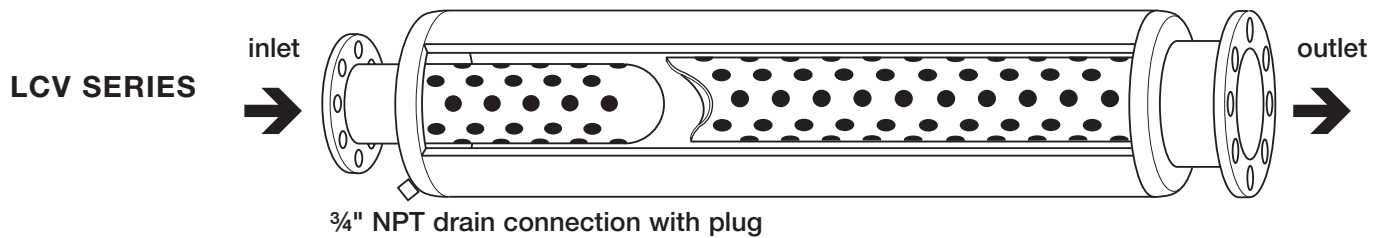


spirax sarco

Acoustic Silencers



Description

The Spirax Sarco acoustic silencer is designed to attenuate noise generated by control valves and/or pilot operated regulators. The silencers are particularly effective in limiting the propagation of valve generated noise into the downstream piping. Upon flow and piping configuration, noise attenuation of up to 35 dBA can be expected.

Limiting Operating Conditions

| | |
|----------------------------|--|
| Max. Operating Pressure | 300 psig (20 barg) |
| Max. Operating Temperature | 650°F (343°C) |
| Standard Range | 1/2" to 24" LCV Acoustic Silencers. |
| Connections: | Standard connections ANSI 300 lb. raised face flange. 3/4" - 3000 lb. drain with plug. Options of ANSI 150 lb. raised face flange available. |

Construction Materials

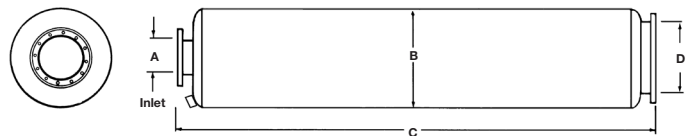
| Part | Material |
|----------------|--|
| Silencer | All welded steel. ASME Section VIII Div I |
| Insulation Mat | Fiberglass |

Dimensions (nominal) in inches

| Model | A | B | C | D | Weight (lb.) |
|--------|--------------|--------|------|-----|--------------|
| LCV-2 | 1/2" to 2" | 5" | 35" | 2" | 120 |
| LCV-3 | 1/2" to 3" | 6-1/2" | 46" | 3" | 150 |
| LCV-4 | 1/2" to 4" | 10" | 52" | 4" | 200 |
| LCV-5 | 3/4" to 4" | 12" | 60" | 5" | 250 |
| LCV-6 | 2" to 6" | 12" | 66" | 6" | 400 |
| LCV-8 | 2" to 6" | 14" | 72" | 8" | 550 |
| LCV-10 | 1-1/4" to 6" | 16" | 78" | 10" | 650 |
| LCV-12 | 2" to 6" | 18" | 90" | 12" | 800 |
| LCV-14 | 2-1/2" to 6" | 20" | 104" | 14" | 1200 |
| LCV-16 | 2-1/2" to 6" | 22" | 116" | 16" | 1500 |
| LCV-18 | 3" to 6" | 24" | 132" | 18" | 1750 |
| LCV-20 | 4" to 6" | 26" | 146" | 20" | 2200 |
| LCV-22 | 6" | 30" | 158" | 22" | 2800 |
| LCV-24 | 6" | 30" | 174" | 24" | 3100 |
| LCV-26 | 6" | 32" | 186" | 26" | 3500 |
| LCV-28 | 6" | 36" | 202" | 28" | 4850 |
| LCV-30 | 6" | 36" | 216" | 30" | 5000 |

Installation

Connect the inlet of the silencer directly to the outlet connection of the valve. The required pipeline expansion takes place within the silencer. This expanded outlet feature eliminates the expense associated with separate expansion fittings. A suitable float and thermostatic steam trap is recommended for removing condensate from the silencer. The drain connection must always point vertically down.



Acoustic Silencers

Sizing Acoustic Silencers

Select correct silencer by known flow rates (lb/hr), inlet, outlet pressure (psig) and size of regulator or control valve. Example: Inlet pressure to IN 25P regulator is 100 psig, outlet pressure is 60 psig @ 2400 lb/hr. Move horizontal across the 100 psig inlet line to 60 psig outlet to vertically intersect with a 1" regulator to meet or exceed capacity of 2400 lb/hr. Selection 1" LCV-2.

| Inlet Pressure (psig) | Valve Size | | | | | | | | | | | |
|-----------------------|--------------|--------------|--------------|--------------|---------------|---------------|---------------|---------------|---------------|---------------|--|--|
| | 1/2" | 3/4" | 1" | 1 1/4" | 1 1/2" | 2" | 2 1/2" | 3" | 4" | 6" | | |
| 10 | 855 LCV-2 | 855 LCV-2 | 855 LCV-2 | 855 LCV-2 | 855 LCV-2 | 1,885 LCV-3 | 1,885 LCV-3 | 3,790 LCV-4 | 3,790 LCV-4 | 8,280 LCV-6 | | |
| 15 | 695 LCV-2 | 695 LCV-2 | 695 LCV-2 | 695 LCV-2 | 1,530 LCV-3 | 1,530 LCV-3 | 3,075 LCV-4 | 3,075 LCV-4 | 6,875 LCV-6 | 11,370 LCV-8 | | |
| 20 | 920 LCV-2 | 920 LCV-2 | 920 LCV-2 | 920 LCV-2 | 2,025 LCV-3 | 2,025 LCV-3 | 4,065 LCV-4 | 4,065 LCV-4 | 9,080 LCV-6 | 16,210 LCV-8 | | |
| 25 | 1,145 LCV-2 | 1,145 LCV-2 | 1,145 LCV-2 | 1,145 LCV-2 | 2,795 LCV-3 | 2,795 LCV-3 | 5,595 LCV-4 | 5,595 LCV-4 | 12,485 LCV-6 | 22,080 LCV-8 | | |
| 30 | 1,485 LCV-2 | 1,485 LCV-2 | 1,485 LCV-2 | 1,485 LCV-2 | 3,790 LCV-3 | 3,790 LCV-3 | 7,585 LCV-4 | 7,585 LCV-4 | 16,665 LCV-6 | 30,225 LCV-8 | | |
| 40 | 1,950 LCV-2 | 1,950 LCV-2 | 1,950 LCV-2 | 1,950 LCV-2 | 5,035 LCV-3 | 5,035 LCV-3 | 10,075 LCV-4 | 10,075 LCV-4 | 22,170 LCV-6 | 40,335 LCV-8 | | |
| 50 | 2,405 LCV-2 | 2,405 LCV-2 | 2,405 LCV-2 | 2,405 LCV-2 | 6,830 LCV-3 | 6,830 LCV-3 | 13,665 LCV-4 | 13,665 LCV-4 | 29,565 LCV-6 | 53,130 LCV-8 | | |
| 60 | 3,005 LCV-2 | 3,005 LCV-2 | 3,005 LCV-2 | 3,005 LCV-2 | 9,080 LCV-3 | 9,080 LCV-3 | 18,165 LCV-4 | 18,165 LCV-4 | 39,360 LCV-6 | 71,010 LCV-8 | | |
| 75 | 3,600 LCV-2 | 3,600 LCV-2 | 3,600 LCV-2 | 3,600 LCV-2 | 11,370 LCV-3 | 11,370 LCV-3 | 22,745 LCV-4 | 22,745 LCV-4 | 47,530 LCV-6 | 87,330 LCV-8 | | |
| 85 | 4,155 LCV-2 | 4,155 LCV-2 | 4,155 LCV-2 | 4,155 LCV-2 | 14,075 LCV-3 | 14,075 LCV-3 | 28,155 LCV-4 | 28,155 LCV-4 | 59,335 LCV-6 | 108,600 LCV-8 | | |
| 100 | 4,800 LCV-2 | 4,800 LCV-2 | 4,800 LCV-2 | 4,800 LCV-2 | 17,940 LCV-3 | 17,940 LCV-3 | 35,885 LCV-4 | 35,885 LCV-4 | 75,775 LCV-6 | 139,335 LCV-8 | | |
| 125 | 5,595 LCV-2 | 5,595 LCV-2 | 5,595 LCV-2 | 5,595 LCV-2 | 22,170 LCV-3 | 22,170 LCV-3 | 44,345 LCV-4 | 44,345 LCV-4 | 93,125 LCV-6 | 171,600 LCV-8 | | |
| 150 | 6,485 LCV-2 | 6,485 LCV-2 | 6,485 LCV-2 | 6,485 LCV-2 | 27,955 LCV-3 | 27,955 LCV-3 | 55,915 LCV-4 | 55,915 LCV-4 | 117,835 LCV-6 | 216,660 LCV-8 | | |
| 175 | 7,585 LCV-2 | 7,585 LCV-2 | 7,585 LCV-2 | 7,585 LCV-2 | 35,175 LCV-3 | 35,175 LCV-3 | 70,355 LCV-4 | 70,355 LCV-4 | 146,715 LCV-6 | 271,335 LCV-8 | | |
| 200 | 8,985 LCV-2 | 8,985 LCV-2 | 8,985 LCV-2 | 8,985 LCV-2 | 44,345 LCV-3 | 44,345 LCV-3 | 88,695 LCV-4 | 88,695 LCV-4 | 183,435 LCV-6 | 339,660 LCV-8 | | |
| 225 | 10,685 LCV-2 | 10,685 LCV-2 | 10,685 LCV-2 | 10,685 LCV-2 | 55,915 LCV-3 | 55,915 LCV-3 | 111,835 LCV-4 | 111,835 LCV-4 | 229,675 LCV-6 | 421,335 LCV-8 | | |
| 250 | 12,685 LCV-2 | 12,685 LCV-2 | 12,685 LCV-2 | 12,685 LCV-2 | 70,355 LCV-3 | 70,355 LCV-3 | 140,715 LCV-4 | 140,715 LCV-4 | 285,435 LCV-6 | 521,335 LCV-8 | | |
| 275 | 15,085 LCV-2 | 15,085 LCV-2 | 15,085 LCV-2 | 15,085 LCV-2 | 88,695 LCV-3 | 88,695 LCV-3 | 177,395 LCV-4 | 177,395 LCV-4 | 359,795 LCV-6 | 659,660 LCV-8 | | |
| 300 | 17,985 LCV-2 | 17,985 LCV-2 | 17,985 LCV-2 | 17,985 LCV-2 | 111,835 LCV-3 | 111,835 LCV-3 | 223,675 LCV-4 | 223,675 LCV-4 | 447,355 LCV-6 | 821,335 LCV-8 | | |

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