

### DESCRIPTION

The SCV-89 Research Control® Valves are compact control valves designed to meet the manufacturing standards established by the 3A Symbol Council. The standard investment cast body provides a unit that is not only lightweight but also economical.

### APPLICATIONS

Valves of the SCV-89 type are well suited to automated control systems found in biotechnology, pharmaceutical and food processes.

- Pressure
- Temperature
- Product injection
- Flow control in fermentation reactors
- Control of gas blankets in closed vessels
- Catalyst, defoamer and additive initiation

### MATERIALS OF CONSTRUCTION

<b>Size</b>	1 inch and 1 ½ inch
<b>Body - Bonnet</b>	Body: 316/316L Stainless Steel Barstock Bonnet: 316 Stainless Steel Barstock
<b>Innervalve</b>	316 Stainless Steel Barstock Trims
<b>Clamps</b>	304 or 316 Stainless Steel
<b>Gaskets</b>	Standard: Viton (FKM) Optional: Silicone, EPDM or Kalrez
<b>“O” Rings</b>	Standard: Viton (FKM) Optional: Silicone, EPDM or Kalrez
<b>Actuator Housing</b>	Standard: Epoxy Coated Aluminum Optional: 316/316L Stainless Steel

### STANDARD FEATURES

- Manufactured to 3A Symbol standards
- Self-draining design
- Quick disassembly with clamps
- Choice of ends: Tri-Clamp®
- Designed for STEAM-IN-PLACE and CLEAN-IN-PLACE
- Internal Finish: 16 Ra



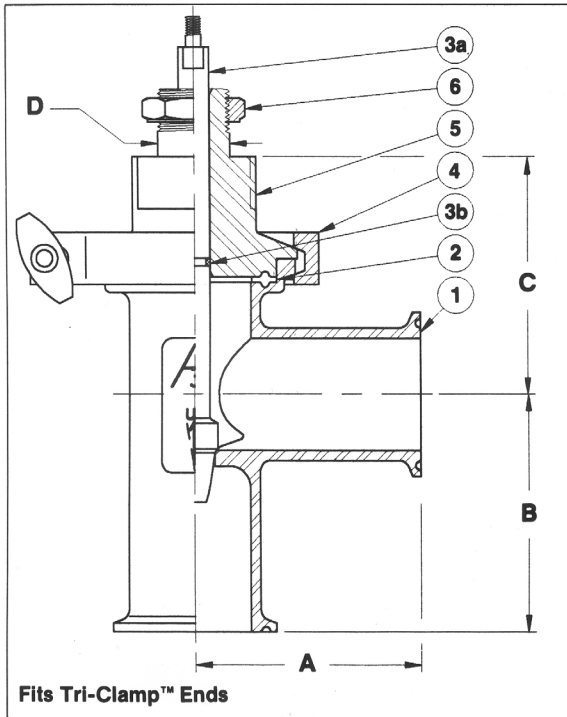
Image shown with optional stainless steel actuator

### ACTUATOR CHOICES

<b>Standard</b>	Air-to-open, fail close Air-to-close, fail open
<b>Optional</b>	Stainless Steel Actuator
<b>Optional</b>	ATO or ATC with integral top mounted positioner
<b>Optional</b>	ATO or ATC with side mounted positioner
<b>Signal Ranges</b>	3-15#, 3-27#, 6-30# (3-9#, 9-15# with positioner)
<b>Electronic Actuator</b>	We offer a wide choice of electric actuators up to 200 pounds of thrust.

### OTHER AVAILABLE VALVES

Research Control Valves manufactures many different models of both standard and specialty control valves, conventional as well as sanitary designs. If your needs for small control valves can be served with a custom designed valve, please contact your area representative for assistance.



**Description of Items**

- 1. Body
- 2. Body-Bonnet gasket
- 3a. Innervalve/stem (1 piece)
- 3b. "O" ring
- 4. Body-Bonnet clamp
- 5. Bonnet
- 6. Yoke locknut

**Press./Temp. Rating**

300 PSI @ 75 Deg. F  
150 PSI @ 300 Deg. F

**Note:** Consult the factory for maximum allowable flowing and shut-off pressures.

**Finishes**

Internal: 180 grit  
External: As cast (electropolished)

**Dimensions**

1" 1 1/2"  
A: 2.75" 2.75"  
B: 2.63" 2.87"  
C: 3.10" 2.86"  
D: 0.875" 0.875"  
Stroke Length: 0.562" Both sizes

Size	Type No.	Dwg. No.
1.0"	940	CD-950940
1.5"	935	CD-950935

**INNERVALVE CHART**

Valve Size	Trim Designation	CV	KV	Nom. Rangeability		Orifice Port Diameter	Port Area (in. 2)
		Coefficient		Linear	(=%)		
1-1/2"	20	20.00	17.24	40:1	60:1	1.00"	.7854
1-1/2"	15	15.00	12.93	40:1	60:1	1.00"	.7854
1", 1-1/2"	10	10.00	8.62	40:1	60:1	.75"	.4420
1", 1-1/2"	8	8.00	6.90	40:1	60:1	.75"	.4420
1", 1-1/2"	6	6.00	5.17	40:1	60:1	.75"	.4420
1", 1-1/2"	5	5.00	4.31	40:1	60:1	.50"	.1964
1", 1-1/2"	4	4.00	3.45	40:1	60:1	.50"	.1964
1", 1-1/2"	A	3.00	2.59	40:1	60:1	.50"	.1964
1", 1-1/2"	B	2.00	1.72	40:1	60:1	.375"	.1105
1", 1-1/2"	C	1.25	1.08	40:1	60:1	.375"	.1105
1", 1-1/2"	D	0.80	0.69	40:1	60:1	.375"	.1105
1", 1-1/2"	E	0.50	0.43	40:1	60:1	.375"	.1105
1", 1-1/2"	F	0.32	0.28	30:1	40:1	.156"	.0192
1", 1-1/2"	G	0.20	0.17	30:1	40:1	.156"	.0192
1", 1-1/2"	H	0.13	0.11	30:1	40:1	.156"	.0192
1", 1-1/2"	I	0.08	0.07	30:1	40:1	.156"	.0192
1", 1-1/2"	J	0.05	0.04	30:1	40:1	.156"	.0192

**AVAILABLE OPTIONS**

- Manual Handwheel
- Filters
- Positioners
- I/P Transducers
- Certifications
- Electric Actuator
- Limit Switches
- Regulators

Custom bracketing available with each option.

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