TCF

TWIN CITY FAN

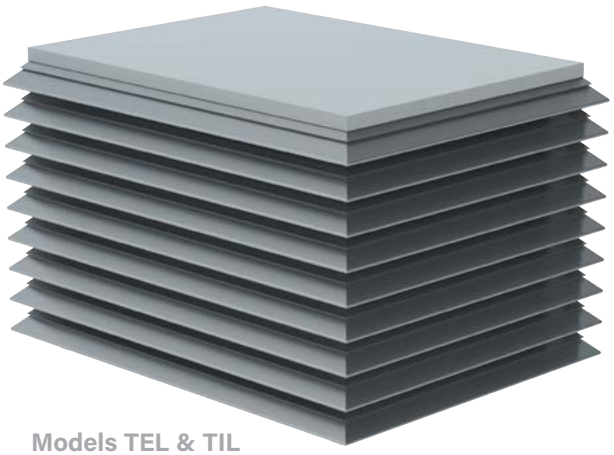
INDUSTRIAL PROCESS AND
COMMERCIAL VENTILATION SYSTEMS

GRAVITY VENTILATORS

MGI & MGR | GRV | TEL & TIL

Models MGI & MGR

Model GRV



Models TEL & TIL

For complete product performance, drawings and available accessories, download our Fan Selector software at *tcf.com*.

Overview

Gravity Ventilators

Twin City Fan's complete line of gravity ventilators provide natural ventilation of commercial and industrial buildings in roof mounted installations. Gravity, or natural, ventilation is a means of ventilating a building by strategically placing openings in the building exterior in order to take advantage of naturally occurring phenomena. With a wide variety of designs and styles, Twin City Fan can supply the right gravity ventilator whether it is selected based on performance, size, aesthetic appeal, weather resistance, construction, climate or cost. Gravity ventilators provide relief (exhaust) and intake (supply) airflow in commercial and light industrial applications. Units are non-motorized and designed for roof mounted installations.

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Performance & Dimensional Data ..... Pages 7-12

Spun Aluminum – Model GRV
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Louvered Penthouse - Models TEL & TIL
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Energy Regulations

Twin City Fan & Blower supports energy efficiency regulations enacted by the U.S. Department of Energy (DOE) and specific states. The selection and application of fan products is a significant part of these regulations. Engineers and specifiers must understand how to apply TCF products to their specific applications to meet applicable DOE and state regulatory requirements. Twin City Fan & Blower has made significant investments in product testing and development to provide efficient products. Developments in Twin City Fan & Blower's Fan Selector software are in place to aid your decision in product selection to assist with meeting the efficiency requirements as stipulated in the applicable regulations.

Modular Hooded

Models MGI & MGR

Twin City Fan's all new line of hooded modular gravity ventilators provide natural ventilation of commercial and industrial buildings in roof mounted installations. The interlocking hood panel design of the MGI (Intake) and MGR (Relief) results in a unit that is both structurally robust and aesthetically pleasing. All this combined with the size flexibility and the jobsite assembly benefits make the MGI and MGR one of the most complete gravity ventilator product lines in the industry.

Sizes

Both the MGI and MGR are available in standard throat sizes, which range from 8" wide by 8" long up to 72" wide by 180" long. In addition to the breadth of standard sizes available, custom throat sizes not seen in the catalog tables (on pages 7 through 12) can be designed to meet specific performance points or job-specific dimensional requirements. Custom throat sizes must be within the size range listed above and in 1" whole number increments.

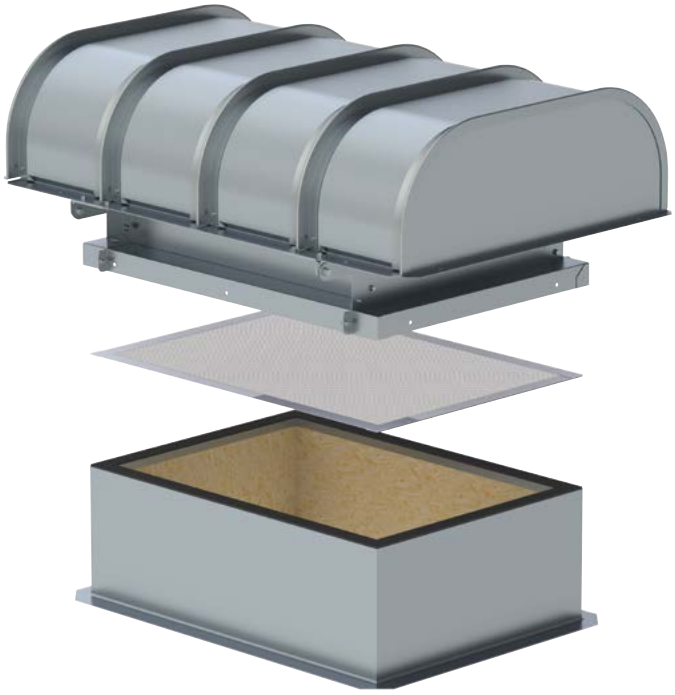
Performance

Model MGI, Intake

- Capacities up to 91,200 CFM
- Static pressure capability to 0.3" w.g.

Model MGR, Relief

- Capacities to 96,000 CFM
- Static pressure capability to 0.2" w.g.



MGR typical installation with insect screen and self-flashing roof curb

Cutaway view showing the MGI's optional filtered intake construction with 2" aluminum washable filters

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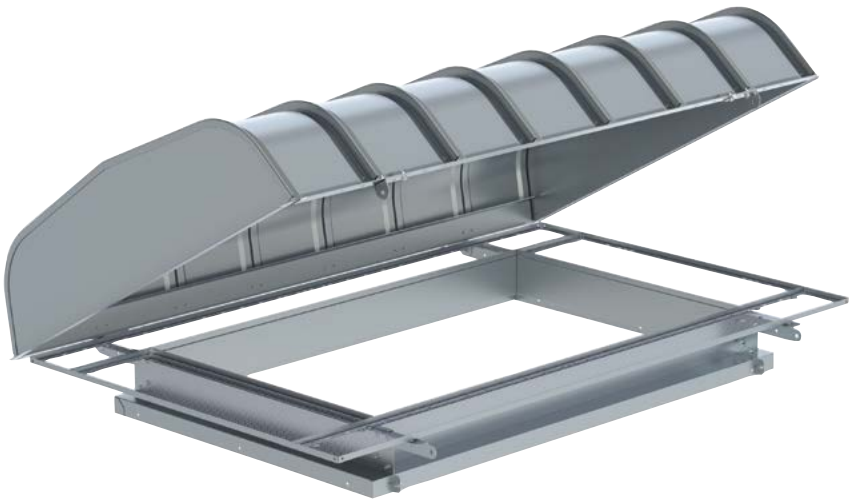
Assembly

An additional benefit of the modular hood design is that large sizes ship in kit form and can be assembled on the job site. The performance tables on pages 7 through 12 specify which units ship assembled and which ship as a kit. This reduces freight costs and minimizes the likelihood of freight damage and the headaches associated with making freight claims. Costs are also reduced on the jobsite when panels and other parts can be carried to the roof for assembly rather than renting cranes and other types of equipment to lift the parts to the rooftop. Care has been taken throughout the design process to simplify field assembly including detailed assembly instructions. No special tools, equipment or training are necessary to construct the units on the jobsite.

Easy Access

Hoods pivot to allow access for cleaning or maintenance by simply removing the mounting bolts along one side of the hood. They can also be completely detached from the unit by removing the mounting bolts along both sides of the hood. **Caution should be exercised when working with large hoods or in areas of strong wind to avoid injury.**



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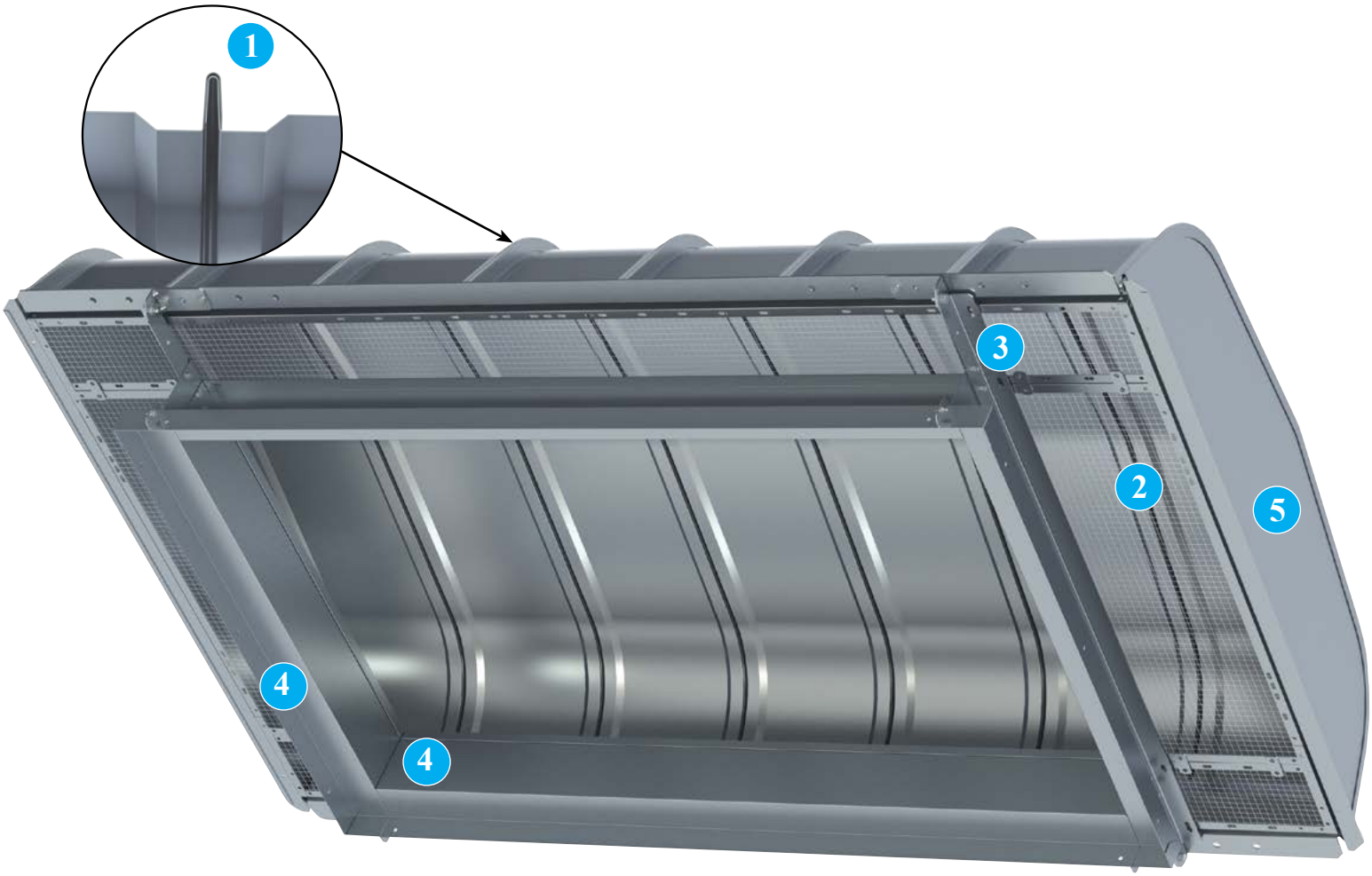


1 **Hood Panels** Interlocking hood panels provide strength, aesthetic appeal and protection from the elements. Panels are constructed of galvanized steel as standard and are also available constructed of aluminum.

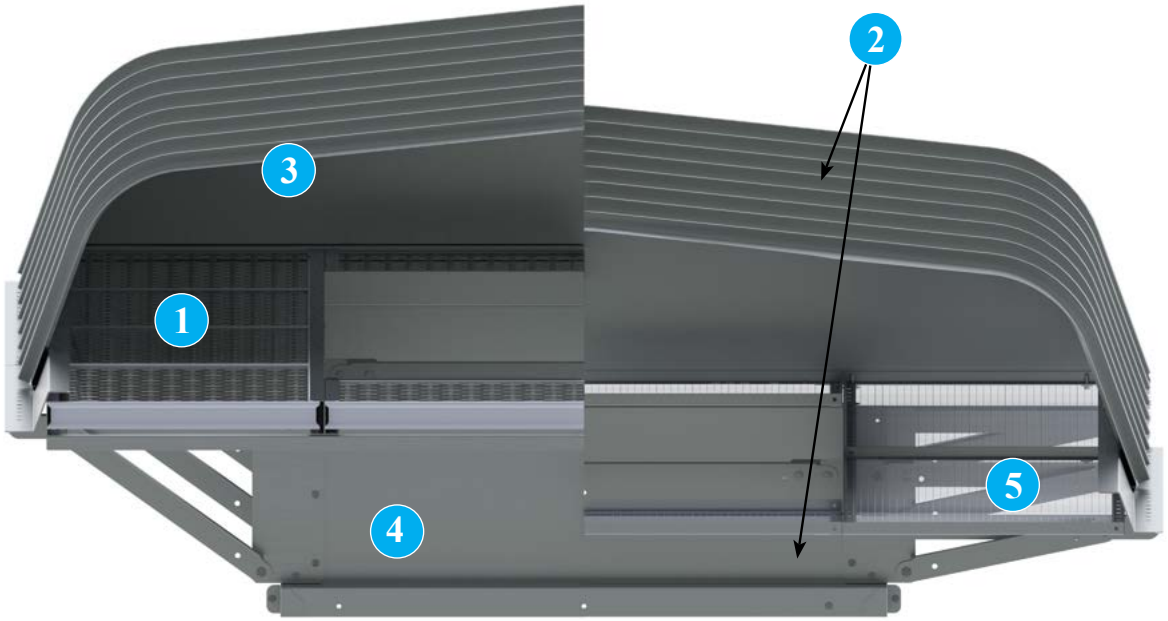
2 **Bird Screen** Standard bird screen material is ½" x ½" galvanized steel affixed to a heavy-gauge galvanized steel frame. Bird screens are removable to provide access to interior of unit for service and/or cleaning.

3 **Hood Supports** Heavy-gauge frame members support the hood

4 **Base/Curb Cap**
Curb caps/bases are constructed of galvanized steel as standard. Standard base height is 5" for a throat length dimension of 120" or less. Any sizes with a throat length greater than 120" have a 12" base height as standard.

5 **End Panels**
End panels are fastened to hood panels to ensure of weather tightness and dampen any potential vibration.

Modular Hooded
Model MGR | MGI



1. **Filtered Intake** Model MGI can be supplied with 2" aluminum washable mesh filters for instances in which entrainment of airborne dirt, dust and other particles is of concern. Filters can be easily removed with the hood in place to allow for easy cleaning.

2. **Aluminum Construction** Hood and exterior of base section are constructed of aluminum in lieu of standard galvanized steel.

3. **Insulated Hood** Inside of hood is lined with insulation to reduce sound and condensation from the hood.

4. **Extended Bases** Standard base height of 5" can be substituted with 12" high bases. This is recommended for intake installations in which precipitation may accumulate on the roofdeck. It is also recommended on larger units to provide a more efficient inlet or outlet condition. Note that the 12" base is a standard feature on units with a throat size larger than 60 x 120.

5. **Aluminum Bird Screen** Aluminum bird screen is available in lieu of standard galvanized bird screen.

OTHER OPTIONS/ACCESSORIES INCLUDE

Tie Down Points
A quantity of four tie-down points are included to help secure the unit to the roof in areas with strong winds. Cables used for tie down are supplied by others.

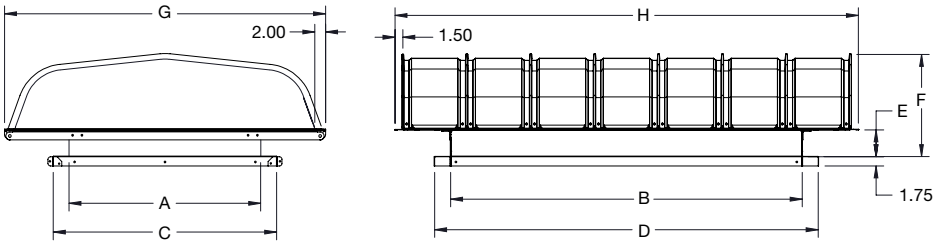
Insect Screen
An aluminum insect screen, placed between the ventilator base and the roof curb, prevents insects from entering the building.

Dampers
For intake or relief service. Used to prevent backdrafts, either in or out of the building. Dampers are available as either gravity operated or motorized.

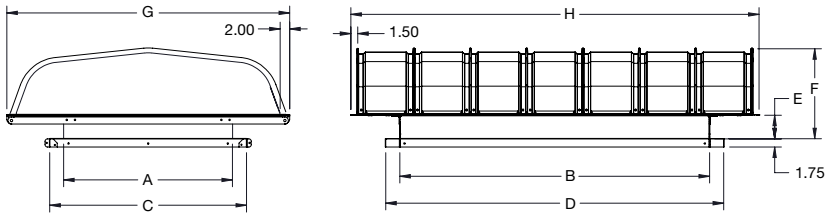
Roof Curbs
Prefabricated roof curbs are available in heavy-duty galvanized steel or aluminum in heights of 8", 12" or 18". All types are provided with 1 1/2" of insulation and feature continuously-welded seams for added rigidity and moisture protection. Curbs longer than 120" will require assembly and/or welding in the field by others.

Special Coatings
Coatings are available for protective and decorative purposes. Contact your Twin City Fan & Blower representative for more information on available coatings and colors.

Modular Hooded
Model MGI



Throat Size (AxB)	Curb Cap Size (CxD)	Base Height (E)	Hood Height (F)	Hood Size (GxH)	Throat Area (ft^2)	Hood Area (ft^2)	Weight (lbs)	Ducted Static Pressure Drop (in. w.g.)										
								0.004	0.009	0.016	0.025	0.037	0.05	0.065	0.082	0.101	0.122	0.146
								Unducted Static Pressure Drop (in. w.g.)										
								0.008	0.019	0.034	0.053	0.076	0.103	0.134	0.17	0.21	0.254	0.303
								Hood Velocity (ft/min)										
								100	150	200	250	300	350	400	450	500	550	600
								CFM										
8x8	14x14	5	17.24	32x27	0.44	4.22	46	422	633	844	1055	1266	1478	1689	1900	2111	2322	2533
8x12	14x18	5	17.24	32x27	0.67	4.00	47	400	600	800	1000	1200	1400	1600	1800	2000	2200	2400
8x18	14x24	5	17.24	32x39	1.00	6.00	59	600	900	1200	1500	1800	2100	2400	2700	3000	3300	3600
8x24	14x30	5	17.24	32x39	1.33	5.67	61	566	850	1133	1416	1700	1983	2266	2550	2833	3116	3400
8x30	14x36	5	17.24	32x51	1.67	7.67	73	766	1149	1533	1916	2299	2683	3066	3449	3833	4216	4599
12x12	18x18	5	17.24	32x27	1.00	3.67	51	366	550	733	916	1100	1283	1466	1650	1833	2016	2200
12x18	18x24	5	17.24	32x39	1.50	5.50	60	550	825	1100	1375	1650	1925	2200	2475	2750	3025	3300
12x24	18x30	5	17.24	32x39	2.00	5.00	62	500	750	1000	1250	1500	1750	2000	2250	2500	2750	3000
12x30	18x36	5	17.24	32x51	2.50	6.83	75	683	1025	1366	1708	2049	2391	2733	3074	3416	3758	4099
12x36	18x42	5	17.24	32x51	3.00	6.33	77	633	950	1266	1583	1899	2216	2533	2849	3166	3483	3799
12x42	18x48	5	17.24	32x63	3.50	8.17	93	816	1225	1633	2041	2450	2858	3266	3675	4083	4491	4900
12x48	18x54	5	17.24	32x63	4.00	7.67	95	766	1150	1533	1916	2300	2683	3066	3450	3833	4216	4600
14x14	20x20	5	17.24	32x27	1.36	3.31	53	330	495	661	826	991	1157	1322	1487	1653	1818	1983
14x18	20x24	5	17.24	32x39	1.75	5.25	61	525	787	1050	1312	1575	1837	2100	2362	2625	2887	3150
14x24	20x30	5	17.24	32x39	2.33	4.67	63	466	700	933	1166	1400	1633	1866	2100	2333	2566	2800
14x30	20x36	5	17.24	32x51	2.92	6.42	75	641	962	1283	1604	1924	2245	2566	2887	3208	3528	3849
14x36	20x42	5	17.24	36x51	3.50	7.17	82	716	1075	1433	1791	2150	2508	2866	3225	3583	3941	4300
14x42	20x48	5	17.24	33x63	4.08	8.00	95	800	1200	1600	2000	2400	2800	3200	3600	4000	4400	4800
14x48	20x54	5	17.24	38x63	4.67	9.50	104	950	1425	1900	2375	2850	3325	3800	4275	4750	5225	5700
14x54	20x60	5	17.24	36x75	5.25	10.75	115	1075	1612	2150	2687	3225	3762	4300	4837	5375	5912	6450
16x16	22x22	5	17.24	32x39	1.78	5.22	61	522	783	1044	1305	1566	1827	2088	2349	2611	2872	3133
16x20	22x26	5	17.24	32x39	2.22	4.78	62	477	716	955	1194	1433	1672	1911	2150	2389	2627	2866
16x24	22x30	5	17.24	36x39	2.67	5.33	68	533	800	1066	1333	1599	1866	2133	2399	2666	2933	3199
16x30	22x36	5	17.24	34x51	3.33	6.67	78	666	1000	1333	1666	2000	2333	2666	3000	3333	3666	4000
16x36	22x42	5	17.24	40x51	4.00	8.00	88	800	1200	1600	2000	2400	2800	3200	3600	4000	4400	4800
16x42	22x48	5	17.24	38x63	4.67	9.50	102	950	1425	1900	2375	2850	3325	3800	4275	4750	5225	5700
16x48	22x54	5	17.24	36x75	5.33	10.67	113	1066	1600	2133	2666	3200	3733	4266	4800	5333	5866	6400
16x54	22x60	5	17.24	40x75	6.00	12.00	122	1200	1800	2400	3000	3600	4200	4800	5400	6000	6600	7200
16x60	22x66	5	17.27	38x87	6.67	13.17	141	1316	1974	2633	3291	3949	4608	5266	5924	6583	7241	7899
16x66	22x72	5	17.27	42x87	7.33	14.83	150	1483	2225	2966	3708	4450	5191	5933	6675	7417	8158	8900
18x18	24x24	5	17.24	32x39	2.25	4.75	62	475	712	950	1187	1425	1662	1900	2137	2375	2612	2850
18x24	24x30	5	17.24	40x39	3.00	6.00	73	600	900	1200	1500	1800	2100	2400	2700	3000	3300	3600
18x30	24x36	5	17.24	38x51	3.75	7.58	84	758	1137	1516	1895	2274	2654	3033	3412	3791	4170	4549
18x36	24x42	5	17.24	36x63	4.50	8.83	98	883	1325	1766	2208	2649	3091	3533	3974	4416	4858	5299
18x42	24x48	5	17.24	42x63	5.25	10.58	109	1058	1587	2116	2645	3174	3704	4233	4762	5291	5820	6349
18x48	24x54	5	17.24	40x75	6.00	12.00	120	1200	1800	2400	3000	3600	4200	4800	5400	6000	6600	7200
18x54	24x60	5	17.24	44x75	6.75	13.25	128	1325	1987	2650	3312	3975	4637	5300	5962	6625	7287	7950
18x60	24x66	5	17.27	42x87	7.50	14.67	149	1466	2200	2933	3666	4400	5133	5866	6600	7333	8066	8800
18x66	24x72	5	17.27	46x87	8.25	16.25	157	1625	2437	3250	4062	4875	5687	6500	7312	8125	8937	9750
18x72	24x78	5	17.25	45x99	9.00	18.33	179	1833	2750	3666	4583	5499	6416	7333	8249	9166	10083	10999
20x20	26x26	5	17.24	38x39	2.78	5.72	70	572	858	1144	1430	1716	2002	2288	2574	2861	3147	3433
20x24	26x30	5	17.24	44x39	3.33	6.67	78	666	1000	1333	1666	2000	2333	2666	3000	3333	3666	4000
20x30	26x36	5	17.24	42x51	4.17	8.50	90	850	1275	1700	2125	2550	2975	3400	3825	4250	4675	5100
20x36	26x42	5	19.35	40x63	5.00	10.00	105	1000	1500	2000	2500	3000	3500	4000	4500	5000	5500	6000
20x42	26x48	5	17.24	46x63	5.83	11.67	115	1166	1750	2333	2916	3500	4083	4666	5250	5833	6416	7000
20x48	26x54	5	17.24	44x75	6.67	13.33	127	1333	2000	2666	3333	3999	4666	5333	5999	6666	7333	7999
20x54	26x60	5	17.23	49x75	7.50	15.00	143	1500	2250	3000	3750	4500	5250	6000	6750	7500	8250	9000
20x60	26x66	5	17.25	47x87	8.33	16.75	164	1675	2512	3350	4187	5025	5862	6700	7537	8375	9212	10050
20x66	26x72	5	17.25	45x99	9.17	18.17	178	1816	2724	3633	4541	5449	6358	7266	8174	9083	9991	10899
20x72	26x78	5	17.25	49x99	10.00	20.00	187	2000	3000	4000	5000	6000	7000	8000	9000	10000	11000	12000
20x78	26x84	5	17.25	47x111	10.83	21.42	215	2141	3212	4283	5354	6425	7496	8566	9637	10708	11779	12850
20x84	26x90	5	17.25	50x111	11.67	22.83	226	2283	3425	4566	5708	6849	7991	9133	10274	11416	12558	13699



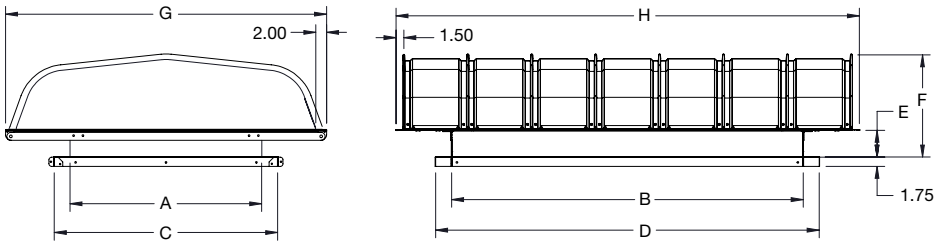
Modular Hooded
Model MGI

Shaded sizes ship knocked down. Assembly Required.

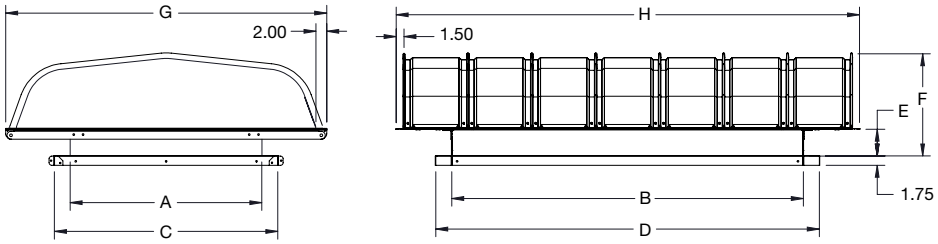
Throat Size (AxB)	Curb Cap Size (CxD)	Base Height (E)	Hood Height (F)	Hood Size (GxH)	Throat Area (ft^2)	Hood Area (ft^2)	Weight (lbs)	Ducted Static Pressure Drop (in. w.g.)										
								0.004	0.009	0.016	0.025	0.037	0.05	0.065	0.082	0.101	0.122	0.146
								Unducted Static Pressure Drop (in. w.g.)										
								0.008	0.019	0.034	0.053	0.076	0.103	0.134	0.17	0.21	0.254	0.303
								Hood Velocity (ft/min)										
								100	150	200	250	300	350	400	450	500	550	600
								CFM										
24x24	30x30	5	19.33	52x39	4.00	8.00	90	800	1200	1600	2000	2400	2800	3200	3600	4000	4400	4800
24x30	30x36	5	17.23	49x51	5.00	10.00	102	1000	1500	2000	2500	3000	3500	4000	4500	5000	5500	6000
24x36	30x42	5	17.24	48x63	6.00	12.33	117	1233	1850	2466	3083	3699	4316	4933	5549	6166	6783	7399
24x42	30x48	5	19.33	54x63	7.00	13.83	136	1383	2075	2766	3458	4149	4841	5533	6224	6916	7608	8299
24x48	30x54	5	19.35	52x75	8.00	16.00	154	1600	2400	3200	4000	4800	5600	6400	7200	8000	8800	9600
24x54	30x60	5	17.25	50x87	9.00	17.83	169	1783	2675	3566	4458	5349	6241	7133	8024	8916	9808	10699
24x60	30x66	5	19.35	56x87	10.00	20.33	190	2033	3050	4066	5083	6099	7116	8133	9149	10166	11183	12199
24x66	30x72	5	19.35	54x99	11.00	22.33	204	2233	3350	4466	5583	6699	7816	8933	10049	11166	12283	13399
24x72	30x78	5	19.35	58x99	12.00	24.00	214	2400	3600	4800	6000	7200	8400	9600	10800	12000	13200	14400
24x78	30x84	5	19.35	56x111	13.00	26.00	246	2600	3900	5200	6500	7800	9100	10400	11700	13000	14300	15600
24x84	30x90	5	19.35	60x111	14.00	28.00	257	2800	4200	5600	7000	8400	9800	11200	12600	14000	15400	16800
24x90	30x96	5	19.37	58x123	15.00	30.00	269	3000	4500	6000	7500	9000	10500	12000	13500	15000	16500	18000
30x30	36x36	5	19.33	60x51	6.25	12.42	125	1241	1862	2483	3104	3725	4346	4966	5587	6208	6829	7450
30x36	36x42	5	19.33	58x63	7.50	15.00	143	1500	2250	3000	3750	4500	5250	6000	6750	7500	8250	9000
30x42	36x48	5	19.35	56x75	8.75	17.25	164	1725	2587	3450	4312	5175	6037	6900	7762	8625	9487	10350
30x48	36x54	5	24.35	64x75	10.00	20.00	201	2000	3000	4000	5000	6000	7000	8000	9000	10000	11000	12000
30x54	36x60	5	19.35	62x87	11.25	22.58	201	2258	3387	4516	5645	6774	7904	9033	10162	11291	12420	13549
30x60	36x66	5	19.35	60x99	12.50	24.83	216	2483	3725	4966	6208	7449	8691	9933	11174	12416	13658	14899
30x66	36x72	5	24.35	66x99	13.75	27.58	249	2758	4137	5516	6895	8274	9654	11033	12412	13791	15170	16549
30x72	36x78	5	19.35	64x111	15.00	30.00	265	3000	4500	6000	7500	9000	10500	12000	13500	15000	16500	18000
30x78	36x84	5	24.35	70x111	16.25	33.25	302	3325	4987	6650	8312	9975	11637	13300	14962	16625	18287	19950
30x84	36x90	5	24.37	67x123	17.50	35.00	313	3500	5250	7000	8750	10500	12250	14000	15750	17500	19250	21000
30x90	36x96	5	24.37	72x123	18.75	37.92	328	3791	5687	7583	9479	11375	13271	15166	17062	18958	20854	22750
36x36	42x42	5	24.33	70x63	9.00	18.50	184	1850	2775	3700	4625	5550	6475	7400	8325	9250	10175	11100
36x42	42x48	5	24.35	68x75	10.50	21.50	208	2150	3225	4300	5375	6450	7525	8600	9675	10750	11825	12900
36x48	42x54	5	24.35	66x87	12.00	24.17	225	2416	3625	4833	6041	7250	8458	9666	10875	12083	13291	14500
36x54	42x60	5	24.35	73x87	13.50	26.75	242	2675	4012	5350	6687	8025	9362	10700	12037	13375	14712	16050
36x60	42x66	5	24.35	72x99	15.00	30.33	261	3033	4550	6066	7583	9099	10616	12133	13649	15166	16683	18199
36x66	42x72	5	24.35	78x99	16.50	32.83	277	3283	4925	6566	8208	9849	11491	13133	14774	16416	18058	19699
36x72	42x78	5	19.35	76x111	18.00	36.00	295	3600	5400	7200	9000	10800	12600	14400	16200	18000	19800	21600
36x78	42x84	5	24.37	74x123	19.50	38.83	331	3883	5825	7766	9708	11649	13591	15533	17474	19416	21358	23299
36x84	42x90	5	24.37	80x123	21.00	42.33	350	4233	6350	8466	10583	12699	14816	16933	19049	21166	23283	25399
36x90	42x96	5	24.37	78x135	22.50	45.33	366	4533	6800	9066	11333	13599	15866	18133	20399	22666	24933	27199
36x96	42x102	5	24.37	82x135	24.00	47.50	380	4750	7125	9500	11875	14250	16625	19000	21375	23750	26125	28500
36x102	42x108	5	24.37	80x147	25.50	50.50	397	5050	7575	10100	12625	15150	17675	20200	22725	25250	27775	30300
42x42	48x48	5	24.35	78x75	12.25	24.75	228	2475	3712	4950	6187	7425	8662	9900	11137	12375	13612	14850
42x48	48x54	5	24.35	76x87	14.00	28.00	247	2800	4200	5600	7000	8400	9800	11200	12600	14000	15400	16800
42x54	48x60	5	24.35	86x87	15.75	32.08	270	3208	4812	6416	8020	9624	11229	12833	14437	16041	17645	19249
42x60	48x66	5	24.35	82x99	17.50	34.50	285	3450	5175	6900	8625	10350	12075	13800	15525	17250	18975	20700
42x66	48x72	5	24.35	82x111	19.25	39.25	308	3925	5887	7850	9812	11775	13737	15700	17662	19625	21587	23550
42x72	48x78	5	24.35	88x111	21.00	42.00	324	4200	6300	8400	10500	12600	14700	16800	18900	21000	23100	25200
42x78	48x84	5	24.37	86x123	22.75	45.58	365	4558	6837	9116	11395	13674	15954	18233	20512	22791	25070	27349
42x84	48x90	5	24.37	84x135	24.50	48.83	383	4883	7325	9766	12208	14649	17091	19533	21974	24416	26858	29299
42x90	48x96	5	28.37	90x135	26.25	52.58	423	5258	7887	10516	13145	15774	18404	21033	23662	26291	28920	31549
42x96	48x102	5	24.37	88x147	28.00	56.00	421	5600	8400	11200	14000	16800	19600	22400	25200	28000	30800	33600
42x102	48x108	5	28.37	94x147	29.75	60.25	463	6025	9037	12050	15062	18075	21087	24100	27112	30125	33137	36150
42x108	48x114	5	19.35	92x159	31.50	63.83	482	6383	9575	12766	15958	19149	22341	25533	28724	31916	35108	38299
48x48	54x54	5	19.35	86x87	16.00	31.83	267	3183	4775	6366	7958	9549	11141	12733	14324	15916	17508	19099
48x54	54x60	5	19.35	86x99	18.00	36.67	293	3666	5500	7333	9166	11000	12833	14666	16500	18333	20166	22000
48x60	54x66	5	28.35	94x99	20.00	40.00	331	4000	6000	8000	10000	12000	14000	16000	18000	20000	22000	24000
48x66	54x72	5	28.35	92x111	22.00	44.00	352	4400	6600	8800	11000	13200	15400	17600	19800	22000	24200	26400
48x72	54x78	5	28.37	90x123	24.00	47.67	374	4766	7150	9533	11916	14300	16683	19066	21450	23833	26216	28600
48x78	54x84	5	28.37	98x123	26.00	52.33	420	5233	7850	10466	13083	15699	18316	20933	23549	26166	28783	31399
48x84	54x90	5	19.35	94x135	28.00	54.50	434	5450	8175	10900	13625	16350	19075	21800	24525	27250	29975	32700
48x90	54x96	5	19.35	100x135	30.00	58.00	454	5800	8700	11600	14500	17400	20300	23200	26100	29000	31900	34800
48x96	54x102	5	28.37	100x147	32.00	64.00	481	6400	9600	12800	16000	19200	22400	25600	28800	32000	35200	38400
48x102	54x108	5	28.37	100x159	34.00	70.00	508	7000	10500	14000	17500	21000	24500	28000	31500	35000	38500	42000
48x108	54x114	5	28.36	104x159	36.00	72.33	528	7233	10850	14466	18083	21699	25316	28933	32549	36166	39783	43399
48x114	54x120	5	28.36	102x171	38.00	76.33	549	7633	11450	15266	19083	22899	26716	30533	34349	38166	41983	45799

Modular Hooded
Model MGI

Shaded sizes ship knocked down. Assembly Required.



Throat Size (AxB)	Curb Cap Size (CxD)	Base Height (E)	Hood Height (F)	Hood Size (GxH)	Throat Area (ft^2)	Hood Area (ft^2)	Weight (lbs)	Ducted Static Pressure Drop (in. w.g.)										
								0.004	0.009	0.016	0.025	0.037	0.05	0.065	0.082	0.101	0.122	0.146
								Unducted Static Pressure Drop (in. w.g.)										
								0.008	0.019	0.034	0.053	0.076	0.103	0.134	0.17	0.21	0.254	0.303
								Hood Velocity (ft/min)										
								100	150	200	250	300	350	400	450	500	550	600
								CFM										
54x54	60x60	5	28.35	96x99	20.25	41.08	334	4108	6162	8216	10270	12324	14379	16433	18487	20541	22595	24649
54x60	60x66	5	28.34	106x99	22.50	45.50	365	4550	6825	9100	11375	13650	15925	18200	20475	22750	25025	27300
54x66	60x72	5	28.34	104x111	24.75	50.25	388	5025	7537	10050	12562	15075	17587	20100	22612	25125	27637	30150
54x72	60x78	5	28.36	102x123	27.00	54.67	412	5466	8200	10933	13666	16400	19133	21866	24600	27333	30066	32800
54x78	60x84	5	28.36	110x123	29.25	59.08	460	5908	8862	11816	14770	17724	20679	23633	26587	29541	32495	35449
54x84	60x90	5	28.36	108x135	31.50	63.83	482	6383	9575	12766	15958	19149	22341	25533	28724	31916	35108	38299
54x90	60x96	5	28.36	106x147	33.75	68.25	504	6825	10237	13650	17062	20475	23887	27300	30712	34125	37537	40950
54x96	60x102	5	28.40	112x147	36.00	72.00	529	7200	10800	14400	18000	21600	25200	28800	32400	36000	39600	43200
54x102	60x108	5	28.36	110x159	38.25	76.58	547	7658	11487	15316	19145	22974	26804	30633	34462	38291	42120	45949
54x108	60x114	5	28.36	108x171	40.50	80.83	569	8083	12125	16166	20208	24249	28291	32333	36374	40416	44458	48499
54x114	60x120	5	28.40	114x171	42.75	85.58	596	8558	12837	17116	21395	25674	29954	34233	38512	42791	47070	51349
60x60	66x66	5	28.34	104x111	25.00	50.00	387	5000	7500	10000	12500	15000	17500	20000	22500	25000	27500	30000
60x66	66x72	5	28.38	114x111	27.50	55.00	417	5500	8250	11000	13750	16500	19250	22000	24750	27500	30250	33000
60x72	66x78	5	28.40	112x123	30.00	60.00	443	6000	9000	12000	15000	18000	21000	24000	27000	30000	33000	36000
60x78	66x84	5	28.36	110x135	32.50	64.67	487	6466	9700	12933	16166	19400	22633	25866	29100	32333	35566	38800
60x84	66x90	5	31.42	120x135	35.00	71.33	543	7133	10700	14266	17833	21399	24966	28533	32099	35666	39233	42799
60x90	66x96	5	31.40	118x147	37.50	76.50	566	7650	11475	15300	19125	22950	26775	30600	34425	38250	42075	45900
60x96	66x102	5	28.40	116x159	40.00	81.33	570	8133	12200	16266	20333	24399	28466	32533	36599	40666	44733	48799
60x102	66x108	5	31.42	122x159	42.50	85.33	651	8533	12800	17066	21333	25599	29866	34133	38399	42666	46933	51199
60x108	66x114	5	31.42	120x171	45.00	90.33	637	9033	13550	18066	22583	27099	31616	36133	40649	45166	49683	54199
60x114	66x120	5	31.42	126x171	47.50	94.83	699	9483	14225	18966	23708	28449	33191	37933	42674	47416	52158	56899
60x120	66x126	5	31.42	124x183	50.00	100.00	722	10000	15000	20000	25000	30000	35000	40000	45000	50000	55000	60000
66x66	72x72	5	28.40	114x123	30.25	61.42	447	6141	9212	12283	15354	18425	21496	24566	27637	30708	33779	36850
66x72	72x78	5	31.42	124x123	33.00	67.00	534	6700	10050	13400	16750	20100	23450	26800	30150	33500	36850	40200
66x78	72x84	5	31.42	122x135	35.75	72.42	585	7241	10862	14483	18104	21725	25346	28966	32587	36208	39829	43450
66x84	72x90	5	31.42	120x147	38.50	77.50	572	7750	11625	15500	19375	23250	27125	31000	34875	38750	42625	46500
66x90	72x96	5	31.42	128x147	41.25	82.75	640	8275	12412	16550	20687	24825	28962	33100	37237	41375	45512	49650
66x96	72x102	5	31.42	126x159	44.00	88.17	665	8816	13225	17633	22041	26450	30858	35266	39675	44083	48491	52900
66x102	72x108	5	35.42	134x159	46.75	94.08	726	9408	14112	18816	23520	28224	32929	37633	42337	47041	51745	56449
66x108	72x114	5	35.42	132x171	49.50	99.83	751	9983	14975	19966	24958	29949	34941	39933	44924	49916	54908	59899
66x114	72x120	5	35.42	130x183	52.25	105.25	777	10525	15787	21050	26312	31575	36837	42100	47362	52625	57887	63150
66x120	72x126	5	35.42	134x183	55.00	107.50	795	10750	16125	21500	26875	32250	37625	43000	48375	53750	59125	64500
66x126	72x132	12	42.42	134x195	57.75	115.58	875	11558	17337	23116	28895	34674	40454	46233	52012	57791	63570	69349
66x132	72x138	12	42.42	132x207	60.50	120.83	902	12083	18125	24166	30208	36249	42291	48333	54374	60416	66458	72499
72x72	78x78	5	35.42	134x123	36.00	72.33	592	7233	10850	14466	18083	21699	25316	28933	32549	36166	39783	43399
72x78	78x84	5	35.42	132x135	39.00	78.33	648	7833	11750	15666	19583	23499	27416	31333	35249	39166	43083	46999
72x84	78x90	5	35.42	130x147	42.00	84.00	674	8400	12600	16800	21000	25200	29400	33600	37800	42000	46200	50400
72x90	78x96	5	35.42	130x159	45.00	91.50	707	9150	13725	18300	22875	27450	32025	36600	41175	45750	50325	54900
72x96	78x102	5	31.42	128x171	48.00	96.67	703	9666	14500	19333	24166	29000	33833	38666	43500	48333	53166	58000
72x102	78x108	5	35.42	136x171	51.00	103.00	766	10300	15450	20600	25750	30900	36050	41200	46350	51500	56650	61800
72x108	78x114	5	35.42	136x183	54.00	111.00	800	11100	16650	22200	27750	33300	38850	44400	49950	55500	61050	66600
72x114	78x120	5	35.42	132x195	57.00	113.67	817	11366	17050	22733	28416	34100	39783	45466	51150	56833	62516	68200
72x120	78x126	5	35.42	132x207	60.00	121.33	851	12133	18200	24266	30333	36399	42466	48533	54599	60666	66733	72799
72x126	78x132	12	42.42	136x207	63.00	124.00	923	12400	18600	24800	31000	37200	43400	49600	55800	62000	68200	74400
72x132	78x138	12	42.42	136x219	66.00	132.00	958	13200	19800	26400	33000	39600	46200	52800	59400	66000	72600	79200
72x138	78x144	12	42.42	136x219	69.00	129.00	961	12900	19350	25800	32250	38700	45150	51600	58050	64500	70950	77400
72x144	78x150	12	42.42	136x231	72.00	137.00	998	13700	20550	27400	34250	41100	47950	54800	61650	68500	75350	82200
72x150	78x156	12	42.42	136x231	75.00	134.00	1035	13400	20100	26800	33500	40200	46900	53600	60300	67000	73700	80400
72x156	78x162	12	42.42	136x243	78.00	142.00	1072	14200	21300	28400	35500	42600	49700	56800	63900	71000	78100	85200
72x162	78x168	12	42.42	136x243	81.00	139.00	1075	13900	20850	27800	34750	41700	48650	55600	62550	69500	76450	83400
72x168	78x174	12	42.42	136x255	84.00	147.00	1110	14700	22050	29400	36750	44100	51450	58800	66150	73500	80850	88200
72x174	78x180	12	42.42	136x255	87.00	144.00	1110	14400	21600	28800	36000	43200	50400	57600	64800	72000	79200	86400
72x180	78x186	12	42.42	136x267	90.00	152.00	1150	15200	22800	30400	38000	45600	53200	60800	68400	76000	83600	91200

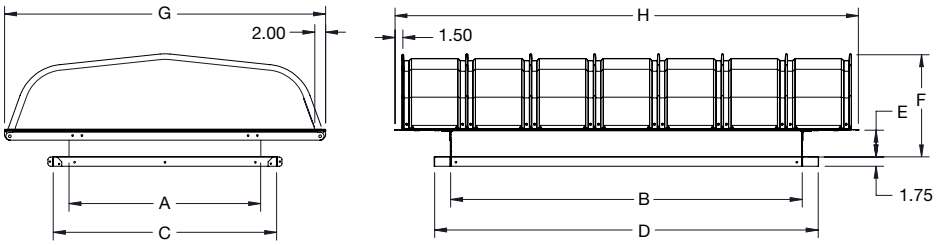


Modular Hooded
Model MGR

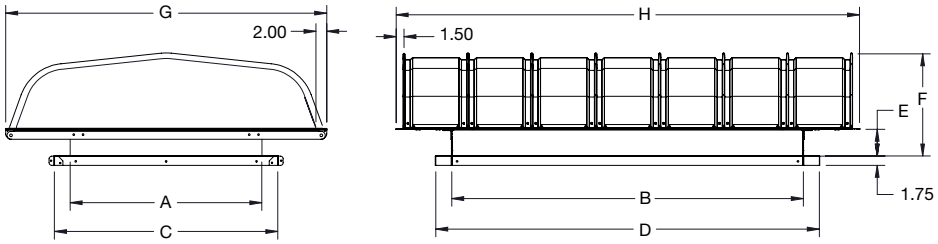
Throat Size (AxB)	Curb Cap Size (CxD)	Base Height (E)	Hood Height (F)	Hood Size (GxH)	Throat Area (ft^2)	Hood Area (ft^2)	Weight (lbs)	Ducted Static Pressure Drop (in. w.g.)										
								0.002	0.006	0.01	0.016	0.022	0.031	0.04	0.05	0.062	0.075	0.09
								Unducted Static Pressure Drop (in. w.g.)										
								0.005	0.011	0.02	0.031	0.045	0.061	0.08	0.101	0.125	0.151	0.179
								Hood Velocity (ft/min)										
								200	300	400	500	600	700	800	900	1000	1100	1200
								CFM										
8x8	14x14	5	17.24	32x27	0.44	4.22	46	844	1266	1689	2111	2533	2956	3378	3800	4223	4645	5067
8x12	14x18	5	17.24	32x27	0.67	4.00	47	800	1200	1600	2000	2400	2800	3200	3600	4000	4400	4800
8x18	14x24	5	17.24	32x39	1.00	6.00	59	1200	1800	2400	3000	3600	4200	4800	5400	6000	6600	7200
8x24	14x30	5	17.24	32x39	1.33	5.67	61	1133	1700	2266	2833	3400	3966	4533	5100	5667	6233	6800
8x30	14x36	5	17.24	32x51	1.67	7.67	73	1533	2299	3066	3833	4599	5366	6132	6899	7666	8432	9199
12x12	18x18	5	17.24	32x27	1.00	3.67	48	733	1100	1466	1833	2200	2566	2933	3300	3667	4033	4400
12x18	18x24	5	17.24	32x39	1.50	5.50	60	1100	1650	2200	2750	3300	3850	4400	4950	5500	6050	6600
12x24	18x30	5	17.24	32x39	2.00	5.00	62	1000	1500	2000	2500	3000	3500	4000	4500	5000	5500	6000
12x30	18x36	5	17.24	32x51	2.50	6.83	75	1366	2049	2733	3416	4099	4783	5466	6149	6833	7516	8199
12x36	18x42	5	17.24	32x51	3.00	6.33	77	1266	1899	2533	3166	3799	4433	5066	5699	6333	6966	7599
12x42	18x48	5	17.24	32x63	3.50	8.17	93	1633	2450	3266	4083	4900	5716	6533	7350	8167	8983	9800
12x48	18x54	5	17.24	32x63	4.00	7.67	95	1533	2300	3066	3833	4600	5366	6133	6900	7667	8433	9200
14x14	20x20	5	17.24	32x27	1.36	3.31	49	661	991	1322	1653	1983	2314	2644	2975	3306	3636	3967
14x18	20x24	5	17.24	32x39	1.75	5.25	61	1050	1575	2100	2625	3150	3675	4200	4725	5250	5775	6300
14x24	20x30	5	17.24	32x39	2.33	4.67	63	933	1400	1866	2333	2800	3266	3733	4200	4667	5133	5600
14x30	20x36	5	17.24	32x51	2.92	6.42	75	1283	1924	2566	3208	3849	4491	5132	5774	6416	7057	7699
14x36	20x42	5	17.24	32x51	3.50	5.83	77	1166	1749	2333	2916	3499	4083	4666	5249	5833	6416	6999
14x42	20x48	5	17.24	32x63	4.08	7.58	93	1516	2275	3033	3792	4550	5308	6067	6825	7584	8342	9100
14x48	20x54	5	17.24	32x63	4.67	7.00	95	1400	2100	2800	3500	4200	4900	5600	6300	7000	7700	8400
14x54	20x60	5	17.24	32x75	5.25	8.75	108	1750	2625	3500	4375	5250	6125	7000	7875	8750	9625	10500
16x16	22x22	5	17.24	32x39	1.78	5.22	61	1044	1566	2088	2611	3133	3655	4177	4699	5222	5744	6266
16x20	22x26	5	17.24	32x39	2.22	4.78	62	955	1433	1911	2389	2866	3344	3822	4300	4778	5255	5733
16x24	22x30	5	17.24	32x39	2.67	4.33	63	866	1299	1733	2166	2599	3033	3466	3899	4333	4766	5199
16x30	22x36	5	17.24	32x51	3.33	6.00	76	1200	1800	2400	3000	3600	4200	4800	5400	6000	6600	7200
16x36	22x42	5	17.24	32x51	4.00	5.33	78	1066	1599	2133	2666	3199	3733	4266	4799	5333	5866	6399
16x42	22x48	5	17.24	32x63	4.67	7.00	94	1400	2100	2800	3500	4200	4900	5600	6300	7000	7700	8400
16x48	22x54	5	17.24	32x63	5.33	6.33	96	1266	1900	2533	3167	3800	4433	5067	5700	6334	6967	7600
16x54	22x60	5	17.24	32x75	6.00	8.00	109	1600	2400	3200	4000	4800	5600	6400	7200	8000	8800	9600
16x60	22x66	5	17.24	32x75	6.67	7.33	111	1466	2199	2933	3666	4399	5133	5866	6599	7333	8066	8799
16x66	22x72	5	17.27	32x87	7.33	9.00	133	1800	2700	3600	4500	5400	6300	7200	8100	9000	9900	10800
18x18	24x24	5	17.24	32x39	2.25	4.75	62	950	1425	1900	2375	2850	3325	3800	4275	4750	5225	5700
18x24	24x30	5	17.24	32x39	3.00	4.00	64	800	1200	1600	2000	2400	2800	3200	3600	4000	4400	4800
18x30	24x36	5	17.24	32x51	3.75	5.58	77	1116	1674	2233	2791	3349	3908	4466	5024	5583	6141	6699
18x36	24x42	5	17.24	32x51	4.50	4.83	78	966	1449	1933	2416	2899	3383	3866	4349	4833	5316	5799
18x42	24x48	5	17.24	32x63	5.25	6.42	95	1283	1925	2566	3208	3850	4491	5133	5775	6417	7058	7700
18x48	24x54	5	17.24	33x63	6.00	6.08	98	1216	1824	2433	3041	3649	4258	4866	5474	6083	6691	7299
18x54	24x60	5	17.24	32x75	6.75	7.25	109	1450	2175	2900	3625	4350	5075	5800	6525	7250	7975	8700
18x60	24x66	5	17.24	34x75	7.50	7.50	115	1500	2250	3000	3750	4500	5250	6000	6750	7500	8250	9000
18x66	24x72	5	17.27	32x87	8.25	8.08	133	1616	2424	3233	4041	4849	5658	6466	7274	8083	8891	9699
18x72	24x78	5	17.27	35x87	9.00	9.08	140	1816	2724	3633	4541	5449	6358	7266	8174	9083	9991	10899
20x20	26x26	5	17.24	34x39	2.78	4.72	66	944	1416	1888	2361	2833	3305	3777	4249	4722	5194	5666
20x24	26x30	5	17.24	34x39	3.33	4.17	67	833	1250	1666	2083	2500	2916	3333	3750	4167	4583	5000
20x30	26x36	5	17.24	34x51	4.17	5.83	80	1166	1749	2333	2916	3499	4083	4666	5249	5833	6416	6999
20x36	26x42	5	17.24	34x51	5.00	5.00	82	1000	1500	2000	2500	3000	3500	4000	4500	5000	5500	6000
20x42	26x48	5	17.24	34x63	5.83	6.67	98	1333	2000	2666	3333	4000	4666	5333	6000	6667	7333	8000
20x48	26x54	5	17.24	36x63	6.67	6.67	103	1333	1999	2666	3333	3999	4666	5332	5999	6666	7332	7999
20x54	26x60	5	17.24	34x75	7.50	7.50	113	1500	2250	3000	3750	4500	5250	6000	6750	7500	8250	9000
20x60	26x66	5	17.24	37x75	8.33	8.17	120	1633	2450	3266	4083	4900	5716	6533	7350	8167	8983	9800
20x66	26x72	5	19.35	35x87	9.17	8.92	139	1783	2674	3566	4458	5349	6241	7132	8024	8916	9807	10699
20x72	26x78	5	17.27	38x87	10.00	9.83	146	1966	2949	3933	4916	5899	6883	7866	8849	9833	10816	11799
20x78	26x84	5	17.27	37x99	10.83	11.17	169	2233	3350	4466	5583	6700	7816	8933	10050	11167	12283	13400
20x84	26x90	5	17.27	39x99	11.67	11.67	175	2333	3499	4666	5833	6999	8166	9332	10499	11666	12832	13999

Modular Hooded
Model MGR

Shaded sizes ship knocked down. Assembly Required.



Throat Size (AxB)	Curb Cap Size (CxD)	Base Height (E)	Hood Height (F)	Hood Size (GxH)	Throat Area (ft^2)	Hood Area (ft^2)	Weight (lbs)	Ducted Static Pressure Drop (in. w.g.)										
								0.002	0.006	0.01	0.016	0.022	0.031	0.04	0.05	0.062	0.075	0.09
								Unducted Static Pressure Drop (in. w.g.)										
								0.005	0.011	0.02	0.031	0.045	0.061	0.08	0.101	0.125	0.151	0.179
								Hood Velocity (ft/min)										
								200	300	400	500	600	700	800	900	1000	1100	1200
								CFM										
24x24	30x30	5	17.24	38x39	4.00	4.50	72	900	1350	1800	2250	2700	3150	3600	4050	4500	4950	5400
24x30	30x36	5	17.24	38x51	5.00	6.33	86	1266	1899	2533	3166	3799	4433	5066	5699	6333	6966	7599
24x36	30x42	5	17.24	40x51	6.00	6.00	90	1200	1800	2400	3000	3600	4200	4800	5400	6000	6600	7200
24x42	30x48	5	17.24	38x63	7.00	7.17	105	1433	2150	2866	3583	4300	5016	5733	6450	7167	7883	8600
24x48	30x54	5	17.24	42x63	8.00	7.83	113	1566	2349	3133	3916	4699	5483	6266	7049	7833	8616	9399
24x54	30x60	5	17.24	40x75	9.00	9.00	124	1800	2700	3600	4500	5400	6300	7200	8100	9000	9900	10800
24x60	30x66	5	17.24	44x75	10.00	10.00	132	2000	3000	4000	5000	6000	7000	8000	9000	10000	11000	12000
24x66	30x72	5	17.27	42x87	11.00	11.17	152	2233	3350	4466	5583	6700	7816	8933	10050	11167	12283	13400
24x72	30x78	5	19.35	45x87	12.00	11.92	162	2383	3575	4766	5958	7150	8341	9533	10725	11917	13108	14300
24x78	30x84	5	17.27	43x99	13.00	13.00	182	2600	3900	5200	6500	7800	9100	10400	11700	13000	14300	15600
24x84	30x90	5	17.27	46x99	14.00	14.00	190	2800	4200	5600	7000	8400	9800	11200	12600	14000	15400	16800
24x90	30x96	5	17.27	44x111	15.00	15.00	211	3000	4500	6000	7500	9000	10500	12000	13500	15000	16500	18000
30x30	36x36	5	17.24	44x51	6.25	7.08	95	1416	2124	2833	3541	4249	4958	5666	6374	7083	7791	8499
30x36	36x42	5	17.23	49x51	7.50	7.50	106	1500	2250	3000	3750	4500	5250	6000	6750	7500	8250	9000
30x42	36x48	5	17.24	46x63	8.75	8.75	121	1750	2625	3500	4375	5250	6125	7000	7875	8750	9625	10500
30x48	36x54	5	19.33	52x63	10.00	10.00	132	2000	3000	4000	5000	6000	7000	8000	9000	10000	11000	12000
30x54	36x60	5	17.23	49x75	11.25	11.25	146	2250	3375	4500	5625	6750	7875	9000	10125	11250	12375	13500
30x60	36x66	5	19.35	54x75	12.50	12.50	166	2500	3750	5000	6250	7500	8750	10000	11250	12500	13750	15000
30x66	36x72	5	17.27	51x87	13.75	13.67	174	2733	4100	5466	6833	8200	9566	10933	12300	13667	15033	16400
30x72	36x78	5	17.25	49x99	15.00	15.00	190	3000	4500	6000	7500	9000	10500	12000	13500	15000	16500	18000
30x78	36x84	5	19.35	52x99	16.25	15.75	212	3150	4725	6300	7875	9450	11025	12600	14175	15750	17325	18900
30x84	36x90	5	17.27	51x111	17.50	17.75	227	3550	5325	7100	8875	10650	12425	14200	15975	17750	19525	21300
30x90	36x96	5	19.35	54x111	18.75	18.75	240	3750	5625	7500	9375	11250	13125	15000	16875	18750	20625	22500
36x36	42x42	5	19.33	58x51	9.00	9.00	124	1800	2700	3600	4500	5400	6300	7200	8100	9000	9900	10800
36x42	42x48	5	19.35	54x63	10.50	10.33	139	2066	3099	4133	5166	6199	7233	8266	9299	10333	11366	12399
36x48	42x54	5	19.33	62x63	12.00	12.17	156	2433	3650	4866	6083	7300	8516	9733	10950	12167	13383	14600
36x54	42x60	5	19.35	58x75	13.50	13.50	173	2700	4050	5400	6750	8100	9450	10800	12150	13500	14850	16200
36x60	42x66	5	19.35	55x87	15.00	14.75	186	2950	4425	5900	7375	8850	10325	11800	13275	14750	16225	17700
36x66	42x72	5	19.35	60x87	16.50	16.17	197	3233	4850	6466	8083	9700	11316	12933	14550	16167	17783	19400
36x72	42x78	5	19.35	58x99	18.00	18.00	212	3600	5400	7200	9000	10800	12600	14400	16200	18000	19800	21600
36x78	42x84	5	19.35	63x99	19.50	19.83	240	3966	5949	7933	9916	11899	13883	15866	17849	19833	21816	23799
36x84	42x90	5	19.35	60x111	21.00	21.00	253	4200	6300	8400	10500	12600	14700	16800	18900	21000	23100	25200
36x90	42x96	5	24.35	64x111	22.50	22.50	280	4500	6750	9000	11250	13500	15750	18000	20250	22500	24750	27000
36x96	42x102	5	19.37	62x123	24.00	24.33	277	4866	7299	9733	12166	14599	17033	19466	21899	24333	26766	29199
36x102	42x108	5	24.37	65x123	25.50	25.33	313	5066	7599	10133	12666	15199	17733	20266	22799	25333	27866	30399
42x42	48x48	5	19.33	63x63	12.25	12.33	153	2466	3699	4933	6166	7399	8633	9866	11099	12333	13566	14799
42x48	48x54	5	19.35	60x75	14.00	14.00	176	2800	4200	5600	7000	8400	9800	11200	12600	14000	15400	16800
42x54	48x60	5	24.35	67x75	15.75	15.75	206	3150	4725	6300	7875	9450	11025	12600	14175	15750	17325	18900
42x60	48x66	5	24.35	64x87	17.50	17.50	221	3500	5250	7000	8750	10500	12250	14000	15750	17500	19250	21000
42x66	48x72	5	24.35	70x87	19.25	19.25	234	3850	5775	7700	9625	11550	13475	15400	17325	19250	21175	23100
42x72	48x78	5	24.35	67x99	21.00	21.00	250	4200	6300	8400	10500	12600	14700	16800	18900	21000	23100	25200
42x78	48x84	5	24.35	72x99	22.75	22.58	288	4516	6774	9033	11291	13549	15808	18066	20324	22583	24841	27099
42x84	48x90	5	24.35	69x111	24.50	24.25	303	4850	7275	9700	12125	14550	16975	19400	21825	24250	26675	29100
42x90	48x96	5	24.37	67x123	26.25	26.25	316	5250	7875	10500	13125	15750	18375	21000	23625	26250	28875	31500
42x96	48x102	5	24.37	71x123	28.00	27.83	329	5566	8349	11133	13916	16699	19483	22266	25049	27833	30616	33399
42x102	48x108	5	24.37	69x135	29.75	29.83	344	5966	8949	11933	14916	17899	20883	23866	26849	29833	32816	35799
42x108	48x114	5	24.37	73x135	31.50	31.75	358	6350	9525	12700	15875	19050	22225	25400	28575	31750	34925	38100
48x48	54x54	5	24.35	68x75	16.00	16.00	208	3200	4800	6400	8000	9600	11200	12800	14400	16000	17600	19200
48x54	54x60	5	24.35	76x75	18.00	18.00	229	3600	5400	7200	9000	10800	12600	14400	16200	18000	19800	21600
48x60	54x66	5	24.35	73x87	20.00	20.25	245	4050	6075	8100	10125	12150	14175	16200	18225	20250	22275	24300
48x66	54x72	5	24.35	79x87	22.00	21.75	260	4350	6525	8700	10875	13050	15225	17400	19575	21750	23925	26100
48x72	54x78	5	24.35	76x99	24.00	24.00	276	4800	7200	9600	12000	14400	16800	19200	21600	24000	26400	28800
48x78	54x84	5	24.35	73x111	26.00	25.75	312	5150	7725	10300	12875	15450	18025	20600	23175	25750	28325	30900
48x84	54x90	5	24.35	79x111	28.00	28.25	329	5650	8475	11300	14125	16950	19775	22600	25425	28250	31075	33900
48x90	54x96	5	24.37	76x123	30.00	30.00	342	6000	9000	12000	15000	18000	21000	24000	27000	30000	33000	36000
48x96	54x102	5	19.35	81x123	32.00	32.17	357	6433	9650	12866	16083	19300	22516	25733	28950	32167	35383	38600
48x102	54x108	5	24.37	78x135	34.00	33.83	371	6766	10149	13533	16916	20299	23683	27066	30449	33833	37216	40599
48x108	54x114	5	24.37	82x135	36.00	35.50	385	7100	10650	14200	17750	21300	24850	28400	31950	35500	39050	42600
48x114	54x120	5	24.37	81x147	38.00	39.00	405	7800	11700	15600	19500	23400	27300	31200	35100	39000	42900	46800



Modular Hooded
Model MGR

Shaded sizes ship knocked down. Assembly Required.

Throat Size (AxB)	Curb Cap Size (CxD)	Base Height (E)	Hood Height (F)	Hood Size (GxH)	Throat Area (ft^2)	Hood Area (ft^2)	Weight (lbs)	Ducted Static Pressure Drop (in. w.g.)										
								0.002	0.006	0.01	0.016	0.022	0.031	0.04	0.05	0.062	0.075	0.09
								Unducted Static Pressure Drop (in. w.g.)										
								0.005	0.011	0.02	0.031	0.045	0.061	0.08	0.101	0.125	0.151	0.179
								Hood Velocity (ft/min)										
								200	300	400	500	600	700	800	900	1000	1100	1200
								CFM										
54x54	60x60	5	24.35	85x75	20.25	20.25	247	4050	6075	8100	10125	12150	14175	16200	18225	20250	22275	24300
54x60	60x66	5	24.35	81x87	22.50	22.42	263	4483	6725	8966	11208	13450	15691	17933	20175	22417	24658	26900
54x66	60x72	5	24.35	78x99	24.75	24.58	279	4916	7374	9833	12291	14749	17208	19666	22124	24583	27041	29499
54x72	60x78	5	24.35	85x99	27.00	27.00	297	5400	8100	10800	13500	16200	18900	21600	24300	27000	29700	32400
54x78	60x84	5	24.35	82x111	29.25	29.25	336	5850	8775	11700	14625	17550	20475	23400	26325	29250	32175	35100
54x84	60x90	5	24.35	88x111	31.50	31.50	353	6300	9450	12600	15750	18900	22050	25200	28350	31500	34650	37800
54x90	60x96	5	24.37	85x123	33.75	33.75	367	6750	10125	13500	16875	20250	23625	27000	30375	33750	37125	40500
54x96	60x102	5	28.37	90x123	36.00	35.67	402	7133	10700	14266	17833	21400	24966	28533	32100	35667	39233	42800
54x102	60x108	5	24.37	87x135	38.25	37.83	398	7566	11349	15133	18916	22699	26483	30266	34049	37833	41616	45399
54x108	60x114	5	24.37	85x147	40.50	40.50	417	8100	12150	16200	20250	24300	28350	32400	36450	40500	44550	48600
54x114	60x120	5	28.37	90x147	42.75	43.25	455	8650	12975	17300	21625	25950	30275	34600	38925	43250	47575	51900
60x60	66x66	5	28.35	90x87	25.00	25.17	299	5033	7550	10066	12583	15100	17616	20133	22650	25167	27683	30200
60x66	66x72	5	24.35	87x99	27.50	27.83	300	5566	8349	11133	13916	16699	19483	22266	25049	27833	30616	33399
60x72	66x78	5	28.35	94x99	30.00	30.00	336	6000	9000	12000	15000	18000	21000	24000	27000	30000	33000	36000
60x78	66x84	5	28.35	91x111	32.50	32.75	379	6550	9825	13100	16375	19650	22925	26200	29475	32750	36025	39300
60x84	66x90	5	28.35	97x111	35.00	34.75	396	6950	10425	13900	17375	20850	24325	27800	31275	34750	38225	41700
60x90	66x96	5	28.37	94x123	37.50	37.50	413	7500	11250	15000	18750	22500	26250	30000	33750	37500	41250	45000
60x96	66x102	5	28.37	91x135	40.00	39.75	430	7950	11925	15900	19875	23850	27825	31800	35775	39750	43725	47700
60x102	66x108	5	28.37	97x135	42.50	42.75	449	8550	12825	17100	21375	25650	29925	34200	38475	42750	47025	51300
60x108	66x114	5	28.37	94x147	45.00	45.00	467	9000	13500	18000	22500	27000	31500	36000	40500	45000	49500	54000
60x114	66x120	5	28.37	100x147	47.50	48.50	487	9700	14550	19400	24250	29100	33950	38800	43650	48500	53350	58200
60x120	66x126	5	28.37	96x159	50.00	49.67	497	9933	14900	19866	24833	29800	34766	39733	44700	49667	54633	59600
66x66	72x72	5	28.35	96x99	30.25	31.08	340	6216	9324	12433	15541	18649	21758	24866	27974	31083	34191	37299
66x72	72x78	5	28.34	103x99	33.00	33.00	363	6600	9900	13200	16500	19800	23100	26400	29700	33000	36300	39600
66x78	72x84	5	28.35	100x111	35.75	36.25	404	7250	10875	14500	18125	21750	25375	29000	32625	36250	39875	43500
66x84	72x90	5	28.37	96x123	38.50	38.17	418	7633	11450	15266	19083	22900	26716	30533	34350	38167	41983	45800
66x90	72x96	5	28.36	103x123	41.25	41.25	445	8250	12375	16500	20625	24750	28875	33000	37125	41250	45375	49500
66x96	72x102	5	28.37	100x135	44.00	44.00	458	8800	13200	17600	22000	26400	30800	35200	39600	44000	48400	52800
66x102	72x108	5	28.36	106x135	46.75	46.75	482	9350	14025	18700	23375	28050	32725	37400	42075	46750	51425	56100
66x108	72x114	5	28.36	103x147	49.50	49.50	501	9900	14850	19800	24750	29700	34650	39600	44550	49500	54450	59400
66x114	72x120	5	28.36	108x147	52.25	51.75	519	10350	15525	20700	25875	31050	36225	41400	46575	51750	56925	62100
66x120	72x126	5	28.36	106x159	55.00	55.50	540	11100	16650	22200	27750	33300	38850	44400	49950	55500	61050	66600
66x126	72x132	12	35.36	103x171	57.75	57.75	608	11550	17325	23100	28875	34650	40425	46200	51975	57750	63525	69300
66x132	72x138	12	35.36	108x171	60.50	60.83	628	12166	18249	24333	30416	36499	42583	48666	54749	60833	66916	72999
72x72	78x78	5	34.80	112x99	36.00	36.00	386	7200	10800	14400	18000	21600	25200	28800	32400	36000	39600	43200
72x78	78x84	5	28.34	108x111	39.00	39.00	429	7800	11700	15600	19500	23400	27300	31200	35100	39000	42900	46800
72x84	78x90	5	28.36	106x123	42.00	43.00	452	8600	12900	17200	21500	25800	30100	34400	38700	43000	47300	51600
72x90	78x96	5	28.40	112x123	45.00	45.00	475	9000	13500	18000	22500	27000	31500	36000	40500	45000	49500	54000
72x96	78x102	5	28.36	109x135	48.00	48.25	491	9650	14475	19300	24125	28950	33775	38600	43425	48250	53075	57900
72x102	78x108	5	28.40	116x135	51.00	51.67	517	10333	15500	20666	25833	31000	36166	41333	46500	51667	56833	62000
72x108	78x114	5	28.40	112x147	54.00	54.00	535	10800	16200	21600	27000	32400	37800	43200	48600	54000	59400	64800
72x114	78x120	5	28.36	109x159	57.00	56.75	549	11350	17025	22700	28375	34050	39725	45400	51075	56750	62425	68100
72x120	78x126	5	28.40	114x159	60.00	59.17	572	11833	17750	23666	29583	35500	41416	47333	53250	59167	65083	71000
72x126	78x132	12	35.40	112x171	63.00	63.00	645	12600	18900	25200	31500	37800	44100	50400	56700	63000	69300	75600
72x132	78x138	12	38.40	118x171	66.00	67.00	689	13400	20100	26800	33500	40200	46900	53600	60300	67000	73700	80400
72x138	78x144	12	35.40	114x183	69.00	68.50	686	13700	20550	27400	34250	41100	47950	54800	61650	68500	75350	82200
72x144	78x150	12	38.42	120x183	72.00	73.00	731	14600	21900	29200	36500	43800	51100	58400	65700	73000	80300	87600
72x150	78x156	12	38.40	118x195	75.00	77.00	786	15400	23100	30800	38500	46200	53900	61600	69300	77000	84700	92400
72x156	78x162	12	38.42	120x195	78.00	76.67	797	15333	23000	30666	38333	46000	53666	61333	69000	76667	84333	92000
72x162	78x168	12	38.40	118x207	81.00	80.50	821	16100	24150	32200	40250	48300	56350	64400	72450	80500	88550	96600
72x168	78x174	12	35.40	116x219	84.00	84.00	824	16800	25200	33600	42000	50400	58800	67200	75600	84000	92400	100800
72x174	78x180	12	38.42	120x219	87.00	87.00	862	17400	26100	34800	43500	52200	60900	69600	78300	87000	95700	104400
72x180	78x186	12	38.40	118x231	90.00	90.50	887	18100	27150	36200	45250	54300	63350	72400	81450	90500	99550	108600

Spun Aluminum
Model GRV

The GRV series relief ventilators are low silhouette spun aluminum units that match the appearance of spun aluminum power roof ventilators.

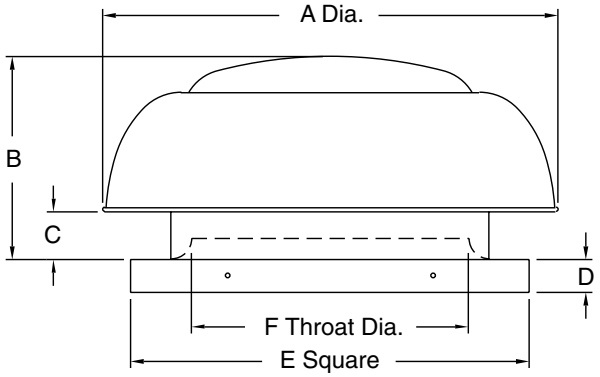
The GRV provides for natural gravity ventilation and may also be used as an intake. For intake units, a minimum curb height of 12" is recommended.

Sizes & Capacities
GRV relief ventilators are available in 12 sizes, models 090B through 480B. Performance capabilities include a broad capacity range up to 25,100 CFM, with static pressure capabilities to $^{3}/_{8}$ in. w.g.

Construction Features
- Spun aluminum cover
- Curb cap constructed of aluminum
- Galvanized steel bird screen is standard on all units

Accessories
- Backdraft damper (gravity or motorized)
- Roof curbs
- Curb hinge
- Special coatings
- Aluminum bird screen
- Aluminum insect screen

Model GRV



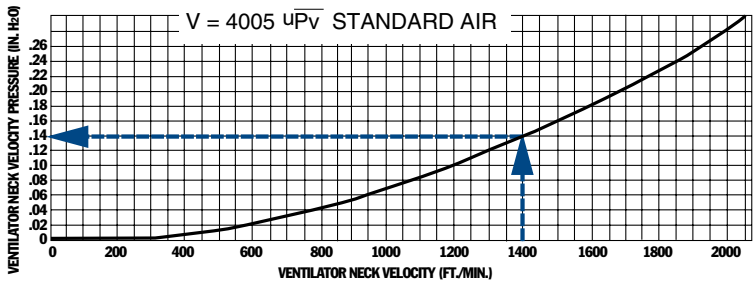
DIMENSIONAL DATA

GRV SIZE	DIMENSIONS (INCHES) A	B	C	D	E INSIDE	F	DAMPER SIZE	CANTED CURB SIZE	NECK AREA (SQ. FT.)	AVERAGE SHIP WEIGHT (LB.)
090B	22.50	8.25	1.50	2.00	16.50	9.00	10 x 10	15.0 x 15.0	0.44	17
120B	27.50	11.25	2.00		24.00	12.13	18 x 18	22.5 x 22.5	0.80	20
160B		12.25	3.00			16.25			1.44	25
180B	32.25		4.00		29.50	18.25	24 x 24	28.0 x 28.0	1.82	30
210B		12.75	4.50			21.25			2.46	47
240B	40.50	16.00	5.00		35.50	24.25	30 x 30	34.0 x 34.0	3.21	55
270B		16.50	5.50			27.38			4.09	67
300B	50.00	19.00			42.50	30.38	36 x 36	41.0 x 41.0	5.03	75
320B		19.50	6.00			32.38			5.72	107
360B						36.38			7.22	135
420B	60.00	21.50		3.00	52.00	42.38	46 x 46	50.5 x 50.5	9.79	187
480B	74.00	27.25	6.50		58.00	48.38	50 x 50	56.5 x 56.5	12.76	225

Spun Aluminum
Model GRV

NECK VELOCITY (FPM)			575 / 525	810 / 740	980 / 905	1140 / 1045	1390 / 1290	1610 / 1480	1800 / 1650	1970 / 1810
GRV SIZE	THROAT DIA. (IN.)	NECK AREA (FT^2)	PRESSURE DROP (IN. W.G.)							
			.031	.062	.093	.125	.187	.250	.312	.375
			RELIEF CFM / INTAKE CFM							
090B	9.00	0.44	255 / 230	355 / 325	430 / 400	500 / 460	610 / 570	710 / 650	790 / 725	865 / 795
120B	12.10	0.80	460 / 420	650 / 590	785 / 725	910 / 835	1110 / 1030	1290 / 1185	1440 / 1320	1575 / 1450
160B	16.25	1.44	830 / 755	1165 / 1065	1410 / 1305	1640 / 1505	2000 / 1860	2320 / 2130	2590 / 2375	2835 / 2605
180B	18.25	1.82	1045 / 955	1475 / 1345	1785 / 1645	2075 / 1900	2530 / 2350	2930 / 2695	3275 / 3005	3585 / 3295
210B	21.25	2.46	1415 / 1290	1995 / 1820	2410 / 2225	2805 / 2570	3420 / 3175	3960 / 3640	4430 / 4060	4845 / 4455
240B	24.25	3.21	1845 / 1685	2600 / 2375	3145 / 2905	3660 / 3355	4460 / 4140	5170 / 4750	5780 / 5295	6325 / 5810
270B	27.38	4.09	2350 / 2145	3315 / 3025	4010 / 3700	4665 / 4275	5685 / 5275	6585 / 6055	7360 / 6750	8055 / 7405
300B	30.38	5.03	2890 / 2640	4075 / 3720	4930 / 4550	5735 / 5255	6990 / 6490	8100 / 7445	9055 / 8300	9910 / 9105
320B	32.38	5.72	3290 / 3005	4635 / 4235	5605 / 5175	6520 / 5975	7950 / 7380	9210 / 8465	10295 / 9440	11270 / 10355
360B	36.38	7.22	4150 / 3790	5850 / 5345	7075 / 6535	8230 / 7545	10035 / 9315	11625 / 10685	12995 / 11915	14225 / 13070
420B	42.38	9.79	5630 / 5140	7930 / 7245	9595 / 8860	11160 / 10230	13610 / 12630	15760 / 14490	17620 / 16155	19285 / 17720
480B	48.38	12.76	7335 / 6700	10335 / 9440	12505 / 11550	14545 / 13335	17735 / 16460	20545 / 18885	22970 / 21055	25135 / 23095

Static Resistance of GRV Relief and/or Intake Ventilators



1. Divide CFM by ventilator neck area to find neck velocity.
2. Locate this neck velocity at bottom of chart. Read vertically upward to intersection of curve, then horizontally to left-hand margin. Read neck velocity pressure at this point.
3. To find system resistance, multiply neck velocity pressure by appropriate resistance factor of unit. (Resistance factor shown below.)

APPLICATION	RESISTANCE FACTOR
RELIEF	1.55
INTAKE	1.83

Louvered
Models TEL | TIL

Model TEL units are used for exhaust or gravity relief. Model TIL units are used for fresh air intake.

Model TEL & TIL (Louvered Penthouse)

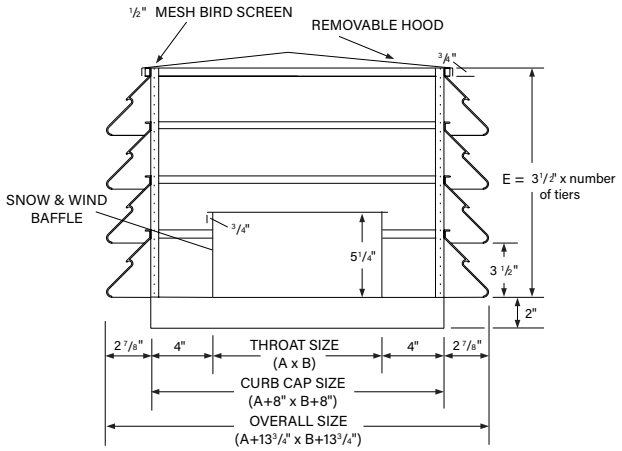
- Ventilators offer exhaust and intake capacities of up to 103,000 cfm
- Aerodynamically designed with generous air flow areas for efficient performance
- Louvered on all four sides for full 360° perimeter opening
- Multiple tiers for high air flow capacities
- Outstanding weather protection. (Louvered ventilators are reasonably weather tight. However, they are not recommended for use where airborne water droplets from storms or high winds may damage the interior of the building.)
- Vertical snow and storm baffle on base to guard against storm driven rain and snow
- Extruded louvers have double water and snow baffles for added weather protection

Construction Features

- Base constructed of .080" aluminum
- Removable .050" cross broke and reinforced aluminum hood
- .081" extruded aluminum louvers are precision miter cut and welded for maximum strength
- All curb cap corners are miter cut and continuous welded for strength and water tightness
- Hoods are reinforced and braced for extra rigidity and resistance to wind damage
- Large sizes are cross braced internally for extra rigidity and resistance to wind damage
- All enclosures are equipped with 1/2" x 1/2" mesh galvanized wire bird screen (omitted when equipped with filters)
- Shipped fully assembled for easy installation (overall louver dimensions of 96" x 144" and smaller)

Models TEL & TIL

DIMENSIONAL DATA



See tables for throat size, tiers and height dimensions.

Curb Sizing

Curbs are sized by adding 6½" to the throat dimension (A + B). Example: An 18" x 24" throat would require a 24½" x 30½" roof curb.

Backdraft Damper Sizing

Backdraft dampers are sized by the throat dimension (A + B). Example: An 18" x 24" throat would require an 18" x 24" backdraft damper.

TCF
TWIN CITY FAN

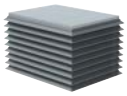
Louvered
Models TEL | TIL

THROAT SIZE A x B	CFM at SP = 0.15" w.g. — Number of Tiers and Height in Inches (E)																	
	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
	10.5	14.0	17.5	21.0	24.5	28.0	31.5	35.0	38.5	42.0	45.5	49.0	52.5	56.0	59.5	63.0	66.5	70.0
12 x 12	1199	1225	1238	1245														
12 x 14	1382	1419	1438	1448														
12 x 16	1562	1611	1636	1649														
12 x 18	1737	1800	1832	1850	1861													
12 x 20	1909	1987	2026	2049	2063													
12 x 24	2244	2354	2411	2444	2464													
12 x 30	2729	2892	2979	3029	3061	3082												
12 x 36	3197	3418	3538	3608	3652	3682												
12 x 42	3653	3935	4089	4181	4240	4279												
12 x 48	4101	4444	4635	4750	4823	4873												
14 x 14	1590	1642	1668	1682	1691	1697												
14 x 16	1791	1860	1865	1915	1927	1935												
14 x 18	1987	2075	2120	2146	2162	2172												
14 x 20	2178	2286	2342	2375	2395	2408	2417											
14 x 24	2548	2700	2781	2828	2857	2877	2890											
14 x 30	3078	3303	3425	3497	3543	3573	3595											
14 x 36	3587	3888	4055	4156	4220	4264	4294	4316										
14 x 42	4080	4459	4675	4807	4891	4949	4989	5019										
14 x 48	4561	5021	5287	5451	5557	5629	5681	5718										
16 x 16	2012	2104	2151	2178	2194	2205	2213	2219										
16 x 18	2227	2343	2403	2438	2460	2474	2484	2491										
16 x 20	2435	2577	2652	2696	2723	2741	2754	2763										
16 x 24	2835	3034	3141	3205	3245	3272	3290	3304	3314									
16 x 30	3404	3694	3856	3953	4016	4058	4087	4109	4125									
16 x 36	3945	4331	4552	4687	4775	4835	4877	4908	4931									
16 x 42		4950	5234	5410	5525	5604	5660	5701	5732	5756								
16 x 48		5556	5905	6123	6268	6367	6438	6490	6530	6560								
18 x 18	2458	2604	2682	2727	2755	2774	2787	2797	2804	2809								
18 x 20	2681	2860	2956	3013	3048	3072	3089	3101	3110	3117								
18 x 24	3107	3356	3493	3575	3627	3662	3687	3705	3718	3729	3737							
18 x 30	3709	4067	4273	4398	4480	4535	4574	4603	4624	4641	4654							
18 x 36	4277	4750	5029	5203	5317	5395	5451	5492	5523	5546	5565							
18 x 42		5410	5767	5992	6142	6245	6319	6374	6415	6447	6472	6492						
18 x 48		6055	6490	6770	6957	7087	7181	7250	7302	7343	7375	7401						
18 x 54			7202	7537	7763	7922	8036	8121	8185	8236	8275	8307						
20 x 20	2917	3135	3254	3325	3370	3400	3421	3436	3448	3457	3464	3469						
20 x 24	3367	3667	3836	3938	4004	4049	4080	4103	4120	4133	4144	4152						
20 x 30	3996	4425	4677	4834	4936	5006	5055	5092	5119	5140	5157	5170	5181					
20 x 36		5148	5488	5704	5847	5946	6017	6069	6108	6139	6163	6182	6198					
20 x 42		5844	6276	6555	6743	6873	6967	7037	7090	7131	7163	7189	7210	7228				
20 x 48		6521	7046	7391	7625	7789	7908	7996	8064	8116	8158	8191	8219	8241				
20 x 54			7802	8214	8496	8696	8841	8950	9032	9097	9148	9190	9223	9251				
24 x 24		4263	4501	4649	4745	4811	4857	4892	4917	4937	4953	4965	4976	4984				
24 x 30		5101	5452	5676	5825	5928	6002	6057	6098	6130	6155	6176	6192	6206				
24 x 36		5891	6359	6666	6874	7019	7125	7203	7263	7309	7346	7376	7400	7420	7436			
24 x 42			7234	7627	7898	8090	8230	8335	8415	8477	8527	8567	8600	8627	8649			
24 x 48			8082	8565	8902	9143	9320	9453	9555	9635	9699	9751	9793	9827	9857	9881		
24 x 54			8911	9485	9890	10182	10398	10561	10687	10785	10864	10928	10980	11023	11060	11090		
24 x 60			9725	10390	10864	11209	11465	11659	11810	11928	12023	12099	12162	12215	12258	12296		
30 x 30		6036	6453	6878	7107	7269	7386	7474	7540	7592	7633	7667	7694	7716	7735	7751		
30 x 36		6901	7568	8023	8339	8566	8733	8859	8955	9031	9091	9139	9179	9212	9239	9262		
30 x 42			8544	9121	9531	9829	10050	10217	10347	10448	10530	10596	10650	10695	10732	10764	10791	
30 x 48			9484	10184	10690	11062	11340	11553	11718	11849	11953	12038	12108	12166	12215	12257	12292	
30 x 54			10394	11219	11823	12271	12610	12870	13073	13234	13364	13469	13556	13629	13690	13741	13786	
30 x 60				12232	12934	13461	13861	14171	14413	14607	14763	14890	14995	15083	15157	15219	15273	15319
30 x 66				13226	14028	14634	15098	15458	15742	15968	16152	16302	16426	16529	16617	16691	16755	16810
30 x 72					15108	15794	16322	16734	17060	17321	17532	17706	17850	17970	18072	18158	18232	18296
36 x 36		7824	8688	9297	9732	10049	10286	10466	10605	10715	10802	10874	10932	10981	11021	11056	11085	11111
36 x 42			9743	10508	11066	11480	11792	12031	12218	12367	12486	12583	12663	12729	12785	12833	12873	12908
36 x 48			10749	11670	12353	12867	13259	13563	13801	13991	14145	14270	14374	14460	14533	14595	14648	14694
36 x 54			11719	12793	13604	14220	14695	15065	15358	15592	15782	15938	16067	16175	16266	16344	16411	16468
36 x 60				13887	14824	15544	16104	16453	16892	17173	17401	17589	17746	17877	17987	18082	18163	18233
36 x 66				14957	16020	16845	17490	18000	18407	18736	19005	19227	19411	19566	19698	19810	19906	19990
36 x 72					17195	18125	18858	19440	19906	20285	20595	20851	21065	21245	21398	21529	21641	21739
36 x 80					18738	19808	20657	21336	21884	22330	22697	23001	23256	23470	23653	23809	23944	24061
36 x 84						20639	21547	22275	22864	23345	23741	24069	24345	24577	24775	24945	25091	25218

Selections to the right of the divider are suitable for intake. (Perimeter Velocity of 600 fpm or less)

CFM @ 0.15" w.g.

Louvered
Models TEL | TIL



THROAT SIZE A x B	CFM at SP = 0.15" w.g.																	
	Number of Tiers and Height in Inches (E)																	
	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
	10.5	14.0	17.5	21.0	24.5	28.0	31.5	35.0	38.5	42.0	45.5	49.0	52.5	56.0	59.5	63.0	66.5	70.0
42 x 42				11812	12523	13059	13470	13788	14039	14239	14401	14533	14643	14734	14811	14877	14933	14981
42 x 48					13919	14581	15094	15496	15815	16072	16280	16451	16593	16713	16813	16899	16973	17036
42 x 54					15266	16056	16675	17164	17555	17871	18129	18342	18519	18668	18794	18902	18995	19075
42 x 60							18219	18797	19263	19641	19951	20208	20422	20603	20756	20888	21001	21099
42 x 66							19732	20402	20943	21385	21750	22052	22306	22520	22702	22858	22993	23110
42 x 72							21220	21981	22601	23109	23529	23879	24173	24422	24634	24816	24973	25110
42 x 80								24056	24781	25378	25874	26289	26639	26936	27189	27408	27596	27761
42 x 84								25081	25859	26502	27037	27485	27863	28185	28460	28696	28902	29080
42 x 96										29839	30492	31041	31507	31904	32245	32540	32795	33018
48 x 48				14363	15408	16221	16860	17366	17771	18099	18367	18589	18773	18929	19060	19173	19270	19353
48 x 54					16836	17801	18568	19182	19677	20081	20413	20688	20918	21113	21278	21420	21542	21647
48 x 60					18216	19333	20230	20953	21541	22023	22422	22754	23032	23268	23470	23642	23791	23921
48 x 66						20826	21852	22686	23369	23932	24399	24790	25119	25399	25638	25844	26021	26176
48 x 72							23441	24387	25166	25812	26350	26801	27183	27508	27786	28026	28234	28415
48 x 80							25518	26614	27523	28280	28914	29449	29903	30290	30623	30910	31160	31378
48 x 84								27712	28686	29499	30182	30760	31250	31670	32030	32342	32614	32851
48 x 96								30957	32127	33111	33943	34649	35252	35770	36217	36605	36943	37240
48 x 108										36664	37646	38485	39203	39823	40359	40825	41233	41590
54 x 54				16913	18334	19474	20391	21133	21736	22232	22642	22984	23272	23515	23723	23901	24055	24189
54 x 60					19776	21088	22156	23027	23742	24333	24824	25236	25584	25880	26133	26351	26539	26703
54 x 66						22655	23872	24874	25702	26390	26966	27451	27862	28212	28512	28771	28996	29193
54 x 72							25548	26681	27623	28411	29073	29632	30108	30514	30864	31167	31430	31660
54 x 80							27732	29039	30134	31056	31834	32496	33060	33545	33963	34326	34642	34920
54 x 84								30199	31371	32360	33198	33911	34521	35045	35499	35892	36236	36537
54 x 96									35020	36212	37229	38100	38848	39495	40057	40546	40974	41351
54 x 108										39990	41187	42218	43108	43881	44553	45141	45657	46112
54 x 120										43790	45088	46280	47314	48214	49000	49689	50296	50831
54 x 144												54279	55603	56762	57780	58676	59468	60170
60 x 60				19442	21270	22774	24012	25032	25877	26580	27169	27664	28085	28444	28752	29018	29249	29450
60 x 66					22712	24405	25811	26981	27957	28774	29462	30045	30541	30965	31331	31648	31924	32165
60 x 72						25990	27563	28882	29989	30922	31711	32383	32957	33450	33876	34245	34568	34851
60 x 80							29839	31354	32637	33725	34652	35445	36125	36712	37221	37664	38052	38392
60 x 84							30955	32568	33938	35105	36101	36955	37689	38324	38875	39356	39777	40148
60 x 96								36136	37768	39169	40374	41413	42313	43095	43776	44373	44898	45361
60 x 108									41507	43142	44556	45784	46851	47783	48599	49316	49948	50507
60 x 120										47044	48669	50085	51322	52405	53357	54197	54938	55597
60 x 144										54693	56736	58529	60108	61499	62728	63817	64784	65646
66 x 66						26091	27684	29021	30145	31093	31896	32580	33164	33667	34101	34479	34808	35097
66 x 72							29502	31005	32278	33358	34277	35064	35740	36323	36828	37268	37654	37992
66 x 80								33578	35048	36305	37382	38308	39108	39801	40405	40932	41395	41803
66 x 84								34839	36406	37751	38908	39905	40768	41517	42171	42743	43245	43689
66 x 96									40395	42003	43398	44608	45663	46584	47390	48100	48726	49280
66 x 108										46148	47779	49205	50453	51548	52512	53363	54117	54786
66 x 120										50209	52077	53718	55161	56432	57555	58550	59434	60221
66 x 144										58147	60484	62553	64387	66014	67459	68747	69897	70925
72 x 72						29405	31380	33064	34501	35729	36781	37685	38465	39140	39728	40242	40692	41089
72 x 80								35728	37382	38806	40035	41098	42020	42822	43523	44138	44679	45157
72 x 84								37029	38792	40314	41632	42774	43768	44635	45393	46060	46648	47168
72 x 96									42920	44734	46318	47701	48912	49975	50910	51736	52467	53117
72 x 108									46927	49030	50877	52501	53932	55193	56309	57298	58177	58960
72 x 120									50843	53229	55338	57203	58853	60314	61612	62767	63796	64716
72 x 144									58476	61418	64043	66384	68471	70334	71999	73490	74826	76027
84 x 84								41219	43362	45236	46875	48310	49570	50677	51653	52516	53281	53962
84 x 96										49946	51903	53631	55158	56510	57709	58775	59725	60573
84 x 108										54497	56767	58785	60580	62177	63602	64875	66013	67035
84 x 120											61504	63809	65870	67714	69365	70846	72176	73374
84 x 144											70701	73569	76155	78487	80592	82492	84210	85765

Selections to the right of the divider are suitable for intake. (Perimeter Velocity of 600 fpm or less)

CFM @ 0.15" w.g.

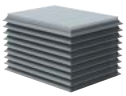
When an engineering application specifies a CFM capacity for a listed size ventilator that is different from that shown for that ventilator in the tables, the new static pressure (P_2) for the specified CFM is readily determined by applying the equation:

$$P_2 = P_1 \left(\frac{CFM_2}{CFM_1}\right)^2$$

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 unit with a 48" x 48" throat, 10 tiers (35") height and flowing 15,000 CFM. The above data table yields the following:

$P_1 = .15$, $CFM_1 = 17{,}366$. Thus, $P_2 = .15 \left(\frac{15000}{17366}\right)^2 = .15\ (.864)^2 = .11$" w.g.



Louvered
Models TEL | TIL

THROAT SIZE A x B	CFM at SP = 0.05" w.g.																	
	Number of Tiers and Height in Inches (E)																	
	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
	10.5	14.0	17.5	21.0	24.5	28.0	31.5	35.0	38.5	42.0	45.5	49.0	52.5	56.0	59.5	63.0	66.5	70.0
12 x 12	692	707	715	719														
12 x 14	798	820	830	836														
12 x 16	902	930	944	952														
12 x 18	1003	1039	1058	1068	1074													
12 x 20	1102	1147	1170	1183	1191													
12 x 24	1296	1359	1392	1411	1423													
12 x 30	1575	1670	1720	1749	1767	1779												
12 x 36	1846	1974	2042	2083	2109	2126												
12 x 42	2109	2272	2361	2414	2448	2470												
12 x 48	2367	2566	2676	2742	2785	2813												
14 x 14	918	948	963	971	977	980												
14 x 16	1034	1074	1094	1106	1113	1117												
14 x 18	1147	1198	1224	1239	1248	1254												
14 x 20	1257	1320	1352	1371	1383	1390	1396											
14 x 24	1471	1559	1606	1633	1650	1661	1669											
14 x 30	1777	1907	1977	2019	2045	2063	2075											
14 x 36	2071	2245	2341	2399	2437	2462	2479	2492										
14 x 42	2355	2575	2699	2775	2824	2857	2880	2898										
14 x 48	2633	2899	3053	3147	3208	3250	3280	3301										
16 x 16	1162	1215	1242	1257	1267	1273	1278	1281										
16 x 18	1286	1353	1387	1408	1420	1428	1434	1438										
16 x 20	1406	1488	1531	1556	1572	1583	1590	1595										
16 x 24	1637	1752	1814	1850	1873	1889	1900	1908	1913									
16 x 30	1965	2133	2226	2282	2318	2343	2360	2372	2382									
16 x 36	2278	2500	2628	2706	2757	2791	2816	2833	2847									
16 x 42		2858	3022	3123	3190	3235	3268	3292	3309	3323								
16 x 48		3208	3409	3535	3619	3676	3717	3747	3770	3788								
18 x 18	1419	1504	1548	1574	1591	1602	1609	1615	1619	1622								
18 x 20	1548	1651	1707	1739	1760	1774	1783	1790	1795	1799								
18 x 24	1794	1937	2017	2064	2094	2114	2129	2139	2147	2153	2157							
18 x 30	2141	2348	2467	2539	2586	2618	2641	2657	2670	2679	2687							
18 x 36	2469	2742	2904	3004	3070	3115	3147	3171	3188	3202	3213							
18 x 42		3124	3329	3460	3546	3606	3648	3680	3704	3722	3737	3748						
18 x 48		3496	3747	3908	4017	4092	4146	4186	4216	4240	4258	4273						
18 x 54			4158	4351	4482	4574	4640	4689	4726	4755	4778	4796						
20 x 20	1684	1810	1879	1920	1946	1963	1975	1984	1991	1996	2000	2003						
20 x 24	1944	2117	2215	2274	2312	2338	2356	2369	2379	2386	2392	2397						
20 x 30	2307	2555	2700	2791	2850	2890	2919	2940	2956	2968	2977	2985	2991					
20 x 36		2972	3169	3293	3376	3433	3474	3504	3527	3544	3558	3569	3579					
20 x 42		3374	3624	3785	3893	3968	4022	4063	4093	4117	4136	4151	4163	4173				
20 x 48		3765	4068	4267	4402	4497	4566	4617	4656	4686	4710	4729	4745	4758				
20 x 54			4504	4742	4905	5021	5104	5167	5215	5252	5282	5306	5325	5341				
24 x 24		2461	2599	2684	2739	2777	2804	2824	2839	2851	2860	2867	2873	2878				
24 x 30		2945	3148	3277	3363	3422	3465	3497	3521	3539	3554	3566	3575	3583				
24 x 36		3401	3672	3849	3969	4053	4114	4159	4193	4220	4241	4258	4272	4284	4293			
24 x 42			4176	4404	4560	4671	4752	4812	4858	4894	4923	4946	4965	4981	4994			
24 x 48			4666	4945	5140	5279	5381	5458	5517	5563	5600	5629	5654	5674	5691	5705		
24 x 54			5145	5476	5710	5878	6033	6097	6170	6227	6272	6309	6339	6364	6385	6403		
24 x 60			5615	5999	6272	6471	6619	6731	6818	6887	6941	6986	7022	7052	7077	7099		
30 x 30		3485	3778	3971	4103	4197	4264	4315	4353	4383	4407	4426	4442	4455	4466	4475		
30 x 36		3985	4370	4632	4815	4946	5042	5115	5170	5214	5248	5276	5299	5318	5334	5348		
30 x 42			4933	5266	5503	5675	5802	5899	5974	6032	6079	6117	6149	6175	6196	6215	6230	
30 x 48			5475	5880	6172	6387	6547	6670	6765	6841	6901	6950	6991	7024	7053	7076	7097	
30 x 54			6001	6477	6826	7085	7280	7430	7548	7641	7716	7776	7827	7869	7904	7934	7959	
30 x 60				7062	7468	7772	8003	8181	8322	8433	8523	8597	8657	8708	8751	8787	8818	8845
30 x 66				7636	8099	8449	8717	8925	9089	9219	9325	9412	9483	9543	9594	9637	9674	9705
30 x 72					8722	9119	9423	9661	9849	10000	10122	10222	10305	10375	10434	10484	10526	10563
36 x 36		4517	5016	5367	5619	5802	5939	6042	6123	6186	6237	6278	6312	6340	6363	6383	6400	6415
36 x 42			5625	6067	6389	6628	6808	6946	7054	7140	7209	7265	7311	7349	7382	7409	7432	7453
36 x 48			6206	6737	7132	7429	7655	7830	7968	8078	8166	8239	8299	8348	8391	8426	8457	8483
36 x 54			6766	7386	7854	8210	8484	8698	8867	9002	9112	9202	9276	9339	9391	9436	9475	9508
36 x 60				8018	8559	8975	9297	9551	9753	9915	10047	10155	10245	10321	10385	10440	10486	10527
36 x 66				8635	9249	9725	10098	10392	10628	10817	10973	11101	11207	11297	11372	11437	11493	11541
36 x 72					9928	10465	10887	11223	11493	11712	11891	12039	12162	12266	12354	12430	12495	12551
36 x 80					10818	11436	11926	12318	12635	12892	13104	13280	13427	13551	13656	13746	13824	13892
36 x 84						11916	12440	12861	13201	13478	13707	13896	14055	14190	14304	14402	14486	14560

Selections to the right of the divider are suitable for intake. (Perimeter Velocity of 600 fpm or less)

CFM @ 0.05" w.g.

Louvered
Models TEL | TIL

THROAT SIZE A x B	CFM at SP = 0.05" w.g.																	
	Number of Tiers and Height in Inches (E)																	
	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
	10.5	14.0	17.5	21.0	24.5	28.0	31.5	35.0	38.5	42.0	45.5	49.0	52.5	56.0	59.5	63.0	66.5	70.5
42 x 42				6820	7230	7540	7777	7961	8105	8221	8314	8391	8454	8507	8551	8589	8622	8650
42 x 48					8036	8419	8715	8947	9131	9279	9399	9498	9580	9649	9707	9757	9799	9836
42 x 54					8814	9270	9627	9910	10135	10318	10467	10590	10692	10778	10851	10913	10967	11013
42 x 60							10519	10853	11121	11340	11519	11667	11791	11895	11984	12060	12125	12181
42 x 66							11392	11779	12092	12347	12557	12732	12878	13002	13107	13197	13275	13343
42 x 72							12251	12691	13049	13342	13584	13786	13956	14100	14222	14327	14418	14497
42 x 80								13889	14307	14652	14938	15178	15380	15551	15698	15824	15933	16028
42 x 84								14481	14930	15301	15610	15868	16087	16272	16431	16568	16686	16789
42 x 96										17227	17604	17922	18191	18420	18617	18787	18934	19063
48 x 48				8293	8896	9365	9734	10026	10260	10450	10604	10732	10839	10929	11005	11069	11125	11174
48 x 54					9720	10278	10720	11075	11361	11594	11785	11944	12077	12189	12285	12367	12437	12498
48 x 60					10517	11162	11680	12097	12437	12715	12945	13137	13298	13434	13550	13650	13736	13811
48 x 66						12024	12616	13098	13492	13817	14087	14313	14503	14664	14802	14921	15023	15113
48 x 72							13534	14080	14530	14902	15213	15474	15694	15882	16042	16181	16301	16405
48 x 80							14733	15366	15890	16327	16693	17002	17264	17488	17680	17846	17990	18116
48 x 84								16000	16562	17031	17426	17759	18042	18285	18493	18673	18830	18966
48 x 96								17873	18548	19116	19597	20005	20353	20652	20910	21134	21329	21500
48 x 108										21168	21735	22219	22634	22992	23301	23570	23806	24012
54 x 54				9765	10585	11243	11773	12201	12550	12836	13072	13270	13436	13576	13696	13799	13888	13966
54 x 60					11417	12175	12792	13295	13707	14049	14332	14570	14771	14942	15088	15213	15322	15417
54 x 66						13080	13782	14361	14839	15237	15569	15849	16086	16288	16461	16611	16741	16855
54 x 72							14750	15404	15948	16403	16785	17108	17383	17617	17819	17994	18146	18279
54 x 80							16011	16766	17398	17930	18380	18761	19087	19367	19609	19818	20001	20161
54 x 84								17436	18112	18683	19167	19578	19931	20233	20495	20723	20921	21095
54 x 96									20219	20907	21494	21997	22429	22803	23127	23409	23656	23874
54 x 108										23088	23779	24374	24889	25334	25723	26062	26360	26623
54 x 120										25235	26032	26720	27317	27836	28290	28688	29038	29347
54 x 144												31338	32103	32772	33359	33876	34334	34739
60 x 60				11225	12280	13149	13863	14452	14940	15346	15686	15972	16215	16422	16600	16753	16887	17003
60 x 66					13113	14090	14902	15577	16141	16613	17010	17346	17633	17878	18089	18272	18431	18570
60 x 72						15005	15914	16675	17314	17853	18309	18696	19028	19312	19558	19772	19958	20121
60 x 80							17227	18102	18843	19471	20006	20464	20857	21196	21490	21745	21969	22166
60 x 84							17872	18803	19594	20268	20843	21336	21760	22126	22445	22722	22965	23179
60 x 96								20863	21805	22614	23310	23910	24429	24881	25274	25619	25922	26189
60 x 108									23964	24908	25725	26433	27050	27588	28059	28472	28837	29160
60 x 120										27161	28099	28916	29631	30256	30806	31290	31719	32099
60 x 144										31577	32756	33792	34703	35506	36216	36845	37403	37901
66 x 66						15064	15983	16755	17404	17952	18415	18810	19147	19438	19688	19906	20096	20263
66 x 72							17033	17901	18635	19259	19790	20244	20634	20971	21263	21517	21739	21935
66 x 80								19387	20235	20960	21582	22117	22579	22979	23328	23632	23899	24135
66 x 84								20114	21019	21796	22463	23039	23537	23970	24347	24677	24968	25224
66 x 96									23322	24251	25056	25755	26363	26895	27361	27771	28132	28452
66 x 108										26643	27585	28409	29129	29762	30318	30809	31244	31630
66 x 120										28988	30067	31014	31847	32581	33230	33804	34314	34768
66 x 144										33571	34921	36115	37174	38113	38948	39691	40355	40949
72 x 72						16977	18117	19090	19919	20628	21235	21757	22208	22598	22937	23234	23494	23723
72 x 80								20627	21582	22405	23114	23728	24260	24723	25128	25483	25795	26072
72 x 84								21379	22396	23275	24036	24696	25269	25770	26208	26593	26932	27232
72 x 96									24780	25827	26741	27540	28239	28853	29393	29870	30292	30667
72 x 108									27093	28307	29374	30312	31137	31866	32510	33081	33588	34040
72 x 120									29354	30732	31950	33026	33979	34823	35572	36238	36833	37364
72 x 144									33761	35460	36975	38327	39532	40607	41569	42429	43201	43894
84 x 84								23798	25035	26117	27063	27892	28619	29258	29822	30320	30762	31155
84 x 96										28836	29966	30964	31845	32626	33318	33934	34482	34972
84 x 108										31464	32774	33939	34976	35898	36721	37455	38113	38702
84 x 120											35509	36840	38030	39094	40048	40903	41671	42362
84 x 144											40819	42475	43968	45315	46530	47627	48619	49516

Selections to the right of the divider are suitable for intake. (Perimeter Velocity of 600 fpm or less)

CFM @ 0.05" w.g.

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 unit with a 48" x 48" throat, 10 tiers (35") height and flowing 13,000 CFM. The above data table yields the following:

$P_1 = .05$, $CFM_1 = 10{,}026$. Thus, $P_2 = .05 \left(\frac{13000}{10026}\right)^2 = .05\ (1.30)^2 = .08$" w.g.

TYPICAL SPECIFICATIONS

Models MGI & MGR

MODELS MGI/MGR

Gravity ventilators shall be of the hooded modular type, Model MGI (intake) or Model MGR (relief) as manufactured by Twin City Fan & Blower, Minneapolis, Minnesota. Units shall be constructed of heavy-gauge galvanized steel or aluminum for durability and appearance. Hoods shall be constructed with interlocking panels and shall be hinged or completely removable as standard to allow for ease of access to internal components. Hood support members shall be heavy-gauge galvanized steel. Curb caps shall be 6 in. larger than throat dimensions and shall be 5 in. high as standard up to throat sizes of 60 x 120 with an optional 12 in. high base. Units shall contain a galvanized mesh bird screen mounted across the intake area of the hood to prevent birds from nesting inside the unit.

Model GRV

MODEL GRV

Gravity relief and/or intake ventilators shall be of the spun aluminum type, Model GRV as manufactured by Twin City Fan & Blower, Minneapolis, Minnesota. Units shall be constructed of aluminum for durability and appearance. Unit top covers shall have a rolled bead edge for rigidity. Units shall have a deep inlet venturi to prevent against snow and rain entry into the building. Units shall contain a galvanized bird screen to prevent birds from nesting inside the unit.

Models TEL & TIL

MODELS TEL/TIL

Louvered Penthouse Gravity Ventilators shall be Model TEL (relief) or Model TIL (intake) as manufactured by Twin City Fan & Blower, Minneapolis, Minnesota. Units shall be constructed of a heavy-duty extruded aluminum louvered enclosure with mitered and welded corners. Louvered enclosures shall have an easily removable aluminum top cover and galvanized bird screen. The ventilator base shall include pre-punched mounting holes for easy attachment to the roof curb and shall provide protection from weather.

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INDUSTRIAL PROCESS AND COMMERCIAL VENTILATION SYSTEMS

CENTRIFUGAL FANS | UTILITY SETS | PLENUM & PLUG FANS | INLINE CENTRIFUGAL FANS
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RADIAL BLADED FANS | RADIAL TIP FANS | HIGH EFFICIENCY INDUSTRIAL FANS | PRESSURE BLOWERS
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