

**Needle Valves**

Series 133-148 .....	Needle .....	A2 - A3
Series S133-S148 .....	Needle, Soft Seat .....	A2 - A3
Series T133-T148 .....	Toggle .....	A4 - A5
Series 151B .....	Needle, Fine Metering .....	A6 - A7
Series 154 .....	Needle, High Pressure .....	A8 - A9

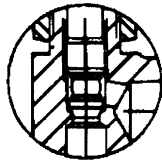
**Flow Combiner/Divider**

Series 6611 .....	A10
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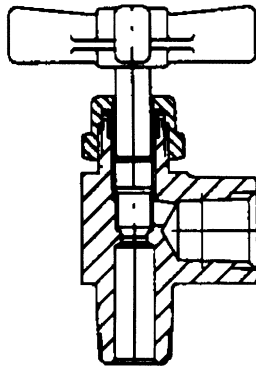




# Catalog Series 133-148 and S133-S148



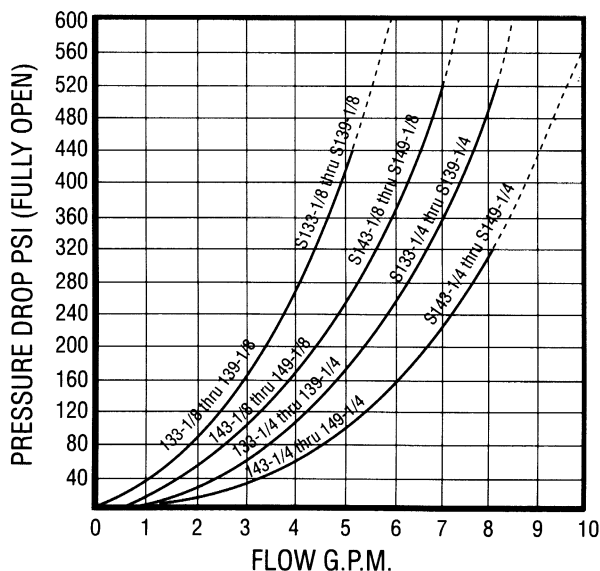
Soft Seat



## Features

- Low-priced brass and stainless steel needle valves available in metal and soft seat designs.
- Special stem designs offer precision control of small volume flows.
- External pipe threaded ports are counterbored to accept solder-type tube fittings.
- Wide selection of fitting ends in both inline and angle porting.
- Stops, prevent stems from being screwed out accidentally.
- In the soft seat type the resiliency of the captive thermoplastic nose assures positive shut-off.

## Flow Characteristics



## Specifications

### Service Applications:

S133-S148: Gases and liquids.  
133-148: Liquids.

### Pressure Range, 133-148:

Working: 5,000 PSI  
Proof: 7,500 PSI  
Burst: 12,500 PSI

### Pressure Range, S133-S148: 3,000 PSI

### Temperature Range, 133-148:

Brass: -65° to 200° F.  
Stainless Steel: -65° to 400° F.  
Consult factory for special temperatures.

### Temperature Range, S133-S148:

-65° to 160° F.

### Sizes:

NPT: 1/8, 1/4  
FLD: 4

### Type Ports:

NPT: Pipe threads.  
FLD: Flared tube connection SAE 37° MS33656.  
FLS: Flareless tube connection MS33514.

### Internal Leakage: Zero.

### Mounting: Inline or panel. Maximum panel thickness 1/4". Panel hole diameter 17/32".

### Materials:

Body: Brass or stainless steel type 303  
Cap: Brass or stainless steel type 303.  
Cap Washer: Stainless steel type 316.  
Locknut: Brass or brass cadmium plated.  
Stem: Stainless steel type 303 or 316.

### Stem Nose (soft seat valves):

Thermoplastic.

Washers: Stainless steel type 304.

Packing: PTFE.

### Handle:

Aluminum alloy star (metal seat).  
Plastic knob (soft seat). Plastic knobs available on special order on metal seat valves.

Size	CV Factors		Weights (Approx.)
	Inline	Angle	
1/8, 4	.19	.20	.13 Lb.
1/4,	.19	.37	.25 Lb.

