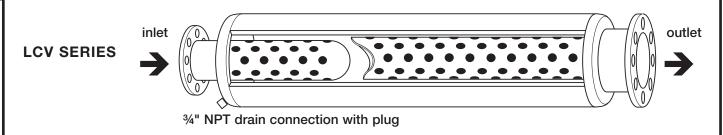
Noise Attenuators



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

Dimens	sions (nomir	nal) in inc	hes		
Model	Α	В	С	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.

Construction Materials

Material

Fiberglass

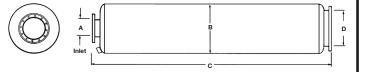
All welded steel.

ASME Section VIII Div I

Part

Silencer

Insulation Mat



Local regulation may restrict the use of this product below the conditions quoted. Limiting conditions refer to standard connections only. In the interests of development and improvement of the product, we reserve the right to change the specification.

Merge <th< th=""><th>Sizir Selec 25P r sect u</th><th>ng Ac st corre egulatc with a 1</th><th>Sizing Acoustic Silencers Select correct silencer by known flow rates (Ib/hr), inlet, outlet pressue (psig) and size 25P regulator is 100 psig, outlet pressure is 60 psig @ 2400 Ib/hr. Move horizontal ac sect with a 1" regulator to meet or exceed capacity of 2400 Ib/hr. Selection 1" LCV-2.</th><th>: Silen cer by) psig, ator to</th><th>Icers known outlet p meet o</th><th>flow ra ressur r exce</th><th>ttes (Ib/ e is 60 ∋d capi</th><th>(lb/hr), inle 60 psig @ apacity of</th><th>et, outlⁱ 2400 I f 2400 I</th><th>et pres b/hr. M b/hr. S</th><th>sue (ps love ho electio</th><th>(lb/hr), inlet, outlet pressue (psig) and size of regulator or control valve. Example: Inlet pressure to IN 60 psig @ 2400 lb/hr. Move horizontal accross the 100 psig inlet line to 60 psig outlet to vertically inter- apacity of 2400 lb/hr. Selection 1" LCV-2.</th><th>size of l accro V-2.</th><th>regula ss the ·</th><th>tor or (100 psi</th><th>control g inlet</th><th>valve. line to</th><th>Example: Inlet pressure to IN 60 psig outlet to vertically int</th><th>e: Inlet outlet</th><th>t press to ver</th><th>ure to l tically i</th><th>N nter-</th></th<>	Sizir Selec 25P r sect u	ng Ac st corre egulatc with a 1	Sizing Acoustic Silencers Select correct silencer by known flow rates (Ib/hr), inlet, outlet pressue (psig) and size 25P regulator is 100 psig, outlet pressure is 60 psig @ 2400 Ib/hr. Move horizontal ac sect with a 1" regulator to meet or exceed capacity of 2400 Ib/hr. Selection 1" LCV-2.	: Silen cer by) psig, ator to	Icers known outlet p meet o	flow ra ressur r exce	ttes (Ib/ e is 60 ∋d capi	(lb/hr), inle 60 psig @ apacity of	et, outl ⁱ 2400 I f 2400 I	et pres b/hr. M b/hr. S	sue (ps love ho electio	(lb/hr), inlet, outlet pressue (psig) and size of regulator or control valve. Example: Inlet pressure to IN 60 psig @ 2400 lb/hr. Move horizontal accross the 100 psig inlet line to 60 psig outlet to vertically inter- apacity of 2400 lb/hr. Selection 1" LCV-2.	size of l accro V-2.	regula ss the ·	tor or (100 psi	control g inlet	valve. line to	Example: Inlet pressure to IN 60 psig outlet to vertically int	e: Inlet outlet	t press to ver	ure to l tically i	N nter-
199 1000	Inlet Pressure	Outlet Pressure			3/4										21%		3		4		9	
1 0	(psig)	(bisd)	Max.lb/hr	Model	Max.Ib/hr	Model	Max.lb/hr	Model	Max.Ib/hr	Model	Max.lb/hr	Model	Max.lb/hr	Model	Max.lb/hr	Model	Max.lb/hr	+	Max.Ib/hr	Model	Max.tb/hr	Model
1 380 10.24 380 10.	15	5 10 2 2	855 695 630	LCV-2 LCV-2	855 695 630	LCV-2 LCV-2	855 695 630	LCV-2 LCV-2	855 695 630	LCV-2 LCV-2	855 1,530 1 385	LCV-2 LCV-2	1,885 1,530 2.780	LCV-3 LCV-3 LCV-4	1,885 3,075 2 785	LCV-4 LCV-4	3,790 3,075 4 215	LCV-4 LCV-4 LCV-5	3,790 4,675 6.080	LCV-4 LCV-5 LCV-8	8,280 11,370 16,210	LCV-6 LCV-8 LCV-10
15 320 COV 100 100 200 100 200 100 200 100 200 100 200 100 200 100 200 100 200 100 200 100 200 100 200 100 200 100 200 100 100 200 100 200 200 100 200 200 100 200 200 100 200 200 100 200	20	o 64 ∞	920 795	-5 -5 CO-5 CO-5	920 795	LCV-2 LCV-2	920 795	LCV-2 LCV-2	920 795	LCV-2 LCV-2	920	LCV-2 LCV-3	2,025	LCV-3	2,025 3,510	LCV-3	4,065 3,510	LCV-4	4,065 5,315	LCV-4	15,040	rcv-6 Lcv-6
V N Device Sime Device<	25	- - - - - - - - - - - - - - - - - - -	520 855		320 1,020 855	LCV-2	1,145 1,020 855	LCV-2	1,145 1,020 855	LCV-2	1,145		2,245 3,790	- 4 3 CV-3 CV-3 CV-3 CV-3 CV-4 CV-4 CV-4 CV-4 CV-4 CV-4 CV-4 CV-4	3,490 3,790		5,740	LCV-5	6,830 8,280 8,280 8,280		16,685 22,080 22,080	LCV-10 LCV-10
3 1	8	5 2 S S	1,175 1,020		1,175 1,020	LCV-2 LCV-2	1,145 1,175 1,020	CV-2 CV-2 CV-2	1,145	LCV-2 LCV-2	2,305 1,175 2,245 2,245	FCV-3 LCV-3 LCV-3	2,585 2,585 2,245	LCV-3 LCV-3 LCV-3	3,490 2,585 4,510 5.05	LCV3	5,190 6,830 6,830	LCV-5 LCV-5 LCV-5	6, 330 5, 190 9, 850		19,030 16,665 16,665	LCV-12 LCV-8 LCV-8
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4 1	20	30 40 -21 30	1,795 1,485 520	LCV-2 LCV-2 LCV-2	1,795 1,485 1,145	LCV-2 LCV-2 LCV-3	1,795 1,485 1,145	LCV-2 LCV-2 LCV-3	1,795 1,485 2,305	LCV-2 LCV-2 LCV-4	1,795 3,275 2,305	LCV-2 LCV-3 LCV-4	3,955 3,275 5.035	LCV-3 LCV-3 LCV-3	3,955 6,575 8,530	LCV-3 LCV-4 LCV-8	7,940 9,955 8,530	LCV-4 LCV-6 LCV-8	7,940 14,360 13,430	LCV-6 LCV-6 LCV-10	17,350 24,315 30,225	LCV-6 LCV-8 LCV-16
60 2100 CVV 2000 CVV 2005 CVV	09	45 35 0-27	1,950 1,640 250	LCV-2 LCV-2 LCV-2	1,950 1,640 1,145	LCV-2 LCV-2 LCV-3	1,950 1,640 2,305	LCV-2 LCV-2 LCV-4	1,950 1,640 2,305	LCV-2 LCV-2 LCV-4	1,950 3,615 2,305	LCV-2 LCV-3 LCV-4	4,290 3,615 5,035	LCV-5 LCV-3 LCV-6	8,615 7,260 8,530	LCV4 LCV4 LCV4	8,615 10,995 8,530	LCV-4 LCV-5 LCV-8	13,050 16,860 13,430	LCV-5 LCV-6 LCV-10	31,880 26,860 30,225	LCV-8 LCV-8 LCV-16
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80 3005 CV/2 3005 CV/4 3005 CV/4 3005 CV/4 3005 CV/4 3005 CV/4 3005 CV/4 3005 C	85	50 50 0-43	2,705 2,100 520	LCV-2 LCV-2 LCV-2	2,705 2,100 1,145	LCV-2 LCV-2 LCV-3	2,705 2,100 2,305	LCV-2 LCV-2 LCV-4	2,705 2,100 2,305	LCV-2 LCV-2 LCV-4	2,705 4,625 3,490	LCV-2 LCV-3 LCV-5	5,955 9,290 8,530	LCV-3 LCV-8 LCV-8	5,953 9,290 8,530	LCV-4 LCV-3 LCV-8	11,960 14,075 13,430		11,960 20,300 19,030	LCV-4 LCV-6 LCV-12	26,125 54,125 47,530	LCV-6 LCV-10 LCV-20
100 3600 LCV/2 3600	100	0-48 0-48	3,005 2,405 1,145	LCV-2 LCV-2 LCV-3	3,005 2,405 1,145	LCV-2 LCV-3 LCV-3	3,005 2.405 2,305	LCV-2 LCV-2 LCV-4	3,005 2,405 3,490	LCV-2 LCV-2 LCV-5	3,005 5,295 3,490	LCV-2 LCV-3 LCV-5	6,620 10,635 8,530	LCV-3 LCV-8 LCV-8	6,620 10,635 13,430	LCV-4 LCV-4 LCV-10	13,290 16,110 13,430		13,290 23,235 23,105	LCV-4 LCV-6 LCV-14	29,030 61,950 47,530	LCV-6 LCV-10 LCV-20
125 4155 LCV/2 7300 LCV/1 1500 LCV/1 17150 LCV/4 2305 <th< td=""><td>125</td><td>100 80 0-62</td><td>3,600 3,005 1,145</td><td>LCV-2 LCV-3 LCV-3</td><td>3,600 3,005 2,305</td><td>LCV-2 LCV-2 LCV-4</td><td>3,600 3,005 2,305</td><td>LCV-2 LCV-2 LCV-4</td><td>3,600 3,005 3,490</td><td>LCV-2 LCV-5 LCV-5</td><td>3,600 6,615 5,035</td><td>LCV-2 LCV-3 LCV-6</td><td>7,930 13,285 8,530</td><td>LCV-3 LCV-4 LCV-8</td><td>7,930 13,285 13,430</td><td>LCV-3 LCV-4 LCV-10</td><td>15,920 20,125 19,030</td><td>LCV-4 LCV-5 LCV-12</td><td>15,920 29,025 30,225</td><td>LCV-4 LCV-6 LCV-16</td><td>34,765 77,390 57,851</td><td>LCV-6 LCV-10 LCV-22</td></th<>	125	100 80 0-62	3,600 3,005 1,145	LCV-2 LCV-3 LCV-3	3,600 3,005 2,305	LCV-2 LCV-2 LCV-4	3,600 3,005 2,305	LCV-2 LCV-2 LCV-4	3,600 3,005 3,490	LCV-2 LCV-5 LCV-5	3,600 6,615 5,035	LCV-2 LCV-3 LCV-6	7,930 13,285 8,530	LCV-3 LCV-4 LCV-8	7,930 13,285 13,430	LCV-3 LCV-4 LCV-10	15,920 20,125 19,030	LCV-4 LCV-5 LCV-12	15,920 29,025 30,225	LCV-4 LCV-6 LCV-16	34,765 77,390 57,851	LCV-6 LCV-10 LCV-22
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150 5110 LCV2 5,110 LCV2 5,815 LCV4 2,325 LCV4 2,326 LCV4 4,350 LCV2 5,107 1,175 LCV4	175	150 125 0-87	5,110 4,155 1,145	LCV-2 LCV-2 LCV-3	5,110 4,155 2,305	LCV-2 LCV-2 LCV-4	5,110 4,155 3,490	LCV-2 LCV-5 LCV-5	5,110 4,155 5,035	LCV-2 LCV-6 LCV-6	5,110 9,560 8,530	LCV-2 LCV-3 LCV-8	5,110 9,560 13,430	LCV-2 LCV-3 LCV-10	11,250 19,195 19,030	LCV-3 LCV-4 LCV-12	11,250 19,195 23,015	LCV-3 LCV-4 LCV-14	22,585 29,075 38,395	LCV-4 LCV-5 LCV-18	49,340 71,015 80,175	LCV-6 LCV-8 LCV-26
175 5.815 I CV2 5.816 I CV2 1.826 I CV2 1.826 I CV3 2.3016 I CV4 2.3046 I CV5 5.934 I CV2 1.9336 I CV4 2.3016 I CV4 2.3260 I CV2 1.97.155 200 I CV2 8.530 I CV2 8.530 I CV3 2.3656 I CV4 2.3201 I CV4 2.3201 I CV4 2.3201	200	150 125 0-103	5,110 4,155 1,145	LCV-2 LCV-2 LCV-3	5,110 4,155 2,305	LCV-2 LCV-2 LCV-4	5,110 4,155 3,490	LCV-2 LCV-2 LCV-5	5,110 9,560 5,035	LCV-2 LCV-6 LCV-6	5,110 9,560 8,530	LCV-2 LCV-3 LCV-8	11,250 19,195 13,430	LCV-3 LCV-10 LCV-10	22,585 19,195 19,030	LCV-4 LCV-4 LCV-12	22,585 29,075 30,225	LCV-4 LCV-5 LCV-16	34,210 41,935 38,395	LCV-5 LCV-6 LCV-18	83,550 111,815 93,180	LCV-8 LCV-10 LCV-28
200 6,560 LCV/2 6,560 LCV/3 22,585 LCV/4 23,910 LCV/4 43,940 LCV/2 10,7155 1510 LCV/2 5,510 LCV/2 8,530 LCV/3 8,530 LCV/4 23,230 LCV/4 43,940 LCV/2 10,7155 225 7,285 LCV/2 7,285 LCV/2 7,285 LCV/2 14,450 LCV/3 10,6045 LCV/4 32,220 LCV/5 43,340 LCV/5 10,7155 200 6,500 LCV/2 7,285 LCV/2 7,285 LCV/3 32,010 LCV/4 32,220 LCV/5 43,940 LCV/5 107,155 200 LCV/2 7,285 LCV/2 14,450 LCV/3 23,050 LCV/4 43,940 LCV/5 43,940 <td< td=""><td>225</td><td>175 150 0-117</td><td>5,815 5,110 2,305</td><td>4 5 CV-2 LCV-2</td><td>5,815 5,110 3,490</td><td>LCV-2 LCV-2 LCV-5</td><td>5,815 5,110 5,035</td><td>LCV-2 LCV-2 LCV-6</td><td>5,815 5,110 5,035</td><td>LCV-2 LCV-2 LCV-6</td><td>5,815 11,250 8,530</td><td>LCV-2 LCV-3 LCV-8</td><td>12,805 22,585 13,430</td><td>LCV-3 LCV-4 LCV-10</td><td>25,715 22,585 23,015</td><td>LCV-4 LCV-14 LCV-14</td><td>25,715 34,210 30,525</td><td>LCV-4 LCV-5 LCV-16</td><td>38,950 49,340 47,530</td><td>LCV-5 LCV-6 LCV-20</td><td>95,130 131,550 107,175</td><td>LCV-8 LCV-30 LCV-30</td></td<>	225	175 150 0-117	5,815 5,110 2,305	4 5 CV-2 LCV-2	5,815 5,110 3,490	LCV-2 LCV-2 LCV-5	5,815 5,110 5,035	LCV-2 LCV-2 LCV-6	5,815 5,110 5,035	LCV-2 LCV-2 LCV-6	5,815 11,250 8,530	LCV-2 LCV-3 LCV-8	12,805 22,585 13,430	LCV-3 LCV-4 LCV-10	25,715 22,585 23,015	LCV-4 LCV-14 LCV-14	25,715 34,210 30,525	LCV-4 LCV-5 LCV-16	38,950 49,340 47,530	LCV-5 LCV-6 LCV-20	95,130 131,550 107,175	LCV-8 LCV-30 LCV-30
225 7.285 LCV-2 7.285 LCV-4 32.200 LCV-4 32.301 LCV-4 32.301 LCV-4 32.301 LCV-4 43.940 0.145 2.306 LCV-2 8.530 LCV-2 8.530 LCV-12 8.530 LCV-18 83.395 LCV-18 57.650 250 8.025 LCV-2 8.025 LCV-2 7.285 LCV-12 7.865 LCV-13 32.220 LCV-14 43.900 255 7,285 LCV-2 7,285 LCV-2 7,285 LCV-2 7,285 LCV-14 32,220 LCV-14 48.00 255 7,285 LCV-2	250	200 150 0-131	6,560 5,110 2,305	LCV-2 LCV-2 LCV-2	6,560 5,110 3,490	LCV-2 LCV-5 LCV-5	6,560 5,110 5,035	LCV-8 LCV-8 LCV-8	6,560 11,250 8,530	LCV-8 LCV-8 LCV-8	6,560 11,250 8,530	LCV-3 LCV-3 LCV-3	14,450 22,585 19,030	LCV-3 LCV-4 LCV-12	29,010 22,585 23,015	LCV-4 LCV-4 LCV-14	29,010 34,210 30,225	LCV-4 LCV-5 LCV-16	43,940 49,340 47,530	LCV-5 LCV-6 LCV-20	107,320 131,555 107,175	LCV-8 LCV-30 LCV-30
250 8,025 LCV-2 8,025 LCV-2 8,025 LCV-2 8,025 LCV-2 8,025 LCV-4 35,475 LCV-4 35,475 225 7,285 LCV-2 7,285 LCV-2 7,285 LCV-2 7,285 LCV-4 35,475 LCV-4 35,475 0-160 2,305 LCV-4 3,430 LCV-5 7,285 LCV-6 8,330 LCV-4 48,800 0-160 2,305 LCV-4 3,430 LCV-5 7,285 LCV-6 8,330 LCV-16 38,335 LCV-16 48,800	275	225 200 0-145	7,285 6,500 2,305	6 5 5 C 7 5 C 7 5	7,285 6,500 3,490	LCV-5 LCV-5 LCV-5	7,285 6,500 5,035	LCV-2 LCV-2 LCV-2	7,285 6,500 8,530	с	7,285 14,450 13,430	LCV-2 LCV-10 LCV-10	16,045 14,450 19,930	LCV-3 LCV-3 LCV-12	16,045 29,010 20,225	LCV-4 LCV-16 LCV-16	32,220 29,010 38,395	LCV-4 LCV-18 LCV-18	32,220 43,940 57,650	LCV-52 LCV-22		
	300	250 225 0-160	8,025 7,285 2,305	LCV-2 LCV-2 LCV-2	8,025 7,285 3,490	LCV-2 LCV-2 LCV-5	8,025 7,285 5,035	LCV-8 LCV-8	8,025 7,285 8,530	LCV-2 LCV-8 LCV-8	8,025 7,285 13,430	LCV-2 LCV-2 LCV-10	17,685 16,048 19,030	LCV-3 LCV-3 LCV-12	17,685 32,220 30,225	LCV-3 LCV-4 LCV-16	35,475 32,220 38,395	LCV-4 LCV-18 LCV-18	35,475 48,800 57,650	LCV-4 LCV-5 LCV-22		

Acoustic Silencers

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Noise Attenuators