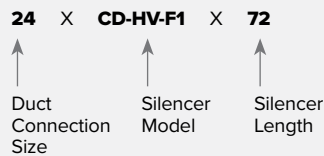


CD-HV-F1

Circular Dissipative
High velocity silencer
(<5000 fpm)

How to Specify Example:



Insertion Loss (IL)

+ : "forward flow" where noise & airflow move in same direction (e.g. supply side)

- : "reverse flow" where noise & airflow move in opposite directions (e.g. return side)

DC Size - Duct Connection Size (in.)

SL - Silencer Length (in.)

FV - Face Velocity (ft. per min)

SO Dia. - Silencer Outer Diameter (in.)

See [Silencer Selection Instructions](#). DIL above 50dB may be limited due to noise flanking around the silencer or along the duct walls. If more than 50dB DIL is required, contact your local Vibro-Acoustics representative or call **1-800-565-8401**.

DC Size (in.)	SL (in.)	FV (ft. per min)	Octave Band - Hz/Dynamic Insertion Loss (dB)							
			63	125	250	500	1000	2000	4000	8000
12	24	- 4000	5	8	13	19	26	27	22	13
		0	3	6	12	17	25	27	23	13
		+ 4000	2	5	10	15	24	27	24	13
24	48	- 4000	7	9	16	24	30	24	14	11
		0	5	8	15	22	29	24	15	11
		+ 4000	3	6	14	20	28	24	16	11
36	72	- 4000	8	12	20	28	28	19	12	9
		0	7	11	18	26	27	19	13	9
		+ 4000	5	9	17	24	26	19	14	9
48	96	- 4000	10	15	23	31	25	15	10	9
		0	8	14	22	29	24	15	11	9
		+ 4000	7	12	21	27	23	15	12	9
60	120	- 4000	10	15	25	31	22	14	10	9
		0	8	14	24	29	21	14	11	9
		+ 4000	7	12	23	27	20	14	12	9

DC Size (in.)	SL (in.)	FV (ft. per min)	Octave Band - Hz/Dynamic Insertion Loss (dB)							
			63	125	250	500	1000	2000	4000	8000
12	36	- 4000	7	11	18	28	38	41	33	20
		0	5	9	17	26	37	41	34	20
		+ 4000	3	8	16	24	36	41	35	20
24	72	- 4000	8	14	25	37	46	36	22	17
		0	7	12	24	35	45	36	23	17
		+ 4000	5	11	23	33	44	36	24	17
36	108	- 4000	12	18	29	41	41	28	18	14
		0	10	17	28	39	40	28	19	14
		+ 4000	8	15	26	37	39	28	20	14
48	144	- 4000	13	23	35	45	37	23	15	13
		0	12	21	33	43	36	23	16	13
		+ 4000	10	20	32	41	35	23	17	13
60	180	- 4000	13	23	37	45	32	21	15	13
		0	12	21	36	43	31	21	16	13
		+ 4000	10	20	35	41	30	21	17	13

Pressure Drop (PD)

Pressure drops are reported in accordance with ASTM E477 methods and are based upon **ideal** flow conditions (5 diameters of straight duct on silencer inlet and 10 on outlet). Less than ideal conditions will result in an increase in pressure drop due to System Effects. See [Silencer System Effects Data](#).

- Acceptable (0 - 0.35")
- Caution (>0.35") Pressure Drop may be too high for certain applications

DC Size (in.)	SO Dia. (in.)	SL (in.)	Weight (lbs)	Face Velocity (ft. per min)/Pressure Drop (in.w.g.)						
				1000	2000	3000	4000	5000	6000	7000
12	28	24	120	0.01	0.03	0.08	0.14	0.22	0.31	0.43
		36	157	0.01	0.06	0.13	0.24	0.37	0.53	0.73
24	40	48	335	0.01	0.04	0.08	0.15	0.23	0.33	0.45
		72	450	0.02	0.07	0.15	0.27	0.42	0.60	0.82
36	52	72	655	0.01	0.04	0.08	0.15	0.23	0.33	0.45
		108	903	0.02	0.06	0.14	0.26	0.40	0.58	0.78
48	64	96	1090	0.01	0.04	0.08	0.15	0.23	0.33	0.45
		144	1501	0.02	0.06	0.14	0.25	0.39	0.55	0.75
60	76	120	1638	0.01	0.04	0.08	0.14	0.22	0.32	0.44
		180	2268	0.01	0.06	0.13	0.23	0.36	0.51	0.70

Generated Noise (GN)

@ 3 sq.ft. face area

Length (in.)	Face Velocity (ft. per min)	Octave Band - Hz/Generated Noise (dB re 10 ⁻¹² watts)							
		63	125	250	500	1000	2000	4000	8000
All	- 5000	73	66	61	70	69	67	68	66
	- 3000	60	53	49	58	56	56	52	46
	+ 3000	59	52	49	57	53	53	50	44
	+ 5000	72	65	61	69	66	64	66	64

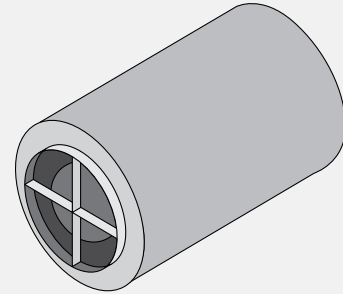
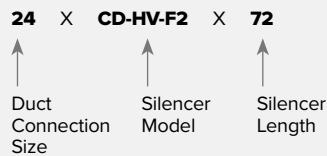
GN correction chart at right must be used to correct GN to other face areas. →

Face Area (sq.ft.)	1.5	3	6	12	24	48
dB	-3	0	+3	+6	+9	+12

CD-HV-F2

Circular Dissipative
High velocity silencer
(<5000 fpm)

How to Specify Example:



Insertion Loss (IL)

+ : "forward flow" where noise & airflow move in same direction (e.g. supply side)

- : "reverse flow" where noise & airflow move in opposite directions (e.g. return side)

DC Size - Duct Connection Size (in.)

SL - Silencer Length (in.)

FV - Face Velocity (ft. per min)

SO Dia. - Silencer Outer Diameter (in.)

See [Silencer Selection Instructions](#). DIL above 50dB may be limited due to noise flanking around the silencer or along the duct walls. If more than 50dB DIL is required, contact your local Vibro-Acoustics representative or call **1-800-565-8401**.

DC Size (in.)	SL (in.)	FV (ft. per min)	Octave Band - Hz/Dynamic Insertion Loss (dB)							
			63	125	250	500	1000	2000	4000	8000
12	24	- 4000	3	5	11	19	26	27	22	13
		0	2	4	10	17	25	27	23	13
		+ 4000	1	3	9	15	24	27	24	13
24	48	- 4000	4	6	14	24	30	24	14	11
		0	3	5	13	22	29	24	15	11
		+ 4000	2	4	12	20	28	24	16	11
36	72	- 4000	5	8	17	28	28	19	12	9
		0	4	7	16	26	27	19	13	9
		+ 4000	3	6	15	24	26	19	14	9
48	96	- 4000	6	10	20	31	25	15	10	9
		0	5	9	19	29	24	15	11	9
		+ 4000	4	8	18	27	23	15	12	9
60	120	- 4000	6	10	22	31	22	14	10	9
		0	5	9	21	29	21	14	11	9
		+ 4000	4	8	20	27	20	14	12	9

DC Size (in.)	SL (in.)	FV (ft. per min)	Octave Band - Hz/Dynamic Insertion Loss (dB)							
			63	125	250	500	1000	2000	4000	8000
12	36	- 4000	4	7	16	28	38	41	33	20
		0	3	6	15	26	37	41	34	20
		+ 4000	2	5	13	24	36	41	35	20
24	72	- 4000	5	9	22	37	46	36	22	17
		0	4	8	21	35	45	36	23	17
		+ 4000	3	7	20	33	44	36	24	17
36	108	- 4000	7	12	25	41	41	28	18	14
		0	6	11	24	39	40	28	19	14
		+ 4000	5	10	23	37	39	28	20	14
48	144	- 4000	8	15	30	45	37	23	15	13
		0	7	14	29	43	36	23	16	13
		+ 4000	6	13	28	41	35	23	17	13
60	180	- 4000	8	15	32	45	32	21	15	13
		0	7	14	31	43	31	21	16	13
		+ 4000	6	13	30	41	30	21	17	13

Pressure Drop (PD)

Pressure drops are reported in accordance with ASTM E477 methods and are based upon **ideal** flow conditions (5 diameters of straight duct on silencer inlet and 10 on outlet). Less than ideal conditions will result in an increase in pressure drop due to System Effects. See [Silencer System Effects Data](#).

- Acceptable (0 - 0.35")
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DC Size (in.)	SO Dia. (in.)	SL (in.)	Weight (lbs)	Face Velocity (ft. per min)/Pressure Drop (in.w.g.)						
				1000	2000	3000	4000	5000	6000	7000
12	20	24	82	0.01	0.03	0.08	0.14	0.22	0.31	0.43
		36	107	0.01	0.06	0.13	0.24	0.37	0.53	0.73
24	32	48	252	0.01	0.04	0.08	0.15	0.23	0.33	0.45
		72	342	0.02	0.07	0.15	0.27	0.42	0.60	0.82
36	44	72	520	0.01	0.04	0.08	0.15	0.23	0.33	0.45
		108	713	0.02	0.06	0.14	0.26	0.40	0.58	0.78
48	56	96	848	0.01	0.04	0.08	0.15	0.23	0.33	0.45
		144	1232	0.02	0.06	0.14	0.25	0.39	0.55	0.75
60	68	120	1362	0.01	0.04	0.08	0.14	0.22	0.32	0.44
		180	1892	0.01	0.06	0.13	0.23	0.36	0.51	0.70

Generated Noise (GN)

@ 3 sq.ft. face area

Length (in.)	Face Velocity (ft. per min)	Octave Band - Hz/Generated Noise (dB re 10 ⁻¹² watts)							
		63	125	250	500	1000	2000	4000	8000
All	- 5000	73	66	61	70	69	67	68	66
	- 3000	60	53	49	58	56	56	52	46
	+ 3000	59	52	49	57	53	53	50	44
	+ 5000	72	65	61	69	66	64	66	64

GN correction chart at right must be used to correct GN to other face areas. →

Face Area (sq.ft.)	1.5	3	6	12	24	48
dB	-3	0	+3	+6	+9	+12