



## JV V SERIES ELECTRONIC “V BALL” STEAM AND HIGH-TEMPERATURE HOT WATER CONTROL VALVES

The Thermaflo JVV V Ball Series Control Valve is designed for high speed 100% duty for temperature, pressure and level control applications. Specifically designed for steam, high-temperature hot water, and other rigorous control applications.

The equal percentage segmented V inner ball design provides the user with accurate control over a 300:1 flow turndown rangeability. Half the size and weight of any conventional globe control valve, and the JVV is simple to install. The high-speed electronic actuator fails closed on power loss and totally eliminates air supply. The fully programmable actuator accepts 0-10V or 4-20 ma input control signal and can be split range controlled when required. The JVV Series high flow CVs reduces valve size, space and overall weight of any application in your piping system.

### JVV SEGMENTED V FEATURES

**PRECISION MACHINED 316 STAINLESS  
STEEL CONTROL SHAFT**

**ENGINEERED HIGH TEMPERATURE EXTENDED  
MOUNTING BRACKET**

**HIGH SPEED FAIL SAFE MODULATING ACTUATOR 0-10V  
OR 4-20MA CONTROL SIGNAL INPUT**

**HIGH TEMP CHEVRON STEM SEALS IN A ISO  
MACHINED BASE MOUNT**

**COMPLETE 316 STAINLESS STEEL  
BODY, BALL, AND STEM CONSTRUCTION**

**BUBBLE TIGHT CLASS VI STEAM AND HOT  
WATER SHUTOFF**

**HIGH V PORT CV FLOW CAPACITIES  
AND EXCELLENT EQUAL PERCENTAGE  
CHARACTERIZED FLOW**

**VALVE POSITION FEEDBACK AND ALARMS**



#### MAX OPERATING PRESSURE/TEMPERATURE

NPT 1/2" - 2" STANDARD 150 PSIG 00 400F

150 LB 1/2" - 6" STANDARD 150 PSIG 00 400F

300LB 1/2" - 6" STANDARD 200 PSIG 00 400F

MAXIMUM AMBIENT TEMPERATURE: 130F

CUSTOM SLOTTED BALL AND CVS AVAILABLE

SIZES: 1/2" THRU 2" NPT/150 lb / 300 lb  
2.5" - 6" 150 lb / 300 lb

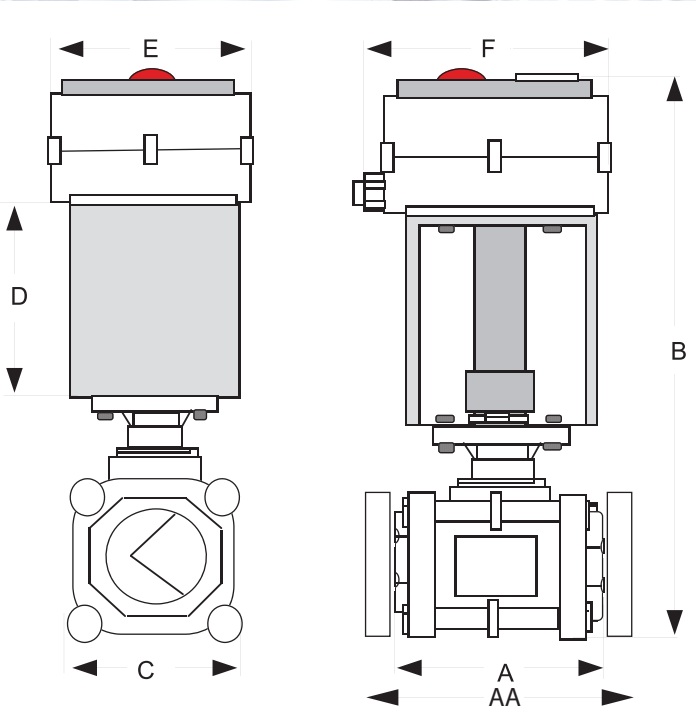
MATERIALS OF CONSTRUCTION: 316 STAINLESS  
STEEL BODY, BALL, AND STEM

REINFORCED HIGH TEMPERATURE TEFLON SEATS

ANTI CAVITATION OUTLET ORIFICE AVAILABLE



**SIZING NOTES:**  
1. OPTIMUM CONTROL RANGE 30% TO 90%.  
2. CV REDUCED 30% WHEN INSTALLING IN A PIPE WHERE VALVE SIZE IS MORE THAN HALF THE PIPE SIZE. EXAMPLE 2" PIPE AND CONTROL VALVE SIZE 3/4"



**DIMENSIONS (Shown in Inches)**

VALVE SIZE	A	B	C	D	E	F	AA
1/2"	2.5	14	2	8	5	5.6	4.2/5.5
3/4"	2.9	14	2	8	5	5.6	4.6/6
1"	3.4	14.5	2.2	8	5	5.6	5/6.5
1.25"	3.7	14.6	2.9	8	5	5.6	5.5/7
1.5"	4.3	15	3.2	8	5	5.6	6.5/7.5
2"	5.8	15.3	3.5	8	5	5.6	7/8.5
2.5"	/	22	2.7/7.5	8	5	5.6	7.5/9.5
3"	/	22.7	7.5/8	8	8	8.9	8.0/11.12
4"	/	23	9/10	8	8	8.9	9.0/12.0
6"	/	27	11/12.5	8	8	8.9	15.5/15.9

**NOTE:** Dimensions may change with inlet pressures over 150 psig due to actuator selection. Consult Factory.

**POWER REQUIREMENTS**

**S80** 60w at 24 VDC

2 AMPS MIN

- Install Notes:
1. Never insulate the JVV Control Valve, Bracket or Actuator.
  2. Always install the valve so that the actuator is at a 3:00 or 9:00 position to avoid heat migration to the actuator.
  3. Install a strainer and main drip trap at the inlet for steam service.

**FLOW PERFORMANCE DATA VALVE**  
CV % of Opening 90% Segmented V

SIZE	30%	50%	80%	100%
1/2"	0.4	0.9	3.8	14
3/4"	0.8	2	8	20
1"	1.8	5.1	16	29
1.25"	2	8	28	65
1.5"	3.5	13	42	90
2"	6	22	70	167
2.5"	7	28	106	218
3"	8	35	135	359
4"	16	75	295	670
6"	35	160	650	1480

**JVV V BALL SERIES MODEL NUMBER DESIGNATION**

VALVE SIZE: 1/2", 3/4", 1", 1.25", 1.5", 2", 2.5", 3", 4", 6"  
VALVE CONSTRUCTION: S 316 STAINLESS STEEL

ALL TRIMS ARE 316 STAINLESS STEEL BALL AND STEM  
VALVE SEATS RT REINFORCED TEFLON 400F

END CONNECTIONS SE SCREWED ENDS 150 LB 300 LB ANSI

SW SOCKET WELD FAIL POSITION FC FAIL CLOSED

FO FAIL OPEN CONTROL PORT V90 90 DEGREPORT

INPUT SIGNAL

1 0-10 VOLTS 2 4-20 MA

JVV-1" SRT-SE-FCV90-1 NEMA 2 4 (OPTIONAL)