



## RECTANGULAR REACTIVE NO FIBER SILENCER MODEL TRC

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NET INSERTION LOSS RATINGS (SEE NOTES 1, 2 AND 3)										
MODEL TRC	FACE VELOCITY (FPM)      STATIC PRESSURE DROP (WG)		OCTAVE BAND NUMBER & CENTER FREQ. (Hz)							
			1	2	3	4	5	6	7	8
			63	125	250	500	1000	2000	4000	8000
INSERTION LOSS (dB)										
TRC-36	0	—	1	6	18	8	6	6	5	5
	1000	0.295	2	6	15	9	6	6	5	5
	2000	1.18	2	7	13	10	7	7	6	5
TRC-60	0	—	2	7	24	15	8	8	7	7
	1000	0.356	2	9	24	17	10	8	7	6
	2000	1.425	2	13	22	16	11	10	9	7
TRC-96	0	—	3	5	24	13	7	7	6	6
	1000	0.417	3	7	26	15	7	7	6	6
	2000	1.669	4	9	29	21	11	8	6	6

Ruskin's Tuned Resonate Chamber silencer, or Model TRC, provides exceptional insertion loss for predominantly fan generated sound frequencies. This silencer design is free of any fibrous material making it an excellent selection for HVAC systems that require insulation free ducts. Additionally, the no fiber feature provides you with a silencer that is ideally suited for chemically harsh environments.

The Model TRC no fiber silencer is designed to be applied in ventilation systems for the pharmaceutical, cleanroom, hospital and chemical processing industries as well as any buildings that require a fiber-free environment.

### STANDARD CONSTRUCTION

G-60 Galvanized Steel

### VARIATIONS

- 304 Stainless Steel Construction
- 316 Stainless Steel Construction
- Flanges, with or without bolt holes
- 18 (1.3) or 16 (1.6) gage outer shell

### SUGGESTED SPECIFICATION

Furnish and install, at locations shown on the plans, or in accordance with the schedules, resonant absorbers that meet the following minimum construction standards. Outer shell to be constructed of 22 gage (0.8) galvanized steel. All resonant chamber material shall be G-60 galvanized steel or equivalent. Nose and tail sections of chamber shall be full radius solid 22 (0.8) gage galvanized steel to ensure smoothest airflow and lowest pressure drop. Active resonant face shall be 100% 24 (0.7) gage perforated steel to prevent deterioration. **Products that utilize non-metallic materials as part of the active resonator shall not be acceptable.** This includes but is not limited to paper or plastic film and non-metallic spacers. Perforations shall not exceed 2% open area to assure greatest degree of attenuation to the third octave band. Performance data included on technical data sheet shall be in accordance with ASTM-E477 testing standard.



# AIRFLOW PERFORMANCE

RUSKIN MODEL			STATIC PRESSURE LOSS (INCHES WG)																
TRC-96			0.026	0.059	0.104	0.163	0.235	0.319	0.417	0.528	0.652	0.788	0.938	1.100	1.277	1.466			
TRC-60			0.022	0.050	0.089	0.139	0.200	0.273	0.356	0.451	0.556	0.673	0.801	0.940	1.090	1.252			
TRC-36			0.018	0.041	0.074	0.115	0.166	0.226	0.295	0.373	0.461	0.558	0.664	0.779	0.903	1.037			
			Face Velocity (fpm)			250	375	500	625	750	875	1000	1125	1250	1375	1500	1625	1750	1875
			Size (W x H)	Face Area (Sq. Ft.)	Airflow (cfm)														
52	39	19	12 x 6	0.50	125	188	250	313	375	438	500	563	625	688	750	813	875	938	
64	49	25	12 x 9	0.75	188	281	375	469	563	656	750	844	938	1031	1125	1219	1313	1406	
77	59	30	12 x 12	1.00	250	375	500	625	750	875	1000	1125	1250	1375	1500	1625	1750	1875	
90	68	35	12 x 15	1.25	313	469	625	781	938	1094	1250	1406	1563	1719	1875	2031	2188	2344	
102	78	41	12 x 18	1.50	375	563	750	938	1125	1313	1500	1688	1875	2063	2250	2438	2625	2813	
115	88	46	12 x 21	1.75	438	656	875	1094	1313	1531	1750	1969	2188	2406	2625	2844	3063	3281	
128	97	51	12 x 24	2.00	500	750	1000	1250	1500	1750	2000	2250	2500	2750	3000	3250	3500	3750	
140	107	57	12 x 27	2.25	563	844	1125	1406	1688	1969	2250	2531	2813	3094	3375	3656	3938	4219	
153	117	62	12 x 30	2.50	625	938	1250	1563	1875	2188	2500	2813	3125	3438	3750	4063	4375	4688	
166	126	67	12 x 33	2.75	688	1031	1375	1719	2063	2406	2750	3094	3438	3781	4125	4469	4813	5156	
178	136	73	12 x 36	3.00	750	1125	1500	1875	2250	2625	3000	3375	3750	4125	4500	4875	5250	5625	
191	146	78	12 x 39	3.25	813	1219	1625	2031	2438	2844	3250	3656	4063	4469	4875	5281	5688	6094	
203	156	83	12 x 42	3.50	875	1313	1750	2188	2625	3063	3500	3938	4375	4813	5250	5688	6125	6563	
216	165	89	12 x 45	3.75	938	1406	1875	2344	2813	3281	3750	4219	4688	5156	5625	6094	6563	7031	
229	175	94	12 x 48	4.00	1000	1500	2000	2500	3000	3500	4000	4500	5000	5500	6000	6500	7000	7500	
86	66	34	24 x 6	1.00	250	375	500	625	750	875	1000	1125	1250	1375	1500	1625	1750	1875	
104	80	43	24 x 9	1.50	375	563	750	938	1125	1313	1500	1688	1875	2063	2250	2438	2625	2813	
122	94	52	24 x 12	2.00	500	750	1000	1250	1500	1750	2000	2250	2500	2750	3000	3250	3500	3750	
141	108	61	24 x 15	2.50	625	938	1250	1563	1875	2188	2500	2813	3125	3438	3750	4063	4375	4688	
159	123	70	24 x 18	3.00	750	1125	1500	1875	2250	2625	3000	3375	3750	4125	4500	4875	5250	5625	
177	137	79	24 x 21	3.50	875	1313	1750	2188	2625	3063	3500	3938	4375	4813	5250	5688	6125	6563	
196	151	88	24 x 24	4.00	1000	1500	2000	2500	3000	3500	4000	4500	5000	5500	6000	6500	7000	7500	
214	165	97	24 x 27	4.50	1125	1688	2250	2813	3375	3938	4500	5063	5625	6188	6750	7313	7875	8438	
232	180	106	24 x 30	5.00	1250	1875	2500	3125	3750	4375	5000	5625	6250	6875	7500	8125	8750	9375	
251	194	114	24 x 33	5.50	1375	2063	2750	3438	4125	4813	5500	6188	6875	7563	8250	8938	9625	10313	
269	208	123	24 x 36	6.00	1500	2250	3000	3750	4500	5250	6000	6750	7500	8250	9000	9750	10500	11250	
287	222	132	24 x 39	6.50	1625	2438	3250	4063	4875	5688	6500	7313	8125	8938	9750	10563	11375	12188	
306	237	141	24 x 42	7.00	1750	2625	3500	4375	5250	6125	7000	7875	8750	9625	10500	11375	12250	13125	
324	251	150	24 x 45	7.50	1875	2813	3750	4688	5625	6563	7500	8438	9375	10313	11250	12188	13125	14063	
342	265	159	24 x 48	8.00	2000	3000	4000	5000	6000	7000	8000	9000	10000	11000	12000	13000	14000	15000	
87	68	43	48 x 6	2.00	500	750	1000	1250	1500	1750	2000	2250	2500	2750	3000	3250	3500	3750	
117	91	59	48 x 9	3.00	750	1125	1500	1875	2250	2625	3000	3375	3750	4125	4500	4875	5250	5625	
146	115	75	48 x 12	4.00	1000	1500	2000	2500	3000	3500	4000	4500	5000	5500	6000	6500	7000	7500	
176	138	91	48 x 15	5.00	1250	1875	2500	3125	3750	4375	5000	5625	6250	6875	7500	8125	8750	9375	
205	161	107	48 x 18	6.00	1500	2250	3000	3750	4500	5250	6000	6750	7500	8250	9000	9750	10500	11250	
235	185	123	48 x 21	7.00	1750	2625	3500	4375	5250	6125	7000	7875	8750	9625	10500	11375	12250	13125	
265	208	139	48 x 24	8.00	2000	3000	4000	5000	6000	7000	8000	9000	10000	11000	12000	13000	14000	15000	
294	232	156	48 x 27	9.00	2250	3375	4500	5625	6750	7875	9000	10125	11250	12375	13500	14625	15750	16875	
324	255	172	48 x 30	10.00	2500	3750	5000	6250	7500	8750	10000	11250	12500	13750	15000	16250	17500	18750	
354	278	188	48 x 33	11.00	2750	4125	5500	6875	8250	9625	11000	12375	13750	15125	16500	17875	19250	20625	
383	302	204	48 x 36	12.00	3000	4500	6000	7500	9000	10500	12000	13500	15000	16500	18000	19500	21000	22500	
413	325	220	48 x 39	13.00	3250	4875	6500	8125	9750	11375	13000	14625	16250	17875	19500	21125	22750	24375	
443	348	236	48 x 42	14.00	3500	5250	7000	8750	10500	12250	14000	15750	17500	19250	21000	22750	24500	26250	
472	372	252	48 x 45	15.00	3750	5625	7500	9375	11250	13125	15000	16875	18750	20625	22500	24375	26250	28125	
502	395	269	48 x 48	16.00	4000	6000	8000	10000	12000	14000	16000	18000	20000	22000	24000	26000	28000	30000	

TOTAL WEIGHTS PER MODULAR SILENCER (LBS) (SEE NOTE 6)

1. SoundChek silencers have been tested in accordance with ASTM E-477 standard (Standard Method of Testing Duct Liner Materials and Prefabricated Silencers for Acoustical and Airflow Performance) for 24 inch by 24 inch modular sizes.
2. Product performance associated with airflow has been rated for both forward and reverse flow conditions. Forward flow occurs when air flows in the same direction as the noise (typically supply side system). Reverse flow occurs when air flows opposite the noise flow direction.
3. Static Pressure Drop values have been measured in accordance with ASTM E-477 testing standard. This standard relies on specific length ductwork up and down stream of the silencer. Therefore the data presented is for laminar flow and includes static

regain. If the silencer is to be used under conditions that vary from laminar flow, adjustments must be made to the system calculations. The data presented has been tested under standard conditions with air density of 0.075 pounds mass per cubic foot. Systems moving gases or air of sufficiently different density must allow for a different static pressure drop.

4. **Weights and Modular sizes shown on the Airflow Performance chart do not represent a complete list of sizes available.** It is only intended to provide the designer with enough information to accurately calculate the specifics for the projects requirements.
5. Silencer sizes are defined width by height. This defines the baffle arrangement. Consult your local representative if other than up/down baffle arrangement is required.