FläktGroup®

SEMCO®

PERFORMANCE

QUALITY

SILENT AIR

SOUND CATALOG

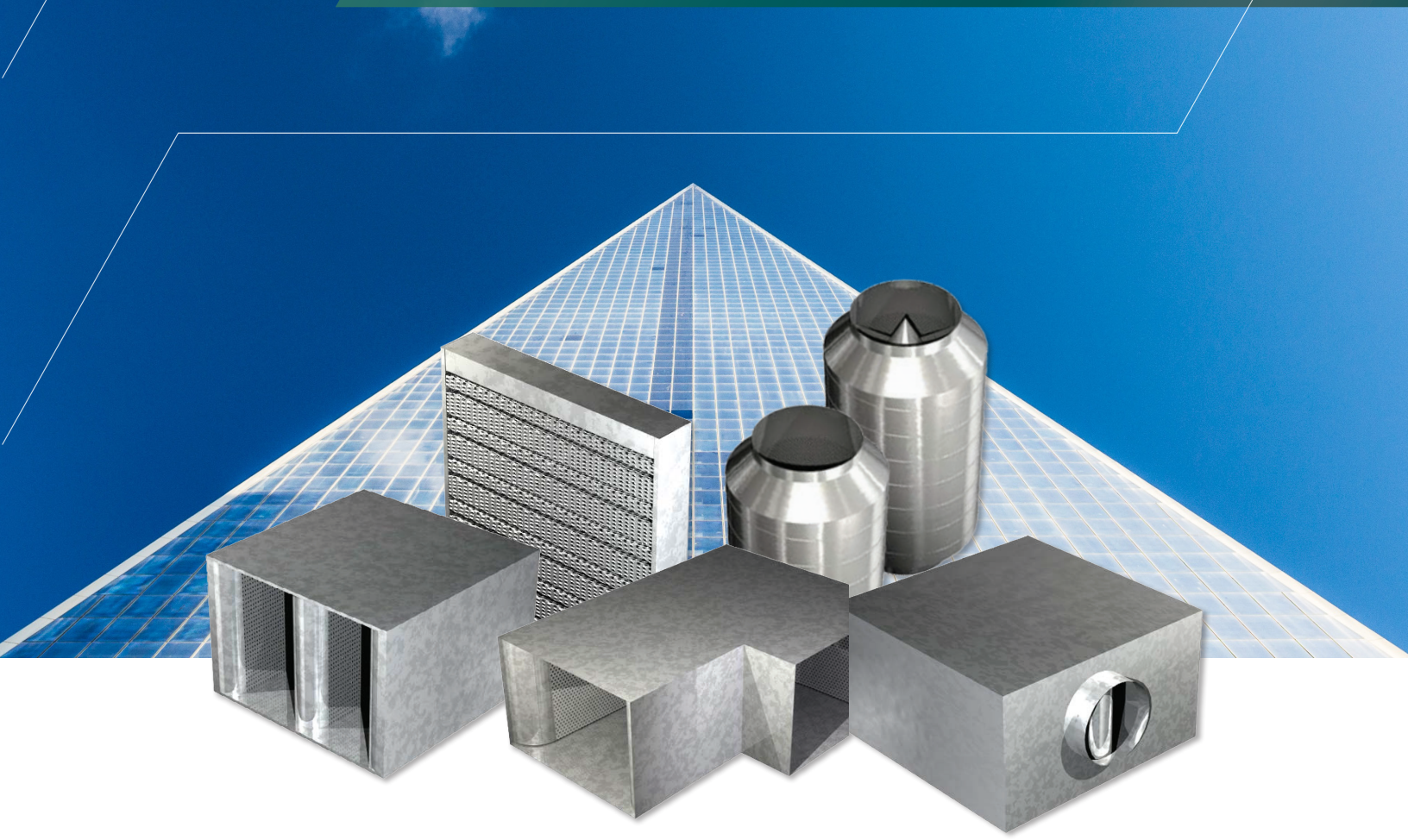


TABLE OF CONTENTS

Section 1: Standard Sound Silencers 1
Section 2: Low Frequency Sound 13
Section 3: Comparative Test Data 23
Section 4: Media Free Sound 31
Section 5: Special Application Sound 47

© SEMCO LLC 2023. All rights reserved.

The information in this technical guide is furnished for informational use only, is subject to change without notice, and should not be construed as a commitment by SEMCO. SEMCO assumes no responsibility for any errors that may appear in this catalog.

No part of this publication may be reproduced, stored in a retrieval system or transmitted, in any form or by any means, electronic, mechanical, recording, or otherwise, without the prior written permission of SEMCO.

SEMCO and SilentAir are registered trademarks of SEMCO LLC.

FläktGroup SEMCO

SILENTAIR

SECTION 1:
STANDARD SOUND SILENCERS

MODEL ST2500: STANDARD SOUND SILENCER

The FläktGroup® SEMCO® Model ST2500 sound silencers are applicable in low to medium velocity systems where good attenuation across all bands and a moderate pressure drop are required.

INDEPENDENTLY CERTIFIED TEST DATA

Published data is derived from independent certified testing conducted in accordance with ASTM E477. For testing purposes, specified lengths of straight duct are used both upstream and downstream of the silencer. Static pressure losses must therefore be adjusted when the unit is installed, at or near transitions, elbows, or at the intake or discharge of the system. Consult FläktGroup® SEMCO® for adjustment values. All data published herein was obtained from a 24" x 24" production run unit.

Dynamic Insertion Loss (dB)

Model	Length	Face Velocity	Cv	Press. Drop	Forward Airflow Performance Octave Band/Frequency (hz) 1 63	2 125	3 250	4 500	5 1K	6 2K	7 4K	8 8K	Reverse Airflow Performance Octave Band/Frequency (hz) 1 63	2 125	3 250	4 500	5 1K	6 2K	7 4K	8 8K
ST2503	36"	0	3.37	0	5	7	15	29	38	37	23	14	4	6	15	29	38	36	24	13
		500		.05	5	7	14	28	37	37	23	14	4	7	16	30	36	35	22	12
		1000		.21	3	4	11	24	34	34	21	12	5	9	16	29	36	32	22	12
		1500		.47	3	4	11	24	32	33	21	12	5	9	17	30	35	23	17	11
		2000		.84	3	4	10	22	31	31	20	10	2	8	18	31	34	25	12	7
ST2505	60"	0	4.63	0	7	12	25	38	44	45	36	21	7	12	25	38	44	45	36	21
		500		.07	6	12	23	37	44	45	36	21	6	12	23	38	44	45	36	21
		1000		.29	5	10	21	35	41	42	34	20	5	10	21	35	41	42	34	20
		1500		.66	5	9	20	35	39	41	33	19	5	9	20	35	39	41	33	19
		2000		1.17	4	8	18	31	38	38	31	18	4	8	18	31	38	38	31	18
ST2507	84"	0	6.02	0	8	17	34	47	50	53	48	27	8	17	34	48	50	53	48	27
		500		.09	7	16	31	46	50	52	48	27	7	16	31	46	50	52	48	27
		1000		.37	7	15	30	46	48	49	46	27	7	15	30	46	48	49	46	27
		1500		.84	6	14	28	45	46	48	44	26	6	14	28	45	46	48	44	26
		2000		1.5	4	11	25	40	44	45	41	25	4	11	25	40	44	45	41	25
ST2510	120"	0	7.89	0	10	25	48	61	59	65	67	37	10	25	48	61	59	65	67	37
		500		.12	10	23	44	60	59	63	67	37	10	26	44	60	60	63	67	37
		1000		.49	10	23	44	60	59	60	65	37	10	23	44	60	59	60	65	37
		1500		1.12	8	22	41	60	57	59	61	37	8	22	41	60	57	59	61	37
		2000		2.00	5	16	36	54	54	56	57	36	5	16	36	54	54	56	57	36

Forward airflow performance applies when both noise and airflow are traveling in the same direction.
Reverse airflow performance applies when noise and airflow are traveling in opposite directions.

Pressure Drops for velocities not shown above can be calculated using the following formula:

P.D. = Cv x Hv
where: P.D. = Pressure Drop
Cv = Silencer Flow Coefficient

$Hv = (V/4005)^2$
Hv = Velocity Pressure in Inches w.g.
V = Face velocity in Ft./Min.

MODEL ST2500: STANDARD SOUND SILENCER

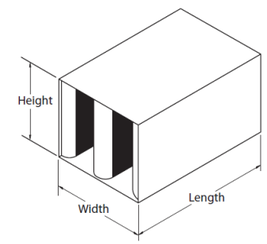
STANDARD CONSTRUCTION:

Shell and Nose:	22 Gauge Galvanized Steel
Perforated Metal:	24 Gauge Galvanized Steel
Fill Material:	Fiberglass

FIRE RATINGS:

Fire Hazard Classification Ratings in accordance with ASTM-E84 is FHC 25/20.

Additional materials, gauges, and configurations are available, such as stainless or aluminum, with mylar or polyethylene liners or bagging. Please contact FläktGroup® SEMCO® for details.



Standard Sizes & Weights

Std. Height	3"-0" Length Standard Width 12"	14"	36"	48"	5'0" Length Standard Width 12"	24"	36"	48"	7'0" Length Standard Width 12"	24"	36"	10'0" Length Standard Width 12"	24"	36"
18"	31	52	68	81	51	85	110	133	71	120	154	101	171	218
24"	49	78	101	118	78	125	161	186	109	172	222	140	207	278
36"	67	105	135	154	105	165	210	238	145	226	288	190	280	366
48"	85	132	168	191	133	204	260	291	-	-	-	-	-	-

Non-standard sizes are available. Non-standard height dimensions are available within the following restrictions: 48" heights are not available in 7' through 10' lengths.

Self Generated Noise (dB)

Model	Length	Face Velocity	Forward Airflow Performance Octave Band/Frequency (hz) 1 63	2 125	3 250	4 500	5 1K	6 2K	7 4K	8 8K	Reverse Airflow Performance Octave Band/Frequency (hz) 1 63	2 125	3 250	4 500	5 1K	6 2K	7 4K	8 8K
ST2503	36"	500	48	43	40	32	25	19	19	19	50	42	41	47	56	53	42	31
		1000	52	47	44	43	43	45	41	34	55	45	44	49	57	61	49	40
		1500	62	59	58	51	51	56	57	53	62	54	52	55	58	64	62	57
		2000	69	65	68	60	57	62	64	61	68	62	61	59	60	69	74	66
ST2505	60"	500	49	43	39	35	30	23	21	19	49	43	39	35	30	23	21	19
		1000	53	47	43	42	43	44	41	34	53	47	43	42	43	44	41	34
		1500	62	59	56	50	51	55	56	52	62	59	56	50	51	55	56	52
		2000	71	66	66	60	56	61	64	61	71	66	66	60	56	61	64	61
ST2507	84"	500	50	42	39	38	35	27	23	19	50	42	38	37	35	27	23	19
		1000	53	46	42	41	43	43	40	33	53	46	42	41	43	43	40	33
		1500	62	58	54	49	50	54	55	51	62	58	54	49	50	54	55	51
		2000	72	66	63	59	55	60	64	61	72	66	63	59	55	60	64	61
ST2510	120"	500	52	41	37	41	43	33	26	19	52	41	37	41	43	33	26	19
		1000	54	45	41	40	43	42	39	32	54	45	41	40	43	42	39	32
		1500	62	57	51	48	49	53	54	50	62	57	51	48	49	53	54	50
		2000	74	67	59	58	54	59	64	61	74	67	59	58	54	59	64	61

Face Area Adjustment for Self Noise

Attenuator Face Area (sq. ft.)	0.5	1	2	4	8	16	32	64	128
PWL Adjustment Factor dB re 10^{-12} Watts	-9	-6	-3	0	+3	+6	+9	+12	+15

Add or deduct from power level above. For intermediate face areas, interpolate to nearest whole number.

MODEL ST5000: STANDARD SOUND SILENCER

The FläktGroup SEMCO Model ST5000 sound silencers provide good attenuation across all bands and are designed to be used in low to medium pressure ranges where low to medium velocities are present.

INDEPENDENTLY CERTIFIED TEST DATA

Published data is derived from independent certified testing conducted in accordance with ASTM E477. For testing purposes, specified lengths of straight duct are used both upstream and downstream of the silencer. Static pressure losses must therefore be adjusted when the unit is installed, at or near transitions, elbows, or at the intake or discharge of the system. Consult FläktGroup SEMCO for adjustment values. All data published herein was obtained from a 24" x 24" production run unit.

Dynamic Insertion Loss (dB)

					Forward Airflow Performance Octave Band/Frequency (hz)								Reverse Airflow Performance Octave Band/Frequency (hz)							
Model	Length	Face Velocity	Cv	Press. Drop	1 63	2 125	3 250	4 500	5 1K	6 2K	7 4K	8 8K	1 63	2 125	3 250	4 500	5 1K	6 2K	7 4K	8 8K
ST5003	36"	0	1.93	0	2	3	11	24	33	29	17	10	4	4	12	24	33	29	18	12
		500		.03	1	2	10	22	32	29	16	9	3	5	13	24	34	29	18	12
		1000		.12	1	2	10	21	32	29	16	9	3	3	11	21	31	27	15	10
		1500		.27	0	2	9	20	31	29	16	9	2	4	11	22	30	22	14	7
		2000		.48	0	2	9	20	29	29	16	9	0	4	12	22	30	20	10	5
ST5005	60"	0	2.47	0	4	8	19	35	41	40	26	15	6	8	19	33	37	36	26	16
		500		.04	3	7	18	34	41	40	26	14	6	10	21	33	38	36	25	15
		1000		.16	3	6	17	33	40	39	26	14	6	9	20	31	36	34	24	14
		1500		.35	2	6	17	32	39	37	25	14	4	10	20	31	33	24	17	11
		2000		.62	2	6	16	32	36	33	23	14	2	10	21	31	33	22	12	8
ST5007	84"	0	3.01	0	6	12	27	45	49	50	35	19	8	12	26	41	41	42	34	19
		500		.05	5	11	26	45	49	50	35	19	8	14	28	41	41	43	32	17
		1000		.19	4	10	24	44	48	49	35	19	8	14	29	41	40	41	32	17
		1500		.42	4	10	24	44	46	44	34	19	5	15	29	40	36	25	19	15
		2000		.75	4	9	22	43	43	37	29	18	4	15	29	39	35	24	13	10
ST5010	120"	0	3.85	0	9	19	39	61	61	66	49	26	11	18	37	54	47	52	46	24
		500		.07	8	18	38	62	62	66	49	27	12	21	39	54	46	54	43	21
		1000		.24	6	16	35	61	60	64	49	27	12	22	43	56	47	52	45	22
		1500		.53	7	16	35	62	57	55	48	27	7	23	43	54	41	27	23	21
		2000		.95	7	14	32	60	54	43	39	25	7	23	42	52	39	27	15	14

Forward airflow performance applies when both noise and airflow are traveling in the same direction.
Reverse airflow performance applies when noise and airflow are traveling in opposite directions.

Pressure Drops for velocities not shown above can be calculated using the following formula:

P.D. = Cv x Hv — $Hv = (V/4005)^2$

where: P.D. = Pressure Drop — Hv = Velocity Pressure in Inches w.g.

Cv = Silencer Flow Coefficient — V = Face velocity in Ft./Min.

MODEL ST5000: STANDARD SOUND SILENCER

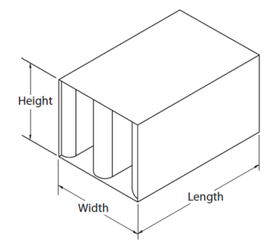
STANDARD CONSTRUCTION:

Shell and Nose:	22 Gauge Galvanized Steel
Perforated Metal:	24 Gauge Galvanized Steel
Fill Material:	Fiberglass

FIRE RATINGS:

Fire Hazard Classification Ratings in accordance with ASTM-E84 is FHC 25/20.

Additional materials, gauges, and configurations are available, such as stainless or aluminum, with mylar or polyethylene liners or bagging. Please contact FläktGroup® SEMCO® for details.



Standard Sizes & Weights

Std. Height	3"-0" Length Standard Width				5'0" Length Standard Width				7'0" Length Standard Width			10'0" Length Standard Width		
	12"	14"	36"	48"	12"	24"	36"	48"	12"	24"	36"	12"	24"	36"
18"	30	49	64	77	49	82	105	126	69	115	148	98	163	210
24"	47	75	93	111	76	120	147	176	105	166	204	136	206	244
36"	64	101	122	145	102	159	189	226	141	219	259	185	278	314
48"	82	126	150	179	129	197	230	276	-	-	-	-	-	-

Non-standard sizes are available. Non-standard height dimensions are available within the following restrictions: 48" heights are not available in 7' through 10' lengths.

Self Generated Noise (dB)

			Forward Airflow Performance Octave Band/Frequency (hz)								Reverse Airflow Performance Octave Band/Frequency (hz)							
Model	Length	Face Velocity	1 63	2 125	3 250	4 500	5 1K	6 2K	7 4K	8 8K	1 63	2 125	3 250	4 500	5 1K	6 2K	7 4K	8 8K
ST5003	36"	500	49	45	39	37	30	22	19	19	50	41	37	43	48	38	28	21
		1000	55	49	43	43	43	42	37	29	52	44	42	48	56	52	41	30
		1500	62	59	51	48	50	52	51	44	62	56	53	56	61	71	65	55
		2000	64	64	66	56	54	59	61	57	68	62	59	60	62	74	75	66
ST5005	60"	500	47	46	39	35	28	21	19	19	48	41	38	43	48	38	28	20
		1000	53	49	42	41	42	41	35	28	53	47	41	46	54	51	40	29
		1500	59	57	49	46	49	51	49	43	64	56	53	55	60	70	66	56
		2000	64	62	62	54	53	57	59	55	68	61	59	59	62	72	74	65
ST5007	84"	500	45	46	38	33	25	19	19	19	45	41	38	43	47	38	28	19
		1000	54	48	40	39	41	39	33	27	54	49	40	44	52	49	38	28
		1500	56	55	47	44	47	49	47	41	65	56	53	54	59	69	67	57
		2000	63	59	57	51	51	55	57	53	67	59	58	58	61	70	73	64
ST5010	120"	500	42	47	37	30	21	17	19	19	41	41	39	43	46	38	28	18
		1000	48	47	38	36	40	37	30	26	56	53	39	41	49	47	36	27
		1500	52	52	44	41	45	47	44	39	67	56	53	53	58	68	69	59
		2000	62	55	50	47	49	52	54	50	66	57	57	57	60	67	72	63

Face Area Adjustment for Self Noise

Attenuator Face Area (sq. ft.)	0.5	1	2	4	8	16	32	64	128
PWL Adjustment Factor dB re 10^{-12} Watts	-9	-6	-3	0	+3	+6	+9	+12	+15

Add or deduct from power level above. For intermediate face areas, interpolate to nearest whole number.

MODEL ST6000: STANDARD SOUND SILENCER

The FläktGroup SEMCO Model ST6000 sound silencers provide good performance in all octave bands while maintaining low pressure drops in medium and high velocity systems.

INDEPENDENTLY CERTIFIED TEST DATA

Published data is derived from independent certified testing conducted in accordance with ASTM E477. For testing purposes, specified lengths of straight duct are used both upstream and downstream of the silencer. Static pressure losses must therefore be adjusted when the unit is installed, at or near transitions, elbows, or at the intake or discharge of the system. Consult FläktGroup SEMCO for adjustment values. All data published herein was obtained from a 24" x 24" production run unit.

Dynamic Insertion Loss (dB)

					Forward Airflow Performance Octave Band/Frequency (hz)								Reverse Airflow Performance Octave Band/Frequency (hz)							
Model	Length	Face Velocity	Cv	Press. Drop	1 63	2 125	3 250	4 500	5 1K	6 2K	7 4K	8 8K	1 63	2 125	3 250	4 500	5 1K	6 2K	7 4K	8 8K
ST6003	36"	0	.82	0	3	4	9	18	25	27	18	12	3	4	9	18	25	27	18	12
		500		.01	3	4	9	18	24	27	18	12	3	4	9	18	24	27	18	12
		1000		.05	3	3	9	17	24	26	18	11	3	3	9	17	24	26	18	11
		1500		.11	2	3	9	17	24	26	18	11	2	3	9	17	24	26	18	11
		2000		.20	2	3	9	17	24	26	18	11	2	3	9	17	24	26	18	11
ST6005	60"	0	1.18	0	4	7	15	29	37	39	25	14	4	7	15	29	37	39	25	14
		500		.02	4	6	14	28	37	39	25	14	4	6	14	28	37	39	25	14
		1000		.07	4	6	14	27	37	39	25	14	4	6	14	27	37	39	25	14
		1500		.16	3	5	14	27	36	38	25	14	3	5	14	27	36	38	25	14
		2000		.29	3	5	14	27	36	36	25	14	3	5	14	27	36	36	25	14
ST6007	84"	0	1.51	0	5	9	20	39	49	51	32	16	5	9	20	39	49	51	32	16
		500		.02	5	8	18	38	49	51	32	16	5	8	18	38	49	51	32	16
		1000		.09	5	8	18	37	49	51	32	16	5	8	18	37	49	51	32	16
		1500		.21	4	7	18	37	48	49	32	16	4	7	18	37	48	49	32	16
		2000		.37	3	7	18	36	47	45	32	16	3	7	18	36	47	45	32	16
ST6010	120"	0	1.98	0	7	13	28	55	67	69	43	19	7	13	28	55	67	69	43	19
		500		.03	7	11	25	53	68	69	43	19	7	11	25	53	68	69	43	19
		1000		.12	7	12	25	52	68	70	43	20	7	12	25	52	68	70	43	20
		1500		.29	6	10	25	52	66	66	43	20	6	10	25	52	66	66	43	20
		2000		.50	4	10	25	50	64	59	43	20	4	10	25	50	64	59	43	20

Forward airflow performance applies when both noise and airflow are traveling in the same direction.
Reverse airflow performance applies when noise and airflow are traveling in opposite directions.

Pressure Drops for velocities not shown above can be calculated using the following formula:

P.D. = Cv x Hv
where: P.D. = Pressure Drop
Cv = Silencer Flow Coefficient

$Hv = (V/4005)^2$
Hv = Velocity Pressure in Inches w.g.
V = Face velocity in Ft./Min.

MODEL ST6000: STANDARD SOUND SILENCER

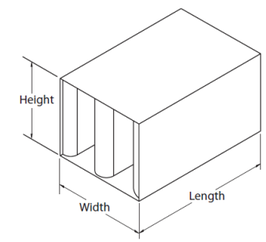
STANDARD CONSTRUCTION:

Shell and Nose:	22 Gauge Galvanized Steel
Perforated Metal:	24 Gauge Galvanized Steel
Fill Material:	Fiberglass

FIRE RATINGS:

Fire Hazard Classification Ratings in accordance with ASTM-E84 is FHC 25/20.

Additional materials, gauges, and configurations are available, such as stainless or aluminum, with mylar or polyethylene liners or bagging. Please contact FläktGroup SEMCO for details.



Standard Sizes & Weights

Std. Height	3"-0" Length Standard Width				5'0" Length Standard Width				7'0" Length Standard Width			10'0" Length Standard Width		
	12"	14"	36"	48"	12"	24"	36"	48"	12"	24"	36"	12"	24"	36"
18"	26	47	61	76	43	78	100	124	60	110	141	85	156	201
24"	40	71	88	109	64	115	141	174	90	159	196	123	201	240
36"	54	96	116	142	86	152	181	223	119	211	249	163	271	309
48"	68	120	143	175	108	189	221	273	-	-	-	-	-	-

Non-standard sizes are available. Non-standard height dimensions are available within the following restrictions: 48" heights are not available in 7' through 10' lengths.

Self Generated Noise (dB)

			Forward Airflow Performance Octave Band/Frequency (hz)								Reverse Airflow Performance Octave Band/Frequency (hz)							
Model	Length	Face Velocity	1 63	2 125	3 250	4 500	5 1K	6 2K	7 4K	8 8K	1 63	2 125	3 250	4 500	5 1K	6 2K	7 4K	8 8K
ST6003	36"	500	49	40	36	28	20	19	19	19	49	40	36	28	20	19	19	19
		1000	53	42	38	34	34	22	19	19	53	42	38	34	34	22	19	19
		1500	60	58	49	42	43	43	37	31	60	58	49	42	43	43	37	31
		2000	62	60	53	49	48	51	49	44	62	60	53	49	48	51	49	44
ST6005	60"	500	51	43	37	29	23	20	19	19	51	43	37	29	23	20	19	19
		1000	55	44	40	33	33	23	20	19	55	44	40	33	33	23	20	19
		1500	62	57	49	43	43	43	37	31	62	57	49	43	43	43	37	31
		2000	63	60	52	51	48	51	49	44	63	60	52	51	48	51	49	44
ST6007	84"	500	52	45	38	30	26	20	19	19	52	45	38	30	26	20	19	19
		1000	56	45	41	32	32	24	21	19	56	45	41	32	32	24	21	19
		1500	63	55	48	43	42	42	37	30	63	55	48	43	42	42	37	30
		2000	63	60	50	52	48	50	48	43	63	60	50	52	48	50	48	43
ST6010	120"	500	54	49	40	32	31	21	19	19	54	49	40	32	31	21	19	19
		1000	58	47	43	31	31	26	23	19	58	47	43	31	31	26	23	19
		1500	65	53	47	44	41	41	37	29	65	53	47	44	41	41	37	29
		2000	64	60	48	54	48	49	47	42	64	60	48	54	48	49	47	42

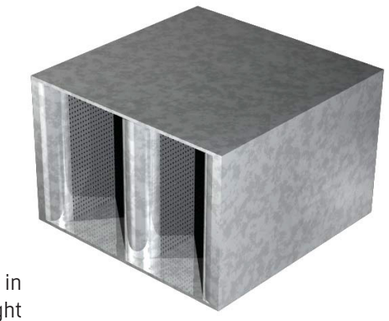
Face Area Adjustment for Self Noise

Attenuator Face Area (sq. ft.)	0.5	1	2	4	8	16	32	64	128
PWL Adjustment Factor dB re 10^{-12} Watts	-9	-6	-3	0	+3	+6	+9	+12	+15

Add or deduct from power level above. For intermediate face areas, interpolate to nearest whole number.

MODEL ST7500: STANDARD SOUND SILENCER

The FläktGroup SEMCO Model ST7500 sound silencers provide good attenuation across all bands. Their design assures minimal pressure drops in high velocity applications.



INDEPENDENTLY CERTIFIED TEST DATA

Published data is derived from independent certified testing conducted in accordance with ASTM E477. For testing purposes, specified lengths of straight duct are used both upstream and downstream of the silencer. Static pressure losses must therefore be adjusted when the unit is installed, at or near transitions, elbows, or at the intake or discharge of the system. Consult FläktGroup SEMCO for adjustment values. All data published herein was obtained from a 24" x 24" production run unit.

Dynamic Insertion Loss (dB)

					Forward Airflow Performance Octave Band/Frequency (hz)								Reverse Airflow Performance Octave Band/Frequency (hz)							
Model	Length	Face Velocity	Cv	Press. Drop	1 63	2 125	3 250	4 500	5 1K	6 2K	7 4K	8 8K	1 63	2 125	3 250	4 500	5 1K	6 2K	7 4K	8 8K
ST7503	36"	0	.74	0	1	5	8	21	26	21	12	9	3	5	9	21	25	21	12	9
		500		.01	1	5	8	21	25	22	14	10	3	5	9	21	26	21	12	8
		1000		.05	1	5	8	20	25	22	14	10	3	6	9	21	26	21	12	7
		1500		.10	2	5	8	19	25	22	13	10	3	7	10	22	26	21	12	6
		2000		.18	2	5	8	19	24	22	13	10	2	6	10	22	27	21	11	6
ST7505	60"	0	1.08	0	4	8	14	33	41	31	18	11	3	7	14	34	41	31	19	12
		500		.02	4	8	13	32	41	32	19	11	3	7	14	34	41	31	18	11
		1000		.07	4	8	13	32	41	32	19	11	3	8	14	34	41	31	18	11
		1500		.15	3	8	13	32	40	32	19	12	3	9	15	34	42	31	17	11
		2000		.27	3	8	12	31	40	32	19	13	2	9	15	35	42	31	17	11
ST7507	84"	0	1.22	0	2	9	17	42	51	40	21	13	3	10	18	42	52	41	21	12
		500		.02	2	9	16	42	51	41	21	13	3	10	19	43	52	40	20	12
		1000		.08	2	9	16	42	50	41	22	13	3	11	19	43	53	39	20	12
		1500		.17	2	9	16	41	50	42	22	14	3	11	21	45	52	39	20	12
		2000		.30	1	9	16	40	48	42	22	15	2	11	21	42	51	39	20	12
ST7510	120"	0	1.46	0	7	14	26	60	74	55	30	16	3	15	26	62	76	56	32	17
		500		.02	7	14	24	60	74	55	30	16	3	15	27	62	76	55	30	17
		1000		.10	7	14	22	60	74	56	60	16	3	16	27	63	76	54	29	18
		1500		.21	4	14	24	61	73	57	31	17	3	14	30	63	76	54	28	20
		2000		.37	3	14	22	58	72	57	31	20	2	16	30	62	74	54	29	20

Forward airflow performance applies when both noise and airflow are traveling in the same direction.
Reverse airflow performance applies when noise and airflow are traveling in opposite directions.

Pressure Drops for velocities not shown above can be calculated using the following formula:

P.D. = Cv x Hv
where: P.D. = Pressure Drop
Cv = Silencer Flow Coefficient

$Hv = (V/4005)^2$
Hv = Velocity Pressure in Inches w.g.
V = Face velocity in Ft./Min.

MODEL ST7500: STANDARD SOUND SILENCER

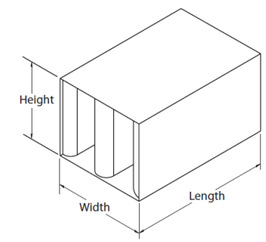
STANDARD CONSTRUCTION:

Shell and Nose:	22 Gauge Galvanized Steel
Perforated Metal:	24 Gauge Galvanized Steel
Fill Material:	Fiberglass

FIRE RATINGS:

Fire Hazard Classification Ratings in accordance with ASTM-E84 is FHC 25/20.

Additional materials, gauges, and configurations are available, such as stainless or aluminum, with mylar or polyethylene liners or bagging. Please contact FläktGroup SEMCO for details.



Standard Sizes & Weights

Std. Height	3"-0" Length Standard Width				5'0" Length Standard Width				7'0" Length Standard Width			10'0" Length Standard Width		
	12"	14"	36"	48"	12"	24"	36"	48"	12"	24"	36"	12"	24"	36"
18"	26	47	60	74	43	78	99	121	60	110	139	85	156	199
24"	40	71	87	106	64	115	139	170	90	159	194	123	201	239
36"	54	96	114	138	86	152	179	218	118	211	246	163	271	308
48"	68	120	141	170	108	189	218	267	-	-	-	-	-	-

Non-standard sizes are available. Non-standard height dimensions are available within the following restrictions: 48" heights are not available in 7' through 10' lengths.

Self Generated Noise (dB)

			Forward Airflow Performance Octave Band/Frequency (hz)								Reverse Airflow Performance Octave Band/Frequency (hz)							
Model	Length	Face Velocity	1 63	2 125	3 250	4 500	5 1K	6 2K	7 4K	8 8K	1 63	2 125	3 250	4 500	5 1K	6 2K	7 4K	8 8K
ST7503	36"	500	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		1000	51	46	40	36	36	31	24	20	47	42	36	34	32	21	19	20
		1500	54	53	47	42	43	45	39	31	59	54	49	48	51	50	42	34
		2000	60	60	60	51	48	53	51	44	70	65	56	54	55	58	53	34
ST7505	60"	500	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		1000	49	47	45	37	34	29	22	25	53	49	48	46	45	39	28	25
		1500	54	51	48	42	42	43	37	30	59	57	54	53	54	52	42	35
		2000	61	58	54	49	49	51	49	43	63	62	60	58	69	60	54	46
ST7507	84"	500	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		1000	53	46	38	34	34	27	21	25	52	48	47	45	44	37	26	25
		1500	58	52	46	44	43	43	36	29	58	58	54	52	52	52	43	35
		2000	64	61	55	52	50	51	48	42	68	62	60	57	57	59	53	46
ST7510	120"	500	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		1000	50	45	28	30	31	24	18	25	51	47	46	44	43	34	23	25
		1500	64	49	43	44	42	40	33	28	57	57	54	51	49	52	43	35
		2000	69	58	46	49	52	48	45	41	58	58	60	56	54	58	52	46

Face Area Adjustment for Self Noise

Attenuator Face Area (sq. ft.)	0.5	1	2	4	8	16	32	64	128
PWL Adjustment Factor dB re 10^{-12} Watts	-9	-6	-3	0	+3	+6	+9	+12	+15

Add or deduct from power level above. For intermediate face areas, interpolate to nearest whole number.

MODEL RS1000, RS6100 & RS7800 ROUND SOUND SILENCER

FläktGroup SEMCO round sound silencers are available in several different performance ranges to fit the needs of most round, high velocity applications.

INDEPENDENTLY CERTIFIED TEST DATA

Published data is derived from independent certified testing conducted in accordance with ASTM E477. For testing purposes, specified lengths of straight duct are used both upstream and downstream of the silencer. Static pressure losses must therefore be adjusted when the unit is installed, at or near transitions, elbows, or at the intake or discharge of the system. Consult FläktGroup SEMCO for adjustment values. All data published herein was obtained from a 24" round production run unit. Larger units will produce higher insertion losses.

Dynamic Insertion Loss (dB)

					Forward Airflow Performance Octave Band/Frequency (hz)								Reverse Airflow Performance Octave Band/Frequency (hz)							
Model	Length	Face Velocity	Cv	Press. Drop	1 63	2 125	3 250	4 500	5 1K	6 2K	7 4K	8 8K	1 63	2 125	3 250	4 500	5 1K	6 2K	7 4K	8 8K
RS1000	2 x Dia.	0	.15	0	4	6	14	21	15	12	12	8	4	6	14	21	15	12	12	8
		1000		.01	4	5	14	21	15	12	12	8	4	5	14	21	15	12	12	8
		1500		.02	3	5	13	20	15	12	12	8	3	5	13	20	15	12	12	8
		2000		.04	2	5	13	20	15	12	12	8	2	5	13	20	15	12	12	8
		2500		.06	2	5	13	20	15	12	12	8	2	5	13	20	15	12	12	8
RS7800T	2 x Dia.	0	.36	0	7	11	16	31	39	36	26	18	9	11	16	31	39	36	25	18
		1000		.02	6	11	16	30	38	36	26	18	9	12	17	32	39	36	25	17
		1500		.05	4	10	16	29	37	36	26	18	2	9	15	30	36	33	21	14
		2000		.09	3	8	13	25	35	33	24	17	1	8	12	25	33	31	19	13
		2500		.14	2	8	12	25	33	32	23	17	1	8	12	25	31	29	18	11
RS7800R	2 x Dia.	0	.40	0	6	7	16	28	35	28	20	16	5	9	15	29	36	34	23	16
		1000		.03	6	7	16	28	34	28	20	16	5	10	16	30	37	34	22	13
		1500		.06	6	7	15	27	34	28	20	16	5	10	15	30	37	34	22	13
		2000		.10	5	7	15	26	33	28	20	16	3	10	15	30	34	32	20	12
		2500		.16	4	6	14	25	33	28	20	16	2	10	15	28	32	29	19	10
RS6100T	2 x Dia.	0	.64	0	5	9	13	23	30	25	18	13	7	9	13	23	30	25	17	14
		1000		.04	5	9	13	22	29	25	19	13	8	10	14	24	30	25	17	12
		1500		.09	5	9	13	22	29	25	18	13	3	8	12	23	28	22	13	9
		2000		.16	4	9	13	22	29	25	18	13	2	8	12	22	27	23	13	9
		2500		.25	3	8	12	22	29	25	18	13	1	8	12	22	27	22	13	7
RS6100R	2 x Dia.	0	.80	0	8	9	21	34	43	38	27	20	7	11	20	35	44	44	30	20
		1000		.05	7	8	18	33	41	37	27	20	6	11	18	35	44	43	29	17
		1500		.11	7	8	18	32	41	37	27	20	6	11	18	35	44	43	29	17
		2000		.20	7	8	18	31	40	36	26	20	5	11	18	35	41	40	26	16
		2500		.31	4	8	17	30	39	35	26	20	2	11	18	33	38	36	25	14

Forward airflow performance applies when both noise and airflow are traveling in the same direction.
Reverse airflow performance applies when noise and airflow are traveling in opposite directions.

Pressure Drops for velocities not shown above can be calculated using the following formula:

P.D. = Cv x Hv
where: P.D. = Pressure Drop
Cv = Silencer Flow Coefficient

$Hv = (V/4005)^2$
Hv = Velocity Pressure in Inches w.g.
V = Face velocity in Ft./Min.

MODEL RS1000, RS6100 & RS7800 ROUND SOUND SILENCER

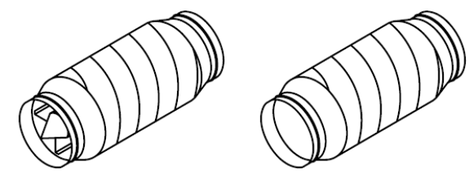
STANDARD CONSTRUCTION:

Diameter	Spiral Shell (ga. galv.)	Nose (ga. galv.)	Perf. Line (ga. galv.)	Perf. Bullet (ga. galv.)
12" - 14"	26	20	26	24
15" - 18"	24	20	26	24
19" - 26"	24	20	24	24
28" - 36"	22	20	22	24
38" - 50"	20	20	22	22
52" - 60"	18	20	22	22

FIRE RATINGS:

Fire Hazard Classification Ratings in accordance with ASTM-E84 is FHC 25/20.

Additional materials, gauges, and configurations are available, such as stainless or aluminum, with mylar or polyethylene liners or bagging. Please contact FläktGroup SEMCO for details.



Round Silencer Weights

Model	12"	18"	24"	30"	36"	42"	48"	54"	60"
RS1000	40	61	108	174	241	321	482	616	753
RS7800	41	66	121	197	291	388	573	724	896
RS6100	42	86	163	267	391	624	878	1178	1445

Round silencers are available in all even sizes, 12 round through 60 round.

Self Generated Noise (dB)

			Forward Airflow Performance Octave Band/Frequency (hz)								Reverse Airflow Performance Octave Band/Frequency (hz)							
Model	Length	Face Velocity	1 63	2 125	3 250	4 500	5 1K	6 2K	7 4K	8 8K	1 63	2 125	3 250	4 500	5 1K	6 2K	7 4K	8 8K
RS1000	2 x Dia.	1000	49	50	36	30	29	26	22	19	49	50	36	30	29	26	22	19
		1500	52	51	42	38	34	28	23	19	52	51	42	38	34	28	23	19
		2000	56	56	48	45	41	36	33	23	56	56	48	45	41	36	33	23
		2500	61	62	59	58	49	46	43	34	61	62	59	58	49	46	43	34
RS7800T	2 x Dia.	1000	53	45	35	30	19	18	18	18	48	42	35	35	31	27	20	18
		1500	57	49	38	36	28	21	19	18	52	44	38	37	33	30	24	19
		2000	60	52	41	39	35	27	20	18	60	54	48	49	48	47	45	38
		2500	63	58	47	46	42	39	32	21	67	63	58	59	55	45	54	49
RS7800R	2 x Dia.	1000	52	50	39	34	30	29	23	19	52	50	39	34	30	29	23	19
		1500	56	51	42	41	40	36	30	19	56	51	42	41	40	36	30	19
		2000	63	61	55	53	50	49	45	37	63	61	55	53	50	49	45	37
		2500	67	65	63	65	53	53	51	43	67	65	63	65	53	53	51	43
RS6100T	2 x Dia.	1000	51	44	36	34	26	19	18	18	52	46	42	44	40	36	28	24
		1500	59	48	40	36	28	20	18	18	54	49	45	47	46	42	34	27
		2000	62	53	42	41	39	35	28	22	60	56	52	53	52	51	46	39
		2500	64	60	50	50	47	46	42	35	65	52	59	59	58	59	56	49
RS6100R	2 x Dia.	1000	51	43	35	35	34	28	26	19	51	43	35	35	34	28	26	19
		1500	59	55	45	44	44	43	39	25	59	55	45	44	44	43	39	25
		2000	59	56	47	48	48	48	46	36	59	56	47	48	48	48	46	36
		2500	65	63	58	58	54	56	55	50	65	63	58	58	54	56	55	50

Face Area Adjustment for Self Noise

Attenuator Face Area (sq. ft.)	0.5	1	2	4	8	16	32	64	128
PWL Adjustment Factor dB re 10^{-12} Watts	-9	-6	-3	0	+3	+6	+9	+12	+15

Add or deduct from power level above. For intermediate face areas, interpolate to nearest whole number.

FläktGroup SEMCO

SILENT AIR

SECTION 2:
LOW FREQUENCY SOUND

MODEL LF2500: LOW FREQUENCY SOUND SILENCER

The FläktGroup SEMCO Model LF2500 low frequency sound silencers are specifically designed to solve noise problems in the lower frequency range and will provide excellent low band attenuation in low to medium velocity ranges with a moderate pressure drop.

INDEPENDENTLY CERTIFIED TEST DATA

Published data is derived from independently certified testing conducted in accordance with ASTM E477. For testing purposes, specified lengths of straight duct are used both upstream and downstream of the silencer. Static pressure losses must therefore be adjusted when the unit is installed, at or near transitions, elbows, or at the intake or discharge of the system. Consult FläktGroup SEMCO for adjustment values. All data published herein was obtained from a 24" x 24" production run unit.

Dynamic Insertion Loss (dB)

					Forward Airflow Performance Octave Band/Frequency (hz)								Reverse Airflow Performance Octave Band/Frequency (hz)							
Model	Length	Face Velocity	Cv	Press. Drop	1 63	2 125	3 250	4 500	5 1K	6 2K	7 4K	8 8K	1 63	2 125	3 250	4 500	5 1K	6 2K	7 4K	8 8K
LF2503	36"	0	9.11	0	4	12	23	24	22	21	17	17	4	12	23	24	20	18	14	14
		500		.14	4	12	22	24	22	21	17	18	5	14	25	24	21	18	15	15
		1000		.57	2	13	22	23	23	21	18	17	6	14	25	25	22	19	16	17
		1500		1.28	5	12	21	23	23	23	18	18	4	15	25	25	23	19	15	15
		2000		2.27	2	11	20	23	23	23	18	17	5	17	26	25	24	19	14	13
LF2505	60"	0	9.95	0	9	17	32	30	30	31	26	24	9	17	32	28	27	29	24	21
		500		.16	9	16	31	31	30	31	27	25	8	17	34	29	26	29	23	21
		1000		.62	6	15	29	32	31	32	28	26	9	19	34	30	27	29	22	21
		1500		1.40	8	15	28	31	32	33	29	27	9	19	35	31	28	31	23	21
		2000		2.48	7	15	26	31	32	34	28	26	10	20	36	32	29	30	24	21
LF2507	84"	0	13.50	0	12	22	40	42	33	31	28	24	11	22	39	36	28	28	28	23
		500		.21	10	22	40	42	33	32	29	25	14	26	41	37	29	29	27	20
		1000		.84	9	23	40	43	34	32	30	28	13	27	41	38	30	30	26	19
		1500		1.89	9	22	38	43	33	32	29	26	15	28	44	39	32	31	25	20
		2000		3.37	7	21	37	43	34	33	30	26	14	29	45	40	34	31	23	16
LF2510	120"	0	16.90	0	15	32	48	49	40	37	35	29	17	30	48	48	42	39	38	30
		500		.26	15	31	49	50	40	37	35	29	17	33	48	48	42	40	38	28
		1000		1.06	13	32	49	50	41	38	36	32	18	33	49	49	43	40	36	26
		1500		2.37	13	30	47	51	42	40	36	31	20	34	50	51	44	40	32	23
		2000		4.21	5	28	40	47	39	35	31	31	19	35	46	49	41	35	31	21

Forward Airflow Performance applies when both noise and airflow are traveling in the same direction.
Reverse Airflow Performance applies when noise and airflow are traveling in opposite directions.

Pressure Drops for velocities not shown above can be calculated using the following formula:

P.D. = Cv x Hv
where: P.D. = Pressure Drop
Cv = Silencer Flow Coefficient

$Hv = (V/4005)^2$
Hv = Velocity Pressure in Inches w.g.
V = Face velocity in Ft./Min.

MODEL LF2500: LOW FREQUENCY SOUND SILENCER

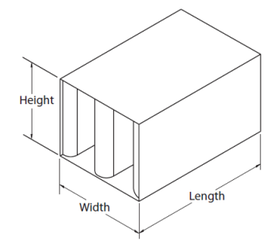
STANDARD CONSTRUCTION:

Shell and Nose:	22 Gauge Galvanized Steel
Perforated Metal:	24 Gauge Galvanized Steel
Fill Material:	Fiberglass

FIRE RATINGS:

Fire Hazard Classification Ratings in accordance with ASTM-E84 is FHC 25/20.

Additional materials, gauges, and configurations are available, such as stainless or aluminum, with mylar or polyethylene liners or bagging. Please contact FläktGroup SEMCO for details.



Standard Sizes & Weights

Std. Height	3"-0" Length Standard Width				5'0" Length Standard Width				7'0" Length Standard Width			10'-0" Length Standard Width		
	12"	14"	36"	48"	12"	24"	36"	48"	12"	24"	36"	12"	24"	36"
12"	31	52	68	81	51	85	110	133	71	120	154	101	171	218
24"	49	78	101	118	78	125	161	186	109	172	222	140	207	278
36"	67	105	135	154	105	165	210	238	145	226	288	190	280	366
48"	85	132	168	191	133	204	260	291	-	-	-	-	-	-

Non-standard sizes are available. Non-standard height dimensions are available within the following restrictions: 48" heights are not available in 7' through 10' lengths.

Self Generated Noise (dB)

			Forward Airflow Performance Octave Band/Frequency (hz)								Reverse Airflow Performance Octave Band/Frequency (hz)							
Model	Length	Face Velocity	1 63	2 125	3 250	4 500	5 1K	6 2K	7 4K	8 8K	1 63	2 125	3 250	4 500	5 1K	6 2K	7 4K	8 8K
LF2503	36"	500	47	46	39	42	40	37	28	24	48	45	37	39	42	41	30	24
		1000	59	46	46	45	48	51	47	38	54	48	50	49	54	49	54	45
		1500	70	54	55	55	56	59	60	53	66	55	55	56	57	63	66	57
		2000	80	64	63	62	63	64	66	62	74	60	60	61	62	65	69	66
LF2505	60"	500	53	47	39	34	34	31	26	27	48	48	42	41	44	45	30	25
		1000	59	44	45	45	48	52	47	36	52	50	52	51	55	59	55	46
		1500	75	58	59	57	57	59	61	54	64	51	56	56	58	63	65	57
		2000	83	68	65	63	64	63	66	62	74	57	60	61	61	65	70	66
LF2507	84"	500	52	44	42	38	41	41	29	24	50	47	45	44	45	45	33	27
		1000	63	51	52	50	50	54	51	43	55	52	53	53	54	57	55	48
		1500	77	62	61	60	61	61	62	56	63	57	58	60	60	62	64	59
		2000	88	71	69	68	69	66	69	65	68	61	62	63	65	66	70	68
LF2510	120"	500	47	40	42	40	42	41	32	25	45	49	43	44	43	41	29	24
		1000	65	53	54	52	52	55	52	45	56	52	54	53	53	57	53	46
		1500	78	62	63	61	61	63	64	59	65	59	61	62	62	64	66	60
		2000	87	72	70	68	68	69	70	67	67	64	65	66	67	69	70	70

Face Area Adjustment for Self Noise

Attenuator Face Area (sq. ft.)	0.5	1	2	4	8	16	32	64	128
PWL Adjustment Factor dB re 10^{-12} Watts	-9	-6	-3	0	+3	+6	+9	+12	+15

Add or deduct from power level above. For intermediate face areas, interpolate to nearest whole number.

MODEL LF5000: LOW FREQUENCY SOUND SILENCER

The FläktGroup SEMCO Model LF5000 low frequency sound silencers provide excellent low frequency performance across all bands coupled with low to medium pressure drops for use in low and medium velocity applications.

INDEPENDENTLY CERTIFIED TEST DATA

Published data is derived from independently certified testing conducted in accordance with ASTM E477. For testing purposes, specified lengths of straight duct are used both upstream and downstream of the silencer. Static pressure losses must therefore be adjusted when the unit is installed, at or near transitions, elbows, or at the intake or discharge of the system. Consult FläktGroup SEMCO for adjustment values. All data published herein was obtained from a 24" x 24" production run unit.

Dynamic Insertion Loss (dB)

					Forward Airflow Performance Octave Band/Frequency (hz)								Reverse Airflow Performance Octave Band/Frequency (hz)							
Model	Length	Face Velocity	Cv	Press. Drop	1 63	2 125	3 250	4 500	5 1K	6 2K	7 4K	8 8K	1 63	2 125	3 250	4 500	5 1K	6 2K	7 4K	8 8K
LF5003	36"	0	3.00	0	3	10	16	18	18	15	13	14	3	9	16	8	17	13	11	12
		500		.06	1	9	16	18	19	15	13	14	3	11	18	19	18	14	13	15
		1000		.19	1	10	15	18	19	15	14	14	3	10	18	20	19	14	11	14
		1500		.42	3	9	15	17	19	15	14	14	3	11	18	21	19	14	11	15
		2000		.75	2	9	14	17	19	15	13	13	2	11	18	20	19	14	10	12
LF5005	60"	0	3.55	0	6	14	22	26	29	24	18	18	5	16	25	26	25	22	18	17
		500		.06	5	1	22	25	28	24	19	18	6	16	26	27	26	22	19	18
		1000		.22	5	12	21	15	28	24	18	18	5	16	26	27	25	21	17	15
		1500		.50	5	12	20	24	28	24	18	17	5	16	25	28	26	21	15	13
		2000		.89	4	12	19	24	30	25	19	18	5	18	27	28	27	21	18	15
LF5007	84"	0	3.97	0	7	18	33	38	32	27	19	17	7	18	33	35	30	26	21	18
		500		.06	6	18	32	37	32	27	19	17	8	19	34	36	31	27	22	19
		1000		.25	4	18	32	37	32	28	21	20	9	20	35	36	31	27	21	19
		1500		.56	5	16	30	36	33	28	20	18	9	21	35	37	32	27	21	19
		2000		.99	5	15	29	35	33	28	20	18	9	21	35	37	32	26	18	14
LF5010	120"	0	4.50	0	9	24	45	45	39	35	25	20	6	21	40	39	35	35	24	18
		500		.07	8	22	43	45	39	34	24	19	10	25	44	43	39	37	26	20
		1000		.28	6	23	43	46	40	35	26	23	11	26	44	43	39	36	24	18
		1500		.63	7	22	42	45	40	36	26	22	12	26	44	45	40	35	25	19
		2000		1.12	6	22	40	44	40	36	26	21	11	26	44	45	41	33	21	16

Forward airflow performance applies when both noise and airflow are traveling in the same direction.
Reverse airflow performance applies when noise and airflow are traveling in opposite directions.

Pressure Drops for velocities not shown above can be calculated using the following formula:

P.D. = Cv x Hv
where: P.D. = Pressure Drop
Cv = Silencer Flow Coefficient

$Hv = (V/4005)^2$
Hv = Velocity Pressure in Inches w.g.
V = Face velocity in Ft./Min.

MODEL LF5000: LOW FREQUENCY SOUND SILENCER

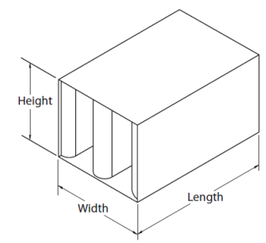
STANDARD CONSTRUCTION:

Shell and Nose:	22 Gauge Galvanized Steel
Perforated Metal:	24 Gauge Galvanized Steel
Fill Material:	Fiberglass

FIRE RATINGS:

Fire Hazard Classification Ratings in accordance with ASTM-E84 is FHC 25/20.

Additional materials, gauges, and configurations are available, such as stainless or aluminum, with mylar or polyethylene liners or bagging. Please contact FläktGroup SEMCO for details.



Standard Sizes & Weights

Std. Height	3"-0" Length Standard Width				5'0" Length Standard Width				7'0" Length Standard Width			10'-0" Length Standard Width		
	12"	14"	36"	48"	12"	24"	36"	48"	12"	24"	36"	12"	24"	36"
12"	26	47	60	74	43	78	99	121	60	110	139	85	156	199
24"	40	71	87	106	64	115	139	170	90	159	194	123	201	239
36"	54	96	114	138	86	152	179	218	118	211	246	163	271	308
48"	68	120	141	170	108	189	218	267	-	-	-	-	-	-

Non-standard sizes are available. Non-standard height dimensions are available within the following restrictions: 48" heights are not available in 7' through 10' lengths.

Self Generated Noise (dB)

			Forward Airflow Performance Octave Band/Frequency (hz)								Reverse Airflow Performance Octave Band/Frequency (hz)							
Model	Length	Face Velocity	1 63	2 125	3 250	4 500	5 1K	6 2K	7 4K	8 8K	1 63	2 125	3 250	4 500	5 1K	6 2K	7 4K	8 8K
LF5003	36"	500	43	37	31	31	28	27	20	24	48	43	39	37	35	30	33	25
		1000	46	39	35	38	42	42	31	25	46	40	44	46	49	48	37	27
		1500	59	46	47	47	48	53	50	42	53	49	50	49	54	48	53	42
		2000	68	53	55	54	54	58	58	52	61	63	55	55	56	61	62	53
LF5005	60"	500	50	53	44	40	39	34	32	25	44	39	38	48	38	33	33	28
		1000	50	43	44	40	44	44	36	28	45	44	46	50	49	48	37	27
		1500	59	51	50	49	50	55	52	45	55	51	52	52	55	59	54	45
		2000	67	55	56	55	55	60	61	55	64	58	57	57	58	62	62	53
LF5007	84"	500	48	42	36	32	27	33	27	24	43	40	34	31	34	26	21	25
		1000	52	43	39	37	40	41	33	25	45	43	46	47	49	48	32	27
		1500	60	50	49	47	48	53	50	43	54	50	52	53	53	56	52	43
		2000	68	57	57	54	53	58	59	52	61	56	58	58	58	60	61	55
LF5010	120"	500	51	43	40	37	30	29	33	36	54	44	41	38	32	26	21	25
		1000	49	44	43	41	42	42	35	26	53	49	49	49	50	46	33	26
		1500	58	49	49	52	50	53	50	42	55	51	54	54	56	58	53	46
		2000	68	56	57	55	56	59	60	53	61	57	59	59	59	61	60	53

Face Area Adjustment for Self Noise

Attenuator Face Area (sq. ft.)	0.5	1	2	4	8	16	32	64	128
PWL Adjustment Factor dB re 10^{-12} Watts	-9	-6	-3	0	+3	+6	+9	+12	+15

Add or deduct from power level above. For intermediate face areas, interpolate to nearest whole number.

MODEL LF7500: LOW FREQUENCY SOUND SILENCER

The FläktGroup SEMCO Model LF7500 low frequency sound silencers are designed to provide low band attenuation where velocities are in the medium to high ranges and pressure loss must be held to its lowest possible level. These attenuators can be duct mounted or assembled in banks at or near fans and equipment.

INDEPENDENTLY CERTIFIED TEST DATA

Published data is derived from independently certified testing conducted in accordance with ASTM E477. For testing purposes, specified lengths of straight duct are used both upstream and downstream of the silencer. Static pressure losses must therefore be adjusted when the unit is installed, at or near transitions, elbows, or at the intake or discharge of the system. Consult FläktGroup SEMCO for adjustment values. All data published herein was obtained from a 24" x 24" production run unit.

Dynamic Insertion Loss (dB)

					Forward Airflow Performance Octave Band/Frequency (hz)								Reverse Airflow Performance Octave Band/Frequency (hz)							
Model	Length	Face Velocity	Cv	Press. Drop	1 63	2 125	3 250	4 500	5 1K	6 2K	7 4K	8 8K	1 63	2 125	3 250	4 500	5 1K	6 2K	7 4K	8 8K
LF7503	36"	0	1.45	0	1	7	11	15	15	11	11	10	1	6	11	15	15	12	13	13
		500		.02	2	7	11	15	16	11	12	12	2	7	12	15	15	12	13	13
		1000		.09	2	5	11	14	15	11	12	11	2	7	11	15	15	12	12	12
		1500		.20	1	6	11	14	16	11	12	11	3	7	12	15	15	13	13	14
		2000		.36	2	6	10	14	16	11	11	10	1	7	11	15	15	13	13	12
LF7505	60"	0	1.52	0	3	10	17	26	23	16	14	12	3	9	19	26	23	17	17	17
		500		.02	4	9	17	26	24	16	16	15	4	11	19	26	23	18	18	18
		1000		.09	2	8	16	25	24	16	16	14	4	11	19	27	23	19	18	18
		1500		.21	2	9	17	25	24	17	16	16	4	12	20	27	23	18	17	16
		2000		.38	3	9	16	24	24	17	16	15	4	11	19	27	23	18	16	14
LF7507	84"	0	1.67	0	4	12	22	36	28	18	15	13	2	12	22	33	28	19	17	16
		500		.03	4	12	22	36	28	18	16	15	3	13	23	35	28	20	19	19
		1000		.10	2	12	21	34	28	19	16	15	4	14	24	34	28	21	20	19
		1500		.23	3	11	21	34	29	19	16	15	5	15	25	34	28	22	21	19
		2000		.42	2	11	20	33	29	19	17	16	5	14	24	34	27	22	19	16
LF7510	120"	0	1.84	0	6	15	29	43	37	22	17	12	6	17	31	40	37	25	21	20
		500		.03	5	14	28	44	37	23	18	15	7	17	32	41	36	25	23	22
		1000		.11	5	13	27	43	37	23	18	14	7	18	32	41	35	25	23	21
		1500		.26	5	14	27	43	38	23	19	15	9	19	33	42	35	26	24	22
		2000		.46	5	13	26	43	39	24	19	16	8	19	32	42	35	26	24	22

Forward Airflow Performance applies when both noise and airflow are traveling in the same direction.
Reverse Airflow Performance applies when noise and airflow are traveling in opposite directions.

Pressure Drops for velocities not shown above can be calculated using the following formula:

P.D. = Cv x Hv
where: P.D. = Pressure Drop
Cv = Silencer Flow Coefficient

$Hv = (V/4005)^2$
Hv = Velocity Pressure in Inches w.g.
V = Face velocity in Ft./Min.

MODEL LF7500: LOW FREQUENCY SOUND SILENCER

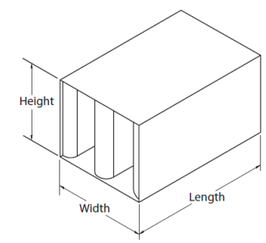
STANDARD CONSTRUCTION:

Shell and Nose:	22 Gauge Galvanized Steel
Perforated Metal:	24 Gauge Galvanized Steel
Fill Material:	Fiberglass

FIRE RATINGS:

Fire Hazard Classification Ratings in accordance with ASTM-E84 is FHC 25/20.

Additional materials, gauges, and configurations are available, such as stainless or aluminum, with mylar or polyethylene liners or bagging. Please contact FläktGroup SEMCO for details.



Standard Sizes & Weights

Std. Height	3"-0" Length Standard Width				5'0" Length Standard Width				7'0" Length Standard Width			10'-0" Length Standard Width		
	12"	14"	36"	48"	12"	24"	36"	48"	12"	24"	36"	12"	24"	36"
12"	24	37	48	65	39	61	79	107	55	87	112	78	124	159
24"	36	54	66	89	59	87	107	144	83	122	150	115	163	200
36"	49	71	84	113	79	114	134	180	111	159	186	153	215	250
48"	62	87	102	137	100	140	161	217	-	-	-	-	-	-

Non-standard sizes are available. Non-standard height dimensions are available within the following restrictions: 48" heights are not available in 7' through 10' lengths.

Self Generated Noise (dB)

			Forward Airflow Performance Octave Band/Frequency (hz)								Reverse Airflow Performance Octave Band/Frequency (hz)							
Model	Length	Face Velocity	1 63	2 125	3 250	4 500	5 1K	6 2K	7 4K	8 8K	1 63	2 125	3 250	4 500	5 1K	6 2K	7 4K	8 8K
LF7503	36"	500	52	47	38	32	33	33	27	25	50	44	37	34	31	31	26	25
		1000	51	45	40	40	40	34	27	25	50	44	42	47	46	43	34	26
		1500	51	44	44	45	48	50	44	34	54	51	52	52	54	56	49	38
		2000	60	57	53	57	53	57	54	48	65	59	55	59	57	60	58	50
LF7505	60"	500	51	43	36	31	28	30	26	25	50	41	40	32	32	31	27	25
		1000	50	43	36	33	38	35	27	25	52	41	42	46	48	46	35	25
		1500	54	46	43	44	45	47	38	29	56	51	51	53	54	57	51	41
		2000	60	52	52	52	51	55	51	47	61	56	56	59	57	62	61	51
LF7507	84"	500	49	40	36	28	28	31	26	25	50	43	38	32	32	33	27	25
		1000	50	50	41	37	35	33	31	26	51	45	44	48	49	49	39	28
		1500	51	51	47	49	48	48	42	30	57	55	54	55	54	58	55	45
		2000	59	58	54	54	51	55	51	43	67	64	59	64	61	62	63	55
LF7510	120"	500	54	45	36	34	29	32	27	25	49	49	45	48	48	47	37	26
		1000	49	40	36	32	37	32	27	25	56	44	43	46	46	44	33	25
		1500	51	45	44	47	46	48	41	33	52	42	47	48	51	52	44	32
		2000	58	56	53	51	51	55	51	44	51	46	49	53	52	54	47	43

Face Area Adjustment for Self Noise

Attenuator Face Area (sq. ft.)	0.5	1	2	4	8	16	32	64	128
PWL Adjustment Factor dB re 10^{-12} Watts	-9	-6	-3	0	+3	+6	+9	+12	+15

Add or deduct from power level above. For intermediate face areas, interpolate to nearest whole number.

MODEL RLF1000: RLF6100 & RLF1000 ROUND SOUND SILENCER

FläktGroup SEMCO low frequency round sound silencers are designed to increase performance in the lower octave bands, without sacrificing high end performance.

INDEPENDENTLY CERTIFIED TEST DATA

Published data is derived from independently certified testing conducted in accordance with ASTM E477. For testing purposes, specified lengths of straight duct are used both upstream and downstream of the silencer. Static pressure losses must therefore be adjusted when the unit is installed, at or near transitions, elbows, or at the intake or discharge of the system. Consult FläktGroup SEMCO for adjustment values. All data published herein was obtained from a 24" round production run unit. Larger units will produce higher insertion losses.

Dynamic Insertion Loss (dB)

Model	Length	Face Velocity	Cv	Press. Drop	Forward Airflow Performance Octave Band/Frequency (hz) 1 63	2 125	3 250	4 500	5 1K	6 2K	7 4K	8 8K	Reverse Airflow Performance Octave Band/Frequency (hz) 1 63	2 125	3 250	4 500	5 1K	6 2K	7 4K	8 8K
RLF1000	2 x Dia.	0	.15	0	8	14	23	32	27	24	24	19	8	14	23	32	27	24	24	19
		1000		.01	8	13	23	32	27	24	24	19	8	13	23	32	27	24	24	19
		1500		.02	7	13	22	31	28	24	24	19	7	13	22	31	27	24	24	19
		2000		.04	6	13	22	31	27	24	24	19	6	13	22	31	27	24	24	19
		2500		.06	6	13	22	31	27	24	24	19	6	13	22	31	27	24	24	19
RLF7800T	2 x Dia.	0	.36	0	9	16	24	42	49	47	33	25	9	16	24	42	49	47	33	25
		1000		.02	8	16	24	41	48	47	33	25	8	16	24	41	48	47	33	25
		1500		.05	6	15	24	40	47	47	33	25	6	15	24	40	47	47	33	25
		2000		.09	5	13	21	26	45	44	31	24	5	13	21	26	45	44	31	24
		2500		.14	4	13	20	26	43	43	30	24	4	13	20	26	43	43	30	24
RLF7800R	2 x Dia.	0	.40	0	8	12	24	39	45	39	27	23	8	12	24	39	45	39	27	23
		1000		.03	8	12	24	39	44	39	27	23	8	12	24	39	44	39	27	23
		1500		.06	8	12	23	38	44	39	27	23	8	12	23	38	44	39	27	23
		2000		.10	7	12	23	37	43	39	27	23	7	12	23	37	43	39	27	23
		2500		.16	6	11	22	36	43	39	27	23	6	11	22	36	43	39	27	23
RLF6100T	2 x Dia.	0	.64	0	7	14	21	34	40	36	25	20	7	14	21	34	40	36	25	20
		1000		.04	7	14	21	33	39	36	25	20	7	14	21	33	39	36	25	20
		1500		.09	7	14	21	33	39	36	25	20	7	14	21	33	39	36	25	20
		2000		.16	6	14	21	33	39	36	25	20	6	14	21	33	39	36	25	20
		2500		.25	5	13	20	32	39	33	25	20	5	13	20	32	39	33	25	20
RLF6100R	2 x Dia.	0	.80	0	10	14	29	45	53	49	34	27	11	16	29	46	56	56	42	31
		1000		.05	9	13	26	44	51	48	34	27	10	16	27	46	56	55	41	28
		1500		.11	9	13	26	43	51	48	34	27	10	16	27	46	56	55	41	28
		2000		.20	9	13	26	42	50	47	33	27	9	16	27	46	53	52	38	27
		2500		.31	6	13	25	40	49	46	33	27	6	16	27	44	50	48	37	25

Forward airflow performance applies when both noise and airflow are traveling in the same direction.
Reverse airflow performance applies when noise and airflow are traveling in opposite directions. Minimum length is 36".

Pressure Drops for velocities not shown above can be calculated using the following formula:

P.D. = Cv x Hv
where: P.D. = Pressure Drop
Cv = Silencer Flow Coefficient

$Hv = (V/4005)^2$
Hv = Velocity Pressure in Inches w.g.
V = Face velocity in Ft./Min.

MODEL RLF1000: RLF6100 & RLF1000 ROUND SOUND SILENCER

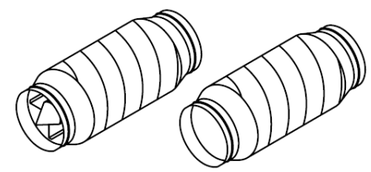
STANDARD CONSTRUCTION:

Diameter	Spiral Shell (ga. galv.)	Nose (ga. galv.)	Perf. Liner (ga. galv.)	Perf. Bullet (ga. galv.)
12" - 14"	26	20	26	24
15" - 18"	24	20	26	24
19" - 26"	24	20	24	24
28" - 36"	22	20	22	24
38" - 50"	20	20	22	22
52" - 60"	18	20	22	22

FIRE RATINGS:

Fire Hazard Classification Ratings in accordance with ASTM-E84 is FHC 25/20.

Additional materials, gauges, and configurations are available, such as stainless or aluminum, with mylar or polyethylene liners or bagging. Please contact FläktGroup SEMCO for details.



Round Silencer Weights

Model	12	18	24	30	36	42	48	54	60
RLF1000	62	77	139	203	278	366	527	663	797
RLF7800	63	82	152	226	328	433	618	771	940
RLF6100	64	102	194	296	428	669	923	1225	1489

Round silencers are available in all even sizes, 12 round through 60 round.

Self Generated Noise (dB)

Model	Length	Face Velocity	Forward Airflow Performance Octave Band/Frequency (hz) 1 63	2 125	3 250	4 500	5 1K	6 2K	7 4K	8 8K	Reverse Airflow Performance Octave Band/Frequency (hz) 1 63	2 125	3 250	4 500	5 1K	6 2K	7 4K	8 8K
RLF1000	2 x Dia.	1000	49	50	36	30	29	26	22	19	49	50	36	30	29	26	22	19
		1500	52	51	42	38	34	28	23	19	52	51	42	38	34	28	23	19
		2000	56	56	48	45	41	36	33	23	56	56	48	45	41	36	33	23
		2500	61	62	59	58	49	46	43	34	61	62	59	58	49	46	43	34
RLF7800T	2 x Dia.	1000	53	45	35	30	19	18	18	18	48	42	35	35	31	27	20	18
		1500	57	49	38	36	28	21	19	18	52	44	38	37	33	30	24	19
		2000	60	52	41	39	35	27	20	18	60	54	48	49	48	47	45	38
		2500	63	58	47	46	42	39	32	21	67	63	58	59	55	56	54	49
RLF7800R	2 x Dia.	1000	52	50	39	34	30	29	23	19	52	50	39	34	30	29	23	19
		1500	56	51	42	41	40	36	30	19	56	51	42	41	40	36	30	19
		2000	63	61	55	53	50	49	45	37	63	61	55	53	50	49	45	37
		2500	67	65	63	65	53	53	51	43	67	65	63	65	53	53	51	43
RLF6100T	2 x Dia.	1000	51	44	36	34	26	19	18	18	52	46	42	44	40	36	28	24
		1500	59	48	40	36	28	20	18	18	54	49	45	47	46	42	34	27
		2000	62	53	42	41	39	35	28	22	60	56	52	53	52	51	46	39
		2500	64	60	50	50	47	46	42	36	65	62	59	59	58	59	56	49
RLF6100R	2 x Dia.	1000	51	43	35	35	34	28	26	19	51	43	35	35	34	28	26	19
		1500	59	55	45	44	44	43	39	25	59	55	45	44	44	43	39	25
		2000	59	56	47	48	48	48	46	36	59	56	47	48	48	48	46	36
		2500	65	63	58	58	54	56	55	50	65	63	58	58	54	56	55	50

Face Area Adjustment for Self Noise

Attenuator Face Area (sq. ft.)	0.5	1	2	4	8	16	32	64	128
PWL Adjustment Factor dB re 10^{-12} Watts	-9	-6	-3	0	+3	+6	+9	+12	+15

Add or deduct from power level above. For intermediate face areas, interpolate to nearest whole number.

FläktGroup SEMCO

SILENT AIR

SECTION 3:
COMPARATIVE TEST DATA

COMPARATIVE TEST DATA

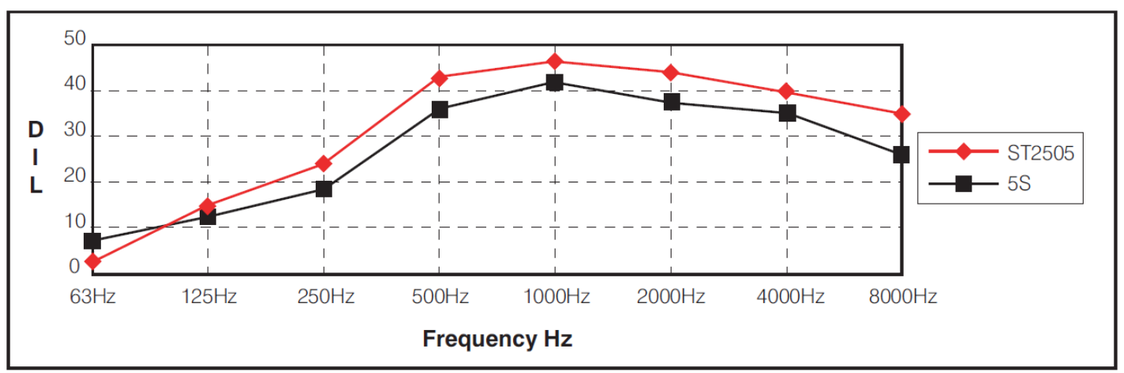
FLÄKTGROUP® SEMCO® MODEL ST2505

Compared To

IAC Model 5S

INDEPENDENTLY CERTIFIED TEST DATA

Data published above is derived from comparative test conducted by an independent certified test facility. Tests are in accordance with ASTM E477. For testing purposes, specified lengths of straight duct were used both upstream and downstream of the attenuators. Static pressure losses must therefore be adjusted if the unit is installed at or near transitions or elbows, or at the intake or discharge of the system. Data published herein was obtained from 24"x24" production run units.



Comparison of DYNAMIC INSERTION LOSS at 1000 fpm								
	63Hz	125Hz	250Hz	500Hz	1000Hz	2000Hz	4000Hz	8000Hz
FläktGroup® SEMCO® Model No. ST2505	3	13	24	42	46	44	40	35
IAC Model No. 5S	6	12	19	36	42	38	34	26

COMPARATIVE TEST DATA

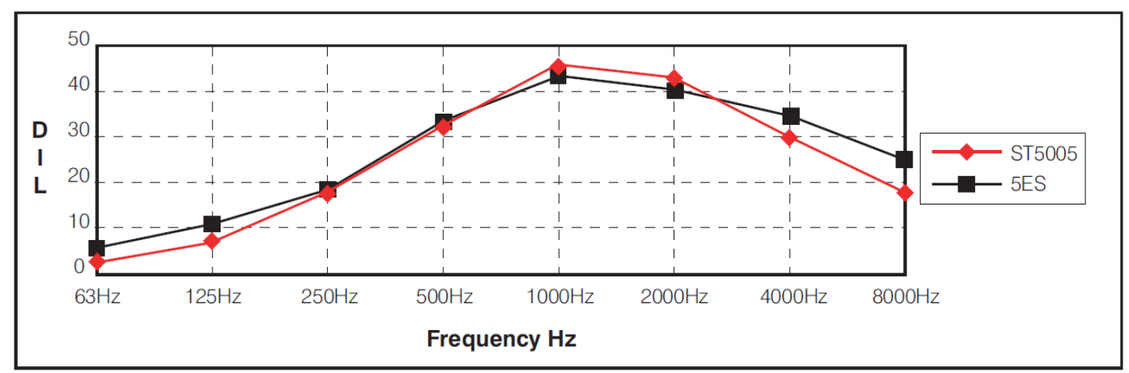
FLÄKTGROUP SEMCO MODEL ST5005

Compared To

IAC Model 5S

INDEPENDENTLY CERTIFIED TEST DATA

Data published above is derived from comparative test conducted by an independent certified test facility. Tests are in accordance with ASTM E477-90. For testing purposes, specified lengths of straight duct were used both upstream and downstream of the attenuators. Static pressure losses must therefore be adjusted if the unit is installed at or near transitions or elbows, or at the intake or discharge of the system. Data published herein was obtained from 24"x24" production run units.



Comparison of DYNAMIC INSERTION LOSS at 1000 fpm								
	63Hz	125Hz	250Hz	500Hz	1000Hz	2000Hz	4000Hz	8000Hz
FläktGroup SEMCO Model No. ST5005	2	8	18	33	44	42	30	19
IAC Model No. 5ES	5	11	18	34	43	40	33	24

COMPARATIVE TEST DATA

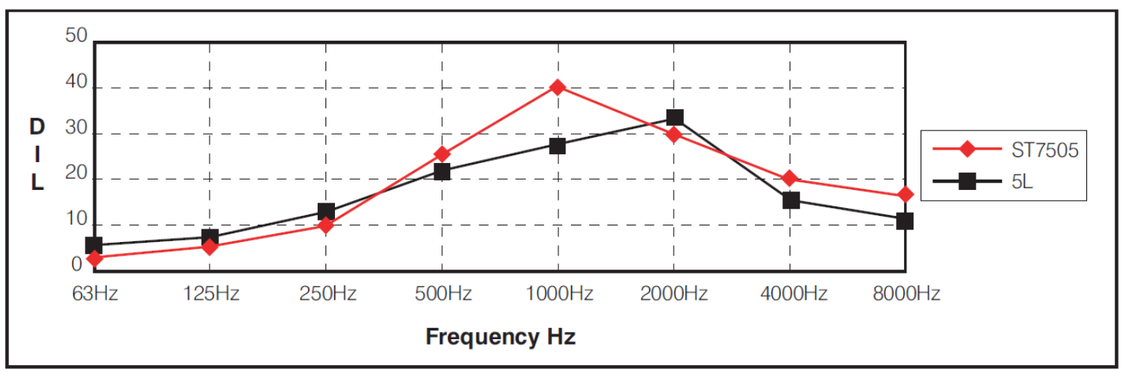
FLÄKTGROUP SEMCO MODEL ST7505

Compared To

IAC Model 5L

INDEPENDENTLY CERTIFIED TEST DATA

Data published above is derived from comparative test conducted by an independent certified test facility. Tests are in accordance with ASTM E477. For testing purposes, specified lengths of straight duct were used both upstream and downstream of the attenuators. Static pressure losses must therefore be adjusted if the unit is installed at or near transitions or elbows, or at the intake or discharge of the system. Data published herein was obtained from 24"x24" production run units.



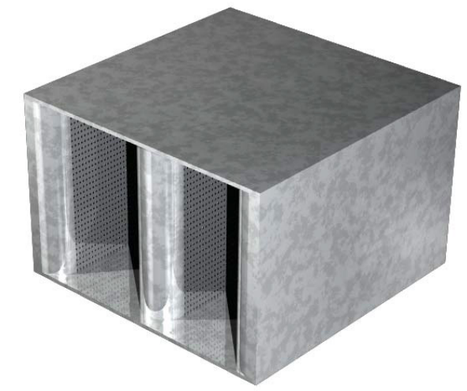
Comparison of DYNAMIC INSERTION LOSS at 1000 fpm								
	63Hz	125Hz	250Hz	500Hz	1000Hz	2000Hz	4000Hz	8000Hz
FläktGroup SEMCO Model No. ST7505	2	6	12	25	40	31	20	13
IAC Model No. 5L	4	6	11	21	28	33	16	11

COMPARATIVE TEST DATA

FLÄKTGROUP SEMCO MODEL LF2505

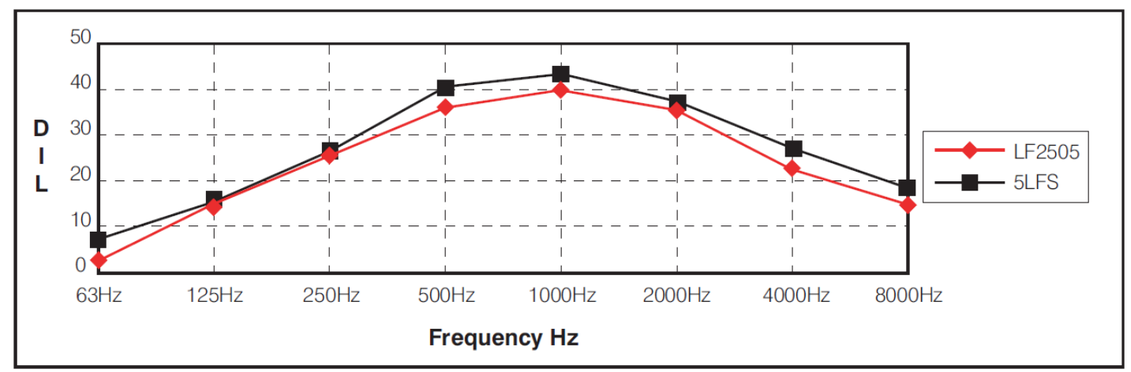
Compared To

IAC Model 5LFS



INDEPENDENTLY CERTIFIED TEST DATA

Data published above is derived from comparative test conducted by an independent certified test facility. Tests are in accordance with ASTM E477-90. For testing purposes, specified lengths of straight duct were used both upstream and downstream of the attenuators. Static pressure losses must therefore be adjusted if the unit is installed at or near transitions or elbows, or at the intake or discharge of the system. Data published herein was obtained from 24"x24" production run units.



Comparison of DYNAMIC INSERTION LOSS at 1000 fpm								
	63Hz	125Hz	250Hz	500Hz	1000Hz	2000Hz	4000Hz	8000Hz
FläktGroup SEMCO Model No. LF2505	3	15	27	37	41	35	24	16
IAC Model No. 5LFS	6	15	27	40	42	37	26	18

COMPARATIVE TEST DATA

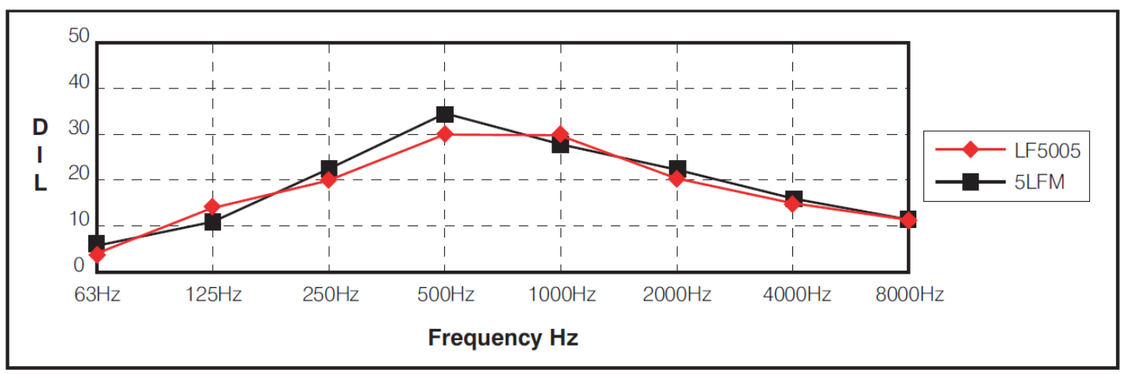
FLÄKTGROUP SEMCO MODEL LF5005

Compared To

IAC Model 5LFM

INDEPENDENTLY CERTIFIED TEST DATA

Data published above is derived from comparative test conducted by an independent certified test facility. Tests are in accordance with ASTM E477. For testing purposes, specified lengths of straight duct were used both upstream and downstream of the attenuators. Static pressure losses must therefore be adjusted if the unit is installed at or near transitions or elbows, or at the intake or discharge of the system. Data published herein was obtained from 24"x24" production run units.



Comparison of DYNAMIC INSERTION LOSS at 1000 fpm								
	63Hz	125Hz	250Hz	500Hz	1000Hz	2000Hz	4000Hz	8000Hz
FläktGroup SEMCO Model No. LF5005	4	13	20	30	30	20	14	11
IAC Model No. 5LFM	5	11	21	33	29	21	15	11

COMPARATIVE TEST DATA

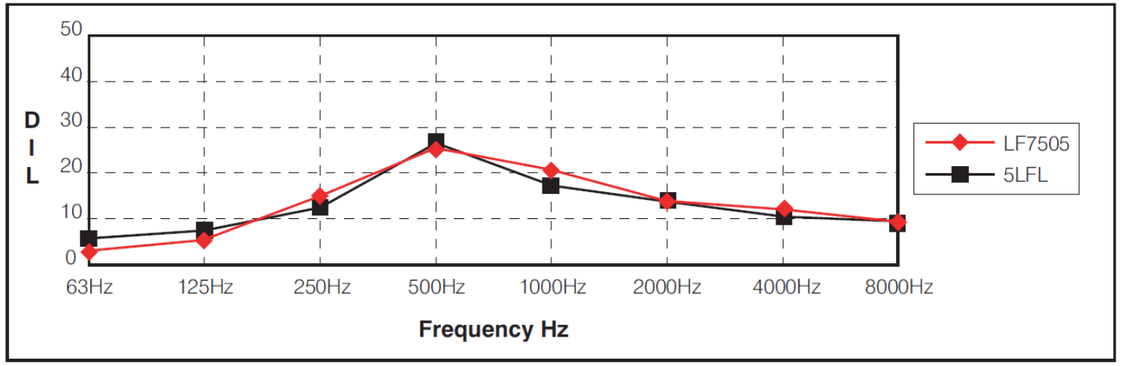
FLÄKTGROUP SEMCO MODEL LF7505

Compared To

IAC Model 5LFL

INDEPENDENTLY CERTIFIED TEST DATA

Data published above is derived from comparative test conducted by an independent certified test facility. Tests are in accordance with ASTM E477. For testing purposes, specified lengths of straight duct were used both upstream and downstream of the attenuators. Static pressure losses must therefore be adjusted if the unit is installed at or near transitions or elbows, or at the intake or discharge of the system. Data published herein was obtained from 24"x24" production run units.



Comparison of DYNAMIC INSERTION LOSS at 1000 fpm								
	63Hz	125Hz	250Hz	500Hz	1000Hz	2000Hz	4000Hz	8000Hz
FläktGroup SEMCO Model No. LF7505	3	8	15	26	20	13	11	8
IAC Model No. 5LFL	5	9	14	27	19	13	10	8

COMPARATIVE TEST DATA

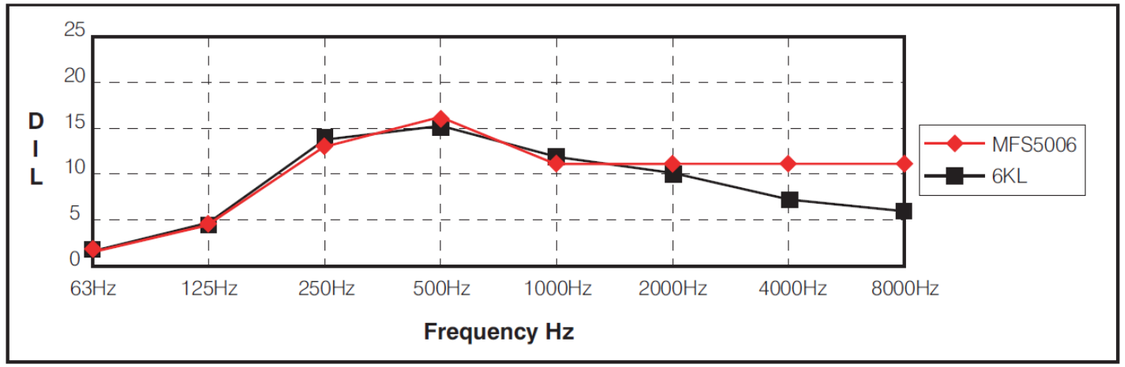
FLÄKTGROUP SEMCO MODEL MFS50006

Compared To

IAC Model 6KL

INDEPENDENTLY CERTIFIED TEST DATA

Data published above is derived from comparative test conducted by an independent certified test facility. Tests are in accordance with ASTM E477. For testing purposes, specified lengths of straight duct were used both upstream and downstream of the attenuators. Static pressure losses must therefore be adjusted if the unit is installed at or near transitions or elbows, or at the intake or discharge of the system. Data published herein was obtained from 24"x30" production run units.



Comparison of DYNAMIC INSERTION LOSS at 1000 fpm								
	63Hz	125Hz	250Hz	500Hz	1000Hz	2000Hz	4000Hz	8000Hz
FläktGroup SEMCO Model No. MFS5006	1	4	14	17	11	11	11	11
IAC Model No. 6KL	1	4	14	15	11	10	7	6

SECTION 4:
MEDIA FREE SOUND

MODEL MF2500: MEDIA FREE SILENCER

The FläktGroup SEMCO Model MF2500 Media Free Silencer is designed to provide excellent broad band attenuation while being totally media free. The moderate pressure loss makes this silencer suitable for all applications and for systems operating at higher velocities. Applications may include hospitals, pharmaceuticals, electronics, clean rooms or other sensitive applications requiring a contaminate free environment.

INDEPENDENTLY CERTIFIED TEST DATA

Published data is derived from independent certified testing conducted in accordance with ASTM E477. For testing purposes, specified lengths of straight duct are used both upstream and downstream of the silencer. Static pressure losses must therefore be adjusted when the unit is installed, at or near transitions, elbows, or at the intake or discharge of the system. Consult FläktGroup SEMCO for adjustment values. All data published herein was obtained from actual production run units.

Dynamic Insertion Loss (dB)

					Forward Airflow Performance Octave Band/Frequency (hz)								Reverse Airflow Performance Octave Band/Frequency (hz)							
Model	Length	Face Velocity	Cv	Press. Drop	1 63	2 125	3 250	4 500	5 1K	6 2K	7 4K	8 8K	1 63	2 125	3 250	4 500	5 1K	6 2K	7 4K	8 8K
MF2503	36”	0	10.42	0	2	4	10	15	11	11	10	6	2	4	10	15	11	11	10	6
		500		.16	2	5	12	17	11	11	10	7	3	6	13	17	11	12	8	6
		1000		.65	2	6	14	20	12	12	10	7	4	8	16	21	13	10	8	7
		1500		1.46	2	6	15	21	13	12	10	8	4	9	18	23	13	11	8	7
MF2506	72”	0	10.23	0	5	7	12	21	13	14	13	9	5	7	12	21	13	14	13	9
		500		.16	6	8	14	22	14	15	14	11	7	9	15	24	13	14	9	9
		1000		.36	7	10	17	26	16	15	14	12	8	12	19	29	15	15	10	8
		1500		.63	7	10	19	29	18	17	14	12	10	15	23	33	17	15	10	8
MF2509	108”	0	10.44	0	6	7	11	19	15	18	16	11	6	7	11	19	15	18	16	11
		500		.16	7	9	14	21	16	19	17	14	7	10	16	23	16	17	14	8
		1000		.65	8	12	20	26	20	19	17	15	9	16	22	29	21	17	12	9
		1500		1.46	9	14	22	29	23	22	18	15	10	20	27	32	23	17	11	9

Forward airflow performance applies when both noise and airflow are traveling in the same direction.
Reverse airflow performance applies when noise and airflow are traveling in opposite directions.

Pressure Drops for velocities not shown above can be calculated using the following formula:

P.D. = Cv x Hv
where: P.D. = Pressure Drop
Cv = Silencer Flow Coefficient

$Hv = (V/4005)^2$
Hv = Velocity Pressure in Inches w.g.
V = Face velocity in Ft./Min.

MODEL MF2500: MEDIA FREE SILENCER

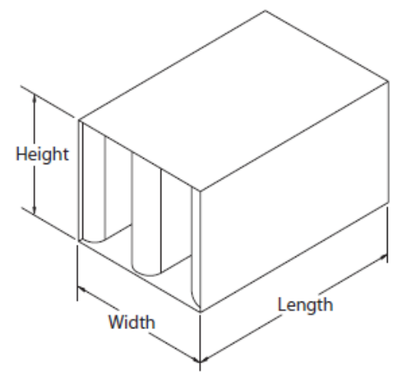
STANDARD CONSTRUCTION:

Shell and Nose:	22 Gauge Galvanized Steel
Perforated Metal:	24 Gauge Galvanized Steel
Fill Material:	None

Also available in 304 and 316 Stainless Steel.

FIRE RATINGS:

Fire Hazard Classification Ratings in accordance with ASTM-E84 is FHC 25/20.



Standard Sizes & Weights

Std. Height	3”-0” Length Standard Width				6’0” Length Standard Width				9’0” Length Standard Width		
	12”	14”	36”	48”	12”	24”	36”	48”	12”	24”	36”
18”	x	x	x	x	x	x	x	x	x	x	x
24”	x	x	x	x	x	x	x	x	x	x	x
36”	x	x	x	x	x	x	x	x	x	x	x
48”	x	x	x	x	x	x	x	x	n/a	n/a	n/a

Non-standard sizes are available. Non-standard height dimensions are available within the following restrictions: 48” heights are not available in 7’ through 10’ lengths.

Self Generated Noise (dB)

			Forward Airflow Performance Octave Band/Frequency (hz)								Reverse Airflow Performance Octave Band/Frequency (hz)							
Model	Length	Face Velocity	1 63	2 125	3 250	4 500	5 1K	6 2K	7 4K	8 8K	1 63	2 125	3 250	4 500	5 1K	6 2K	7 4K	8 8K
MF2503	36”	500	63	51	41	44	46	45	35	26	65	50	40	42	46	49	41	28
		1000	66	58	53	55	56	61	64	55	67	56	50	53	55	62	66	58
		1500	72	68	61	61	63	67	72	70	73	66	57	59	61	65	72	73
MF2506	72”	500	60	46	38	38	43	41	30	29	63	48	36	38	44	46	36	27
		1000	65	57	51	51	53	60	63	52	68	55	50	50	53	62	65	56
		1500	73	67	59	58	60	65	72	70	72	62	56	57	58	64	73	72
MF2509	108”	500	57	45	38	37	42	41	28	29	58	44	39	40	45	46	36	30
		1000	62	55	51	51	53	60	62	50	62	55	51	51	53	62	65	55
		1500	71	66	58	58	60	65	72	68	68	64	57	58	60	64	73	72

Face Area Adjustment for Self Noise

Attenuator Face Area (sq. ft.)	0.5	1	2	4	8	16	32	64	128
PWL Adjustment Factor dB re 10^{-12} Watts	-9	-6	-3	0	+3	+6	+9	+12	+15

Add or deduct from power level above. For intermediate face areas, interpolate to nearest whole number.

MODEL MF2500XS: MEDIA FREE SILENCER

The FläktGroup SEMCO Model MF2500XS Media Free Silencer is designed to provide excellent attenuation without media, eliminating the possibility of introducing fibrous material into the airstream. The no media feature is especially suited for fume hood exhaust systems where absorption of the chemical fumes pose an environmental danger. This model is also designed to provide a moderate pressure drop on low to medium velocity systems.

INDEPENDENTLY CERTIFIED TEST DATA

Published data is derived from independent certified testing conducted in accordance with ASTM E477. For testing purposes, specified lengths of straight duct are used both upstream and downstream of the silencer. Static pressure losses must therefore be adjusted when the unit is installed, at or near transitions, elbows, or at the intake or discharge of the system. Consult FläktGroup SEMCO for adjustment values. All data published herein was obtained from actual production run units.

Dynamic Insertion Loss (dB)

					Forward Airflow Performance Octave Band/Frequency (hz)								Reverse Airflow Performance Octave Band/Frequency (hz)							
Model	Length	Face Velocity	Cv	Press. Drop	1 63	2 125	3 250	4 500	5 1K	6 2K	7 4K	8 8K	1 63	2 125	3 250	4 500	5 1K	6 2K	7 4K	8 8K
MF2500XS 12"	36"	0	1.24	0	8	8	14	7	7	7	7	6	5	7	15	7	8	7	8	8
		500		.02	8	9	14	7	7	7	8	6	5	9	16	8	8	8	8	8
		1000		.08	9	9	15	8	8	7	8	6	5	9	18	9	9	8	8	8
		1500		.17	9	10	17	9	9	8	8	6	5	10	20	10	10	9	8	8
		2000		.30	9	11	18	10	10	8	8	6	6	11	23	12	11	9	8	8
MF2500XS 8"	72"	0	1.57	0	6	8	17	11	7	12	10	10	6	10	17	11	7	11	10	10
		500		.03	7	10	18	12	7	12	11	10	8	11	18	11	7	11	10	10
		1000		.10	7	10	20	13	8	12	11	10	8	12	21	13	8	12	10	10
		1500		.22	8	11	22	15	9	12	11	10	10	14	23	14	9	12	10	9
		2000		.40	6	11	23	17	11	13	11	10	9	14	26	16	10	13	10	9

Forward airflow performance applies when both noise and airflow are traveling in the same direction.
Reverse airflow performance applies when noise and airflow are traveling in opposite directions.

Pressure Drops for velocities not shown above can be calculated using the following formula:

P.D. = Cv x Hv
where: P.D. = Pressure Drop
Cv = Silencer Flow Coefficient

$Hv = (V/4005)^2$
Hv = Velocity Pressure in Inches w.g.
V = Face velocity in Ft./Min.

MODEL MF2500XS: MEDIA FREE SILENCER

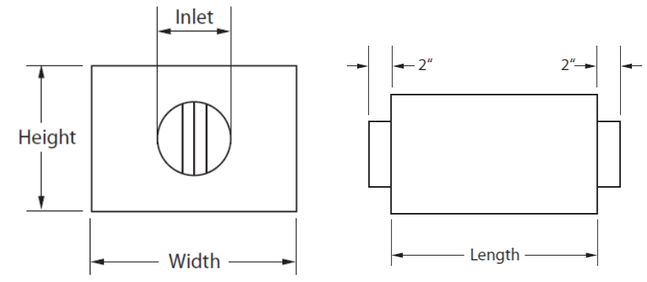
STANDARD CONSTRUCTION:

Shell and Nose:	22 Gauge Galvanized Steel
Perforated Metal:	24 Gauge Galvanized Steel
Fill Material:	None

Also available in 304 and 316 Stainless Steel.

FIRE RATINGS:

Fire Hazard Classification Ratings in accordance with ASTM-E84 is FHC 25/20.



Dimensions				
Inlet Diameter	Width	Height	Length	Weight (lbs)
8"	12"	20"	3' - 0"	51
12"	36"	20"	3' - 0"	66

Please contact FläktGroup SEMCO for availability of custom sizes.

Self Generated Noise (dB)

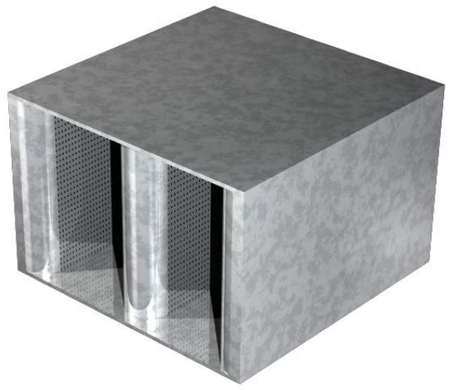
			Forward Airflow Performance Octave Band/Frequency (hz)								Reverse Airflow Performance Octave Band/Frequency (hz)							
Model	Length	Face Velocity	1 63	2 125	3 250	4 500	5 1K	6 2K	7 4K	8 8K	1 63	2 125	3 250	4 500	5 1K	6 2K	7 4K	8 8K
MF2503	36"	500	63	51	41	44	46	45	35	26	65	50	40	42	46	49	41	28
		1000	66	58	53	55	56	61	64	55	67	56	50	53	55	62	66	58
		1500	72	68	61	61	63	67	72	70	73	66	57	59	61	65	72	73
MF2506	72"	500	60	46	38	38	43	41	30	29	63	48	36	38	44	46	36	27
		1000	65	57	51	51	53	60	63	52	68	55	50	50	53	62	65	56
		1500	73	67	59	58	60	65	72	70	72	62	56	57	58	64	73	72
MF2509	108"	500	57	45	38	37	42	41	28	29	58	44	39	40	45	46	36	30
		1000	62	55	51	51	53	60	62	50	62	55	51	51	53	62	65	55
		1500	71	66	58	58	60	65	72	68	68	64	57	58	60	64	73	72

Face Area Adjustment for Self Noise									
Attenuator Face Area (sq. ft.)	0.5	1	2	4	8	16	32	64	128
PWL Adjustment Factor dB re 10^{-12} Watts	-9	-6	-3	0	+3	+6	+9	+12	+15

Add or deduct from power level above. For intermediate face areas, interpolate to nearest whole number.

MODEL MF5000: MEDIA FREE SILENCER

The FläktGroup SEMCO Model MF5000 Media Free Silencer is designed to provide excellent broad band attenuation while being totally media free. The moderate pressure loss makes this silencer suitable for all applications and for systems operating at higher velocities. Applications may include hospitals, pharmaceuticals, electronics, clean rooms or other sensitive applications requiring a contaminate free environment.



INDEPENDENTLY CERTIFIED TEST DATA

Published data is derived from Independent certified testing conducted in accordance with ASTM E477. For testing purposes, specified lengths of straight duct are used both upstream and downstream of the silencer. Static pressure losses must therefore be adjusted when the unit is installed, at or near transitions, elbows, or at the intake or discharge of the system. Consult FläktGroup SEMCO for adjustment values. All data published herein was obtained from actual production run units.

Dynamic Insertion Loss (dB)

Model	Length	Face Velocity	Cv	Press. Drop	Forward Airflow Performance Octave Band/Frequency (hz) 1 63	2 125	3 250	4 500	5 1K	6 2K	7 4K	8 8K	Reverse Airflow Performance Octave Band/Frequency (hz) 1 63	2 125	3 250	4 500	5 1K	6 2K	7 4K	8 8K
MF5003	36”	0	1.24	0	3	4	6	13	8	6	7	6	3	4	6	13	8	6	7	6
		500		.04	4	6	7	14	8	7	7	8	4	5	6	13	8	7	6	5
		1000		.15	4	6	7	14	8	7	7	8	4	5	7	14	8	7	5	4
		1500		.34	4	6	8	14	9	7	7	7	4	6	8	13	8	6	5	5
		2000		.62	4	6	8	14	10	8	7	7	5	7	8	13	8	6	5	5
MF5006	72”	0	1.57	0	4	5	8	15	9	10	10	6	4	5	8	15	9	10	10	6
		500		.05	5	6	10	17	11	11	11	10	5	5	9	16	10	11	7	6
		1000		.18	5	7	11	19	11	11	11	10	6	7	12	19	11	11	7	5
		1500		.40	5	8	13	21	14	12	10	10	6	8	14	21	12	11	7	6
		2000		.72	4	8	14	22	15	13	10	10	8	10	16	23	13	10	7	6
MF5009	108”	0	2.90	0	5	6	9	16	12	11	12	7	5	6	9	16	12	11	12	7
		500		.05	6	6	9	17	12	12	13	9	5	6	9	17	12	12	10	8
		1000		.18	6	7	11	20	13	13	14	10	6	8	13	21	14	13	9	7
		1500		.41	6	8	14	23	16	13	13	10	8	11	16	24	16	13	8	7
		2000		.72	6	9	15	23	18	15	13	10	9	12	18	25	17	13	8	7

Forward airflow performance applies when both noise and airflow are traveling in the same direction.
Reverse airflow performance applies when noise and airflow are traveling in opposite directions.

Pressure Drops for velocities not shown above can be calculated using the following formula:

P.D. = Cv x Hv
where: P.D. = Pressure Drop
Cv = Silencer Flow Coefficient

$Hv = (V/4005)^2$
Hv = Velocity Pressure in Inches w.g.
V = Face velocity in Ft./Min.

MODEL MF5000: MEDIA FREE SILENCER

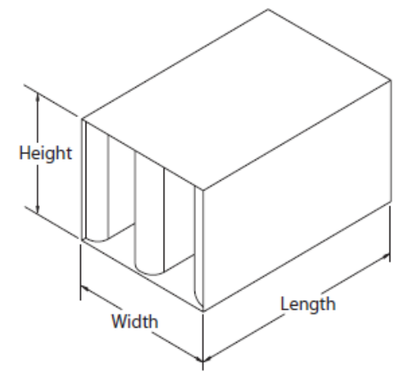
STANDARD CONSTRUCTION:

Shell and Nose:	22 Gauge Galvanized Steel
Perforated Metal:	24 Gauge Galvanized Steel
Fill Material:	None

Also available in 304 and 316 Stainless Steel.

FIRE RATINGS:

Fire Hazard Classification Ratings in accordance with ASTM-E84 is FHC 25/20.



Standard Sizes & Weights

Std. Height	3”-0” Length Standard Width 12”	14”	36”	48”	6’0” Length Standard Width 12”	24”	36”	48”	9’0” Length Standard Width 12”	24”	36”
18”	x	x	x	x	x	x	x	x	x	x	x
24”	x	x	x	x	x	x	x	x	x	x	x
36”	x	x	x	x	x	x	x	x	x	x	x
48”	x	x	x	x	x	x	x	x	n/a	n/a	n/a

Non-standard sizes are available. Non-standard height dimensions are available within the following restrictions: 48” heights are not available in 7’ through 10’ lengths.

Self Generated Noise (dB)

Model	Length	Face Velocity	Forward Airflow Performance Octave Band/Frequency (hz) 1 63	2 125	3 250	4 500	5 1K	6 2K	7 4K	8 8K	Reverse Airflow Performance Octave Band/Frequency (hz) 1 63	2 125	3 250	4 500	5 1K	6 2K	7 4K	8 8K
MF5003	36”	500	56	43	38	36	31	33	27	31	57	45	37	33	30	21	24	29
		1000	60	49	45	48	50	53	47	34	61	47	43	45	49	51	44	32
		1500	62	58	52	54	55	61	62	51	59	56	51	52	54	60	62	51
		2000	69	64	57	58	60	64	69	64	75	63	57	57	58	63	68	65
MF5006	72”	500	56	46	38	33	32	22	25	30	57	45	36	31	31	21	23	29
		1000	60	50	47	48	51	54	48	33	59	49	45	46	50	53	46	32
		1500	62	59	54	55	56	62	64	53	66	56	52	53	54	61	63	51
		2000	69	64	58	59	61	66	71	65	71	62	58	58	59	64	70	63
MF5009	108”	500	59	44	25	32	32	22	24	30	57	43	35	29	27	19	24	30
		1000	60	50	46	46	50	53	46	32	59	50	43	43	49	53	46	33
		1500	63	59	54	54	55	62	63	52	66	58	51	51	53	61	64	52
		2000	71	66	59	59	60	66	71	65	71	63	57	56	58	64	70	64

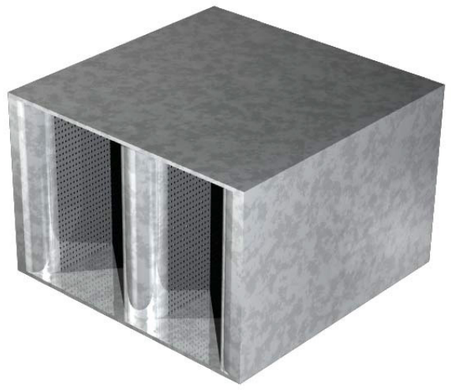
Face Area Adjustment for Self Noise

Attenuator Face Area (sq. ft.)	0.5	1	2	4	8	16	32	64	128
PWL Adjustment Factor dB re 10^{-12} Watts	-9	-6	-3	0	+3	+6	+9	+12	+15

Add or deduct from power level above. For intermediate face areas, interpolate to nearest whole number.

MODEL MF7500: MEDIA FREE SILENCER

The FläktGroup SEMCO Model MF7500 Media Free Silencer is designed to provide excellent broad band attenuation while being totally media free. The moderate pressure loss makes this silencer suitable for all applications and for systems operating at higher velocities. Applications may include hospitals, pharmaceuticals, electronics, clean rooms or other sensitive applications requiring a contaminate free environment.



INDEPENDENTLY CERTIFIED TEST DATA

Published data is derived from independent certified testing conducted in accordance with ASTM E477. For testing purposes, specified lengths of straight duct are used both upstream and downstream of the silencer. Static pressure losses must therefore be adjusted when the unit is installed, at or near transitions, elbows, or at the intake or discharge of the system. Consult FläktGroup SEMCO for adjustment values. All data published herein was obtained from actual production run units.

Dynamic Insertion Loss (dB)

Model	Length	Face Velocity	Cv	Press. Drop	Forward Airflow Performance Octave Band/Frequency (hz) 1 63	2 125	3 250	4 500	5 1K	6 2K	7 4K	8 8K	Reverse Airflow Performance Octave Band/Frequency (hz) 1 63	2 125	3 250	4 500	5 1K	6 2K	7 4K	8 8K
MF7503	36”	0	1.12	0	1	4	4	10	7	5	5	4	1	4	4	10	7	5	5	4
		500		.02	2	5	5	11	7	5	5	5	1	8	10	14	11	9	6	6
		1000		.07	2	5	6	12	8	6	5	4	2	9	11	16	12	10	5	5
		1500		.16	2	6	6	14	9	7	5	4	2	10	12	17	13	10	5	5
		2000		.28	1	7	6	13	10	8	6	4	2	12	14	21	14	10	5	4
MF7506	72”	0	1.28	0	2	5	6	12	11	9	9	7	2	5	6	12	11	9	9	7
		500		.02	3	6	7	14	11	9	9	8	2	10	12	17	15	13	9	6
		1000		.08	3	6	8	15	12	10	8	7	3	11	14	19	16	14	7	6
		1500		.18	3	7	8	17	13	11	8	6	3	12	16	21	17	14	7	5
		2000		.32	2	8	8	15	14	12	9	7	3	14	17	23	18	14	7	5
MF7509	108”	0	1.44	0	2	3	7	13	10	9	7	7	2	3	7	13	10	9	7	7
		500		.02	3	5	8	15	11	10	9	7	3	13	16	19	14	7	8	6
		1000		.09	3	6	9	17	13	11	9	7	5	15	18	21	16	8	6	4
		1500		.20	4	9	12	21	16	13	10	7	5	18	20	24	18	9	7	4
		2000		.36	4	10	14	22	17	14	10	7	5	17	18	23	18	11	8	5

Forward airflow performance applies when both noise and airflow are traveling in the same direction.
Reverse airflow performance applies when noise and airflow are traveling in opposite directions.

Pressure Drops for velocities not shown above can be calculated using the following formula:

P.D. = Cv x Hv
where: P.D. = Pressure Drop
Cv = Silencer Flow Coefficient

$Hv = (V/4005)^2$
Hv = Velocity Pressure in Inches w.g.
V = Face velocity in Ft./Min.

MODEL MF7500: MEDIA FREE SILENCER

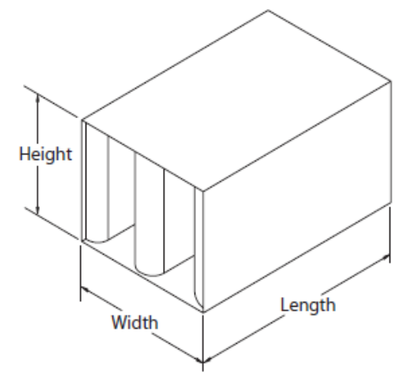
STANDARD CONSTRUCTION:

Shell and Nose:	22 Gauge Galvanized Steel
Perforated Metal:	24 Gauge Galvanized Steel
Fill Material:	None

Also available in 304 and 316 Stainless Steel.

FIRE RATINGS:

Fire Hazard Classification Ratings in accordance with ASTM-E84 is FHC 25/20.



Standard Sizes & Weights

Std. Height	3”-0” Length Standard Width 12”	14”	36”	48”	6’0” Length Standard Width 12”	24”	36”	48”	9’0” Length Standard Width 12”	24”	36”
18”	x	x	x	x	x	x	x	x	x	x	x
24”	x	x	x	x	x	x	x	x	x	x	x
36”	x	x	x	x	x	x	x	x	x	x	x
48”	x	x	x	x	x	x	x	x	n/a	n/a	n/a

Non-standard sizes are available. Non-standard height dimensions are available within the following restrictions: 48” heights are not available in 7’ through 10’ lengths.

Self Generated Noise (dB)

Model	Length	Face Velocity	Forward Airflow Performance Octave Band/Frequency (hz) 1 63	2 125	3 250	4 500	5 1K	6 2K	7 4K	8 8K	Reverse Airflow Performance Octave Band/Frequency (hz) 1 63	2 125	3 250	4 500	5 1K	6 2K	7 4K	8 8K
MF7503	36”	500	62	57	48	42	43	43	37	35	60	54	47	44	41	41	36	35
		1000	61	55	50	50	50	44	37	35	60	54	52	57	56	53	44	36
		1500	61	54	54	55	58	60	54	44	64	61	62	62	64	66	59	48
		2000	70	67	63	67	63	67	64	48	75	69	65	69	67	70	68	60
MF7506	72”	500	61	53	46	41	38	40	36	35	60	51	50	42	42	41	37	35
		1000	60	53	46	43	48	45	37	35	62	51	52	56	58	56	45	35
		1500	64	56	53	54	55	57	48	39	66	61	61	63	64	67	61	51
		2000	70	62	62	62	61	65	61	57	71	66	66	69	67	72	71	61
MF7509	108”	500	64	55	46	44	39	42	37	35	59	59	55	58	58	57	47	36
		1000	59	50	46	42	47	42	37	35	66	54	53	56	56	54	43	35
		1500	61	55	54	57	56	58	51	43	62	52	57	58	61	62	54	42
		2000	68	66	63	61	61	65	61	54	61	56	59	63	62	64	57	53

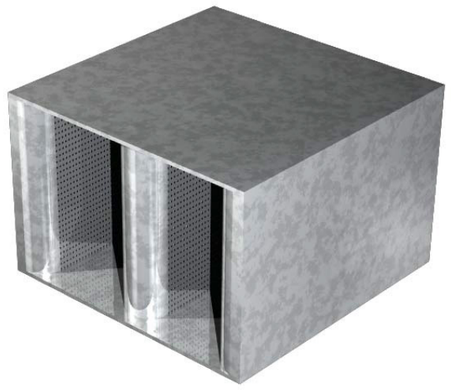
Face Area Adjustment for Self Noise

Attenuator Face Area (sq. ft.)	0.5	1	2	4	8	16	32	64	128
PWL Adjustment Factor dB re 10^{-12} Watts	-9	-6	-3	0	+3	+6	+9	+12	+15

Add or deduct from power level above. For intermediate face areas, interpolate to nearest whole number.

MODEL MFL2500: MEDIA FREE SILENCER

The FläktGroup SEMCO Model MFL2500 Media Free Silencer is designed to provide excellent broad band attenuation while being totally media free. The moderate pressure loss makes this silencer suitable for all applications and for systems operating at higher velocities. Applications may include hospitals, pharmaceuticals, electronics, clean rooms or other sensitive applications requiring a contaminate free environment.



INDEPENDENTLY CERTIFIED TEST DATA

Published data is derived from independent certified testing conducted in accordance with ASTM E477. For testing purposes, specified lengths of straight duct are used both upstream and downstream of the silencer. Static pressure losses must therefore be adjusted when the unit is installed, at or near transitions, elbows, or at the intake or discharge of the system. Consult FläktGroup SEMCO for adjustment values. All data published herein was obtained from actual production run units.

Dynamic Insertion Loss (dB)

					Forward Airflow Performance Octave Band/Frequency (hz)								Reverse Airflow Performance Octave Band/Frequency (hz)							
Model	Length	Face Velocity	Cv	Press. Drop	1 63	2 125	3 250	4 500	5 1K	6 2K	7 4K	8 8K	1 63	2 125	3 250	4 500	5 1K	6 2K	7 4K	8 8K
MFL2503	36”	0	9.77	0	2	5	11	16	11	11	10	9	1	5	10	15	11	10	10	10
		500		.17	2	7	12	17	12	12	10	10	1	7	12	16	12	11	10	10
		1000		.60	1	6	14	18	12	12	10	10	1	9	14	19	13	12	9	9
		1500		1.29	1	8	14	20	13	13	11	11	1	13	16	21	14	13	10	9
		2000		2.30	1	7	12	19	13	13	10	9	1	11	17	22	15	13	11	10
MFL2506	72”	0	9.86	0	2	7	12	18	14	17	16	17	2	7	12	19	15	16	14	14
		500		.17	4	9	15	20	15	17	16	18	3	9	15	21	16	16	13	12
		1000		.62	4	9	17	23	16	18	15	17	4	13	18	25	18	17	11	12
		1500		1.31	3	10	17	26	17	19	15	14	4	16	21	28	21	17	11	11
		2000		2.26	3	11	16	22	18	21	17	16	4	19	24	32	24	17	11	10
MFL2509	108”	0	12.90	0	3	7	12	18	15	18	17	16	1	6	12	17	15	19	17	17
		500		.24	5	9	15	20	16	19	19	19	3	10	16	20	17	18	17	15
		1000		.79	5	11	17	23	19	20	19	19	5	14	19	24	20	16	15	13
		1500		1.68	6	14	20	27	22	23	20	19	5	19	23	28	22	17	14	12
		2000		2.95	5	15	22	30	23	25	20	19	6	23	27	31	24	19	13	11

Forward airflow performance applies when both noise and airflow are traveling in the same direction.
Reverse airflow performance applies when noise and airflow are traveling in opposite directions.

Pressure Drops for velocities not shown above can be calculated using the following formula:

P.D. = Cv x Hv
where: P.D. = Pressure Drop
Cv = Silencer Flow Coefficient

$Hv = (V/4005)^2$
Hv = Velocity Pressure in Inches w.g.
V = Face velocity in Ft./Min.

MODEL MFL2500: MEDIA FREE SILENCER

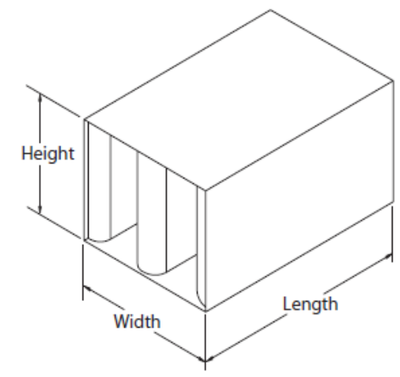
STANDARD CONSTRUCTION:

Shell and Nose:	22 Gauge Galvanized Steel
Perforated Metal:	24 Gauge Galvanized Steel
Fill Material:	None

Also available in 304 and 316 Stainless Steel.

FIRE RATINGS:

Fire Hazard Classification Ratings in accordance with ASTM-E84 is FHC 25/20.



Standard Sizes & Weights

Std. Height	3”-0” Length Standard Width				6’0” Length Standard Width				9’0” Length Standard Width		
	12”	14”	36”	48”	12”	24”	36”	48”	12”	24”	36”
18”	x	x	x	x	x	x	x	x	x	x	x
24”	x	x	x	x	x	x	x	x	x	x	x
36”	x	x	x	x	x	x	x	x	x	x	x
48”	x	x	x	x	x	x	x	x	n/a	n/a	n/a

Non-standard sizes are available. Non-standard height dimensions are available within the following restrictions: 48” heights are not available in 7’ through 10’ lengths.

Self Generated Noise (dB)

			Forward Airflow Performance Octave Band/Frequency (hz)								Reverse Airflow Performance Octave Band/Frequency (hz)							
Model	Length	Face Velocity	1 63	2 125	3 250	4 500	5 1K	6 2K	7 4K	8 8K	1 63	2 125	3 250	4 500	5 1K	6 2K	7 4K	8 8K
MFL2503	36”	500	58	56	50	43	47	48	41	28	59	55	51	46	51	50	42	27
		1000	66	70	74	63	59	62	64	60	69	69	75	60	59	65	64	57
		1500	77	75	81	75	69	68	72	71	76	72	80	73	67	67	72	68
		2000	87	80	86	86	80	74	76	77	83	77	83	81	79	72	76	77
MFL2506	72”	500	59	47	45	38	42	42	32	18	52	47	41	39	47	45	38	21
		1000	66	65	67	57	55	58	60	58	57	61	61	49	53	62	61	54
		1500	73	71	76	68	64	62	65	61	70	64	73	61	59	66	72	67
		2000	80	76	85	77	73	70	70	71	71	66	80	71	67	68	78	76
MFL2509	108”	500	60	50	46	38	47	48	37	24	59	46	42	45	48	49	39	25
		1000	68	66	64	54	53	62	65	57	64	65	64	55	58	63	65	56
		1500	80	73	74	65	63	65	79	73	73	71	73	62	62	66	72	70
		2000	87	78	81	75	72	70	78	87	82	73	78	71	68	68	74	78

Face Area Adjustment for Self Noise

Attenuator Face Area (sq. ft.)	0.5	1	2	4	8	16	32	64	128
PWL Adjustment Factor dB re 10^{-12} Watts	-9	-6	-3	0	+3	+6	+9	+12	+15

Add or deduct from power level above. For intermediate face areas, interpolate to nearest whole number.

MODEL MFS2500: MEDIA FREE SILENCER

The FläktGroup SEMCO Model MFS2500 Media Free Silencer is designed to provide excellent attenuation without the use of media, eliminating the possibility of introducing fibrous material into the airstream. This model is also designed to perform across all bands with low pressure drop for use in medium and high velocity applications.

INDEPENDENTLY CERTIFIED TEST DATA

Published data is derived from independent certified testing conducted in accordance with ASTM E477. For testing purposes, specified lengths of straight duct are used both upstream and downstream of the silencer. Static pressure losses must therefore be adjusted when the unit is installed, at or near transitions, elbows, or at the intake or discharge of the system. Consult FläktGroup SEMCO for adjustment values. All data published herein was obtained from a 24"x24" production run unit.

Dynamic Insertion Loss (dB)

					Forward Airflow Performance Octave Band/Frequency (hz)								Reverse Airflow Performance Octave Band/Frequency (hz)							
Model	Length	Face Velocity	Cv	Press. Drop	1 63	2 125	3 250	4 500	5 1K	6 2K	7 4K	8 8K	1 63	2 125	3 250	4 500	5 1K	6 2K	7 4K	8 8K
MFS2503	36"	0	11.97	0	2	4	8	17	15	13	10	9	1	4	7	16	12	11	10	9
		500		.22	2	6	10	18	16	14	11	10	2	7	11	18	13	11	10	10
		1000		.74	1	6	12	19	18	15	11	10	2	8	13	20	14	12	10	9
		1500		1.56	2	7	13	19	19	18	12	11	3	10	16	21	15	14	10	9
		2000		2.78	2	7	14	19	19	18	13	10	3	11	18	21	16	15	11	10
MFS2506	72"	0	11.32	0	1	5	10	20	18	18	14	13	2	5	11	20	17	17	14	13
		500		.19	2	7	12	23	20	19	15	15	2	7	13	23	17	16	13	12
		1000		.68	2	7	17	27	23	22	17	18	4	11	20	30	19	15	13	12
		1500		1.53	2	8	17	29	24	24	16	13	4	15	25	33	21	18	12	11
		2000		2.76	3	10	20	25	27	28	21	18	4	19	30	33	24	20	14	13
MFS2509	108"	0	13.14	0	1	5	10	19	19	21	17	16	1	5	10	18	18	20	17	16
		500		.24	2	7	13	21	20	22	18	17	1	9	14	21	19	19	16	14
		1000		.80	2	9	17	26	2	23	18	17	2	13	20	27	22	18	14	13
		1500		1.69	3	10	20	31	26	28	19	18	3	18	27	34	25	20	14	13
		2000		3.02	3	11	22	34	29	31	20	15	4	21	32	37	28	21	13	11

Forward Airflow Performance applies when both noise and airflow are traveling in the same direction.
Reverse Airflow Performance applies when noise and airflow are traveling in opposite directions.

Pressure Drops for velocities not shown above can be calculated using the following formula:

P.D. = Cv x Hv
where: P.D. = Pressure Drop
Cv = Silencer Flow Coefficient

$Hv = (V/4005)^2$
Hv = Velocity Pressure in Inches w.g.
V = Face velocity in Ft./Min.

MODEL MFS2500: MEDIA FREE SILENCER

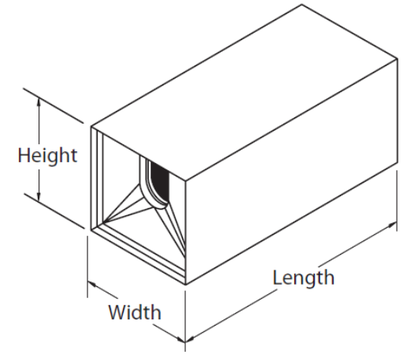
STANDARD CONSTRUCTION:

Shell and Nose:	22 Gauge Galvanized Steel
Perforated Metal:	24 Gauge Galvanized Steel
Fill Material:	None

Also available in 304 and 316 Stainless Steel.

FIRE RATINGS:

Fire Hazard Classification Ratings in accordance with ASTM-E84 is FHC 25/20.



Standard Sizes & Weights

Std. Height	3"-0" Length Standard Width				6'0" Length Standard Width				9'0" Length Standard Width		
	12"	14"	36"	48"	12"	24"	36"	48"	12"	24"	36"
18"	x	x	x	x	x	x	x	x	x	x	x
24"	x	x	x	x	x	x	x	x	x	x	x
36"	x	x	x	x	x	x	x	x	x	x	x
48"	x	x	x	x	x	x	x	x	n/a	n/a	n/a

Non-standard sizes are available. Please contact FläktGroup SEMCO for limitations.

Self Generated Noise (dB)

			Forward Airflow Performance Octave Band/Frequency (hz)								Reverse Airflow Performance Octave Band/Frequency (hz)							
Model	Length	Face Velocity	1 63	2 125	3 250	4 500	5 1K	6 2K	7 4K	8 8K	1 63	2 125	3 250	4 500	5 1K	6 2K	7 4K	8 8K
MFS2503	36"	500	56	47	45	39	42	46	39	28	57	45	38	37	45	47	40	27
		1000	70	66	64	56	52	57	60	57	65	61	63	55	53	59	60	56
		1500	77	73	73	67	64	62	68	68	75	71	72	69	62	63	68	67
		2000	85	79	81	75	72	70	72	76	82	79	79	77	70	68	72	74
MFS2506	72"	500	52	42	42	36	40	40	30	19	60	45	40	37	43	44	38	21
		1000	65	58	59	52	50	56	56	49	63	56	59	52	51	58	60	54
		1500	74	70	71	67	64	62	67	65	75	66	68	64	59	62	68	67
		2000	81	76	77	74	71	68	70	71	72	69	75	73	67	66	72	74
MFS2509	108"	500	65	51	44	39	45	46	37	24	56	46	41	38	46	48	41	26
		1000	65	58	59	51	51	60	62	55	62	60	63	56	53	60	62	58
		1500	76	69	68	62	60	63	71	70	72	68	71	69	62	64	70	69
		2000	81	74	73	70	68	68	76	78	79	73	77	77	70	68	75	77

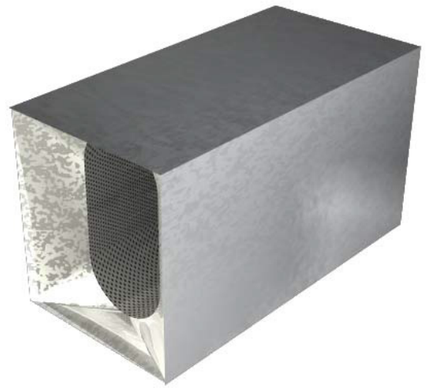
Face Area Adjustment for Self Noise

Attenuator Face Area (sq. ft.)	0.5	1	2	4	8	16	32	64	128
PWL Adjustment Factor dB re 10^{-12} Watts	-9	-6	-3	0	+3	+6	+9	+12	+15

Add or deduct From power level above. For intermediate face areas, interpolate to nearest whole number.

MODEL MFS5000: MEDIA FREE SILENCER

The FläktGroup SEMCO Model MFS5000 Media Free Silencer is designed to provide excellent attenuation without the use of media, eliminating the possibility of introducing fibrous material into the airstream. This model is also designed to perform across all bands with low pressure drop for use in medium and high velocity applications.



INDEPENDENTLY CERTIFIED TEST DATA

Published data is derived from independent certified testing conducted in accordance with ASTM E477. For testing purposes, specified lengths of straight duct are used both upstream and downstream of the silencer. Static pressure losses must therefore be adjusted when the unit is installed, at or near transitions, elbows, or at the intake or discharge of the system. Consult FläktGroup SEMCO for adjustment values. All data published herein was obtained from a 30"x24" production run unit.

Dynamic Insertion Loss (dB)

Model	Length	Face Velocity	Cv	Press. Drop	Forward Airflow Performance Octave Band/Frequency (hz) 1 63	2 125	3 250	4 500	5 1K	6 2K	7 4K	8 8K	Reverse Airflow Performance Octave Band/Frequency (hz) 1 63	2 125	3 250	4 500	5 1K	6 2K	7 4K	8 8K
MFS5003	36"	0	3.54	0	2	3	7	14	9	8	7	6	2	3	7	13	8	8	7	6
		500		.05	2	3	8	15	9	9	8	7	2	4	8	14	8	8	7	6
		1000		.22	2	4	9	16	9	9	7	6	3	5	9	15	9	8	7	6
		1500		.50	1	5	10	16	10	10	8	7	3	6	11	15	10	8	7	6
		2000		.89	2	5	10	16	11	11	8	7	3	6	12	15	10	9	7	6
MFS5006	72"	0	3.50	0	2	3	8	16	11	12	11	9	2	3	8	15	10	12	10	9
		500		.05	2	4	9	16	11	12	11	9	1	4	10	16	11	12	10	9
		1000		.22	3	5	10	18	12	13	11	9	2	5	11	17	11	11	9	8
		1500		.50	3	6	12	22	13	14	11	9	3	7	14	20	12	11	9	9
		2000		.88	3	7	14	24	14	15	11	9	3	9	16	21	13	12	9	9
MFS5009	108"	0	3.51	0	3	4	9	18	12	14	13	11	1	3	9	17	12	15	13	11
		500		.05	3	4	10	19	13	15	14	13	3	4	10	18	12	14	13	11
		1000		.22	3	5	11	22	13	15	13	11	3	6	13	21	12	13	13	11
		1500		.50	3	7	14	26	15	16	14	11	3	8	16	25	13	11	12	10
		2000		.87	3	8	16	29	17	18	14	12	3	10	19	27	14	12	11	10

Forward airflow performance applies when both noise and airflow are traveling in the same direction.
Reverse airflow performance applies when noise and airflow are traveling in opposite directions.

Pressure Drops for velocities not shown above can be calculated using the following formula:

P.D. = Cv x Hv
where: P.D. = Pressure Drop
Cv = Silencer Flow Coefficient

$Hv = (V/4005)^2$
Hv = Velocity Pressure in Inches w.g.
V = Face velocity in Ft./Min.

MODEL MFS5000: MEDIA FREE SILENCER

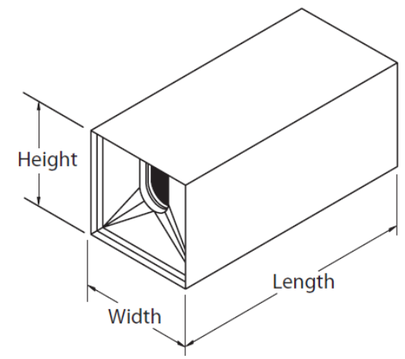
STANDARD CONSTRUCTION:

Shell and Nose:	22 Gauge Galvanized Steel
Perforated Metal:	24 Gauge Galvanized Steel
Fill Material:	None

Also available in 304 and 316 Stainless Steel.

FIRE RATINGS:

Fire Hazard Classification Ratings in accordance with ASTM-E84 is FHC 25/20.



Standard Sizes & Weights

Std. Height	3"-0" Length Standard Width				6'0" Length Standard Width				9'0" Length Standard Width		
	12"	14"	36"	48"	12"	24"	36"	48"	12"	24"	36"
18"	x	x	x	x	x	x	x	x	x	x	x
24"	x	x	x	x	x	x	x	x	x	x	x
36"	x	x	x	x	x	x	x	x	x	x	x
48"	x	x	x	x	x	x	x	x	n/a	n/a	n/a

Non-standard sizes are available. Please contact FläktGroup SEMCO for limitations.

Self Generated Noise (dB)

Model	Length	Face Velocity	Forward Airflow Performance Octave Band/Frequency (hz) 1 63	2 125	3 250	4 500	5 1K	6 2K	7 4K	8 8K	Reverse Airflow Performance Octave Band/Frequency (hz) 1 63	2 125	3 250	4 500	5 1K	6 2K	7 4K	8 8K
MFS5003	36"	500	60	47	36	30	28	25	24	28	55	46	36	33	36	31	24	29
		1000	67	54	54	46	45	49	46	31	61	54	53	46	48	53	50	37
		1500	71	65	63	58	55	56	57	51	73	65	64	58	55	60	62	58
		2000	77	70	71	65	62	61	64	60	78	71	71	66	61	63	68	66
MFS5006	72"	500	59	45	36	30	29	26	21	27	55	46	39	34	36	31	22	27
		1000	66	53	51	43	46	50	45	29	66	55	55	47	49	54	51	34
		1500	70	62	60	57	55	58	58	50	69	62	63	59	56	61	63	57
		2000	76	70	69	65	62	61	65	60	76	70	69	66	61	64	69	66
MFS5009	108"	500	60	46	36	33	34	27	23	25	52	49	37	38	38	33	21	25
		1000	66	52	50	41	48	52	46	28	58	51	53	46	50	55	52	34
		1500	70	63	58	54	57	60	60	50	72	64	63	57	55	62	64	58
		2000	73	65	64	57	60	63	67	62	75	70	69	66	61	65	71	68

Face Area Adjustment for Self Noise

Attenuator Face Area (sq. ft.)	0.5	1	2	4	8	16	32	64	128
PWL Adjustment Factor dB re 10^{-12} Watts	-9	-6	-3	0	+3	+6	+9	+12	+15

Add or deduct from power level above. For intermediate face areas, interpolate to nearest whole number.

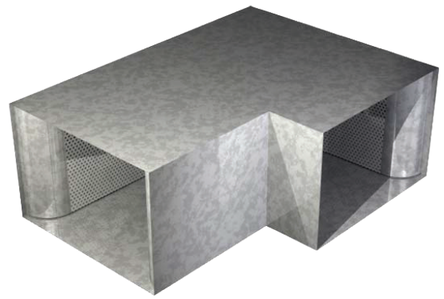
FläktGroup SEMCO

SILENT AIR

SECTION 5:
SPECIAL APPLICATION SOUND

MODEL STE2500: ELBOW SILENCER

The FläktGroup SEMCO Model STE2500 Elbow Silencer is designed to provide excellent attenuation for applications when the use of standard silencers is not possible due to spatial limitations. This model is also designed to provide maximum broad band attenuation and moderate pressure drop where system velocities are in the low to medium range.



INDEPENDENTLY CERTIFIED TEST DATA

Published data is derived from independent certified testing conducted in accordance with ASTM E477. For testing purposes, specified lengths of straight duct are used both upstream and downstream of the silencer. Static pressure losses must therefore be adjusted when the unit is installed, at or near transitions, elbows, or at the intake or discharge of the system. Consult FläktGroup SEMCO for adjustment values. All data published herein was obtained from a 24"x24" production run unit of equivalent centerline length for straight through silencer.

Dynamic Insertion Loss (dB)																				
					Forward Airflow Performance Octave Band/Frequency (hz)								Reverse Airflow Performance Octave Band/Frequency (hz)							
Model	Length	Face Velocity	Cv	Press. Drop	1 63	2 125	3 250	4 500	5 1K	6 2K	7 4K	8 8K	1 63	2 125	3 250	4 500	5 1K	6 2K	7 4K	8 8K
STE2503	36"	0	4.49	0	5	7	16	31	41	40	26	17	5	6	16	32	41	39	27	17
		500		.07	5	7	15	30	40	40	26	17	5	7	17	32	39	38	25	15
		1000		.28	3	4	12	26	37	37	24	15	5	9	17	32	39	35	25	15
		1500		.63	3	4	12	26	35	36	24	15	5	9	18	32	38	33	20	14
STE2505	60"	0	5.46	0	7	12	26	40	47	48	39	24	7	12	26	40	47	48	39	24
		500		.09	6	12	24	39	47	48	39	24	6	12	24	39	47	48	39	24
		1000		.34	5	10	22	37	44	45	37	23	5	10	22	37	44	45	37	23
		1500		.77	5	9	21	37	42	44	36	22	5	9	21	37	42	44	36	22
STE2507	84"	0	6.74	0	8	17	35	49	53	56	51	30	8	17	35	49	53	56	51	30
		500		.11	7	16	32	48	53	55	51	30	7	16	32	48	53	55	51	30
		1000		.42	7	15	31	48	51	52	49	30	7	15	31	48	51	52	49	30
		1500		.95	6	14	29	47	49	51	47	29	6	14	29	47	49	51	47	29
STE2510	120"	0	8.67	0	10	25	49	63	62	68	70	40	10	25	49	63	62	68	70	40
		500		.14	10	23	45	62	61	68	70	40	10	23	45	63	62	66	70	40
		1000		.54	10	23	45	60	61	63	68	40	10	23	45	63	62	63	68	40
		1500		1.22	8	22	42	60	60	62	64	40	8	22	42	63	60	62	64	40

Forward airflow performance applies when both noise and airflow are traveling in the same direction.
Reverse airflow performance applies when noise and airflow are traveling in opposite directions.

Pressure Drops for velocities not shown above can be calculated using the following formula:

P.D. = Cv x Hv
where: P.D. = Pressure Drop
Cv = Silencer Flow Coefficient

$Hv = (V/4005)^2$
Hv = Velocity Pressure in Inches w.g.
V = Face velocity in Ft./Min.

MODEL STE2500: ELBOW SILENCER

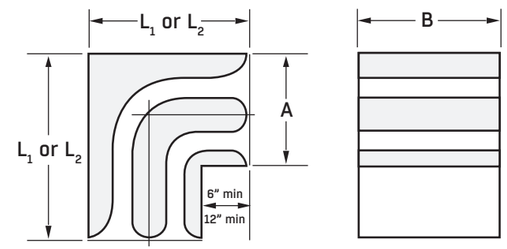
STANDARD CONSTRUCTION:

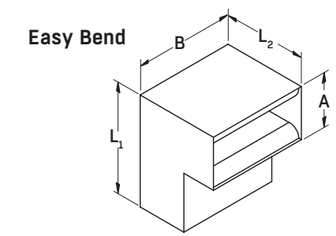
Shell and Nose:	22 Gauge Galvanized Steel
Perforated Metal:	24 Gauge Galvanized Steel
Fill Material:	Fiberglass

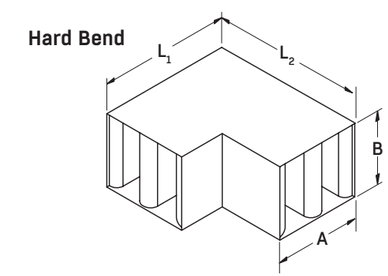
FIRE RATINGS:

Fire Hazard Classification Ratings in accordance with ASTM-E84 is FHC 25/20.

Additional materials, gauges, and configurations are available, such as stainless or aluminum, with mylar or polyethylene liners or bagging. Please contact FläktGroup SEMCO for details.







For ordering purposes L_1 is considered the inlet leg.

Total centerline dimensions through elbow should not exceed 120".

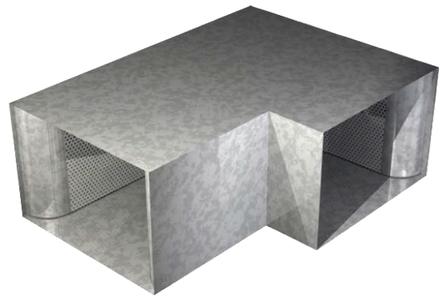
No one leg shall exceed 108".

Standard Sizes (A x B)											
12x12	15x12	18x12	21x12	24x12	30x12	33x12	36x12	39x12	42x12	45x12	48x12
12x15	15x15	18x15	21x15	24x15	30x15	33x15	36x15	39x15	42x15	45x15	48x15
12x18	15x18	18x18	21x18	24x18	30x18	33x18	36x18	39x18	42x18	45x18	48x18
12x21	15x21	18x21	21x21	24x21	30x21	33x21	36x21	39x21	42x21	45x21	48x21
12x24	15x24	18x24	21x24	24x24	30x24	33x24	36x24	39x24	42x24	45x24	48x24
12x27	15x27	18x27	21x27	24x27	30x27	33x27	36x27	39x27	42x27	45x27	48x27
12x30	15x30	18x30	21x30	24x30	30x30	33x30	36x30	39x30	42x30	45x30	48x30
12x33	15x33	18x33	21x33	24x33	30x33	33x33	36x33	39x33	42x33	45x33	48x33
12x36	15x36	18x36	21x36	24x36	30x36	33x36	36x36	39x36	42x36	45x36	48x36
12x39	15x39	18x39	21x39	24x39	30x39	33x39	36x39	39x39	42x39	45x39	48x39
12x42	15x42	18x42	21x42	24x42	30x42	33x42	36x42	39x42	42x42	45x42	48x42
12x45	15x45	18x45	21x45	24x45	30x45	33x45	36x45	39x45	42x45	45x45	48x45
12x48	15x48	18x48	21x48	24x48	30x48	33x48	36x48	39x48	42x48	45x48	48x48

Non-standard sizes are available. Please contact FläktGroup SEMCO for limitations.

MODEL STE5000: ELBOW SILENCER

The FläktGroup SEMCO Model STE5000 Elbow Silencer is designed to provide excellent attenuation for applications when the use of standard silencers is not possible due to spatial limitations. This model is also designed to provide maximum broad band attenuation and moderate pressure drop where system velocities are in the low to medium range.



INDEPENDENTLY CERTIFIED TEST DATA

Published data is derived from independent certified testing conducted in accordance with ASTM E477. For testing purposes, specified lengths of straight duct are used both upstream and downstream of the silencer. Static pressure losses must therefore be adjusted when the unit is installed, at or near transitions, elbows, or at the intake or discharge of the system. Consult FläktGroup SEMCO for adjustment values. All data published herein was obtained from a 24”x24” production run unit of equivalent centerline length for straight through silencer.

Dynamic Insertion Loss (dB)

					Forward Airflow Performance Octave Band/Frequency (hz)								Reverse Airflow Performance Octave Band/Frequency (hz)							
Model	Length	Face Velocity	Cv	Press. Drop	1 63	2 125	3 250	4 500	5 1K	6 2K	7 4K	8 8K	1 63	2 125	3 250	4 500	5 1K	6 2K	7 4K	8 8K
STE5003	36”	0	2.56	0	2	3	12	26	36	32	20	13	4	4	13	26	36	32	21	15
		500		.04	1	2	11	24	35	32	19	12	3	4	13	26	36	32	21	15
		1000		.16	1	2	11	23	35	32	19	12	3	4	12	24	34	30	18	13
		1500		.36	1	2	10	22	34	32	19	12	2	4	12	24	33	25	17	10
STE5005	60”	0	3.20	0	4	8	20	37	44	43	29	18	6	8	20	35	40	39	29	19
		500		.05	3	7	19	36	44	43	29	17	6	10	21	35	40	39	28	18
		1000		.20	3	6	18	35	43	42	29	17	6	10	21	33	39	37	27	17
		1500		.45	2	6	18	34	42	41	28	17	4	10	21	33	36	27	20	14
STE5007	84”	0	3.85	0	6	12	28	47	52	53	38	22	8	12	27	43	44	45	37	22
		500		.06	5	11	27	47	52	53	38	22	8	14	29	43	44	45	35	20
		1000		.24	4	10	25	46	51	52	38	22	8	14	30	43	43	44	35	20
		1500		.54	4	10	25	46	49	47	37	22	5	15	30	42	39	28	22	17
STE5010	120”	0	4.66	0	9	19	40	63	64	69	52	30	11	18	38	56	50	55	49	27
		500		.07	8	18	39	63	64	69	52	30	12	21	40	56	49	57	46	24
		1000		.29	7	16	36	63	63	67	52	30	12	22	44	58	50	55	48	25
		1500		.65	7	14	33	62	60	58	51	30	7	23	44	56	44	30	26	24

Forward airflow performance applies when both noise and airflow are traveling in the same direction.
Reverse airflow performance applies when noise and airflow are traveling in opposite directions.

Pressure Drops for velocities not shown above can be calculated using the following formula:

P.D. = Cv x Hv
where: P.D. = Pressure Drop
Cv = Silencer Flow Coefficient

$Hv = (V/4005)^2$
Hv = Velocity Pressure in Inches w.g.
V = Face velocity in Ft./Min.

MODEL STE5000: ELBOW SILENCER

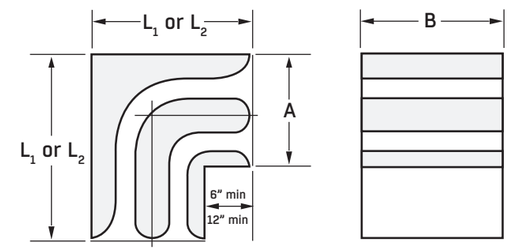
STANDARD CONSTRUCTION:

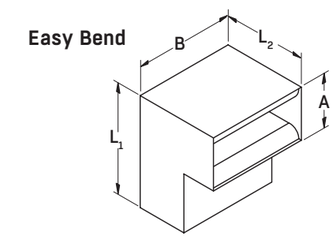
Shell and Nose:	22 Gauge Galvanized Steel
Perforated Metal:	24 Gauge Galvanized Steel
Fill Material:	Fiberglass

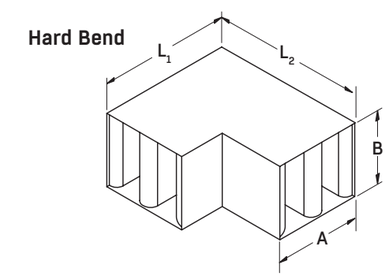
FIRE RATINGS:

Fire Hazard Classification Ratings in accordance with ASTM-E84 is FHC 25/20.

Additional materials, gauges, and configurations are available, such as stainless or aluminum, with mylar or polyethylene liners or bagging. Please contact FläktGroup SEMCO for details.







For ordering purposes L_1 is considered the inlet leg.

Total centerline dimensions through elbow should not exceed 120”.

No one leg shall exceed 108”.

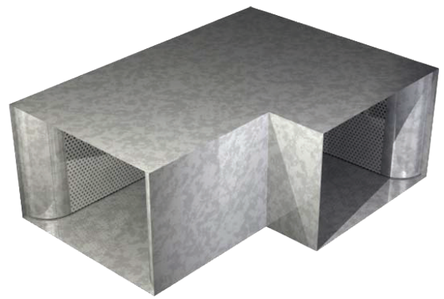
Standard Sizes (A x B)

12x12	15x12	18x12	21x12	24x12	30x12	33x12	36x12	39x12	42x12	45x12	48x12
12x15	15x15	18x15	21x15	24x15	30x15	33x15	36x15	39x15	42x15	45x15	48x15
12x18	15x18	18x18	21x18	24x18	30x18	33x18	36x18	39x18	42x18	45x18	48x18
12x21	15x21	18x21	21x21	24x21	30x21	33x21	36x21	39x21	42x21	45x21	48x21
12x24	15x24	18x24	21x24	24x24	30x24	33x24	36x24	39x24	42x24	45x24	48x24
12x27	15x27	18x27	21x27	24x27	30x27	33x27	36x27	39x27	42x27	45x27	48x27
12x30	15x30	18x30	21x30	24x30	30x30	33x30	36x30	39x30	42x30	45x30	48x30
12x33	15x33	18x33	21x33	24x33	30x33	33x33	36x33	39x33	42x33	45x33	48x33
12x36	15x36	18x36	21x36	24x36	30x36	33x36	36x36	39x36	42x36	45x36	48x36
12x39	15x39	18x39	21x39	24x39	30x39	33x39	36x39	39x39	42x39	45x39	48x39
12x42	15x42	18x42	21x42	24x42	30x42	33x42	36x42	39x42	42x42	45x42	48x42
12x45	15x45	18x45	21x45	24x45	30x45	33x45	36x45	39x45	42x45	45x45	48x45
12x48	15x48	18x48	21x48	24x48	30x48	33x48	36x48	39x48	42x48	45x48	48x48

Non-standard sizes are available. Please contact FläktGroup SEMCO for limitations.

MODEL STE7500: ELBOW SILENCER

The FläktGroup SEMCO Model STE7500 Elbow Silencer is designed to provide excellent attenuation for applications when the use of standard silencers is not possible due to spatial limitations. This model is also designed to provide maximum broad band attenuation and moderate pressure drop where system velocities are in the low to medium range.



INDEPENDENTLY CERTIFIED TEST DATA

Published data is derived from independent certified testing conducted in accordance with ASTM E477. For testing purposes, specified lengths of straight duct are used both upstream and downstream of the silencer. Static pressure losses must therefore be adjusted when the unit is installed, at or near transitions, elbows, or at the intake or discharge of the system. Consult FläktGroup SEMCO for adjustment values. All data published herein was obtained from a 24”x24” production run unit of equivalent centerline length for straight through silencer.

Dynamic Insertion Loss (dB)																				
					Forward Airflow Performance Octave Band/Frequency (hz)								Reverse Airflow Performance Octave Band/Frequency (hz)							
Model	Length	Face Velocity	Cv	Press. Drop	1 63	2 125	3 250	4 500	5 1K	6 2K	7 4K	8 8K	1 63	2 125	3 250	4 500	5 1K	6 2K	7 4K	8 8K
STE7503	36”	0	1.61	0	1	5	9	23	29	25	17	13	3	5	10	23	28	24	15	12
		500		.02	1	5	9	22	28	25	17	13	3	5	10	23	28	24	15	11
		1000		.10	1	5	9	22	28	25	17	13	3	6	10	23	29	24	15	10
		1500		.23	1	5	9	21	28	25	16	13	3	7	11	24	29	24	15	9
STE7505	60”	0	1.93	0	4	8	15	35	44	35	22	14	3	7	15	36	44	34	22	15
		500		.03	4	8	14	35	44	35	22	14	3	7	15	36	44	34	22	14
		1000		.12	4	8	14	34	44	35	22	14	3	8	15	36	44	34	21	14
		1500		.27	3	8	13	33	43	35	22	14	3	9	16	36	45	34	20	14
STE7507	84”	0	2.09	0	2	9	18	44	54	44	25	17	3	10	19	44	55	44	24	15
		500		.03	2	9	17	44	53	44	25	16	3	10	20	44	55	43	23	15
		1000		.13	2	9	17	44	53	44	25	16	3	11	20	45	56	42	23	15
		1500		.29	2	9	17	43	53	44	25	16	3	11	22	47	55	42	23	15
STE7510	120”	0	2.41	0	7	14	27	62	77	58	33	19	3	15	27	64	79	59	35	20
		500		.04	7	14	23	62	77	59	33	19	3	15	27	64	79	58	34	20
		1000		.15	7	14	23	62	77	60	34	20	3	16	28	65	79	57	32	21
		1500		.34	4	14	25	63	76	60	34	20	3	14	31	65	79	57	31	23

Forward airflow performance applies when both noise and airflow are traveling in the same direction.
Reverse airflow performance applies when noise and airflow are traveling in opposite directions.

Pressure Drops for velocities not shown above can be calculated using the following formula:

P.D. = Cv x Hv
where: P.D. = Pressure Drop
Cv = Silencer Flow Coefficient

$Hv = (V/4005)^2$
Hv = Velocity Pressure in Inches w.g.
V = Face velocity in Ft./Min.

MODEL STE7500: ELBOW SILENCER

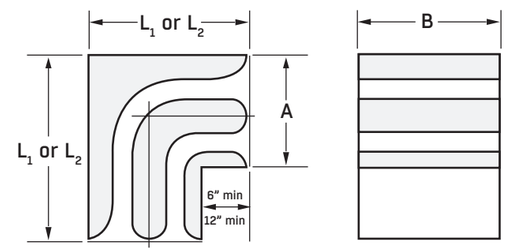
STANDARD CONSTRUCTION:

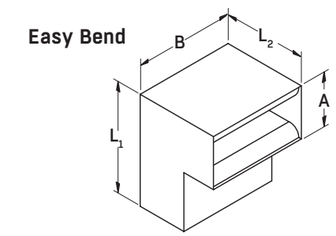
Shell and Nose:	22 Gauge Galvanized Steel
Perforated Metal:	24 Gauge Galvanized Steel
Fill Material:	Fiberglass

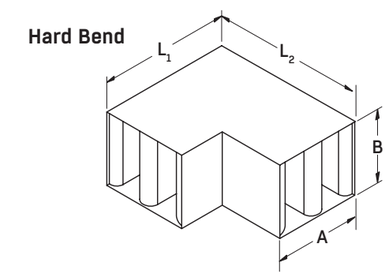
FIRE RATINGS:

Fire Hazard Classification Ratings in accordance with ASTM-E84 is FHC 25/20.

Additional materials, gauges, and configurations are available, such as stainless or aluminum, with mylar or polyethylene liners or bagging. Please contact FläktGroup SEMCO for details.







For ordering purposes L_1 is considered the inlet leg.

Total centerline dimensions through elbow should not exceed 120”.

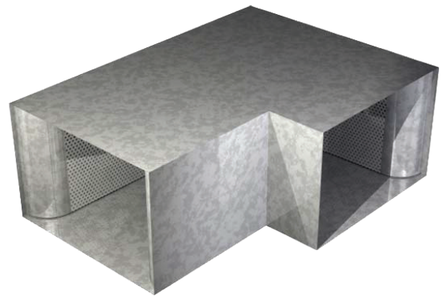
No one leg shall exceed 108”.

Standard Sizes (A x B)											
12x12	15x12	18x12	21x12	24x12	30x12	33x12	36x12	39x12	42x12	45x12	48x12
12x15	15x15	18x15	21x15	24x15	30x15	33x15	36x15	39x15	42x15	45x15	48x15
12x18	15x18	18x18	21x18	24x18	30x18	33x18	36x18	39x18	42x18	45x18	48x18
12x21	15x21	18x21	21x21	24x21	30x21	33x21	36x21	39x21	42x21	45x21	48x21
12x24	15x24	18x24	21x24	24x24	30x24	33x24	36x24	39x24	42x24	45x24	48x24
12x27	15x27	18x27	21x27	24x27	30x27	33x27	36x27	39x27	42x27	45x27	48x27
12x30	15x30	18x30	21x30	24x30	30x30	33x30	36x30	39x30	42x30	45x30	48x30
12x33	15x33	18x33	21x33	24x33	30x33	33x33	36x33	39x33	42x33	45x33	48x33
12x36	15x36	18x36	21x36	24x36	30x36	33x36	36x36	39x36	42x36	45x36	48x36
12x39	15x39	18x39	21x39	24x39	30x39	33x39	36x39	39x39	42x39	45x39	48x39
12x42	15x42	18x42	21x42	24x42	30x42	33x42	36x42	39x42	42x42	45x42	48x42
12x45	15x45	18x45	21x45	24x45	30x45	33x45	36x45	39x45	42x45	45x45	48x45
12x48	15x48	18x48	21x48	24x48	30x48	33x48	36x48	39x48	42x48	45x48	48x48

Non-standard sizes are available. Please contact FläktGroup SEMCO for limitations.

MODEL LFE2500: ELBOW SILENCER

The FläktGroup SEMCO Model LFE2500 Elbow Silencer is designed to provide excellent attenuation for applications when the use of standard silencers is not possible due to spatial limitations. This model is also designed to provide maximum low band attenuation and moderate pressure drop where system velocities are in the low to medium range.



INDEPENDENTLY CERTIFIED TEST DATA

Published data is derived from independent certified testing conducted in accordance with ASTM E477. For testing purposes, specified lengths of straight duct are used both upstream and downstream of the silencer. Static pressure losses must therefore be adjusted when the unit is installed, at or near transitions, elbows, or at the intake or discharge of the system. Consult FläktGroup SEMCO for adjustment values. All data published herein was obtained from a 24"x24" production run unit of equivalent centerline length for straight through silencer.

Dynamic Insertion Loss (dB)																				
					Forward Airflow Performance Octave Band/Frequency (hz)								Reverse Airflow Performance Octave Band/Frequency (hz)							
Model	Length	Face Velocity	Cv	Press. Drop	1 63	2 125	3 250	4 500	5 1K	6 2K	7 4K	8 8K	1 63	2 125	3 250	4 500	5 1K	6 2K	7 4K	8 8K
LFE2503	36"	0	9.95	0	4	12	24	26	25	24	20	20	4	12	24	26	23	21	17	17
		500		.16	4	12	23	26	25	24	20	20	5	14	26	26	24	21	18	18
		1000		.62	2	12	23	25	25	24	20	20	5	14	26	27	25	22	18	18
		1500		1.40	2	12	22	25	25	24	20	20	5	15	26	28	26	22	18	18
LFE2505	60"	0	10.75	0	9	17	32	34	33	34	30	28	9	17	33	30	30	32	27	24
		500		.17	9	16	31	34	34	34	30	28	9	17	35	31	30	32	26	24
		1000		.67	9	15	30	34	35	35	32	29	9	19	35	32	30	32	26	24
		1500		1.51	8	15	29	34	35	36	32	30	9	19	36	33	31	33	26	24
LFE2507	84"	0	14.29	0	12	22	41	44	36	34	31	27	11	22	40	38	31	31	31	26
		500		.22	10	22	41	45	36	35	32	28	13	26	42	39	32	32	30	23
		1000		.89	9	22	41	45	36	35	32	28	13	27	42	40	33	33	29	23
		1500		2.00	9	22	39	45	36	35	32	29	15	28	46	42	35	34	28	23
LFE2510	120"	0	17.82	0	15	32	49	51	43	40	38	32	17	30	49	50	45	42	41	33
		500		.28	15	31	50	53	43	40	38	32	17	33	49	50	45	43	41	31
		1000		1.11	13	32	50	52	44	41	39	35	18	33	50	51	46	43	39	29
		1500		2.50	13	30	48	53	45	43	39	34	19	34	52	54	47	43	35	26

Forward airflow performance applies when both noise and airflow are traveling in the same direction.
Reverse airflow performance applies when noise and airflow are traveling in opposite directions.

Pressure Drops for velocities not shown above can be calculated using the following formula:

P.D. = Cv x Hv
where: P.D. = Pressure Drop
Cv = Silencer Flow Coefficient

$Hv = (V/4005)^2$
Hv = Velocity Pressure in Inches w.g.
V = Face velocity in Ft./Min.

MODEL LFE2500: ELBOW SILENCER

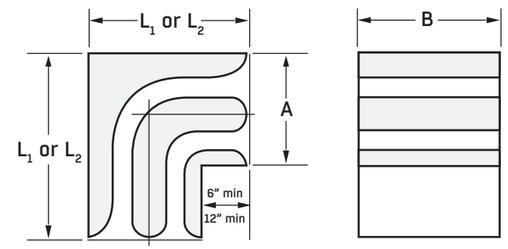
STANDARD CONSTRUCTION:

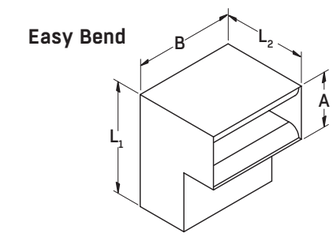
Shell and Nose:	22 Gauge Galvanized Steel
Perforated Metal:	24 Gauge Galvanized Steel
Fill Material:	Fiberglass

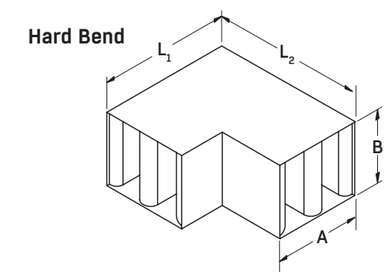
FIRE RATINGS:

Fire Hazard Classification Ratings in accordance with ASTM-E84 is FHC 25/20.

Additional materials, gauges, and configurations are available, such as stainless or aluminum, with mylar or polyethylene liners or bagging. Please contact FläktGroup SEMCO for details.







For ordering purposes L_1 is considered the inlet leg.

Total centerline dimensions through elbow should not exceed 120".

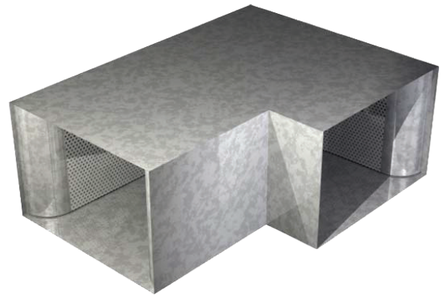
No one leg shall exceed 108".

Standard Sizes (A x B)											
12x12	15x12	18x12	21x12	24x12	30x12	33x12	36x12	39x12	42x12	45x12	48x12
12x15	15x15	18x15	21x15	24x15	30x15	33x15	36x15	39x15	42x15	45x15	48x15
12x18	15x18	18x18	21x18	24x18	30x18	33x18	36x18	39x18	42x18	45x18	48x18
12x21	15x21	18x21	21x21	24x21	30x21	33x21	36x21	39x21	42x21	45x21	48x21
12x24	15x24	18x24	21x24	24x24	30x24	33x24	36x24	39x24	42x24	45x24	48x24
12x27	15x27	18x27	21x27	24x27	30x27	33x27	36x27	39x27	42x27	45x27	48x27
12x30	15x30	18x30	21x30	24x30	30x30	33x30	36x30	39x30	42x30	45x30	48x30
12x33	15x33	18x33	21x33	24x33	30x33	33x33	36x33	39x33	42x33	45x33	48x33
12x36	15x36	18x36	21x36	24x36	30x36	33x36	36x36	39x36	42x36	45x36	48x36
12x39	15x39	18x39	21x39	24x39	30x39	33x39	36x39	39x39	42x39	45x39	48x39
12x42	15x42	18x42	21x42	24x42	30x42	33x42	36x42	39x42	42x42	45x42	48x42
12x45	15x45	18x45	21x45	24x45	30x45	33x45	36x45	39x45	42x45	45x45	48x45
12x48	15x48	18x48	21x48	24x48	30x48	33x48	36x48	39x48	42x48	45x48	48x48

Non-standard sizes are available. Please contact FläktGroup SEMCO for limitations.

MODEL LFE5000: ELBOW SILENCER

The FläktGroup SEMCO Model LFE5000 Elbow Silencer is designed to provide excellent attenuation for applications when the use of standard silencers is not possible due to spatial limitations. This model is also designed to provide maximum low band attenuation and moderate pressure drop where system velocities are in the low to medium range.



INDEPENDENTLY CERTIFIED TEST DATA

Published data is derived from independent certified testing conducted in accordance with ASTM E477. For testing purposes, specified lengths of straight duct are used both upstream and downstream of the silencer. Static pressure losses must therefore be adjusted when the unit is installed, at or near transitions, elbows, or at the intake or discharge of the system. Consult FläktGroup SEMCO for adjustment values. All data published herein was obtained from a 24"x24" production run unit of equivalent centerline length for straight through silencer.

Dynamic Insertion Loss (dB)																				
					Forward Airflow Performance Octave Band/Frequency (hz)								Reverse Airflow Performance Octave Band/Frequency (hz)							
Model	Length	Face Velocity	Cv	Press. Drop	1 63	2 125	3 250	4 500	5 1K	6 2K	7 4K	8 8K	1 63	2 125	3 250	4 500	5 1K	6 2K	7 4K	8 8K
LFE5003	36"	0	3.85	0	3	10	17	20	22	18	16	17	3	9	17	20	20	16	14	15
		500		.06	3	9	17	20	22	18	16	17	3	11	19	21	21	17	14	18
		1000		.24	3	9	16	20	22	18	16	17	3	10	19	22	22	17	14	18
		1500		.54	3	9	16	19	22	18	16	17	3	11	19	23	22	17	14	18
LFE5005	60"	0	4.17	0	6	14	23	28	32	27	21	21	5	16	26	28	28	25	21	20
		500		.07	5	12	23	27	31	27	21	21	5	16	27	29	29	25	22	21
		1000		.26	5	12	22	27	31	27	21	21	5	16	27	29	29	24	20	18
		1500		.59	5	12	21	26	31	27	21	20	5	16	26	30	29	24	18	16
LFE5007	84"	0	4.82	0	7	18	34	40	35	30	22	20	7	18	34	37	33	29	24	21
		500		.08	6	18	33	39	35	30	22	20	8	19	35	38	34	30	24	22
		1000		.30	5	18	33	39	35	31	24	21	9	20	36	38	34	30	24	22
		1500		.68	5	16	31	38	36	31	23	21	9	21	36	39	35	30	24	22
LFE5010	120"	0	5.30	0	9	24	46	47	42	38	28	23	6	21	41	41	38	38	27	21
		500		.08	8	22	44	47	42	38	28	23	10	25	45	45	42	39	28	22
		1000		.33	6	22	44	48	43	38	29	26	11	26	45	45	42	39	28	22
		1500		.74	6	22	43	48	43	39	29	25	12	26	45	47	43	38	28	22

Forward airflow performance applies when both noise and airflow are traveling in the same direction.
Reverse airflow performance applies when noise and airflow are traveling in opposite directions.

Pressure Drops for velocities not shown above can be calculated using the following formula:

P.D. = Cv x Hv
where: P.D. = Pressure Drop
Cv = Silencer Flow Coefficient

$Hv = (V/4005)^2$
Hv = Velocity Pressure in Inches w.g.
V = Face velocity in Ft./Min.

MODEL LFE5000: ELBOW SILENCER

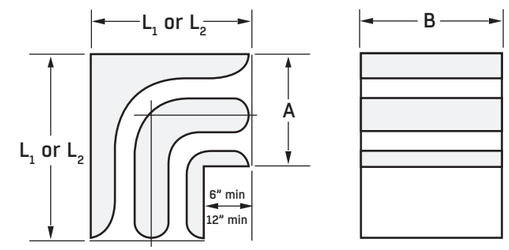
STANDARD CONSTRUCTION:

Shell and Nose:	22 Gauge Galvanized Steel
Perforated Metal:	24 Gauge Galvanized Steel
Fill Material:	Fiberglass

FIRE RATINGS:

Fire Hazard Classification Ratings in accordance with ASTM-E84 is FHC 25/20.

Additional materials, gauges, and configurations are available, such as stainless or aluminum, with mylar or polyethylene liners or bagging. Please contact FläktGroup SEMCO for details.

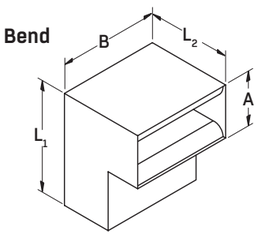


For ordering purposes L_1 is considered the inlet leg.

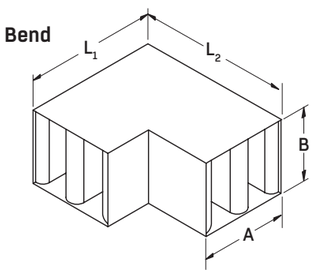
Total centerline dimensions through elbow should not exceed 120".

No one leg shall exceed 108".

Easy Bend



Hard Bend

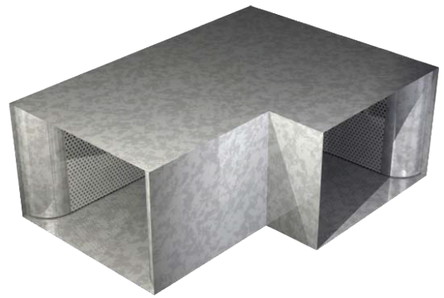


Standard Sizes (A x B)											
12x12	15x12	18x12	21x12	24x12	30x12	33x12	36x12	39x12	42x12	45x12	48x12
12x15	15x15	18x15	21x15	24x15	30x15	33x15	36x15	39x15	42x15	45x15	48x15
12x18	15x18	18x18	21x18	24x18	30x18	33x18	36x18	39x18	42x18	45x18	48x18
12x21	15x21	18x21	21x21	24x21	30x21	33x21	36x21	39x21	42x21	45x21	48x21
12x24	15x24	18x24	21x24	24x24	30x24	33x24	36x24	39x24	42x24	45x24	48x24
12x27	15x27	18x27	21x27	24x27	30x27	33x27	36x27	39x27	42x27	45x27	48x27
12x30	15x30	18x30	21x30	24x30	30x30	33x30	36x30	39x30	42x30	45x30	48x30
12x33	15x33	18x33	21x33	24x33	30x33	33x33	36x33	39x33	42x33	45x33	48x33
12x36	15x36	18x36	21x36	24x36	30x36	33x36	36x36	39x36	42x36	45x36	48x36
12x39	15x39	18x39	21x39	24x39	30x39	33x39	36x39	39x39	42x39	45x39	48x39
12x42	15x42	18x42	21x42	24x42	30x42	33x42	36x42	39x42	42x42	45x42	48x42
12x45	15x45	18x45	21x45	24x45	30x45	33x45	36x45	39x45	42x45	45x45	48x45
12x48	15x48	18x48	21x48	24x48	30x48	33x48	36x48	39x48	42x48	45x48	48x48

Non-standard sizes are available. Please contact FläktGroup SEMCO for limitations.

MODEL LFE7500: ELBOW SILENCER

The FläktGroup SEMCO Model LFE7500 Elbow Silencer is designed to provide excellent attenuation for applications when the use of standard silencers is not possible due to spatial limitations. This model is also designed to provide maximum low band attenuation and moderate pressure drop where system velocities are in the low to medium range.



INDEPENDENTLY CERTIFIED TEST DATA

Published data is derived from independent certified testing conducted in accordance with ASTM E477. For testing purposes, specified lengths of straight duct are used both upstream and downstream of the silencer. Static pressure losses must therefore be adjusted when the unit is installed, at or near transitions, elbows, or at the intake or discharge of the system. Consult FläktGroup SEMCO for adjustment values. All data published herein was obtained from a 24"x24" production run unit of equivalent centerline length for straight through silencer.

Dynamic Insertion Loss (dB)																				
					Forward Airflow Performance Octave Band/Frequency (hz)								Reverse Airflow Performance Octave Band/Frequency (hz)							
Model	Length	Face Velocity	Cv	Press. Drop	1 63	2 125	3 250	4 500	5 1K	6 2K	7 4K	8 8K	1 63	2 125	3 250	4 500	5 1K	6 2K	7 4K	8 8K
LFE7503	36"	0	2.25	0	2	7	12	17	19	14	15	14	2	7	13	17	18	15	16	16
		500		.04	2	7	12	17	19	14	15	14	2	7	13	17	18	15	16	16
		1000		.14	2	6	12	16	19	14	15	14	2	7	12	17	18	15	16	15
		1500		.32	2	6	12	16	19	14	15	14	1	7	12	17	18	15	16	15
LFE7505	60"	0	2.25	0	3	10	18	28	26	19	17	15	3	9	20	28	25	20	20	20
		500		.04	3	9	18	28	27	19	19	18	4	11	20	28	25	21	21	21
		1000		.14	2	9	18	27	27	19	19	18	4	11	20	28	25	21	21	21
		1500		.32	2	9	18	27	27	20	19	18	4	11	20	28	25	21	20	19
LFE7507	84"	0	2.41	0	4	12	23	38	31	21	18	16	2	12	23	35	31	22	20	19
		500		.04	4	12	23	38	31	21	19	18	3	13	24	36	31	23	22	22
		1000		.15	2	12	22	36	31	22	19	18	4	14	25	36	31	24	22	22
		1500		.34	2	11	22	36	31	22	19	18	5	14	26	36	31	25	22	22
LFE7510	120"	0	2.57	0	6	15	30	45	40	25	20	15	6	17	32	42	40	28	24	23
		500		.04	5	14	29	45	40	25	21	18	7	17	33	43	39	28	26	25
		1000		.16	5	13	28	45	40	25	21	18	7	18	33	43	38	28	26	25
		1500		.36	5	13	28	45	41	25	22	18	9	19	34	44	38	29	27	25

Forward airflow performance applies when both noise and airflow are traveling in the same direction.
Reverse airflow performance applies when noise and airflow are traveling in opposite directions.

Pressure Drops for velocities not shown above can be calculated using the following formula:

P.D. = Cv x Hv
where: P.D. = Pressure Drop
Cv = Silencer Flow Coefficient

$Hv = (V/4005)^2$
Hv = Velocity Pressure in Inches w.g.
V = Face velocity in Ft./Min.

MODEL LFE7500: ELBOW SILENCER

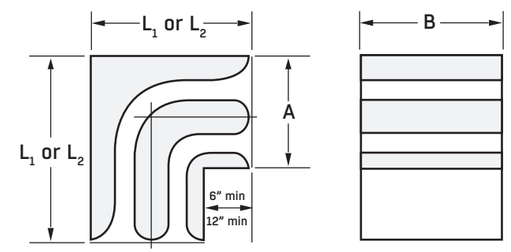
STANDARD CONSTRUCTION:

Shell and Nose:	22 Gauge Galvanized Steel
Perforated Metal:	24 Gauge Galvanized Steel
Fill Material:	Fiberglass

FIRE RATINGS:

Fire Hazard Classification Ratings in accordance with ASTM-E84 is FHC 25/20.

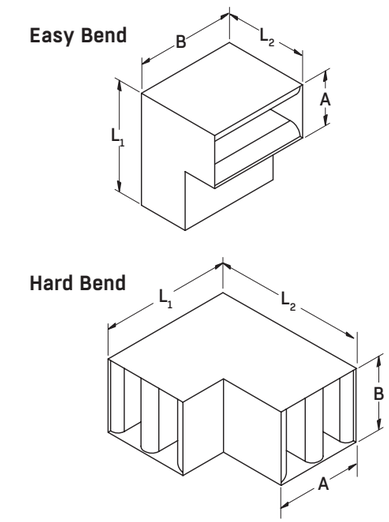
Additional materials, gauges, and configurations are available, such as stainless or aluminum, with mylar or polyethylene liners or bagging. Please contact FläktGroup SEMCO for details.



For ordering purposes L_1 is considered the inlet leg.

Total centerline dimensions through elbow should not exceed 120".

No one leg shall exceed 108".



Standard Sizes (A x B)											
12x12	15x12	18x12	21x12	24x12	30x12	33x12	36x12	39x12	42x12	45x12	48x12
12x15	15x15	18x15	21x15	24x15	30x15	33x15	36x15	39x15	42x15	45x15	48x15
12x18	15x18	18x18	21x18	24x18	30x18	33x18	36x18	39x18	42x18	45x18	48x18
12x21	15x21	18x21	21x21	24x21	30x21	33x21	36x21	39x21	42x21	45x21	48x21
12x24	15x24	18x24	21x24	24x24	30x24	33x24	36x24	39x24	42x24	45x24	48x24
12x27	15x27	18x27	21x27	24x27	30x27	33x27	36x27	39x27	42x27	45x27	48x27
12x30	15x30	18x30	21x30	24x30	30x30	33x30	36x30	39x30	42x30	45x30	48x30
12x33	15x33	18x33	21x33	24x33	30x33	33x33	36x33	39x33	42x33	45x33	48x33
12x36	15x36	18x36	21x36	24x36	30x36	33x36	36x36	39x36	42x36	45x36	48x36
12x39	15x39	18x39	21x39	24x39	30x39	33x39	36x39	39x39	42x39	45x39	48x39
12x42	15x42	18x42	21x42	24x42	30x42	33x42	36x42	39x42	42x42	45x42	48x42
12x45	15x45	18x45	21x45	24x45	30x45	33x45	36x45	39x45	42x45	45x45	48x45
12x48	15x48	18x48	21x48	24x48	30x48	33x48	36x48	39x48	42x48	45x48	48x48

Non-standard sizes are available. Please contact FläktGroup SEMCO for limitations.

MODEL RGS: RETURN GRILLE SILENCER

The FläktGroup SEMCO Model RGS Return Grille Silencer is designed to provide maximum noise reduction between a return system and an occupied space. This model is especially applicable to return systems in buildings which use the ceiling space or wall space as a return plenum, such as schools and office buildings.

INDEPENDENTLY CERTIFIED TEST DATA

Published data is derived from Independent certified testing conducted in accordance with ASTM E477. For testing purposes, specified lengths of straight duct are used both upstream and downstream of the silencer. Static pressure losses must therefore be adjusted when the unit is installed, at or near transitions, elbows, or at the intake or discharge of the system. Consult FläktGroup SEMCO for adjustment values. All data published herein was obtained from a 24”x24” production run unit.

Dynamic Insertion Loss (dB)											
				Forward Airflow Performance Octave Band/Frequency (hz)							
Model	Face Velocity	Cv	Press. Drop	1 63	2 125	3 250	4 500	5 1K	6 2K	7 4K	8 8K
RGS	0	26.30	0	2	3	3	4	6	10	13	15
	200		.065	2	3	3	4	7	10	14	15
	300		.15	3	3	3	4	7	10	14	15
	500		.41	3	3	3	5	7	10	14	15

Reverse airflow performance applies when noise and airflow are traveling in opposite directions.

Pressure Drops for velocities not shown above can be calculated using the following formula:

P.D. = Cv x Hv
where: P.D. = Pressure Drop
Cv = Silencer Flow Coefficient

$Hv = (V/4005)^2$
Hv = Velocity Pressure in Inches w.g.
V = Face velocity in Ft./Min.

MODEL RGS: RETURN GRILLE SILENCER

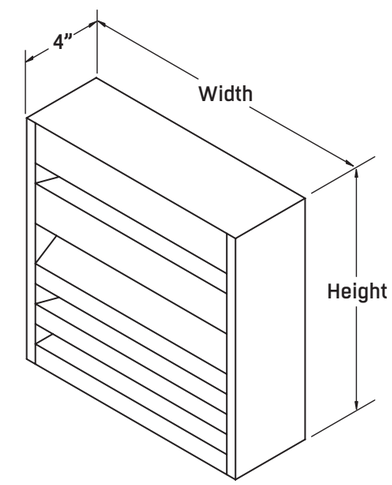
STANDARD CONSTRUCTION:

Shell:	18 Gauge Galvanized Steel
Perforated Metal:	24 Gauge Galvanized Steel
Fill Material:	Fiberglass

FIRE RATINGS:

Fire Hazard Classification Ratings in accordance with ASTM-E84 is FHC 25/20.

For information concerning non-standard materials please contact FläktGroup SEMCO directly.



Standard Sizes (A x B)											
12x12	15x12	18x12	21x12	24x12	30x12	33x12	36x12	39x12	42x12	45x12	48x12
12x15	15x15	18x15	21x15	24x15	30x15	33x15	36x15	39x15	42x15	45x15	48x15
12x18	15x18	18x18	21x18	24x18	30x18	33x18	36x18	39x18	42x18	45x18	48x18
12x21	15x21	18x21	21x21	24x21	30x21	33x21	36x21	39x21	42x21	45x21	48x21
12x24	15x24	18x24	21x24	24x24	30x24	33x24	36x24	39x24	42x24	45x24	48x24

Non-standard sizes are available. Please contact FläktGroup SEMCO for limitations.

WWW.SEMCOHVAC.COM / SOUND CATALOG / 20221004

FläktGroup® SEMCO® delivers smart and energy-efficient air quality solutions to support every building application . We offer our customers innovative technologies, high-quality products and outstanding performance supported by more than fifty years of accumulated industry experience. The broadest offering on the market and a strong market presence in 65 countries worldwide guarantees that we are always by your side, ready to deliver :Excellence in Solutions.

FläktGroup® SEMCO®
Corporate Headquarters
1800 East Pointe Drive
Columbia, Missouri 65201 USA
573.443.1481
sales.semco@flaktgroup.com

To learn more about FläktGroup SEMCO offerings and to contact your nearest representative please visit
www.semcohvac.com

© Copyright 2023 SEMCO Duct & Acoustical Products, Inc. All Rights Reserved. SEMCO embraces a policy of continuous development and improvement, the right is reserved to supply products which may differ from those illustrated and described in this publication. Specifications are subject to change without further notice. Any FläktGroup SEMCO purchase is subject to FläktGroup SEMCO standard terms and conditions. Certified dimensions will be supplied upon request on receipt of order. SEMCO is a registered Trademark of SEMCO LLC. Other trademarks and logos in this publication may be property of SEMCO, LLC, its subsidiaries or any of its related companies and/or other organizations or individuals.