 250 psi Max. 300 class - 400 psi Max.
Temperature Range	Water: to 180° F. Max.
Materials	Main valve body & cover: Ductile Iron ASTM A-536* Cast Steel ASTM A216-WCB* Naval Bronze ASTM B-61 Nickel Aluminum Bronze ASTM B148 Super Duplex Stainless Steel Stainless Steel ASTM A743-CF-8M Main valve trim: Bronze ASTM B61 Monel Stainless Steel 316 Pilot control system: Cast bronze ASTM B61 with monel trim Stainless Steel 316 Tubing & Fitting

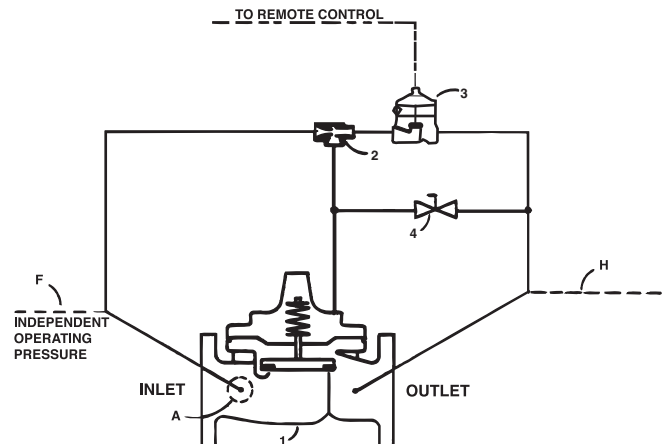
*Internally & Externally Epoxy Coated

Schematic Diagram

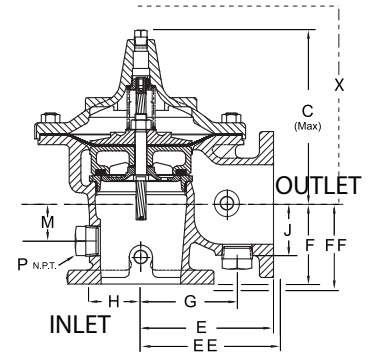
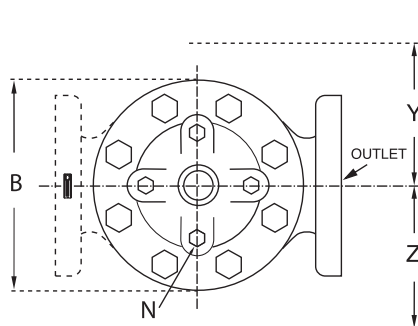
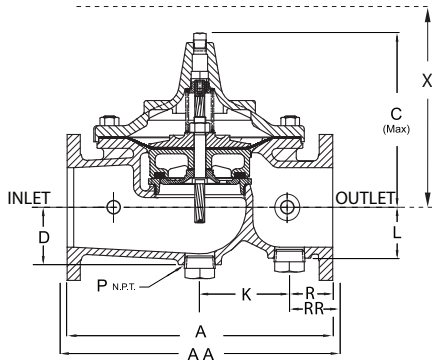
Item	Description
1	100G/2100G UL listed Hytrol (Main Valve)
2	X47A Ejector
3	100-02 Powertrol
4	CK2 Ball Valve

Optional Features

Item	Description
A	X46A Flow Clean Strainer
F	Independent Operating Pressure
H	Drain to Atmosphere



**For Seawater Service use 100S/2100S
or 100GS/2100GS Main Valve**



Valve Size (Inches)	3	4	6	8	10	12
A 150 ANSI	12.00	15.00	20.00	25.38	29.75	34
AA 300 ANSI	13.25	15.62	21.00	26.38	31.12	35.50
B Dia.	9.12	11.50	15.75	20.00	23.62	28
C Max.	8.19	10.62	13.38	16.00	17.12	20.88
D	2.56	3.19	4.31	5.16	8.50	--
E 150 ANSI	7.00	8.50	10.00	12.69	14.88	17
EE 300 ANSI	--	8.81	10.50	13.19	15.56	17.75
F 150 ANSI	4.00	4.97	6.00	8.00	8.62	13.75
FF 300 ANSI	--	5.28	6.50	8.50	9.31	14.50
G	4.75	5.94	7.25	8.50	10.50	--
H	2.69	2.81	3.88	5.31	6.56	--
J	2.56	2.81	3.81	4.81	5.81	--
K	7.00	4.03	6.75	17.00	15.50	--
L	2.56	2.81	3.81	4.81	8.50	--
M	1.75	2.41	2.75	4.00	4.24	--
N NPT	1/2 - 14	3/4 - 14	3/4 - 14	1 - 11-1/2	1 - 11-1/2	--
P NPT	1-1/4 - 11-1/2	2 - 11-1/2				--
R 150 ANSI	2.50	3.47	3.25	4.19	7.12	--
RR 300 ANSI	3.12	3.78	3.75	4.69	7.81	--
X Pilot System	15.00	17.00	29.00	31.00	33.00	--
Y Pilot System	11.00	12.00	20.00	22.00	24.00	--
Z Pilot System	11.00	12.00	20.00	22.00	24.00	--

Valve Size (mm)	80	100	150	200	250	300
A 150 ANSI	305	381	508	645	756	864
AA 300 ANSI	337	397	533	670	791	902
B Dia.	232	292	400	508	600	711
C Max.	208	270	340	406	435	530
D	65	81	110	131	216	--
E 150 ANSI	178	216	254	322	378	432
EE 300 ANSI	--	224	267	350	395	451
F 150 ANSI	102	126	152	203	219	349
FF 300 ANSI	--	134	165	216	236	268
G	121	151	184	216	267	--
H	68	71	99	135	167	--
J	65	71	97	122	148	--
K	178	102	171	432	394	--
L	65	71	97	122	216	--
M	45	61	70	102	108	--
N NPT	1/2 - 14	3/4 - 14	3/4 - 14	1 - 11-1/2	1 - 11-1/2	--
P NPT	1-1/4 - 11-1/2	2 - 11-1/2				--
R 150 ANSI	64	88	83	106	181	--
RR 300 ANSI	79	96	95	119	198	--
X Pilot System	381	432	737	787	838	--
Y Pilot System	279	305	508	559	610	--
Z Pilot System	279	305	508	559	610	--

Valve Capacity

Valve Sizes (inches)	3"	4"	6"	8"	10"	12"
Max. Continuous (gpm)	460	800	1800	3100	4900	7000
Max. Intermittent (gpm)	1000	1800	4000	7000	11000	16000

Functional Data

Valve Size		Inches	3	4	6	8	10	12
		mm.	80	100	150	200	250	300
C _v Factor	Globe Pattern	Gal./Min. (gpm.)	115	200	440	770	1245	1725
		Litres/Sec. (l/s.)	27.6	48	105.6	184.8	299	414
	Angle Pattern	Gal./Min. (gpm.)	139	240	541	990	1575	2500*
		Litres/Sec. (l/s.)	33.4	58	130	238	378	600

*Estimated

Pilot System Specifications

Materials

Standard Pilot System Materials

Pilot Control: Bronze ASTM B61

Trim: Monel

Rubber: Buna-N® Synthetic Rubber

Optional Pilot System Materials

Pilot Systems are available with optional Stainless Steel or Monel materials at extra cost.

Note: Available with remote sensing control.

Temperature Range

Water: to 180°F



E-403-11 (R-11/2020)

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