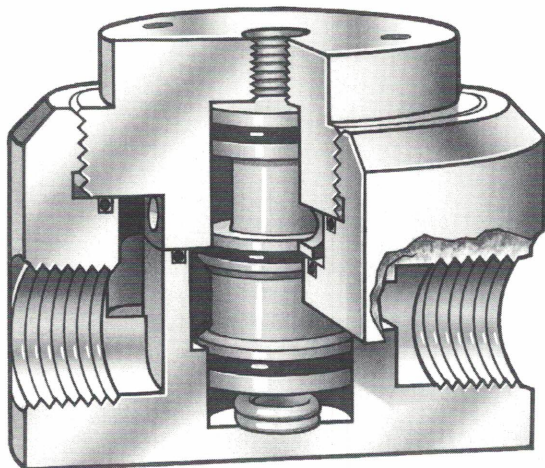


# AOV



PATENT NO. 4,267,861

## DESIGN FEATURES

The R-K AOV series air valve features a compact thermoplastic valve available in six models to handle a multitude of piping system functions.

This patented valve is designed so there is no metal contact with the fluid, and can be operated in any position

Air actuated at 40 to 80 PSI.

Direct acting full flow with top entry for easy maintenance and minimum water hammer.

Suitable for most harsh chemicals, pollution control, wet processing stations, plating equipment, chemical processing and water treatment applications.

## AIR OPERATED VALVE

### SPECIFICATIONS

Operating Pressure Range	Vacuum to 150 PSIG	
Material	Valve Body	PVC Type 1, Grade 1
		Polypropylene
		PVDF
		Teflon
Seal		EPDM
		VITON
		KALREZ
Temperature Range		0 F to 140 F for PVC
		0 F to 180 F for POLYPRO
		0 F to 280 F for PVDF
		0 F to 340 F for TEFLON
Valve ports		1/4" to 1" Valve FNPT
		1.5" to 2" Valve MPT
		All valves are fully ported

#### Valve Types:

Type 1: Normally Closed

Type 2: Normally Open

Type 3: Air to open - Air to close (No spring action)

Type 4: Bottom flow control (has an adjusting screw located on bottom to limit the flow, apply air to open to pre-set flow rate; air off, valve returns to normally close position)

Type 5: Top flow control (an adjusting screw located on top to permit a constant pre-set flow, apply air to full flow, air off to return to pre-set flow)

Type 6: Top and Bottom flow control (combination of Type 4 and Type 5)

#### Mounting Method

(4) 1/4" -20 tapped holes for standard machined valve body. (1/4" to 1.00")

(2) cut-out slots on molded valve body (1/2" to 1.00")

### ORDER INFORMATION

The chart below will specify R - K standard valves regarding valve size, valve material, and seal material. For special orders, please consult the factory for pricing and delivery information.

#### AOV - X X X - X X - X

##### VALVE SIZE

25 = 1/4"  
50 = 1/2"  
75 = 3/4"  
100 = 1.0"  
150 = 1.5"  
200 = 2.0"

##### MATERIAL

1 = PVC  
2 = POLYPRO  
3 = PVDF  
4 = TEFLON  
5 = OTHER (Please specify)

**X = MOLDED BODY**  
(1/2"-3/4"-1" ONLY)

##### SEALS

E = EPDM  
V = VITON  
K = KALREZ  
O = OTHER (Please specify)

##### VALVE TYPE

1 = NORMALLY CLOSED  
2 = NORMALLY OPEN  
3 = AIR TO OPEN/CLOSE  
4 = BOTTOM FLOW CONTROL  
5 = TOP FLOW CONTROL  
6 = TOP AND BOTTOM FLOW CONTROL

# R-K INDUSTRIES

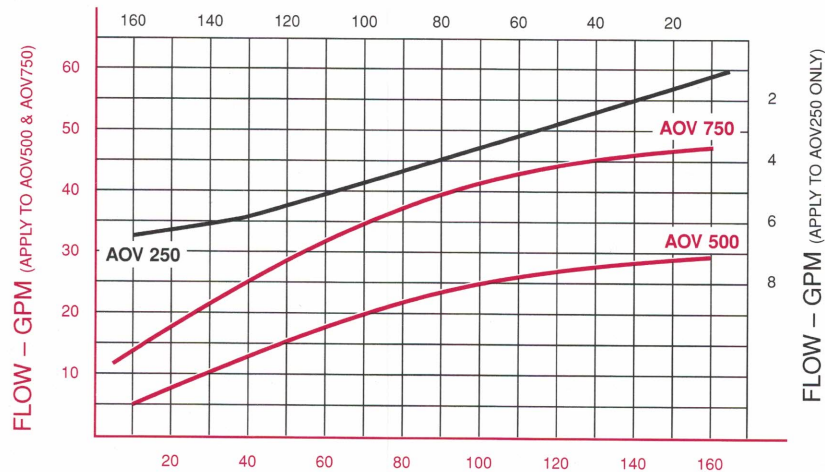


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# ENGINEERING & PERFORMANCE DATA

INLET PRESSURE – PSIG (APPLY TO AOV250 ONLY)



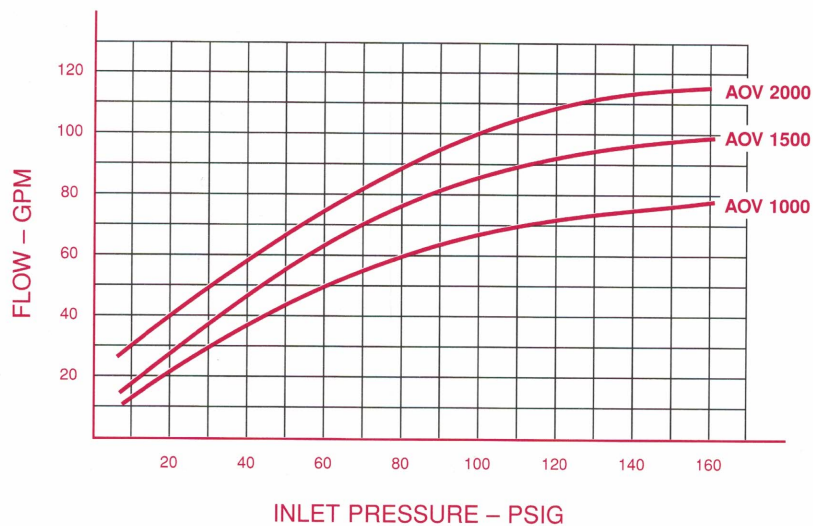
## NOTES

TEST DATA WAS PERFORMED WITH 68 DEGREE F WATER, AND 160 PSIG MAXIMUM PRESSURE.

THESE PERFORMANCE CURVES WILL BE CHANGED WITH HIGHER VISCOSITY LIQUID AND/OR HIGHER TEMPERATURE.

CONSULT YOUR LOCAL SALES REP OR THE MANUFACTURER DIRECTLY FOR CUSTOM PRODUCTS OR SPECIAL APPLICATIONS.

INLET PRESSURE – PSIG (APPLY TO AOV500 & AOV750)

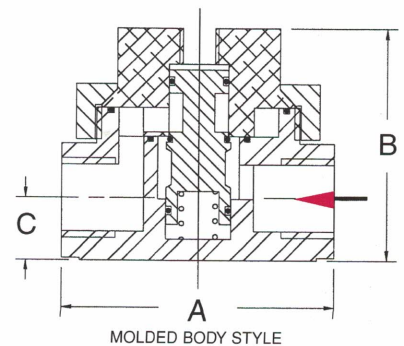
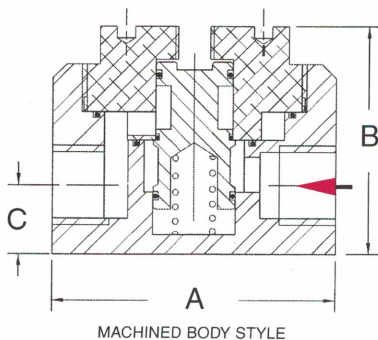


## DIMENSIONAL DATA

DIMENSIONS IN INCHES ( ) MOLDED BODY DIM

Valve size	Ports	A	B	C	Cv
1/4"	FNPT	2.00	1.80	.5	.58
1/2"	FNPT	3 (2.9)	2.5 (2.4)	.7 (.7)	2.42
3/4"	FNPT	3.5 (3.3)	3 (2.8)	.9 (.7)	3.28
1.0"	FNPT	4 (3.9)	3.5 (3.3)	1.1 (.9)	4.32
1.5"	MPT	5.0	4.7	1.5	16.1*
2.0"	MPT	6.0	5.5	1.7	21.7*

(\*) Cv value @ 150 GPM



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CHEMICALS	PLASTICS					ELASTOMERS		
	PVC	POLYPRO	PVDF	PFA	PTFE	EPDM	KALREZ	VITON
Tetrachlorethane			A to 248F	A to 200F	A to 200F			A to 200F
Tetraethyl Lead			A to 275F	A to 200F	A to 400F			A to 120F
Tetrahydrofuran				A to 200F	A to 400F		A to 70F	
Thread Cutting Oil	A to 125F	A to 140F	A to 212F					
Titanous Sulfate	A to 125F	A to 140F	A to 212F	A to 200F	A to 200F			
Toluene			A to 70F	A to 230F	A to 400F		A to 75F	A to 100F
Toluene Toluol			A to 70F	A to 230F	A to 400F		A to 75F	A to 100F
Tomato Juice	A to 70F	A to 225F	A to 200F	A to 200F	A to 300F	A to 70F		A to 140F
Transformer Oil		A to 70F		A to 200F	A to 400F			A to 300F
Tributyl Phosphate			A to 212F	A to 392F	A to 400F		A to 75F	
Trichloroacetic Acid	A to 125F		A to 70F	A to 384F	A to 384F	A to 70F		
Trichloroethylene			A to 70F	A to 200F	A to 400F		A to 70F	
Triethylamine	A to 70F		A to 122F	A to 200F	A to 400F	A to 160F		A to 140F
Triethyl Phosphate				A to 200F	A to 200F			
Trisodium Phosphate	A to 150F	A to 225F	A to 275F	A to 200F	A to 400F	A to 70F		A to 70F
Turbine Oil	A to 125F			A to 200F	A to 400F			A to 140F
Turpentine			A to 275F	A to 200F	A to 400F		A to 70F	A to 158F
Urea				A 50% to 200F	A to 400F	A to 200F		A to 200F
Urine	A to 150F	A to 225F	A to 250F	A to 200F	A to 400F	A to 140F		A to 140F
Varnish		A to 70F		A to 200F	A to 200F			A to 70F
Vaseline	A to 125F	A to 140F		A to 200F	A to 200F			A to 140F
Vegetable Oil	A to 125F	A to 140F		A to 200F	A to 200F	A to 200F		A to 200F
Vinegar	A to 150F	A to 225F	A to 170F	A to 200F	A to 400F	A to 140F		A to 200F
Vinyl Acetate			A to 248F	A to 200F	A to 400F		A to 113F	A to 70F
Water								
Acid Mine	A to 150F	A to 225F	A to 120F	A to 200F	A to 400F	A to 70F		A to 180F
Deionized	A to 150F	A to 225F	A to 275F	A to 200F	A to 300F	A to 200F		A to 200F
Demineralized	A to 150F	A to 225F	A to 275F	A to 200F	A to 400F	A to 140F		A to 140F
Distilled	A to 150F	A to 225F	A to 275F	A to 200F	A to 400F	A to 140F		A to 140F
Potable	A to 150F	A to 225F	A to 275F	A to 200F	A to 225F	A to 140F		A to 140F
Salt	A to 150F	A to 225F	A to 275F	A to 200F	A to 400F	A to 176F		A to 176F
Sea	A to 150F	A to 225F	A to 275F	A to 200F	A to 400F	A to 200F		A to 212F
Sewage	A to 150F	A to 225F	A to 275F	A to 200F	A to 200F	A to 140F		A to 176F
Whiskey	A to 150F	A to 225F	A to 200F	A to 200F	A to 300F	A to 200F		A to boiling
White Liquor	A to 150F	A to 140F	A to 250F	A to 200F	A to 400F	A to 176F		A to 140F
Wine	A to 150F	A to 225F	A to 200F	A to 200F	A to 300F	A to 200F		A to 200F
Xylene (Xylol Xylole)			A to 212F	A to 200F	A to 400F		A to 450F	A to 140F
Yeast		A to 140F	A to 212F	A to 200F	A to 300F	A to 70F		A to 70F
Zinc Acetate	A to 150F	A to 225F	A to 200F	A to 200F	A to 300F	A to 140F		A to 176F
Zinc Chloride	A to 150F	A to 225F	A to 275F	A 25% to 212F	A to 400F	A to 176F		A to 212F
Zinc Nitrate	A to 150F	A to 225F	A to 275F	A to 200F	A to 400F	A to 140F		A to 176F
Zinc Sulfate	A to 150F	A to 225F	A to 275F	A to 200F	A to 400F	A to 176F		A to 212F

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