

Exhaust/Relief Ventilators – Models TEV

Exhaust/Relief Ventilators have a 1 to 1 ratio of hood perimeter opening to throat area. Maximum design air velocity is 1200 fpm.

THROAT SIZE A X B	HOOD SIZE			CFM @ IN. W.G.			THROAT SIZE A X B	HOOD SIZE			CFM @ IN. W.G.			THROAT SIZE A X B	HOOD SIZE			CFM @ IN. W.G.		
	C	D	E	.05	.125	.25		C	D	E	.05	.125	.25		C	D	E	.05	.125	.25
12							16 x 24	25	33	7	1668	2638	3730	20 x 80	34	94	9	5728	9057	12809
12 x 12	18	18	7	667	1054	1490	16 x 28	26	38	7	1950	3083	4360	20 x 84	35	98	9	5818	9199	13010
12 x 14	18	20	7	772	1220	1726	16 x 30	26	40	7	2088	3302	4670	20 x 96	35	111	9	6440	10182	14400
12 x 16	18	22	7	881	1394	1971	16 x 36	26	46	7	2370	3748	5300	20 x 108	35	123	9	7413	11722	16577
12 x 18	19	25	7	993	1570	2221	16 x 40	26	50	7	2656	4200	5940	20 x 120	36	136	9	8343	13191	18655
12 x 20	19	27	7	1059	1675	2368	16 x 42	26	52	7	2789	4410	6236	22						
12 x 22	19	29	7	1185	1874	2650	16 x 48	27	59	7	3190	5045	7134	22 x 22	32	32	9	2223	3515	4970
12 x 24	20	32	7	1252	1980	2800	16 x 54	27	65	7	3354	5303	7500	22 x 24	32	34	9	2342	3702	5236
12 x 28	20	36	7	1462	2312	3270	16 x 60	27	71	7	3578	5657	8000	22 x 28	33	39	9	2679	4236	5990
12 x 30	20	38	7	1565	2475	3500	16 x 66	28	78	7	3763	5949	8413	22 x 30	33	41	9	2871	4540	6420
12 x 36	21	45	7	1775	2807	3970	16 x 72	28	84	7	4105	6490	9178	22 x 36	34	48	9	3260	5155	7290
12 x 40	21	48	7	1954	3090	4370	16 x 80	28	92	7	4387	6937	9810	22 x 40	34	52	9	3508	5547	7845
12 x 42	22	52	7	2048	3239	4580	16 x 84	28	96	7	4655	7361	10410	22 x 42	36	56	9	3757	5940	8400
12 x 48	21	57	7	2392	3782	5348	16 x 96	28	108	7	5152	8146	11520	22 x 48	35	61	9	4214	6663	9423
12 x 54	22	64	7	2567	4059	5741	16 x 108	29	121	7	5578	8820	12473	22 x 54	36	68	9	4521	7149	10110
12 x 60	22	70	7	2798	4423	6255	16 x 120	29	133	7	6261	9899	14000	22 x 60	37	75	9	4919	7778	11000
12 x 66	22	76	7	2998	4740	6704	18							22 x 66	37	81	9	5277	8344	11800
12 x 72	22	82	7	3204	5066	7165	18 x 18	26	26	8	1543	2439	3450	22 x 72	37	87	9	5756	9100	12870
12 x 80	22	90	7	3437	5434	7685	18 x 20	27	29	8	1690	2672	3779	22 x 80	38	96	9	6176	9765	13810
12 x 84	22	94	7	3719	5879	8315	18 x 22	27	31	8	1856	2934	4149	22 x 84	38	100	9	6532	10327	14605
12 x 96	22	106	7	4119	6513	9210	18 x 24	27	33	8	1917	3031	4287	22 x 96	38	112	9	7084	11201	15840
12 x 108	22	120	7	4448	7033	9946	18 x 28	28	38	8	2191	3465	4900	22 x 108	39	125	9	8155	12894	18235
12 x 120	22	132	7	4896	7741	10947	18 x 30	28	40	8	2348	3712	5250	22 x 120	39	137	9	8975	14191	20070
14							18 x 36	29	47	8	2614	4133	5844	24						
14 x 14	20	20	7	919	1453	2055	18 x 40	29	51	8	2929	4632	6550	24 x 24	34	34	11	2456	3883	5491
14 x 16	20	22	7	1051	1662	2350	18 x 42	29	53	8	3077	4865	6880	24 x 28	35	39	11	2864	4528	6403
14 x 18	22	26	7	1181	1867	2640	18 x 48	30	60	8	3515	5558	7860	24 x 30	36	42	11	3070	4854	6864
14 x 20	22	28	7	1237	1955	2765	18 x 54	30	66	8	3852	6091	8614	24 x 36	37	49	11	3486	5512	7796
14 x 22	22	30	7	1386	2192	3100	18 x 60	30	72	8	4025	6364	9000	24 x 40	38	54	11	3904	6173	8730
14 x 24	22	32	7	1425	2253	3187	18 x 66	31	79	8	4232	6691	9463	24 x 42	38	56	11	4101	6484	9170
14 x 28	22	36	7	1671	2642	3736	18 x 72	31	85	8	4618	7301	10326	24 x 48	38	62	11	4687	7410	10480
14 x 30	23	39	7	1825	2885	4080	18 x 80	31	92	8	4955	7835	11081	24 x 54	39	69	11	5031	7955	11250
14 x 36	23	45	7	2075	3281	4640	18 x 84	31	97	8	5135	8119	11483	24 x 60	39	75	11	5367	8485	12000
14 x 40	23	49	7	2323	3673	5195	18 x 96	32	110	8	5577	8818	12471	24 x 66	40	82	11	5756	9100	12870
14 x 42	24	52	7	2393	3783	5350	18 x 108	32	122	8	6400	10119	14310	24 x 72	40	88	11	6279	9928	14040
14 x 48	24	58	7	2789	4410	6236	18 x 120	33	135	8	6907	10921	15444	24 x 80	40	96	11	6878	10876	15381
14 x 54	24	64	7	3059	4836	6839	20							24 x 84	40	100	11	6981	11038	15610
14 x 60	24	70	7	3264	5160	7298	20 x 20	29	29	9	1802	2850	4030	24 x 96	41	113	11	7887	12471	17636
14 x 66	24	77	7	3502	5536	7830	20 x 22	29	31	9	1981	3132	4430	24 x 108	42	126	11	8709	13770	19473
14 x 72	24	84	7	3738	5911	8359	20 x 24	30	34	9	2177	3443	4869	24 x 120	42	138	11	9791	15481	21894
14 x 80	25	92	7	4012	6344	8971	20 x 28	31	39	9	2536	4010	5672	28						
14 x 84	25	95	7	4243	6709	9487	20 x 30	31	41	9	2661	4207	5950	28 x 28	40	40	13	3478	5499	7777
14 x 96	26	108	7	4805	7598	10745	20 x 36	31	47	9	2961	4681	6620	28 x 30	41	43	13	3654	5777	8170
14 x 108	26	120	7	5189	8205	11604	20 x 40	32	52	9	3256	5148	7280	28 x 36	41	49	13	4146	6555	9270
14 x 120	26	132	7	5712	9031	12772	20 x 42	32	54	9	3417	5402	7640	28 x 40	43	55	13	4651	7354	10400
16							20 x 48	33	61	9	3985	6300	8910	28 x 42	43	59	13	4785	7566	10700
16 x 16	23	23	7	1199	1895	2680	20 x 54	33	67	9	4277	6762	9563	28 x 48	43	63	13	5469	8648	12230
16 x 18	24	26	7	1342	2121	3000	20 x 60	33	73	9	4472	7071	10000	28 x 54	45	70	13	5867	9277	13120
16 x 20	24	28	7	1470	2324	3286	20 x 66	34	80	9	4893	7736	10941	28 x 60	44	76	13	6139	9707	13728
16 x 22	24	30	7	1616	2555	3613	20 x 72	34	86	9	5340	8444	11941	28 x 66	45	83	13	6582	10408	14719

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THROAT SIZE A X B	HOOD SIZE			CFM @ IN. W.G.		
	C	D	E	.05	.125	.25
28 x 72	45	89	13	7476	11821	16718
28 x 80	46	98	13	7862	12431	17580
28 x 84	46	102	13	8490	13425	18985
28 x 96	47	115	13	9202	14549	20576
28 x 108	48	128	13	10160	16065	22719
28 x 120	48	140	13	11423	18062	25543
30						
30 x 30	43	43	13	3893	6156	8706
30 x 36	44	50	13	4537	7174	10145
30 x 40	45	55	13	4884	7722	10920
30 x 42	45	57	13	5125	8103	11460
30 x 48	46	64	13	5745	9083	12846
30 x 54	47	71	13	6166	9749	13787
30 x 60	48	78	13	6708	10607	15000
30 x 66	48	84	13	7196	11377	16090
30 x 72	49	91	13	7696	12169	17209
30 x 80	49	99	13	8258	13056	18464
30 x 84	50	104	13	8725	13796	19510
30 x 96	50	116	13	9859	15588	22045
30 x 108	51	129	13	10886	17212	24342
30 x 120	52	142	13	12239	19352	27368
36						
36 x 36	52	52	15	5558	8788	12427
36 x 40	53	57	15	5979	9454	13370
36 x 42	53	59	15	6276	9923	14034
36 x 48	54	66	15	7175	11345	16044
36 x 54	55	73	15	7549	11936	16880
36 x 60	56	80	15	8050	12728	18000
36 x 66	56	86	15	8809	13929	19698
36 x 72	57	93	15	9613	15199	21494
36 x 80	58	102	15	10107	15981	22600
36 x 84	58	106	15	10469	16553	23410
36 x 96	59	119	15	11367	17972	25417
36 x 108	60	132	15	13063	20655	29210
36 x 120	60	144	15	14378	22733	32150
40						
40 x 42	57	59	15	6974	11027	15595
40 x 48	59	67	15	7813	12353	17470
40 x 54	59	73	15	8385	13258	18750
40 x 60	60	80	15	8944	14142	20000
40 x 66	61	87	15	9593	15167	21450
40 x 72	62	94	15	10465	16546	23400
40 x 80	63	103	15	11230	17755	25110
40 x 84	64	108	15	11411	18042	25515
40 x 96	64	120	15	12880	20365	28800
40 x 108	65	133	15	14515	22950	32456
40 x 120	66	146	15	16319	25802	36490
42						
42 x 42	59	59	15	7178	11349	16050
42 x 48	61	67	15	8202	12968	18340
42 x 54	62	74	15	8806	13923	19690
42 x 60	64	82	15	9585	15155	21433
42 x 66	65	89	15	10071	15924	22520
42 x 72	65	95	15	10988	17374	24570
42 x 80	66	104	15	11793	18646	26370
42 x 84	66	108	15	12470	19717	27883
42 x 96	67	121	15	13803	21824	30864
42 x 108	68	134	15	14932	23610	33390
42 x 120	69	147	15	16435	25986	36750
48						
48 x 48	68	68	17	9192	14533	20553
48 x 54	70	76	17	10062	15910	22500
48 x 60	71	83	17	10733	16971	24000
48 x 66	72	90	17	11511	18201	25740
48 x 72	73	97	17	12558	19856	28080
48 x 80	74	106	17	13475	21305	30130
48 x 84	75	111	17	13962	22076	31220
48 x 96	75	123	17	15456	24438	34560
48 x 108	77	137	17	17418	27540	38947
48 x 120	78	150	17	19170	30311	42866
54						
54 x 54	77	77	19	11319	17897	25310
54 x 60	79	85	19	12075	19092	27000
54 x 66	79	91	19	12951	20478	28960
54 x 72	80	98	19	13853	21904	30977
54 x 80	81	107	19	14866	23505	33242
54 x 84	82	112	19	15706	24834	35120
54 x 96	83	125	19	17388	27492	38880
54 x 108	85	139	19	19154	30285	42830
54 x 120	86	152	19	21131	33411	47250
60						
60 x 60	86	86	21	13156	20801	29417
60 x 66	87	93	21	14387	22748	32170
60 x 72	88	100	21	15392	24337	34418
60 x 80	89	109	21	16847	26637	37670
60 x 84	90	114	21	17450	27591	39020
60 x 96	91	127	21	19320	30547	43200
60 x 108	93	141	21	20918	33074	46774
60 x 120	94	154	21	23023	36402	51480
66						
66 x 66	94	94	21	15831	25032	35400
66 x 72	94	102	21	17267	27301	38610
66 x 80	94	113	21	18168	28727	40625
66 x 84	97	115	21	19199	30356	42930
66 x 96	97	131	21	21252	33602	47520
66 x 108	97	147	21	23465	37102	52470
66 x 120	96	165	21	26359	41677	58941
72						
72 x 72	96	110	21	19731	31198	44120
72 x 80	96	120	21	20631	32620	46132
72 x 84	96	126	21	20943	33114	46830
72 x 96	96	143	21	22733	35945	50833
72 x 108	96	163	21	25599	40475	57240
72 x 120	96	180	21	28174	44548	63000

When an engineering application specifies a CFM capacity for a listed size ventilator that is different from that shown for that ventilator in the tables, the new static pressure (P_2) for the specified CFM is readily determined by applying the equation $P_2 = P_1 \left(\frac{CFM_2}{CFM_1} \right)^2$. The CFM_1 and P_1 are shown in the preceding tables. CFM_2 is the specified air flow and P_2 is the corresponding static pressure to be determined.

Example: Determine the static pressure of a relief unit with a 30" X 30" throat, flowing 5,000 CFM. The above data table yields the following:

$$P_1 = .125, CFM_1 = 6156. \text{ Thus, } P_2 = .125 \left(\frac{5000}{6156} \right)^2 = .125 (.8122)^2 = .08" \text{ w.g.}$$