

Power Roof Ventilators

Upblast

Series 61 & 63
Series 69 & 69S

Hooded

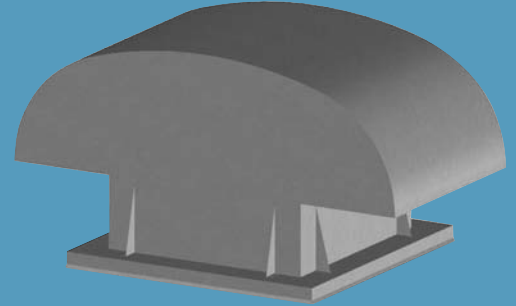
Series 15, 16 & 17
Series 71J, 73J & 75J

Recirculating

Series 26 & 27

Smoke Ventilators

Series 69H



HARTZELL®

Hartzell Fan, Inc., Piqua, Ohio 45356
www.hartzellfan.com

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Upblast Roof Ventilator – Series 61 (Direct Drive), Series 63 (Belt Drive)



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Upblast Roof Ventilator – Series 69H Smoke Ventilator



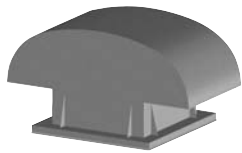
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Certified Ratings for Sound and Air Performance

Hartzell Fan, Inc. certifies that the Belt Drive Upblast Roof Ventilator, Series 69, on pages 9, 11, 12 and 13 and Belt Drive Upblast Smoke Ventilator, Series 69H, on pages 14-16, are licensed to bear the AMCA Seal for air and sound. The ratings shown are based on tests and procedures performed in accordance with AMCA Publication 211 and AMCA Publication 311 and comply with the requirements of the AMCA Certified Ratings Program.

Sound performance data is available upon request. Please contact the factory and ask for Engineering Publication #SD-157 for Series 69 and #SD-159 for Series 69H.

Power Roof Ventilator Selection

The Hartzell Power Roof Ventilator performances on the following pages are based on standard air conditions (sea level, 70°F., and 29.92 inches barometric pressure). Performance data does include drive losses on belt drive units.

When placing your order, be sure to specify the Hartzell Model Code. The following example demonstrates our coding system. The illustrated Series Number specifies a Hartzell Series 61 Fan.

Be sure to include fan model, performance requirements, operating temperature, motor data (enclosure, voltage, mounting position, etc.) and a list of required accessory items. (See pages 22 and 23.)

Refer to pages 31 and 32 for more detailed information on Roof Ventilator Application. For upblast ventilators, refer to CFM limitations on pages 8 and 13.

Contact your local Hartzell Sales Representative for assistance.

Hartzell Model Explanation

Type _____	A	6	1	-	G	-	3	6	3	-	L	-	-	-	S	T	A	O	G	4	Motor RPM/Phase 3 Phase 2 = 3450 3 = 1750 4 = 1140 5 = 870 6 = 690 7 = 575 1 Phase B = 3450 C = 1750 D = 1140 E = 870 F = 690 G = 575	
A – Production Item																						
S – Stock Item																						
Q – Special Quote																						
Product Series _____																						
Duty (G or H) _____																						
Size (nominal wheel diameter, inches) _____																						
No. of Blades _____																						
Wheel Code _____																						
Blade Angle, no decimal (applies to adjustable pitch fans only) _____																						
Material of Construction _____																						
Motor Enclosure _____																						
Motor Horsepower _____																						
Motor RPM/Phase _____																						

Motor Horsepower

Horsepower	1/4	1/3	1/2	3/4	1	1 1/2	2	3	5	7 1/2	10	15	20	25	30	40	50	60
Code Letter	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U

How To Use Model Code Index:

Example – Assume a needed performance of 8,400 CFM at 0" S.P.W.G. at standard conditions is required for an exhaust application. Reading the rating table on page five; a 24", series 61, direct drive upblast roof ventilator operating at 8380 CFM at 0" SP. It is also determined from the rating table the ventilator will consist of the following: standard construction, 1140 RPM totally enclosed air over motor, and a three blade lo-noise propeller. Knowing this the model code can be constructed as follows: the fan is a direct drive upblast roof ventilator, therefore, the series is "61", "G" (General Industrial) Duty construction; the size is "24"; the propeller is a lo-noise, therefore, blade is "L"; the construction is standard, therefore, material is "ST", the motor is a totally enclosed air over, therefore, the enclosure is "AO", the horsepower required is .68 BHP, therefore, the horsepower code is "G", and the motor RPM is 1140, therefore, the RPM code is "4".

Note: 1) All other informational fields must be filled with hyphens/dashes (-) if they are not applicable to the fan being considered.

This bulletin lists Hartzell's line of Power Roof Ventilators and accessories. More than 70 Hartzell offices can provide specific performance and installation data to meet your requirements. Call your Hartzell representative for assistance. Visit our website (www.hartzellfan.com) or call toll-free for the name of your Hartzell representative...

1-800-336-3267

Certificates of Design Assessment are issued by the American Bureau of Shipping. The assessment is a representation by the Bureau as to the degree of compliance the design exhibits with applicable sections of the Rules. The certificates, by itself, do not reflect that the products are Type Approved.



Upblast (Direct Drive & Belted)



Series 61
"G" Duty Shown

ABS Certificate
of Design Assessment
Received



Series 63
"H" Duty Shown

Series 61 – Direct Drive

The Series 61 upblast ventilator meets the need for an economical, yet efficient upblast roof ventilator. The Series 61 unit combines the Hartzell ring fan concept with a windband and butterfly damper. Dampers open automatically when the fan goes on, close weathertight when the fan is shut down. When the unit is in operation, the force of the discharge air effectively prevents the entry of rain or snow.

Series 63 – Belted

The belted upblast ventilator, Series 63, offers the same design and efficient performance as the direct drive model, along with the added dividend of an economical approach to a low speed, quiet upblast roof ventilator. The belted arrangement eliminates the need for costly, low-speed motors for direct drive operation. Since the drive assembly is in the ventilator's airstream, the unit should not be used to handle high temperatures or dirt-laden air.

Features:

- **Sizes – Direct Drive** (Series 61) – 12"-72"... performance from 1,390 to 88,000 CFM at free air. **Belted** (Series 63) – 24"-84"... performance from 5,080 to 124,500 CFM at free air.
- **Construction** – steel construction is standard; aluminum construction is available for "H" Duty only. Sizes through 60" include painted, galvanized weather exposed components.

On sizes 66" and larger, windband and panel are painted hot rolled steel with industrial grade enamel. Motor base is heavy gauge plate, welded to solid steel rod frame.

- **Motor Mount** – "G" (General Industrial) Duty construction features an adjustable steel motor base and tubular steel frame, which are over-sized to provide structurally rugged construction. "G" Duty is available as Series 61 and 63 in sizes 18" to 48" and will be limited by HP and RPM on certain sizes. Please reference the performance rating tables, the shaded models are those models offered as "G" Duty.

"H" (Heavy Industrial) Duty construction features solid rolled rod supports, welded to the fan panel and motor mounts to provide support for the motor. The steel motor base and solid steel support rods are oversized to provide structurally rugged construction. "H" Duty is available in all sizes and models.

- **Propellers** – cast aluminum airfoil type.

SERIES 61 – DIRECT DRIVE –

- Sizes: 12" - 44" – 6-blade, Type P
12" - 14" – 4-blade, Type O
16" - 40" – 4-blade, Type W
20" - 60" – 3-blade, lo-noise, Type L
20" - 60" – 2-blade, Type N
48" - 72" – 4-blade adjustable, Type A
60" – 4-blade adjustable, Type AW
60" – 4-blade adjustable, Type BA

SERIES 63 – BELTED –

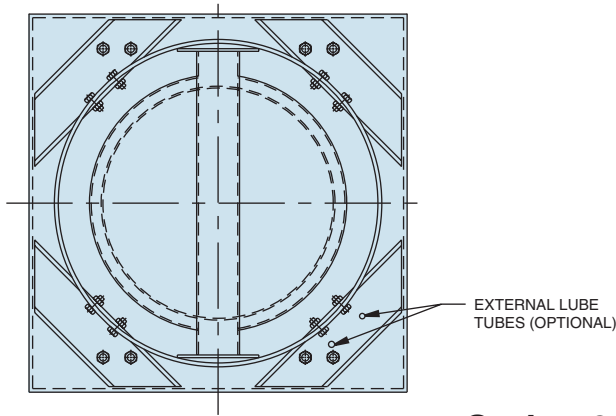
- Sizes: 24" - 60" – 3-blade lo-noise, Type L
54" - 60" – 6-blade adjustable, Type AW
66" – 4-blade adjustable, Type BA
72" - 84" – 4- and 6-blade adjustable, Type A

Note: The above adjustable blades are merely a representative group of blades available. Many other adjustable blades and blade angles can be furnished. Contact your Hartzell representative for assistance.

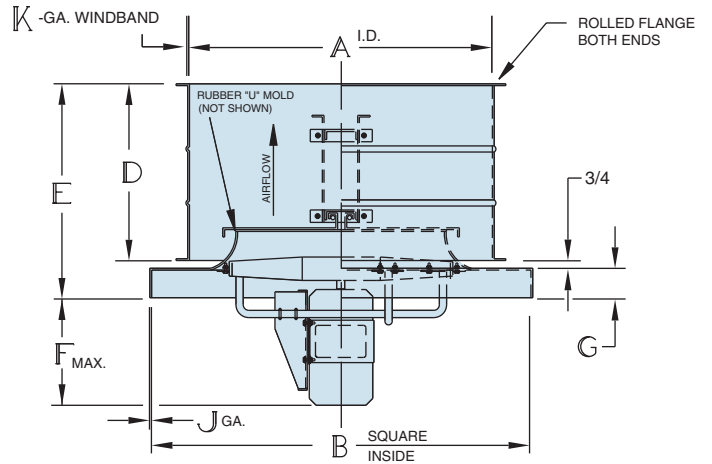
- **Motors** – totally enclosed fan cooled motors are standard. Special motors are available upon request.
- **Drive Assembly – Belted Only** – drives are constant speed and are sized to handle 20% or more horsepower than the catalog motor is rated.
- **Orifice Panel** – sizes 12"-60"... features painted galvanized steel venturi panel. Sizes 66"-84"... formed steel panel with angle ring orifice.
- **Windband** – rolled, welded construction. Windband effectively prevents wind resistance against the operation of the ventilator. A rolled angle on top and bottom of the windband is standard to provide additional support. Removable windband for ease of maintenance of motor and drive assembly is standard through 60".
- **Dampers** – semicircular lids at the base of the windband are mounted on corrosive resistant stainless steel rods which turn in plastic bearings. Bearings will not rust or stick, and require no lubrication. Lids open automatically when the fan turns on, closes weathertight when the fan shuts off. Damper lids on all sizes are constructed of galvanized steel as standard. Aluminum and fiberglass damper lids are also available. See Page 7 for CFM Limitations for Damper Lid Operation.
- **Coatings** – special coatings are available upon request.
- **Extended Lube Tubes** – will be provided from the motor on direct drive units and from the bearings and motor on belt drive and belted units to the exterior of the housing **only** when the motor is designed for external lubrication fittings (relubricable versus sealed motor bearings).
- **Pre-Assembled Units** – 12" to 60" shipped in one piece. 66" through 84", the stack cap is shipped separately.
- **Options and Accessories** – see pages 33 and 34.



Dimensions



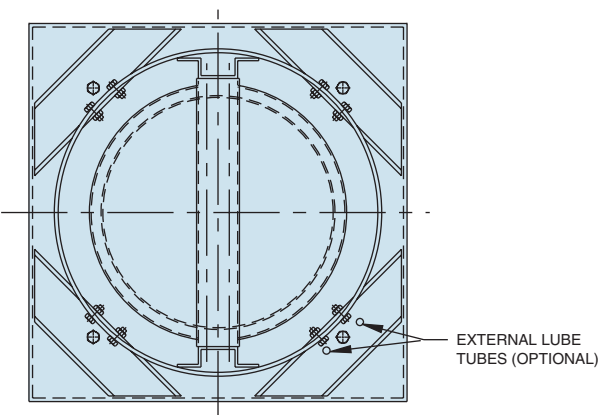
Series 61



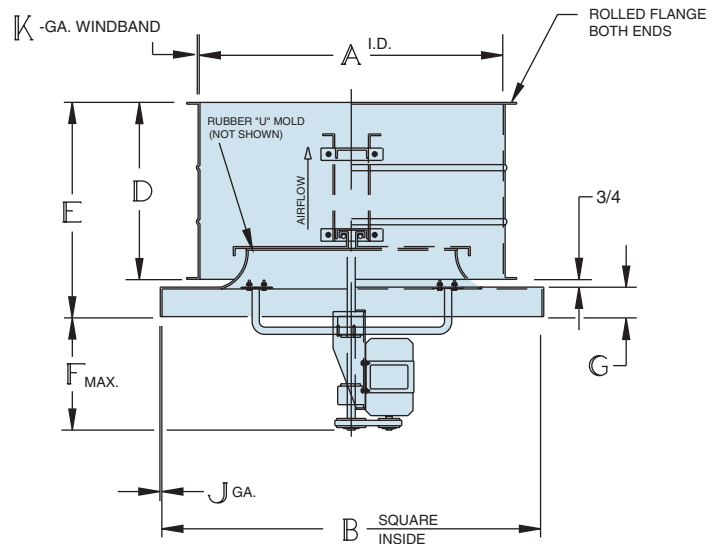
Principal Dimensions – Series 61 and 63 (Inches)

Fan Size	F max				Max Motor Frame Size										Weight (less motor and options)						
	A	B	D	E	61				63		61				63						
					"G" Duty	"H" Duty	"G" Duty	"H" Duty	G	J Galv	Alum	K Galv	Alum	"G" Duty	"H" Duty	"G" Duty	"H" Duty	Galv	Alum	Galv	Alum
12	18	22	12	14 3/4	--	12	--	--	2	14	0.125	20	0.064	--	56	--	--	44	33	--	--
14	20	24	12	14 3/4	--	12	--	--	2	14	0.125	20	0.064	--	56	--	--	50	37	--	--
16	22	26	12	14 3/4	--	12	--	--	2	14	0.125	20	0.064	--	56	--	--	51	38	--	--
18	24	28	20	22 3/4	10 1/2	12	--	--	2	14	0.125	20	0.064	56	56	--	--	77	57	--	--
20	26	30	20	22 3/4	10 1/2	12	--	--	2	14	0.125	20	0.064	143T	56	--	--	85	63	--	--
24	30	36	20	23 3/4	10 1/2	11 1/2	12 1/2	15 1/2	2 3/4	14	0.125	20	0.064	145T	184T	56	145T	124	93	117	88
28	34	42	20	23 3/4	12 3/4	11	12 1/2	16 1/4	2 3/4	14	0.125	20	0.064	145T	184T	56	145T	135	101	124	93
32	38	42	26	29 3/4	14	11	12 1/2	18 3/4	2 3/4	14	0.125	20	0.064	184T	184T	145T	184T	169	126	210	157
36	44	48	26	29 3/4	15 1/2	14 1/2	15 1/2	17 3/4	2 3/4	14	0.125	20	0.064	213T	215T	145T	184T	175	126	191	143
40	48	50	26	29 3/4	15 1/2	19 3/4	15 1/2	18 3/4	2 3/4	14	0.125	20	0.064	215T	256T	182T	184T	227	170	241	181
44	52	54	38	41 1/2	18	19 3/4	14 1/2	22 3/4	2 3/4	14	0.125	16	0.100	254T	256T	184T	215T	275	165	217	163
48	56	60	38	42 1/2	18	18 3/4	14 1/2	21 3/4	3 3/4	14	0.125	16	0.100	254T	256T	184T	215T	409	263	291	218
54	62	64 3/4	38	42 1/2	--	21 1/2	--	21 1/2	3 3/4	14	0.125	16	0.100	--	286T	--	256T	628	432	586	440
60	68	70 3/4	38	42 1/2	--	21 1/2	--	21 1/2	3 3/4	14	0.125	14	0.100	--	286T	--	256T	640	437	486	364
66	76 1/2	79 3/4	36 3/4	40 3/4	--	28	--	44	4	3/4	0.375	10	0.190	--	326T	--	256T	484	363	532	399
72	82 1/2	85 3/4	36 3/4	40 3/4	--	29 1/2	--	44	4	3/4	0.375	10	0.190	--	365T	--	286T	1150	862.5	966	724.5
84	95	98 3/4	42 3/4	46 3/4	--	--	--	49	4	3/4	0.375	10	0.190	--	--	--	324T	--	--	1447.7	1085.78

NOTE: Dimensions and specifications are subject to change. Certified prints are available.
Maximum installation weight less motor and any optional equipment.



Series 63



Performance

Rating Table – Series 61 – Direct Drive

Size	Model Code	Blade Angle	Motor		Peak Fan BHP	CFM @ SP					Net Inst. Wt. #
			HP	RPM		0"	1/8"	1/4"	3/8"	1/2"	
12"	A61---126-P---STFCD2		1/4	3450	0.22	1832	1725	1615	1400	1155	55
	A61---124-O---STFCD3		1/4	1725	0.10	1390	1177				60
14"	A61---146-P---STFCD3		1/4	1725	0.08	1705	1440				60
	A61---144-O---STFCD3		1/4	1725	0.17	2110	1820				66
16"	A61---166-P---STFCD3		1/4	1725	0.17	2520	2250				60
	A61---164-W---STFCD3		1/4	1725	0.27	3040	2780	2500			67
18"	A61---188-Q---STFCD3		1/4	1725	0.26	3240	2945	2490			87
	A61---184WB---STFCE3		1/3	1725	0.37	3850	3520	3225			91
	A61---184WA---STFCF3		1/2	1740	0.35	4055	3750	3475			95
	A61---184WA---STFCD4		1/4	1185	0.12	2765					82
20"	A61---203-L---STFCF3		1/2	1725	0.47	4665	4290	3975	3490		103
	A61---204-W---STFCG3		3/4	1725	0.74	5900	5540	5200	4800		119
24"	A61---242NA---STFCD3		1/4	1725	0.28	5120	4150				123
	A61---242NB---STFCF3		1/2	1725	0.56	6630	5830	4980			131
	A61---242NC---STFCG3		3/4	1725	0.80	7400	6740	6000	5000		139
	A61---246PA---STFCH3		1	1750	1.12	8100	7680	7230	6770	6310	155
	A61---246PB---STFCI3		1 1/2	1750	1.50	9060	8700	8300	7850	7250	163
	A61---244-W---STFCJ3		2	1750	2.06	10380	9960	9550	9100	8630	167
	A61---243-L---STFCE4		1/3	1140	0.30	5375	4750				150
	A61---244-W---STFCF4		1/2	1140	0.57	6800	6140	5400			163
28"	A61---282NA---STFCF3		1/2	1725	0.45	7420	6320				138
	A61---282NB---STFCG3		3/4	1725	0.72	9280	8350	7300	5930		138
	A61---282NC---STFCH3		1	1750	1.00	9850	8990	8050	7000		150
	A61---286PB---STFCI3		1 1/2	1750	1.52	10300	9830	9360	8850	8300	174
	A61---286PA---STFCJ3		2	1750	2.03	12080	11600	11100	10560	10000	178
	A61---283-L---STFCG4		3/4	1140	0.68	8380	7680	6900	5900		165
	A61---284-W---STFCH4		1	1160	1.11	10400	9670	8920	8170		158
	A61---322NB---STFCH3		1	1750	1.00	11820	10620	9330	7650		201
32"	A61---322NA---STFCJ3		2	1750	2.02	15320	14370	13330	12250	11000	213
	A61---322NA---STFCF4		1/2	1140	0.55	9930	8400				189
	A61---323-L---STFCI4		1 1/2	1160	1.53	12630	11750	10900	9930	7900	241
	A61---324-W---STFCJ4		2	1160	2.20	15170	14370	13550	12800	11700	249
	A61---324-W---STFCH5		1	870	0.93	11410	10270	9100			229
	A61---362NC---STFCJ3		2	1750	2.01	17270	15910	14470	12900	10970	222
36"	A61---362NB---STFCK3		3	1750	2.82	20020	18850	17600	16600	15250	250
	A61---366PA---STFCL3		5	1750	4.82	22650	22000	21300	20500	19550	282
	A61---362NA---STFCH4		1	1160	1.12	14800	13500	11800			226
	A61---363-L---STFCJ4		2	1160	2.33	17700	16830	15900	14930	13800	248
	A61---366PB---STFCK4		3	1160	2.43	18600	17750	16500	15200	13700	382
	A61---364-W---STFCL4		5	1160	3.83	22000	21150	20250	19400	18200	322
	A61---363-L---STFCH5		1	870	0.98	13400	12250	10900			278
	A61---364-W---STFCI5		1 1/2	870	1.64	16610	15370	13970	11950		290
	A61---402NA---STFCJ4		2	1160	2.25	20630	19000	17200	15150		312
	A61---406PA---STFCK4		3	1160	2.90	22200	20950	19600	18150	16300	356
40"	A61---406PB---STFCL4		5	1160	4.90	25900	25000	24100	23050	21850	381
	A61---402NA---STFCH5		1	870	0.94	15550	13270				292
	A61---406PA---STFCI5		1 1/2	870	1.25	16650	14900	12850			260
	A61---403-L---STFCJ5		2	870	1.90	19230	18000	16630	15050	12000	340
	A61---404-W---STFCK5		3	870	3.47	23380	22150	20700	19000		364
	A61---404-W---STFCI6		1 1/2	690	1.67	18300	16600	14650			378
	A61---442NB---STFCJ4		2	1160	2.17	23070	20800	18400	15050		341
44"	A61---442NA---STFCK4		3	1160	3.50	27050	25150	23150	21200	18900	377
	A61---446-P---STFCL4		5	1160	5.20	29600	28500	27300	26000	24650	389
	A61---442NB---STFCH5		1	870	0.98	17730	14600				345
	A61---442NA---STFCI5		1 1/2	870	1.53	20410	17970	15200			353
	A61---446-P---STFCJ5		2	870	2.16	21900	20300	18600	16600		359
	A61---443-L---STFCK5		3	870	3.20	24850	23550	22100	20600	18750	385
	A61---444-W---STFCL5		5	870	5.10	30770	29450	27800	26150	24400	421
	A61---443-L---STFCI6		1 1/2	690	1.49	19380	17700	15650			365
	A61---482NC---STFCJ4		2	1160	2.15	25500	23200	20700	17750		419
48"	A61---482NB---STFCK4		3	1160	3.12	28950	26600	24200	21400	18000	431
	A61---482NA---STFCL4		5	1160	5.37	34350	32500	30400	28100	25550	447
	A61---484AA200STFCN4	20°	10	1160	9.32	40803	38834	36932	34978	32980	596
	A61---482NA---STFCJ5		2	870	2.18	25450	22900	19750			455
	A61---483-L---STFCL5		5	870	4.42	31250	29600	27850	26100	24100	543
	A61---484AA230STFCK6	23°	3	690	2.31	25989	22881	19451	15714		539
	A61---486AA245STFCL6	24.5°	5	690	3.34	29028	26276	23742	20778	17755	546

CFM shown is net flow at the inlet and includes static pressure loss through ventilator. Note: For aluminum construction – multiply weight by .75. "G" (General Industrial) Duty construction available for models with shaded performance. "H" (Heavy Industrial) Duty construction available for all models.



Rating Table – Series 61 – Direct Drive (Cont'd.)

Size	Model Code	Blade Angle	Motor		Peak Fan BHP	CFM @ SP					Net Inst. Wt. #
			HP	RPM		0"	1/8"	1/4"	3/8"	1/2"	
54"	A61---542NB---STFK4		3	1160	2.85	31950	28900	25500			580
	A61---542NA---STFCL4		5	1160	5.04	40000	37500	34750	31900	28700	612
	A61---542NC---STFCM4		7 1/2	1160	7.12	44700	42300	39800	37000	34150	640
	A61---542NC---STFK5		3	870	3.15	33550	30300	26550	21600		604
	A61---544BA110STFCL5	11°	5	870	5.50	35950	33400	28500	22050		652
	A61---544BA165STFCM5	16.5°	7 1/2	870	8.20	43100	40800	38100	33000	23250	692
	A61---546BA175STFCN5	17.5°	10	870	11.00	47900	45750	43350	39500	32000	715
	A61---544BA140STFCK6	14°	3	690	3.35	31550	28350				684
A61---546BA175STFCL6	17.5°	5	690	5.50	38100	35150	30600	20900		776	
60"	A61---602ND---STFK4		3	1160	3.80	38000	32750	27700			625
	A61---602NB---STFCL4		5	1160	5.15	44200	41600	37800	33500	29300	649
	A61---602NC---STFCM4		7 1/2	1160	7.20	50700	47900	44500	41250	36800	685
	A61---602NA---STFCN4		10	1160	10	57000	53800	49800	44950	40500	721
	A61---602NC---STFK5		3	870	3	38200	33800	28700			649
	A61---602BA150STFCL5	15°	5	870	5.6	45630	42100	38150	33300	26650	677
	A61---604BA130STFCM5	13°	7 1/2	870	8.4	50400	48250	45700	42850	39350	777
	A61---604BA165STFCN5	16.5°	10	870	10.9	56750	54500	52050	49500	46800	905
	A61---603-L---STFCO5		15	870	13.8	63000	61000	58900	56750	55000	929
	A61---604BA100STFCK6	10°	3	690	3.3	35830	32100	28100			785
	A61---604BA165STFCL6	16.5°	5	690	5.45	44970	41900	38900	34850	26600	797
	A61---603-L---STFCM6		7 1/2	690	7	50000	47500	45000	42200	39000	829
	A61---604AA250STFCN6	25°	10	690	10.9	59000	56600	54100	51500	48600	912
	66"	A61---664BA120STFCM5	12°	7 1/2	870	7.8	59300	55500	51700	48000	43800
A61---664BA160STFCN5		16°	10	870	11.25	68800	65300	61700	57800	53900	780
A61---664BA200STFCO5		20	15	870	15	77500	74000	70500	67200	62600	830
A61---664BA100STFCK6		10°	3	690	3.15	43300	39300	34500			700
A61---664BA160STFCL6		16°	5	690	5.6	54600	50700	46900	42700	38400	730
A61---664BA210STFCM6		21°	7 1/2	690	8.15	63400	60000	55800	51700	47300	780
72"	A61---724AA140STFCN5	14°	10	870	10.9	73200	68600	63000	57000	50000	1341
	A61---724AA190STFCO5	19°	15	870	16.8	88000	83800	79000	73200	65500	1278
	A61---724AA140STFCL6	14°	5	690	5.45	58700	52000	44300			1328
	A61---724AA190STFCM6	19°	7 1/2	690	8.4	69700	63800	57600	46700	38000	1349
	A61---724AA230STFCN6	23°	10	690	11.2	77300	72100	66300	54500	42200	1400

CFM shown is net flow at the inlet and includes static pressure loss through ventilator. Note: For aluminum construction – multiply weight by .75. **“G” (General Industrial) Duty construction available for models with shaded performance. “H” (Heavy Industrial) Duty construction available for all models.**

Rating Table – Series 63 – Belted

Size	Model Code	Blade Angle	Motor		Peak Fan BHP	Fan RPM	CFM @ SP					Net Inst. Wt. #
			HP	RPM			0"	1/8"	1/4"	3/8"	1/2"	
24"	A63---243-L---STFCE3			1750	0.33	1071	5080	4380				139
	A63---243-L---STFCF3			1750	0.52	1220	5780	5170	4500			139
28"	A63---283-L---STFCE3			1750	0.32	883	6400	5410				151
	A63---283-L---STFCF3			1750	0.52	1035	7500	6680	5780			151
	A63---283-L---STFCG3			1750	0.76	1165	8470	7740	6960	6000		155
32"	A63---323-L---STFCF3			1750	0.51	825	8850	7620				213
	A63---323-L---STFCG3			1750	0.75	945	10100	9090	7940			217
	A63---323-L---STFCH3		1	1750	1.02	1045	11180	10280	9250	8050		225
	A63---323-L---STFCI3			1750	1.51	1190	12710	11900	11050	10140	8850	245
	A63---323-L---STFCJ3			1750	1.98	1305	13940	13200	12430	11630	10770	245
	A63---323-L---STFCG3				1750	0.77	764	11640	10300			
36"	A63---363-L---STFCH3			1750	1.07	837	12760	11520	10080			262
	A63---363-L---STFCI3			1750	1.68	980	14930	13930	12800	11350		266
	A63---363-L---STFCJ3		2	1750	2.08	1050	16000	15080	14030	12820	11140	266
40"	A63---403-L---STFCH3		1	1750	1.17	690	15280	13680	11600			312
	A63---403-L---STFCI3			1750	1.67	780	17230	15820	14220	11600		320
	A63---403-L---STFCJ3		2	1750	2.31	870	19200	17900	16500	14870		332
	A63---403-L---STFCK3		3	1750	3.30	980	21610	20500	19260	17980	16400	356
44"	A63---443-L---STFCI3			1750	1.53	680	19440	17750	15420			385
	A63---443-L---STFCJ3		2	1750	2.00	738	21070	19550	17600	15150		389
	A63---443-L---STFCCK3		3	1750	3.02	853	24300	23000	21500	19750	17650	401
	A63---443-L---STFCL3		5	1750	4.95	1010	28800	27700	26600	25150	23530	417
48"	A63---483-L---STFCH3		1	1750	0.98	525	19000					455
	A63---483-L---STFCJ3		2	1750	2.02	660	23600	21600	19100			459
	A63---483-L---STFCCK3		3	1750	2.93	740	26400	24550	22500	20100		475
	A63---483-L---STFCL3		5	1750	5.06	895	31930	30400	28800	27100	25250	491

CFM shown is net flow at the inlet and includes static pressure loss through ventilator. Note: For aluminum construction – multiply weight by .75. All belt drive fan ratings include transmission losses.

“G” (General Industrial) Duty construction available for models with shaded performance. “H” (Heavy Industrial) Duty construction available for all models.



Rating Table – Series 63 – Belted (Cont'd.)

Size	Model Code	Blade Angle	Motor		Peak Fan BHP	Fan RPM	CFM @ SP					Net Inst. Wt. #
			HP	RPM			0"	1/8"	1/4"	3/8"	1/2"	
54"	A63---543-L---STFCJ3		2	1750	1.87	497	26050	22950				564
	A63---543-L---STFCK3		3	1750	3.00	573	30000	27400	24000			584
	A63---543-L---STFCL3		5	1750	4.86	671	35150	33050	30600	27300		604
	A63---543-L---STFCM3		7 1/2	1750	7.83	786	41200	39350	37400	35250	32500	632
	A63---544AW220STFCL3	22°	5	1750	5.31	645	38500	36400	33900			605
	A63---544AW220STFCM3	22°	7 1/2	1750	8.02	737	42950	42200	40150	37950		655
60"	A63---603-L---STFCK3		3	1750	3.00	496	35100	31750	27400			665
	A63---603-L---STFCL3		5	1750	5.10	595	42000	39300	36300	32400		685
	A63---603-L---STFCM3		7 1/2	1750	7.50	672	47500	45000	42400	39400	35700	745
	A63---603-L---STFCN3		10	1750	10.00	747	52850	50700	48400	45750	53000	765
	A63---603-L---STFCO3		15	1750	14.90	858	60750	58750	56700	54600	52400	832
	A63---604AW250STFCM3	25°	7 1/2	1750	7.85	603	51200	48800	46000	42500	33500	745
66"	A63---604AW250STFCN3	25°	10	1750	10.60	665	56400	54400	52000	49200	45600	765
	A63---664BA220STFCCK3	22°	3	1750	3.30	486	45800	40600	34200			688
	A63---664BA220STFCL3	22°	5	1750	5.60	575	54400	50000	45300	39500		700
	A63---664BA220STFCM3	22°	7 1/2	1750	8.20	652	61400	57800	53800	49400	43700	727
	A63---664BA220STFCN3	22°	10	1750	11.00	720	68000	64500	61000	57300	53000	748
	A63---664BA220STFCO3	22°	15	1750	16.06	818		74000	71300	67800	64500	795
72"	A63---724AA220STFCL3	22°	5	1750	5.50	531	60300	53500	38000			1204
	A63---724AA160STFCM3	16°	7 1/2	1750	7.81	690	64700	59300	52000	41500		1224
	A63---726AA225STFCM3	22.5°	7 1/2	1750	8.15	531	67200	61700	54000			1244
	A63---726AA160STFCN3	16°	10	1750	11.00	690	71300	67200	62000	55700	48500	1284
	A63---726AA250STFCO3	25°	15	1750	16.80	637	85700	81300	76600	70800		1296
	A63---726AA250STFCP3	25°	20	1750	21.40	690		88800	84500	79500		1351
84"	A63---844BA160STFCL3	16°	5	1750	5.83	455	74300	66800	59000			1672
	A63---844BA170STFCM3	17°	7 1/2	1750	8.30	500	84000	77500	70200	64500	53600	1806
	A63---844BA210STFCN3	21°	10	1750	11.20	500	94500	88000	81500	73700	63600	1840
	A63---846BA250STFCO3	25°	15	1750	16.23	455	105700	100000	94000	88000	80500	1978
	A63---844BA270STFCP3	27°	20	1750	22.00	546	117700	112000	105800	99000	91000	1978
	A63---846BN300STFCO3	30°	15	1750	16.23	364	110000	104500	98000	90600		2032
A63---844BN290STFCP3	29°	20	1750	21.73	455		118400	112500	106000	98000		2002

CFM shown is net flow at the inlet and includes static pressure loss through ventilator. Note: For aluminum construction – multiply weight by .75.

All belt drive fan ratings include transmission losses.

“G” (General Industrial) Duty construction available for models with shaded performance. “H” (Heavy Industrial) Duty construction available for all models.

CFM Limitations for Damper Lids Operation Series 61 and 63

CFM	Fan Size																
	12	14	16	18	20	24	28	32	36	40	44	48	54	60	66	72	84
Minimum ①	1110	1490	1930	2425	2980	4255	5760	7490	9445	11630	14040	16680	21255	26170	30885	36755	50030
Maximum ②	2725	3670	4750	5975	7335	10475	14175	18435	23250	28630	34560	41055	52315	64410	76025	90480	123150

① Minimum CFM to open lids

② Maximum CFM to prevent lid damage



Upblast (Belt Drive)



Series 69



Hartzell Fan, Inc. certifies that the Series 69, Belt Drive Upblast Roof Ventilator, shown hereon are licensed to bear the AMCA Seal for air and sound. The ratings shown are based on tests and procedures performed in accordance with AMCA Publication 211 and AMCA Publication 311, and comply with the requirements of the certified Ratings Program.

Sound performance data is available upon request. Please contact the factory and ask for Engineering Publication #SD-157.

The Series 69 roof ventilator meets the need for a heavy-duty belt drive, upblast ventilator with the motor out of the airstream. This unit features a belt drive duct fan mounted on a spun venturi panel with a stack cap backdraft damper. It is of sufficient height to ensure projection of air and exhaust fumes up and away from the roof of the building. The Series 69 upblast roof ventilator can be built with most of Hartzell's tubeaxial fans.

NOTE: Many other selections not cataloged in this rating table are available. Contact your local Hartzell representative for selections and assistance.

Features:

- **Sizes** – 12" through 84"... performance from 1,455 to 117,000 CFM at free air.
 - **Construction** – sturdy, three-piece unit. Fan is heavy gauge painted hot rolled steel, as standard construction. Aluminum construction is available. Seams are continuously welded. Curb panel features a venturi orifice to provide minimal entry losses and permit efficient fan operation. Venturi panel is painted galvanized steel. Panel and fan are bolted together for ease of installation and maintenance. Stack cap is constructed of galvanized steel in sizes 12" through 60" with self formed flanges top and bottom for additional strength; painted hot rolled steel, size 66" and larger. Butterfly dampers open when the unit is on, close weathertight when the unit is off. Discharge airstream prevents entry of rain or snow during operation. A rolled angle ring on top of the windband is standard on sizes 44" and larger to provide additional support. Damper lids are constructed of galvanized steel for all sizes as standard; aluminum and fiberglass lids are available. Lifting eyes are standard.
 - **Coatings** – standard finish is an industrial grade enamel suitable for interior or exterior industrial applications. Other coatings are available upon request.
 - **Propellers** – cast aluminum airfoil type.
Sizes: 18" - 48" – 6-blade, Type W
Sizes: 54" - 60" – 3-blade lo-noise, Type L
Size: 66" – 4-blade adjustable, Type BA
Sizes: 72" - 84" – 4- and 6-blade adjustable, Type A
- Note: The above blades are merely a representative group of possible selections for these ventilators. Many other fixed and adjustable pitch blade selections can be furnished. Contact your Hartzell representative for assistance.**
- **Pre-Assembled Units** – 12" to 48" shipped in one piece. 54" through 84", stack cap is shipped separately.
 - **Motors** – open drip proof are standard. Special motors are available upon request. Motor covers and drive guards are available. Motors are mounted out of the airstream.
 - **Drive Assembly** – variable pitch drives are standard on units up to 10 HP, enabling speed reduction of 20% from the maximum fan RPM setting. Drives are sized for continuous duty. Propeller shaft rotates in two ball-type bearings mounted on structural inner steel support.
 - **Drive Protection** – drive components (belts, sheave, shaft and bearings) are enclosed in an inner drum and protected from the airstream. This casing is positioned on the negative air pressure side of the propeller. Access to shaft and bearings is through a removable bearing cover. Shaft seal and cover plate are standard.
 - **Lubrication Tubes** – extended from the bearings through the belt tube to the exterior of the fan housing. This standard feature permits easy maintenance.
 - **Options and Accessories** – see pages 33 and 34.



Upblast (Belt Drive-Motor Out of Airstream)



Series 69S – Swingout Construction
(OPTIONAL ALUMINUM HOUSING SHOWN)

Easy Access

Swingout construction provides easy, safe access to internal fan components for inspection, cleaning, maintenance or repair without removing the entire fan assembly or having personnel working directly over the roof opening.

Fan housing is split and swings out from the assembly on a heavy duty hinge. Fan motor, propeller, drive shaft, bearings and drive components all swing out for easy access.

Applications

- Pulp & Paper Mills
- Paint Room Exhaust
- Automotive
- Weld Smoke
- Any application conducive to particulate build-up on airstream fan components.
- Applications requiring routine washdown.

Features

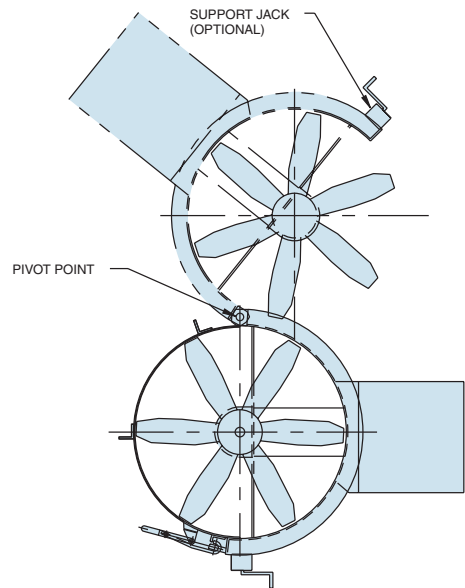
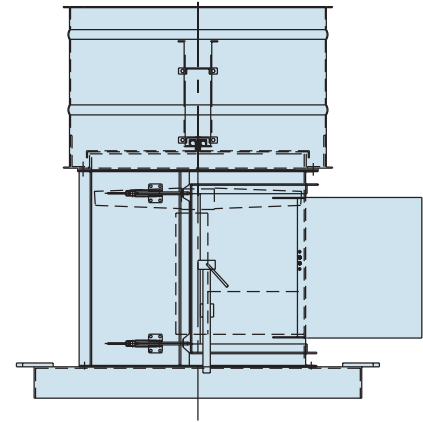
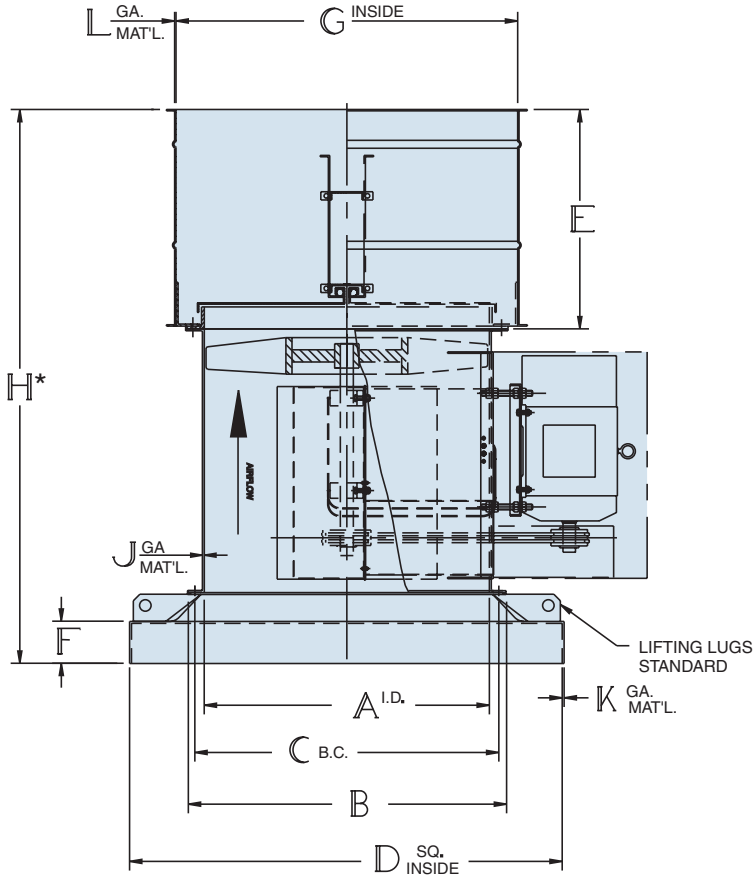
- **Performance** – Fan sizes 12" through 60"... performance from 1,465 to 64,075 CFM at free air. See performance tables on pages 12 & 13; for performance at other operating points contact your Hartzell representative.
- **Construction** – Same as Series 69 (see preceding page) with heavy-duty hinge mounting of fan motor, propeller & drive components. Standard unit construction is painted steel; aluminum or stainless steel construction available as an option.
- **Accessories** – In addition to standard accessories (see pages 33 & 34), swingout fans are available with an optional wheeled support jack for ease of opening/closing fan housing and De-Sta-Co clamps for ease of closing/opening swing out door.
- **Dimension Note** – See dimensions table on page 11. Note that an additional 10" must be added to overall unit height for swingout construction.



Dimensions

Series 69S (Available Sizes 12"-60")

Standard Series 69



Principal Dimensions – Series 69

FAN SIZE	A	B	C	D	E	F	G	H*	J		K		L		MOTOR FRAMES MAX
									STEEL	ALUM.	STEEL	ALUM.	STEEL	ALUM.	
12	12 $\frac{1}{2}$	15 $\frac{1}{2}$	14 $\frac{1}{2}$	22	12	2	18	37 $\frac{3}{8}$	12	$\frac{1}{8}$	14	$\frac{1}{8}$	20	.064	145T
14	14 $\frac{1}{2}$	17 $\frac{1}{2}$	16 $\frac{1}{2}$	24	12	2	20	38 $\frac{3}{8}$	12	$\frac{1}{8}$	14	$\frac{1}{8}$	20	.064	145T
16	16 $\frac{1}{2}$	19 $\frac{1}{2}$	18 $\frac{1}{2}$	26	12	2	22	41 $\frac{3}{8}$	12	$\frac{1}{8}$	14	$\frac{1}{8}$	20	.064	182T
18	18 $\frac{1}{2}$	21 $\frac{1}{2}$	20 $\frac{1}{2}$	28	20	2	24	49 $\frac{5}{8}$	12	$\frac{1}{8}$	14	$\frac{1}{8}$	20	.064	213T
20	20 $\frac{1}{2}$	23 $\frac{1}{2}$	22 $\frac{1}{2}$	30	20	2	26	55 $\frac{5}{8}$	12	$\frac{1}{8}$	14	$\frac{1}{8}$	20	.064	213T
24	24 $\frac{1}{2}$	29 $\frac{1}{2}$	26 $\frac{1}{2}$	36	20 $\frac{1}{2}$	2 $\frac{3}{4}$	30	57 $\frac{13}{8}$	10	.190	14	$\frac{1}{8}$	20	.064	215T
28	28 $\frac{1}{2}$	33 $\frac{1}{2}$	30 $\frac{1}{2}$	42	20 $\frac{1}{2}$	2 $\frac{3}{4}$	34	58 $\frac{3}{8}$	10	.190	14	$\frac{1}{8}$	20	.064	215T
30	30 $\frac{1}{2}$	35 $\frac{1}{2}$	33	42	20 $\frac{1}{2}$	2 $\frac{3}{4}$	36	61 $\frac{1}{8}$	10	.190	14	$\frac{1}{8}$	20	.064	215T
32	33	37 $\frac{1}{2}$	35	42	26 $\frac{1}{2}$	2 $\frac{3}{4}$	38	67 $\frac{5}{8}$	10	.190	14	$\frac{1}{8}$	20	.064	215T
36	37	41 $\frac{1}{2}$	39	48	26 $\frac{1}{2}$	2 $\frac{3}{4}$	44	67 $\frac{5}{8}$	10	.190	14	$\frac{1}{8}$	20	.064	215T
40	41	45 $\frac{1}{2}$	43 $\frac{1}{2}$	50	26 $\frac{1}{2}$	2 $\frac{3}{4}$	48	75 $\frac{3}{8}$	10	.190	14	$\frac{1}{8}$	20	.064	215T
42	42 $\frac{1}{2}$	47 $\frac{1}{2}$	45	54	26 $\frac{1}{2}$	2 $\frac{3}{4}$	50	76 $\frac{1}{8}$	10	.190	14	$\frac{1}{8}$	20	.064	215T
44	45	49 $\frac{1}{2}$	47 $\frac{1}{2}$	54	38 $\frac{1}{2}$	2 $\frac{3}{4}$	52	88 $\frac{1}{8}$	10	.190	14	$\frac{1}{8}$	16	.100	215T
48	49 $\frac{1}{2}$	53 $\frac{1}{2}$	51 $\frac{1}{2}$	60	38 $\frac{1}{2}$	3 $\frac{1}{4}$	56	89 $\frac{1}{8}$	10	.190	14	$\frac{1}{8}$	16	.100	215T
54	55 $\frac{1}{2}$	60 $\frac{1}{2}$	57 $\frac{1}{2}$	64 $\frac{1}{2}$	38 $\frac{1}{2}$	3 $\frac{1}{4}$	62	89 $\frac{1}{8}$	10	.190	14	$\frac{1}{8}$	16	.100	286T
60	61 $\frac{1}{2}$	66 $\frac{1}{2}$	63 $\frac{1}{2}$	70 $\frac{1}{2}$	38 $\frac{1}{2}$	3 $\frac{1}{4}$	68	89 $\frac{1}{8}$	10	.190	14	$\frac{1}{8}$	14	.100	286T
66	67	73 $\frac{1}{2}$	71 $\frac{1}{2}$	79 $\frac{1}{2}$	36 $\frac{1}{2}$	3	76 $\frac{1}{2}$	82 $\frac{3}{8}$	10	$\frac{3}{16}$	$\frac{1}{4}$	$\frac{3}{8}$	10	.190	326T
72	73	79 $\frac{1}{2}$	76 $\frac{1}{2}$	82	36 $\frac{1}{2}$	3	82 $\frac{1}{2}$	82 $\frac{3}{8}$	10	$\frac{3}{16}$	$\frac{1}{4}$	$\frac{3}{8}$	10	.190	326T
84	85 $\frac{1}{2}$	91 $\frac{1}{2}$	88 $\frac{1}{2}$	98 $\frac{1}{2}$	42 $\frac{1}{2}$	3 $\frac{1}{4}$	95	88 $\frac{3}{8}$	10	$\frac{3}{16}$	$\frac{1}{4}$	$\frac{3}{8}$	10	.190	326T

Note: Specifications and dimensions are subject to change.
Certified prints are available.

Sizes 66"-84" units are supplied with a flat curb panel.

*For swing-out design, add 10". Not available for 66" thru 84".



Performance

Rating Table – Series 69 – Belt Drive Upblast Ventilation

Size	Model Code	Blade Angle	Motor		Peak Fan BHP	Fan RPM	CFM @ SP				
			HP	RPM			0"	1/8"	1/4"	3/8"	1/2"
12"	A69---126-W---STFCE3		1/3	1750	0.33	2315	1456	1314	1148		
	A69---126-W---STFCF3		1/2	1750	0.50	2650	1667	1544	1411	1245	
	A69---126-W---STFCG3		3/4	1750	0.75	3030	1906	1800	1687	1563	1410
14"	A69---146-W---STFCE3		1/3	1750	0.33	1980	2015	1848	1655		
	A69---146-W---STFCF3		1/2	1750	0.50	2270	2310	2167	2008	1827	1599
	A69---146-W---STFCG3		3/4	1750	0.75	2595	2641	2517	2383	2237	2076
16"	A69---166-W---STFCD3		1/2	1750	0.50	2010	2918	2691	2479	2224	
	A69---166-W---STFCF3		3/4	1750	0.75	2300	3339	3140	2948	2765	2522
	A69---166-W---STFCH3		1	1750	1.11	2610	3789	3613	3441	3278	3115
18"	A69---186-W---STFCF3		1/2	1750	0.50	1590	3427	3208	2919	2522	
	A69---186-W---STFCG3		3/4	1750	0.75	1820	3923	3736	3513	3222	2859
	A69---186-W---STFCH3		1	1750	1.10	2065	4451	4289	4106	3886	3616
	A69---186-W---STFCI3		1 1/2	1750	1.65	2365	5097	4958	4805	4636	4437
20"	A69---206-W---STFCD3		1/2	1750	0.50	1355	3805	3505	3173		
	A69---206-W---STFCF3		3/4	1750	0.77	1555	4366	4105	3833	3521	3118
	A69---206-W---STFCH3		1	1750	1.13	1765	4956	4726	4493	4241	3956
	A69---206-W---STFCI3		1 1/2	1750	1.69	2020	5672	5471	5270	5062	4837
24"	A69---246-W---STFCD3		1/2	1750	0.48	1025	5302	4731			
	A69---246-W---STFCF3		3/4	1750	0.75	1185	6130	5647	5091		
	A69---246-W---STFCH3		1	1750	1.10	1345	6957	6539	6075	5526	4681
	A69---246-W---STFCI3		1 1/2	1750	1.65	1540	7966	7605	7214	6791	6288
	A69---246-W---STFCJ3		2	1750	2.22	1700	8794	8469	8123	7754	7353
	A69---246-W---STFCK3		3	1750	3.39	1950	10087	9805	9511	9201	8876
28"	A69---286-W---STFCG3		3/4	1750	0.73	905	7782	6992	6295		
	A69---286-W---STFCH3		1	1750	1.10	1030	8857	8146	7534	6852	5953
	A69---286-W---STFCI3		1 1/2	1750	1.70	1190	10232	9608	9052	8529	7919
	A69---286-W---STFCJ3		2	1750	2.32	1320	11350	10782	10258	9789	9310
	A69---286-W---STFCK3		3	1750	3.58	1525	13113	12615	12148	11716	11311
30"	A69---306-W---STFCH3		1	1750	1.10	865	9131	8370	7543		
	A69---306-W---STFCI3		1 1/2	1750	1.65	990	10451	9792	9101	8277	7039
	A69---306-W---STFCJ3		2	1750	2.20	1090	11506	10911	10289	9633	8717
	A69---306-W---STFCK3		3	1750	3.32	1250	13195	12679	12144	11597	11013
	A69---306-W---STFCL3		5	1750	5.62	1490	15729	15296	14857	14403	13945
32"	A69---326-W---STFCH3		1	1750	1.11	785	10346	9428	8403		
	A69---326-W---STFCI3		1 1/2	1750	1.64	895	11796	10999	10144	9181	
	A69---326-W---STFCJ3		2	1750	2.19	985	12982	12262	11501	10676	9736
	A69---326-W---STFCK3		3	1750	3.31	1130	14893	14269	13619	12940	12208
	A69---326-W---STFCL3		5	1750	5.70	1355	17858	17340	16810	16262	15698
36"	A69---366-W---STFCH3		1	1750	1.10	670	12289	11012	9509		
	A69---366-W---STFCI3		1 1/2	1750	1.65	765	14032	12940	11651	10353	
	A69---366-W---STFCJ3		2	1750	2.18	840	15407	14423	13300	12084	10876
	A69---366-W---STFCK3		3	1750	3.36	970	17792	16947	16038	15005	13955
	A69---366-W---STFCL3		5	1750	5.82	1165	21369	20669	19946	19167	18311
	A69---366-W---STFCM3		7 1/2	1750	7.45	1265		22558	21902	21209	20454
40"	A69---406-W---STFCI3		1 1/2	1750	1.62	660	15507	14436	13202		
	A69---406-W---STFCJ3		2	1750	2.21	730	17152	16193	15129	13884	12290
	A69---406-W---STFCK3		3	1750	3.43	845	19854	19034	18157	17192	16095
	A69---406-W---STFCL3		5	1750	6.03	1020	23966	23289	22592	21852	21061
	A69---406-W---STFCM3		7 1/2	1750	9.33	1180	27725	27140	26549	25934	25290
42"	A69---426-W---STFCI3		1 1/2	1750	1.57	605	16494	15110	13620		
	A69---426-W---STFCJ3		2	1750	2.21	670	18266	17023	15711	14300	
	A69---426-W---STFCK3		3	1750	3.45	775	21129	20059	18952	17788	
	A69---426-W---STFCL3		5	1750	5.97	930	25355	24463	23562	22630	21663
	A69---426-W---STFCM3		7 1/2	1750	9.22	1075	29308	28534	27764	26975	26165
	A69---426-W---STFCN3		10	1750	11.43	1155	31489	30767	30054	29325	28580
44"	A69---446-W---STFCJ3		2	1750	2.19	655	20143	18818	17348	15589	
	A69---446-W---STFCK3		3	1750	3.42	760	23372	22240	21034	19702	18155
	A69---446-W---STFCL3		5	1750	5.98	915	28138	27201	26240	25218	24123
	A69---446-W---STFCM3		7 1/2	1750	9.29	1060	32598	31785	30974	30126	29238
	A69---446-W---STFCN3		10	1750	10.96	1120	34443	33671	32909	32116	31290

Performance certified is for installation Type A: free inlet/free outlet.
 CFM shown is net flow at the inlet and includes static pressure loss through ventilator.
 Power ratings (BHP) include transmission losses.
 Performance ratings do not include the effects of appurtenances (accessories).



Rating Table – Series 69 – Belt Drive Upblast Ventilation (Cont'd.)

Size	Model Code	Blade Angle	Motor		Peak Fan BHP	Fan RPM	CFM @ SP				
			HP	RPM			0"	1/8"	1/4"	3/8"	1/2"
48"	A69---486-W---STFCJ3		2	1750	2.16	585	22422	20506	18635		
	A69---486-W---STFCCK3		3	1750	3.31	670	25680	23997	22358	20694	18653
	A69---486-W---STFCL3		5	1750	5.84	810	31046	29639	28280	26928	25572
	A69---486-W---STFCM3		7½	1750	8.99	935	35837	34603	33427	32249	31080
	A69---486-W---STFCN3		10	1750	12.37	1040	39862	38740	37683	36624	35565
54"	A69---543-L---STFCCK3		3	1750	3.24	590	33447	29987	26925	23233	
	A69---543-L---STFCL3		5	1750	5.73	710	40250	37266	34698	32105	29043
	A69---543-L---STFCM3		7½	1750	8.82	820	46486	43828	41527	39350	37084
	A69---543-L---STFCN3		10	1750	11.86	905	51304	48843	46710	44719	42740
	A69---543-L---STFCO3		15	1750	12.46	920	52155	49724	47622	45655	43711
60"	A69---603-L---STFCL3		5	1750	5.60	595	45934	41950	38156	34237	30062
	A69---603-L---STFCM3		7½	1750	8.63	685	52882	49344	46092	42750	39333
	A69---603-L---STFCN3		10	1750	11.79	760	58672	55414	52504	49530	46492
	A69---603-L---STFCO3		15	1750	15.36	830	64076	61024	58374	55676	52926
66"	A69---664BA130STFCL3	13°	5	1750	4.55	650	45649	38488			
	A69---664BA190STFCM3	19°	7½	1750	7.69	650	56675	50911	42838	31254	
	A69---664BA220STFCN3	22°	10	1750	9.86	650	62048	56701	49245	34950	
	A69---664BA310STFCO3	31°	15	1750	15.75	650	71790	66057	58838		
72"	A69---724AA160STFCL3	16°	5	1750	4.36	584	54643	47850			
	A69---724AA160STFCM3	16°	7½	1750	7.19	690	64561	59150	51379	40528	
	A69---724AA190STFCN3	19°	10	1750	9.20	690	71910	66454	60183	49212	39191
	A69---726AA250STFCO3	25°	15	1750	14.45	620	83603	79270	74138	67553	
	A69---726AA310STFCP3	31°	20	1750	19.65	620		87043	81395	74329	
84"	A69---844BA160STFCM3	16°	7½	1750	7.23	500	81675	74956	67976	60485	
	A69---844BA220STFCN3	22°	10	1750	11.44	500	97242	91015	84133	76404	66999
	A69---844BA280STFCO3	28°	15	1750	16.76	500	110639	104313	97194	88955	78624
	A69---846BA220STFCP3	22°	20	1750	21.56	546	116282	111959	107402	102569	97405
	A69---846BA250STFCQ3	25°	25	1750	26.06	546		121895	116866	111692	106318

Performance certified is for installation Type A: free inlet/free outlet.
 CFM shown is net flow at the inlet and includes static pressure loss through ventilator.
 Power ratings (BHP) include transmission losses.
 Performance ratings do not include the effects of appurtenances (accessories)

CFM Limitations for Damper Lids Operation Series 69

CFM	Fan Size																
	12	14	16	18	20	24	28	32	36	40	44	48	54	60	66	72	84
Minimum ①	1110	1490	1930	2425	2980	4255	5760	7490	9445	11630	14040	16680	21255	26170	30885	36755	50030
Maximum ②	2725	3670	4750	5975	7335	10475	14175	18435	23250	28630	34560	41055	52315	64410	76025	90480	123150

① Minimum CFM to open lids

② Maximum CFM to prevent lid damage



Upblast (Belt Drive) Smoke Ventilator



Series 69H



Hartzell Fan, Inc., certifies that the Series 69H Upblast (Belt Drive) Smoke Ventilator shown hereon is licensed to bear the AMCA seal. The ratings shown are based on tests and procedures performed in accordance with AMCA Publication 211 and AMCA Publication 311 and comply with the requirements of the AMCA Certified Ratings Program.

Sound performance data is available upon request. Please contact the factory and ask for Engineering Publication #SD-159.

Hartzell Fan, Inc. originally pioneered the development of the first powered smoke ventilator. Today, the Hartzell Series 69H Upblast Smoke Ventilator meets or exceeds rigid I.R.I. (Industrial Risk Insurers) Guidelines for Heat and Smoke Venting, No. IM.2.1.4 (supersedes Guideline No. p.2.6).

An increasing number of insurance companies, local code bodies, and business and building owners are requiring these designated purpose ventilators to be installed, both in existing buildings and new structures.

The advantages of a properly designed powered smoke ventilator approach to the effective removal of hot gases and smoke include:

- the provision of early access into the building by firefighters.
- reduce burden on the sprinkler system.
- reduced risk of personal injury and property loss.

Installing roof mounted gravity vents alone may be inadequate. Variables such as inside and outside air temperature, wind velocity and location of sprinklers can seriously affect the performance of gravity vents. The Hartzell Series 69H Upblast Smoke Ventilator is pre-engineered and designed to be used as a high temperature powered roof ventilator. It is self-contained, ready to install, wire, and put into service. Moreover, the Series 69H is a multi-use product. It is designed to be used on a daily basis as a power roof ventilator (special independent electrical connections may be required), and as a gravity type roof ventilator in the event of a power failure. Other specific features and advantages of the Hartzell Series 69H follow.

Features:

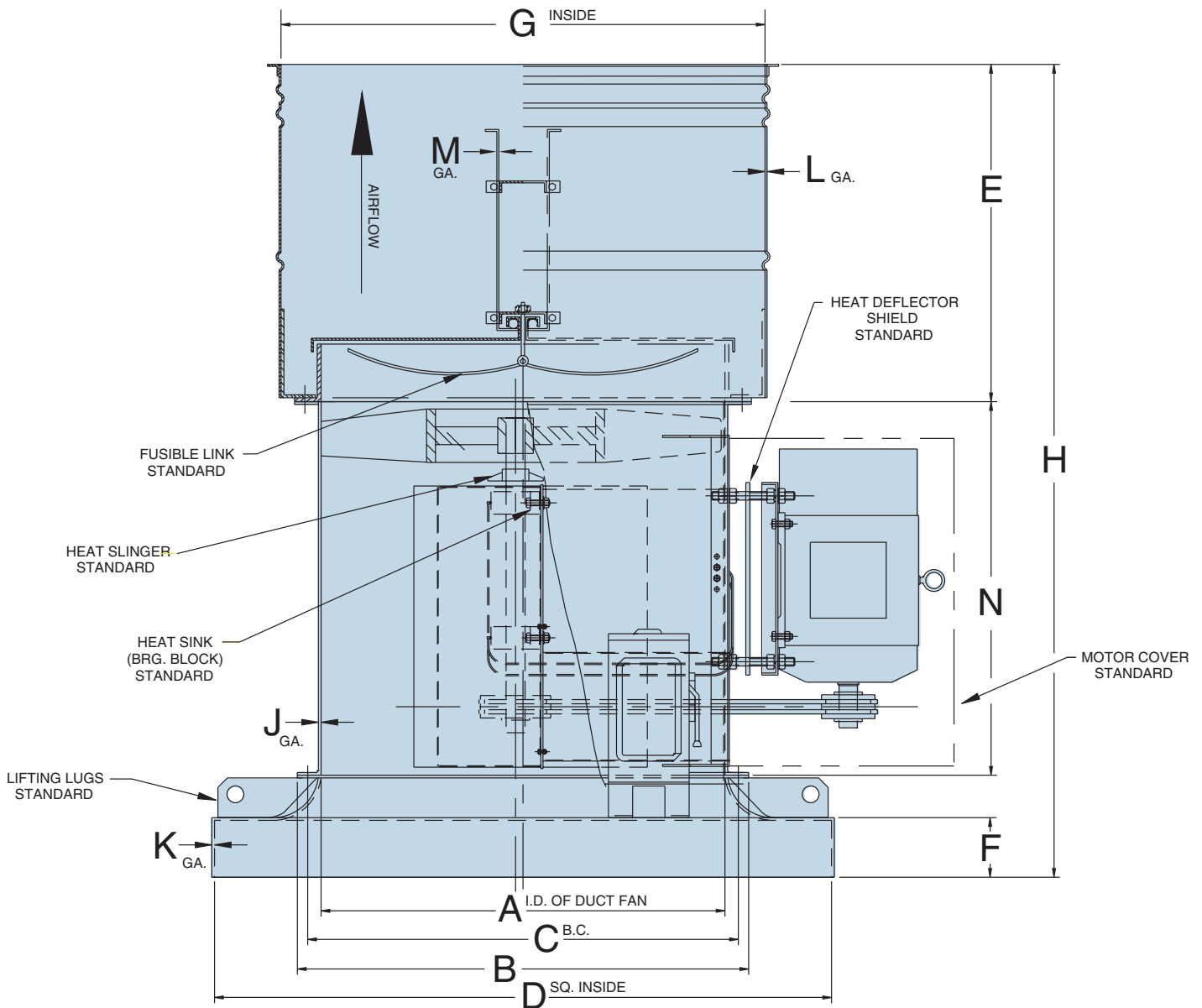
- Designed for continuous operation at 500°F exhaust air temperature, with ambient air drawn through belt tube.
- **Size 18" - 60"**... performance from 3220 CFM to 64,035 CFM at free air.
- **Heavy gauge, all ferrous steel construction** – includes Hartzell's tested and proven belt drive duct fan design with stack cap and curb panel for a complete vertical discharge roof ventilator. Stack cap lids open automatically when the unit is operating, close weather tight when the fan stops. On the inlet side of the smoke vent, a curved inlet orifice increases the efficiency and the performance of the ventilator. The curb panel provides a convenient method of curb mounting the smoke ventilator. The heavy gauge steel construction ensures the unit's ability to withstand high temperatures and provides a durable and rugged unit.
- **Welded steel propeller** – three (3) bladed design with split taper bushing for easy removal from shaft. Reinforcements at the blade roots ensure stability and high stress characteristics. The welded steel propeller offers similar efficiency to the Hartzell cast aluminum lo-noise type propeller.
- **Open end, drip proof motors with 1.15 service factor.** TEFC and other motor enclosures are available upon request.
- **Combination motor cover and belt guard** – this standard feature provides weather protection and guards drive assembly. Cover is vented and removable.
- **Belt drive arrangement** – motor is mounted exterior to the fan housing. Belts, bearings, pulleys and shaft are enclosed and protected from the air stream. The drive assembly is located on the negative side of the propeller; fan design provides for the draft of ambient air from outside the ventilator in and over the belts and bearings.
- **Belts** – are heat resistant per I.R.I. standards. Drives feature two (2) belts minimum.
- **Bearings** – regreasable roller bearing type, supplied with high temperature grease, designed for minimum four hours at 500°F. Copper bearing lubrication tubes are extended from the bearings through the belt tube to the exterior of the fan housing, allowing ease of maintenance.
- **Heat slinger** – reduces heat conduction from the propeller to the shaft and helps draw air through the belt and bearing tube.
- **Heat sinks** – Aluminum plates dissipate radiant heat between motor and duct housing, disconnect switch and mounting bracket, and bearings and bearing base.
- **Fusible link** – spring operated, positive lid opener. When the temperature through the smoke vent exceeds 165°F, the fusible link allows the spring operated lid opener to lock the stack cap lids in the upright, open position. Provides gravity ventilation in case electricity to the power ventilator is interrupted.
- **Disconnect switch** – non-fused, rain tight, NEMA 3R enclosure mounted on the curb panel and wired to the fan motor provides safety during maintenance.
- **Safety coating** – standard finish is high temperature black enamel coating.

Accessories

- **Coatings** – special coatings for corrosion resistance are available upon request.
- **Pre-fabricated roof curb** – 18 gauge galvanized construction features full metal air stream liner. Available for flat, slope, or peaked roofs. Available in 8" or 12" height.
- **Guard** – inlet guard is constructed of expanded metal and woven wire mesh. Outlet guard is spiral, ring type. (Can also be used as a bird screen.)



Dimensions



Principal Dimensions (Inches)

FAN SIZE	A	B	C	D	E	F	G	H	J	K	L	M	N	MOTOR FRAMES MAX.
18	18 ⁷ / ₈	21 ⁵ / ₈	20 ⁵ / ₈	28	22 ¹ / ₆	2	24	51 ⁵ / ₁₆	12 GA	12 GA	20 GA	26 GA	25	213T
24	24 ⁷ / ₈	29 ¹ / ₈	26 ⁷ / ₈	36	22 ¹ / ₆	2 ³ / ₄	30	59 ¹³ / ₁₆	10 GA	12 GA	20 GA	26 GA	31	215T
30	30 ⁷ / ₈	35 ¹ / ₈	33	42	22 ¹ / ₆	2 ³ / ₄	36	63 ⁵ / ₁₆	10 GA	12 GA	20 GA	26 GA	34	215T
36	37	41 ³ / ₈	39	48	28 ¹ / ₆	2 ³ / ₄	44	69 ⁵ / ₁₆	10 GA	12 GA	20 GA	26 GA	34	215T
42	42 ⁷ / ₈	47 ¹ / ₄	45	54	28 ¹ / ₆	2 ³ / ₄	50	78 ¹ / ₁₆	10 GA	12 GA	20 GA	26 GA	42	215T
48	49 ¹ / ₈	53 ¹ / ₂	51 ⁵ / ₈	60	41 ¹ / ₈	3 ³ / ₄	56	91 ⁵ / ₈	10 GA	12 GA	16 GA	20 GA	42	215T
54	55 ³ / ₈	60 ⁵ / ₈	57 ⁵ / ₈	64 ¹ / ₄	41 ¹ / ₈	3 ³ / ₄	62	91 ⁷ / ₈	10 GA	12 GA	16 GA	20 GA	42	254T
60	61 ³ / ₈	66 ⁵ / ₈	63 ⁵ / ₈	70 ¹ / ₄	41 ¹ / ₈	3 ³ / ₄	68	92 ³ / ₈	10 GA	12 GA	14 GA	20 GA	42	254T

Note: Specifications and dimensions are subject to change.
Certified prints are available.



Performance

Rating Table – Series 69H

Size	Model Code	Motor		Peak Fan BHP	Fan RPM	CFM @ SP				
		HP	RPM			Free Air	1/8"	1/4"	3/8"	1/2"
18"	A69H--183-S---STFCF3	1/2	1750	0.50	1730	3220	2925	2635		
	A69H--183-S---STFCG3	3/4	1750	0.75	1980	3685	3425	3175	2905	2490
	A69H--183-S---STFCH3	1	1750	1.10	2250	4190	3960	3735	3515	3265
	A69H--183-S---STFCI3	1 1/2	1750	1.64	2575	4795	4595	4395	4200	4010
24"	A69H--243-S---STFCF3	1/2	1750	0.49	950	5230				
	A69H--243-S---STFCG3	3/4	1750	0.75	1095	6030	5285			
	A69H--243-S---STFCH3	1	1750	1.10	1245	6855	6200	5525		
	A69H--243-S---STFCI3	1 1/2	1750	1.65	1425	7845	7275	6705	6015	
	A69H--243-S---STFCJ3	2	1750	2.20	1570	8645	8125	7610	7075	6160
A69H--243-S---STFCCK3	3	1750	3.29	1795	9880	9430	8975	8525	8050	
30"	A69H--303-S---STFCH3	1	1750	1.09	830	7830	6705			
	A69H--303-S---STFCI3	1 1/2	1750	1.66	1020	9625	8730	7715		
	A69H--303-S---STFCJ3	2	1750	2.19	1120	10570	9755	8885	7670	
	A69H--303-S---STFCCK3	3	1750	3.31	1285	12125	11420	10690	9875	8705
A69H--303-S---STFCL3	5	1750	5.51	1525	14390	13790	13195	12565	11885	
36"	A69H--363-S---STFCH3	1	1750	1.37	720	12300	10235			
	A69H--363-S---STFCI3	1 1/2	1750	1.79	830	14180	12335	10260		
	A69H--363-S---STFCJ3	2	1750	2.20	910	15545	13835	12235		
	A69H--363-S---STFCCK3	3	1750	3.28	1040	17765	16230	14900	13205	
	A69H--363-S---STFCL3	5	1750	5.49	1235	21100	19775	18595	17490	16115
A69H--363-S---STFCM3	7 1/2	1750	7.30	1360	23235	22025	20915	19915	18870	
42"	A69H--423-S---STFCI3	1 1/2	1750	1.41	555	16490	13650			
	A69H--423-S---STFCJ3	2	1750	2.35	645	19155	16725	14245		
	A69H--423-S---STFCCK3	3	1750	3.31	740	21975	19860	17750	15130	
	A69H--423-S---STFCL3	5	1750	5.46	875	25980	24180	22415	20645	18555
	A69H--423-S---STFCM3	7 1/2	1750	8.22	1005	29845	28255	26725	25170	23650
A69H--423-S---STFCN3	10	1750	9.59	1060	31475	29965	28530	27055	25580	
48"	A69H--483-S---STFCJ3	2	1750	2.60	550	24205	20485			
	A69H--483-S---STFCCK3	3	1750	3.31	630	27730	24420	21195		
	A69H--483-S---STFCL3	5	1750	5.46	745	32790	29930	27315	24395	19045
	A69H--483-S---STFCM3	7 1/2	1750	8.23	855	37630	35080	32765	30495	27860
A69H--483-S---STFCN3	10	1750	10.47	930	40930	38570	36415	34355	32150	
54"	A69H--543-S---STFCCK3	3	1750	3.31	490	32400	27960	23235		
	A69H--543-S---STFCL3	5	1750	5.56	600	39670	36005	32425	28445	
	A69H--543-S---STFCM3	7 1/2	1750	8.24	685	45290	42000	38940	35690	32150
	A69H--543-S---STFCN3	10	1750	10.91	755	49920	46910	44130	41295	38285
	A69H--543-S---STFCO3	15	1750	12.42	790	52235	49330	46685	43990	41135
60"	A69H--603-S---STFCL3	5	1750	5.45	520	45615	42320	37000	31660	
	A69H--603-S---STFCM3	7 1/2	1750	8.37	600	52635	50015	46025	41130	36490
	A69H--603-S---STFCN3	10	1750	10.82	655	57460	55230	51820	47395	43230
	A69H--603-S---STFCO3	15	1750	14.70	730	64035	62250	59320	55845	51705

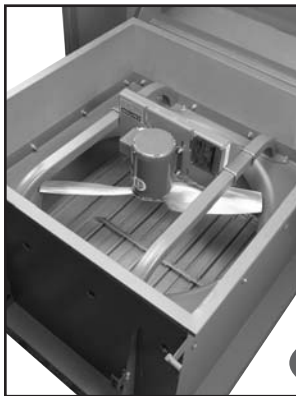
Performance certified is for installation Type A: free inlet, free outlet.
 CFM shown is net flow at the inlet and includes static pressure loss through ventilator.
 Performance ratings do not include the effects of appurtenances (accessories).
 Power ratings (BHP) include transmission losses.



Hooded Roof Ventilator



Series 15 (Direct Drive)



ABS Certificate
of Design Assessment
Received

"G" Duty Shown

The hooded roof ventilator design provides complete protection from the elements for either exhaust or supply ventilation. The unit's large hood surface reduces the air velocities through the ventilator. This feature minimizes pressure drop through the hood and eliminates the entrainment of rain into supply units. The fan assembly is placed in the upper section of the base, blades facing down, with the motor, drives, etc. located above the fan assembly, for ease of maintenance.

The Hartzell hooded roof ventilators are designed with basic function in mind; they facilitate mounting of optional items. Hartzell has designed the Series 15 and 16 so that permanent or disposable filters may be added to the hood as an accessory item. Please refer to the separate rating table for filtered performance, beginning on page 23.

NOTE: This catalog incorporates merely a representative group of Hartzell blades that are available. Many other adjustable blades and blade angles can be furnished. Contact your Hartzell representative for additional information and assistance.

SERIES 15I (Intake) and 15E (Exhaust) – Direct Drive

An efficient, high performance ventilator. Best suited for applications where the unit is in a difficult location for servicing. Sizes 18" through 72", performance from 2,350 to 90,300 CFM at free air on intake; from 2,050 to 78,500 CFM at free air on exhaust.

SERIES 16I (Intake) and 16E (Exhaust) – Belted

Particularly suited for applications where noise is a factor. The belted arrangement prevents the necessity of using costly,

low-speed motors as in direct drive operations. Since the drive assembly is in the airstream, Series 16 ventilators are designed for clean air operation. Sizes 24" through 84", performance from 4,080 to 131,000 CFM at free air on intake; from 3,700 to 116,500 CFM at free air on exhaust. Also available as a Series 19I, 19E, or 19F, with motor out of the airstream. See drawing on next page.

SERIES 17 (Direct Drive) and 17B (Belted)

Truly reversible airfoil fans offer 100% air delivery for both intake and exhaust flows. Ratings vary slightly due to the difference in pressure drops in the intake and exhaust modes. This unit is ideal for applications where varying conditions call for intake (supply air) for some operations, and exhaust flow for others. Series 17 ventilators utilize the Hartzell reversible ring fan incorporating two curved orifice rings welded back-to-back with a reversible airfoil section propeller to provide efficient performance when operating in either direction. Sizes 18" through 72"... performance from 3,220 to 96,700 CFM at free air on intake; from 2,970 to 88,200 CFM at free air on exhaust.

Features:

- **Construction** – ventilator hood and base are galvanized steel, painted with an industrial air dry enamel coating to provide maximum protection from the elements. Aluminum construction is also available for "H" Duty only. The fan frame is painted mild steel. The hood is hinged on units through size 36". This allows for the hood to be rotated to the side or removed for access to the fan assembly. Sizes 42" through 84" feature split hoods which are removable for access to the fan. These larger sizes are available with Hartzell's unique slide-rail access package to allow easy separation of the hood halves for inspection and maintenance (see page 22).

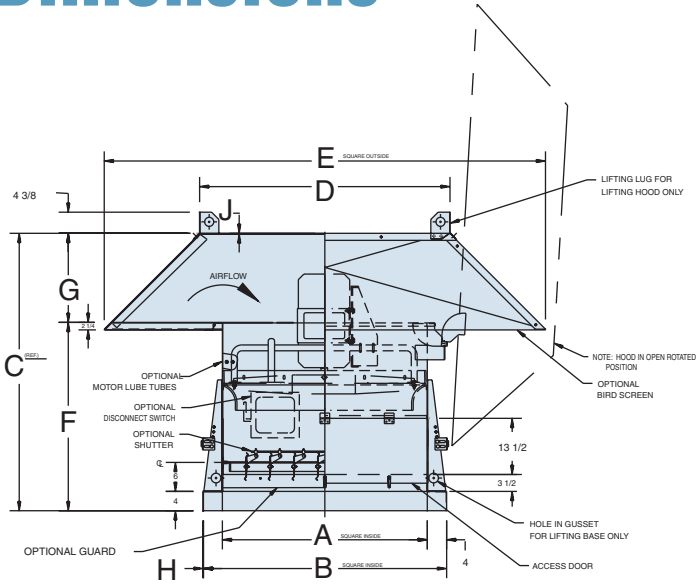
Standard construction on these units accommodates a 60 mph maximum wind load. Higher wind load construction features are available as an option.

All hoods, size 36" and larger, are shipped separately from the base and are to be mounted in the field. Lifting eyes and hardware required for securing the hood to the base are furnished as standard.

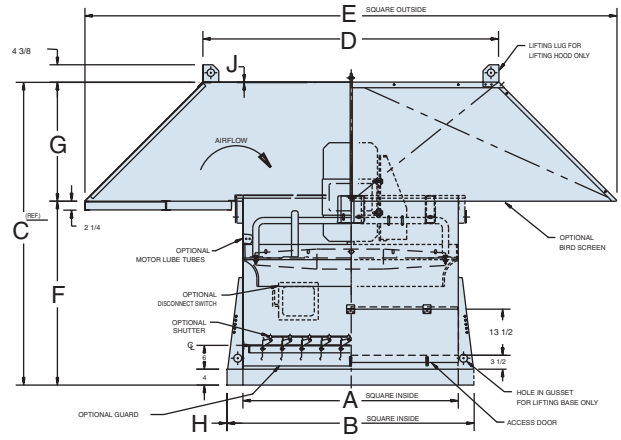
- **Motor Mount** – "G" (General Industrial) Duty construction features an adjustable steel motor base and tubular steel frame, which are over-sized to provide structurally rugged construction. "G" Duty is available as Series 15I, 15E, 15F, 16I, 16E, and 16F in sizes 18" to 48" and will be limited by HP and RPM on certain sizes. Please reference the performance rating tables, the shaded models are those models offered as "G" Duty.
"H" (Heavy Industrial) Duty construction features solid rolled rod supports, welded to the fan panel and motor mounts to provide support for the motor. The steel motor base and solid steel support rods are oversized to provide structurally rugged construction. "H" Duty is available in all sizes and models.
- **Access Door** – standard on all units.
- **Motors** – totally enclosed fan cooled, foot mounted, T-frame motors are standard. Special motors are available upon request. See Motor Frame Size and Installation Weight Table for maximum motor frame sizes. Belted units, Series 16, are standard with adjustable motor slides for belt tightening.
- **Propellers** – cast aluminum airfoil type. Several configurations are available to accommodate maximum flow for a given size and horsepower configuration. Typically, Hartzell 2, 3, 4 and 6 blade assemblies are used. They include the Hartzell Types N, P, L, W, A, AW and BA designs for standard flow. The Type R and Type AR blades are used for reversible type applications. Some designs are fixed pitch; others are adjustable pitch.



Dimensions



Sizes 18" – 36"



Sizes 42" – 84"

NOTE: The drawings show Series 15, direct drive, intake flow. Dimensions given below apply for Series 15, 16 and 17, direct or belt drive, intake, exhaust or reversible flow.

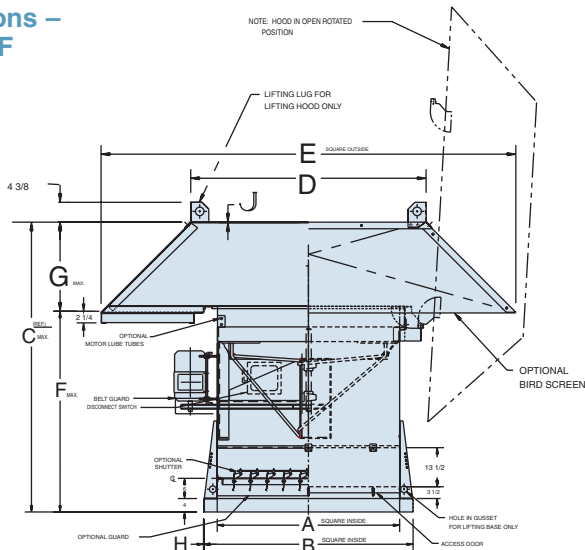
Principal Dimensions – Series 15I, 15E, 15F, 16I, 16E, 16F, 17 and 17B

Fan Size	A	B	C	D	E	F	G	H		J		Max Motor Frame Size		Weight (less motor and options)	
								Galv	Alum	Galv	Alum	"G" Duty	"H" Duty	Galv	Alum
18	22 3/4	30 1/4	44 3/4	34 3/4	59%	31 1/2	12 3/4	14 GA.	0.090	18 GA.	0.063	56	56	212	93
24	28 3/4	36 3/4	53 3/4	40 3/4	72	38 3/8	15 3/8	14 GA.	0.090	18 GA.	0.063	145T	145T	305	134
30	35 3/4	43 3/4	55 3/4	45 3/4	80	38 3/8	17 1/2	14 GA.	0.090	18 GA.	0.063	184T	184T	370	163
36	42 3/4	50 3/4	57 3/4	50 3/4	90	38 3/8	19 3/4	14 GA.	0.090	18 GA.	0.063	213T	215T	448	196
42	48 3/4	56 3/4	64 3/4	54 3/4	96	43 3/8	21	14 GA.	0.090	18 GA.	0.063	215T	254T	560	246
48	54 3/4	62 3/4	72 3/4	67 3/4	120	46 3/4	26 3/4	14 GA.	0.090	18 GA.	0.063	254T	254T	947	374
54	60 3/4	68 3/4	77 3/4	78 3/4	140	46 3/4	30 3/4	14 GA.	0.090	18 GA.	0.063	--	284T	1203	508
60	66 3/4	74 3/4	80 3/4	84 3/4	150%	47 3/4	33	14 GA.	0.090	18 GA.	0.063	--	286T	1363	575
72	81 3/4	93 3/4	90 3/4	81 3/4	184	50 3/4	39 3/4	12 GA.	0.125	16 GA.	0.090	--	286T	2339	1950
84	94 3/4	106 3/4	90 3/4	94 3/4	200	50 3/4	39 3/4	12 GA.	0.125	16 GA.	0.090	--	286T	3450	2800

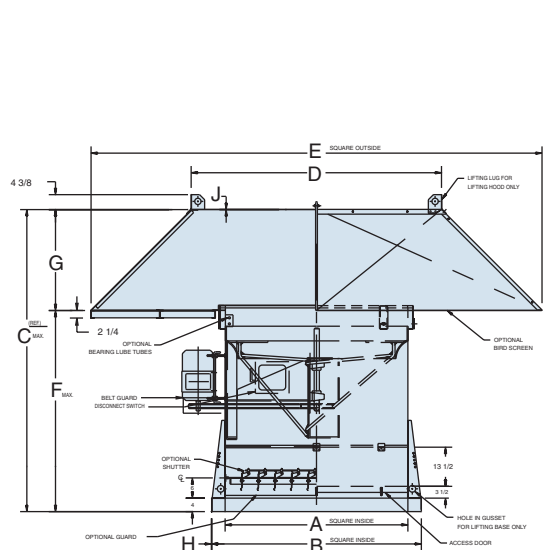
NOTE: Dimensions and specifications are subject to change. Certified prints are available. Maximum installation weight less motor and any optional equipment. Additional hood dimension shown for filtered units.

Principal Dimensions – Series 19I, 19E, 19F

FAN SIZE	C	F
24	63 3/4	47 3/4
30	67 3/4	49 3/4
36	74 3/4	54 3/4
42	91 3/4	70 3/4
48	96 3/4	70 3/4
54	101 1/4	70 3/4
60	103 3/4	70 3/4
72	111 3/4	72
84	119 3/4	80



Sizes 24" – 36"



Sizes 42" – 84"



Performance

Rating Table – Series 15L or E – Direct Drive Hooded Ventilator

Size	Model Code	Blade Angle	Motor		Peak Fan BHP	CFM @ SP – INTAKE					CFM @ SP – EXHAUST					Inst. Wt. #
			HP	RPM		0"	1/8"	1/4"	3/8"	1/2"	0"	1/8"	1/4"	3/8"	1/2"	
18"	A___-182NA--STFC3		1/4	1725	0.09	2350	1690				2050	1450			228	
	A___-188Q---STFC3		1/4	1725	0.28	3235	2940	2480	1900	1500	2950	2610	2160	1760	228	
	A___-183L---STFCE3		1/2	1725	0.35	3510	3200	2855	1800	980	3175	2880	2420	1400	940	236
	A___-184WB---STFCE3		1/2	1725	0.37	3845	3520	3220			3430	3170			236	
24"	A___-184WA--STFCF3		1/2	1725	0.55	4480	4170	3840	3375		3940	3660			234	
	A___-242NB--STFCF3		1/2	1725	0.56	6600	5810	4950	3350		5700	5050	4250	2850	327	
	A___-242NC--STFCG3		3/4	1725	0.86	7325	6700	6000	5000		6400	5800	5100	3400	331	
	A___-246PA--STFCH3		1	1750	1.07	8080	7670	7220	6770	6300	7280	6910	6550	6130	5550	335
	A___-246PB--STFCI3		1 1/2	1750	1.50	9040	8670	8275	7830	7200	8175	7800	7340	6800	6150	340
	A___-243L---STFCE4		1/2	1140	0.34	5360	4750	4000			4860	4300	3150		329	
	A___-246PC--STFCF4		1/2	1140	0.52	6540	5950	5150			5810	5180			331	
30"	A___-243L---STFCD5		1/4	870	0.14	4020	3070				3600	2600			334	
	A___-302-N---STFCI3		1 1/2	1750	1.55	14050	13000	12000	10800	9450	13100	12150	11150	10050	8775	405
	A___-306PB--STFCK3		3	1750	2.30	13900	13200	12550	11800	10950	13325	12700	12000	11250	10500	434
	A___-306PA--STFCL3		5	1725	4.90	19700	19175	18650	18200	17750	18900	18400	18000	17550	17050	448
	A___-306PB--STFCG4		3/4	1140	0.74	9280	8250	7120	5650	4200	8850	7900	6810	5400	4100	400
	A___-303-L---STFCI4		1 1/2	1160	1.25	11425	10575	9650	8520	4980	10860	10050	9150	8000	4625	442
	A___-304-W---STFCJ4		2	1160	1.75	13750	13000	12190	11275		13040	12300	11475	10575		453
36"	A___-303-L---STFCF5		1/2	850	0.45	8350	7250				7950	6750			400	
	A___-306PA--STFCG5		3/4	870	0.65	10190	9050	7600	3875	3000	9700	8600	7010	3800	2950	405
	A___-362ND--STFCH3		1	1750	1.08	14270	12500	10430	7900		12400	10870	8970		478	
	A___-362NC--STFCJ3		2	1750	2.00	17540	16200	14670	13120	11100	15280	14170	12880	11350	9600	483
	A___-362NB--STFCK3		3	1750	2.82	20350	19100	17900	16800	15470	17700	16850	15850	14750	13500	520
	A___-362NA--STFCH4		1	1160	1.12	15000	13500	11750	9250		13170	11870	10200	7450		483
	A___-366PA--STFCI4		1 1/2	1160	1.40	15200	14070	12700	11100	9200	13600	12430	11150	9750	8200	520
	A___-366PB--STFCK4		3	1160	2.43	18800	18000	16800	15500	14000	16800	15800	14750	13400	11200	531
	A___-363-L---STFCJ4		2	1160	2.40	17910	17000	16050	15100	14000	16280	15500	14620	13650	12500	531
	A___-364-W---STFCL4		5	1160	3.83	22350	21450	20600	19600	18500	19950	19100	18200	17050	15600	590
42"	A___-363-L---STFCH5		1	870	1.03	13530	12350	11050	9350		12300	11250	10000	7500		520
	A___-364-W---STFCI5		1 1/2	870	1.64	16850	15150	13800	11800		14900	13700	12200			531
	A___-363-L---STFCF6		1/2	690	0.52	10730	9100	6800	5450		9700	8500	5550			483
	A___-422NB--STFCJ4		2	1160	1.80	22000	19500	16900	12600	8300	19050	17000	14700	11400	7600	643
	A___-422NA--STFCK4		3	1160	2.90	25850	23900	21600	19450	17000	22400	20750	19100	17200	13600	679
	A___-426-P---STFCL4		5	1160	4.34	27600	26450	25300	24000	22300	25325	24200	23050	22800	20400	702
	A___-422NB--STFCH5		1	850	0.85	16800	13700	8900	3600		14575	11775	7400	3375		632
48"	A___-422NA--STFCI5		1 1/2	850	1.25	19400	16700	13825	6600	3500	16900	14750	11950	6200	3200	643
	A___-426-P---STFCJ5		2	850	1.87	20400	18750	17050	15100	12200	18650	17150	15550	11100	9400	679
	A___-423-L---STFCK5		3	850	2.70	23300	21900	20400	18750	16800	21250	20000	18500	16900	15000	702
	A___-426-P---STFCH6		1	690	0.95	16400	14250	11750	7700	5500	14850	2950	10500	7310	5400	643
	A___-482NC--STFCJ4		2	1160	2.15	25970	23500	21000	17950	14400	23100	21000	18670	16000	12800	1030
	A___-482NB--STFCK4		3	1160	3.12	29400	27100	24550	21650	18200	25900	23850	21600	19000	15600	1066
	A___-482NA--STFCL4		5	1160	5.37	34850	33000	30950	28650	26000	30800	29050	27100	25000	22400	1089
	A___-482NA--STFCJ5		2	870	2.18	25800	23300	20050	15750		22950	20330	17350	13150		1066
54"	A___-482NA--STFCH6		1	690	1.12	20700	17300	11600			18300	15000	9400			1030
	A___-483-L---STFCL5		5	870	4.45	31550	30000	28200	26400	24500	28600	27200	25600	23900	21800	1151
	A___-484AA200STFCM4	20°	7 1/2	1160	8.48	41800	40300	38700	37000	35250	37070	35750	34250	32600	30800	1151
	A___-542NA--STFCL4		5	1160	5.04	40300	38150	35250	32350	29000	35900	33650	31250	28700	25800	1345
	A___-542NA--STFCJ5		2	870	2.13	30600	27000	22800	17300		27000	23800	20200	14600		1322
	A___-542NC--STFCK5		3	870	3.13	34000	30900	27000	22300		30000	26900	23500	18400		1345
	A___-543-L---STFCM5		7 1/2	870	8.40	46500	44700	42800	40900	39000	42000	40600	38900	37000	34800	1413
60"	A___-546BA175STFCN5	17.5°	10	870	11.00	48700	46500	44200	40800	34000	42600	39900	36000	30800	26150	1493
	A___-544BA140STFCK6	14°	3	690	3.35	32000	28650	20700			28400	23800	17200			1407
	A___-546BA175STFCL6	17.5°	5	690	5.50	38700	35900	31600	21350		33800	29900	23400	18100		1413
	A___-603-L---STFCO5		15	870	14.10	63800	61900	59700	57600	55300	57600	55900	54300	52500	49500	1678
	A___-602BA150STFCL5	15°	5	870	5.57	46250	42700	38750	34100	27800	40800	37600	33900	29750	22000	1567
	A___-604BA100STFCK6	10°	3	690	3.30	36150	32500	28500	22150		32650	29500	25300	19700		1567
	A___-604BA165STFCL6	16.5°	5	690	5.45	45500	42400	39200	35500	27800	40900	38300	35000	30000	22800	1573
72"	A___-604BA130STFCM5	13°	7 1/2	870	8.35	51000	48650	46300	43500	40000	46400	44200	41500	38500	34800	1573
	A___-604BA165STFCN5	16.5°	10	870	10.90	57500	55000	52700	50100	47500	51700	49500	47350	44900	41500	1653
	A___-606BA175STFCO5	17.5°	15	870	16.30	64250	62800	61100	59300	57100	59000	57100	55250	53100	50700	1678
	A___-724AA140STFCN5	14°	10	870	10.90	75500	71000	65000	59000	51500	66000	61500	56000	50500	45500	2157
	A___-724AA190STFCO5	19°	15	870	16.80	90300	87000	82000	77000	69000	78500	74000	68500	62500	56500	2204
	A___-724AA140STFCL6	14°	5	690	5.45	60400	53600	45500	36600	28700	52300	46200	39700	32500		2109
	A___-724AA190STFCM6	19°	7 1/2	690	8.40	71900	66200	60000	49000	39000	62000	56700	48800	41300	35000	2137
A___-724AA230STFCN6	23°	10	690	11.20	79900	74500	68600	60000	43300	68700	63300	54300	44700	38900	2157	

CFM shown is net flow at the inlet and includes static pressure loss through ventilator. Note: For aluminum construction – multiply weight by .75.
“G” (General Industrial) Duty construction available for models with shaded performance. “H” (Heavy Industrial) Duty construction available for all models.



**Rating Table – Series 16l or E – Belted Hooded Roof Ventilator
– Series 19l or E – Belt Drive Hooded Roof Ventilator**

Size	Model Code	Blade Angle	Motor		Peak Fan BHP	Fan RPM	CFM @ SP – INTAKE					CFM @ SP – EXHAUST					Inst. Wt. #
			HP	RPM			0"	1/8"	1/4"	3/8"	1/2"	0"	1/8"	1/4"	3/8"	1/2"	
24"	A___-243-L---STFCD3		¼	1750	0.27	960	4540	3800	2000			4110	3430	1700		333	
	A___-243-L---STFCE3		½	1750	0.36	1071	5070	4400	3400			4590	3980	2660	1520	340	
	A___-243-L---STFCF3		¾	1750	0.54	1220	5770	5200	4530	3100	1700	5210	4700	4060	2500	1660	338
30"	A___-303-L---STFCF3		½	1750	0.55	885	8600	7500	5850	2650		8200	7100	5300	2600	408	
	A___-303-L---STFCG3		¾	1750	0.82	1010	9760	8820	7750	5900	3390	9300	8440	7320	5400	3290	412
	A___-303-L---STFCH3		1	1750	1.10	1150	11325	10450	9550	8500	5200	10775	9900	9100	7900	4700	416
	A___-303-L---STFCI3		1½	1750	1.62	1340	12800	12100	11290	10470	9500	12160	11400	10600	9900	8750	421
	A___-303-L---STFCJ3		2	1750	2.20	1480	14200	13510	12950	12100	11500	13600	12950	12350	11630	10860	421
36"	A___-363-L---STFCF3		½	1750	0.56	666	10250	8700	4700			9360	7830	4250		485	
	A___-363-L---STFCG3		¾	1750	0.82	764	11770	10400	8600	4100		10720	9430	7400	3950	489	
	A___-363-L---STFCH3		1	1750	1.10	837	12900	11680	10170	7200	4000	11750	10620	9100	5870	3900	493
	A___-363-L---STFCI3		1½	1750	1.70	980	15100	14100	12920	11480	8640	13740	12800	11600	9920	7200	498
	A___-363-L---STFCJ3		2	1750	2.09	1050	16180	15240	14170	12960	11350	14730	13830	12810	11500	9350	498
42"	A___-423-L---STFCH3		1	1750	1.10	595	15700	13580	9980	4200	2670	14400	12320	8520	4100	2770	613
	A___-423-L---STFCI3		1½	1750	1.65	703	18540	16580	14400	10550	5230	17800	15190	13130	9370	5150	618
	A___-423-L---STFCJ3		2	1750	2.20	760	20200	18740	16780	13690	8750	18740	17100	15040	12100	8035	618
	A___-423-L---STFCCK3		3	1750	3.30	930	24400	22000	20500	19050	16500	22700	21200	19500	17300	16800	655
	A___-423-L---STFCL3		5	1750	5.50	1100	28800	27100	26000	24500	21850	26600	25300	24000	22500	20800	666
48"	A___-483-L---STFCH3		1	1750	1.08	525	19100	16200	11100			17200	14800	8900		1022	
	A___-483-L---STFCJ3		2	1750	2.20	660	23730	21680	19300	15100	8600	21550	19700	17150	11800	8200	1027
	A___-483-L---STFCCK3		3	1750	3.00	740	26600	24750	22670	20340	15600	24070	22450	20470	17800	12800	1064
	A___-483-L---STFCL3		5	1750	5.17	895	32260	30700	29100	27300	25530	29250	27950	26400	24730	22400	1075
54"	A___-543-L---STFCJ3		2	1750	2.02	497	26400	23400	15400			23900	20900	12900		1296	
	A___-543-L---STFCCK3		3	1750	3.03	573	30300	27800	24750	14300		27650	25150	20200	12800		1333
	A___-543-L---STFCL3		5	1750	5.05	671	35550	33500	31100	28000	18000	32450	30450	27750	22600	15400	1344
	A___-543-L---STFCM3		7½	1750	7.93	786	41650	39800	37850	35750	33200	37950	36300	34350	31800	27000	1380
	A___-544AW220STFCL3	22°	5	1750	5.40	645	38900	36800	34500	31400		35150	33100	30000			1344
A___-544AW220STFCM3	22°	7½	1750	8.10	737	44400	42700	41800	38500	35600	40300	38500	36500			1380	
60"	A___-603-L---STFCJ3		2	1750	2.29	437	31949	27952	21808	10464		30627	26862	18515	10335	6383	1485
	A___-603-L---STFCCK3		3	1750	3.14	496	36262	32773	28757	16274	11331	34762	31549	27371	16058	11173	1522
	A___-603-L---STFCL3		5	1750	5.13	595	43500	40601	37600	34000	26260	41700	39100	36100	32298	21026	1533
	A___-604AW220STFCM3	22°	7½	1750	7.46	603	49532	46659	43823	40804	35407	47206	44721	42058	38853		1569
	A___-604AW220STFCN3	22°	10	1750	10.00	665	54625	52003	49465	46812	43753	52060	49836	47420	44895	41429	1592
	A___-604AW220STFCO3	22°	15	1750	14.85	761	62511	60204	57988	55734	53402	59575	57656	55574	53471	51198	1654
A___-606AW250STFCO3	25°	15	1750	14.52	683	62348	60771	59174	57583	55810	60299	58868	57319	55644	53548	1654	
72"	A___-724AA160STFCM3	16°	7½	1750	7.70	690	66600	61000	53700	51500	34000	58000	52200	44700	37000		2444
	A___-726BA130STFCM3	13°	7½	1750	8.00	531	61400	58000	54000	50000	46000	56500	53500	49700	46000	42300	2444
	A___-726BA175STFCN3	17.5°	10	1750	11.20	531	70000	66700	63000	59000	55000	64000	61000	57500	54000	50000	2464
	A___-726BA240STFCO3	24°	15	1750	16.80	531	84800	81600	77700	74000	70000	76000	73000	70000	66500	62500	2511
84"	A___-844BA160STFCL3	16°	5	1750	5.83	455	76000	68500	60500	51500		67700	61500	54500	45000		3527
	A___-844BA135STFCM3	13.5°	7½	1750	8.10	546	83300	77000	70000	63300	55000	75000	69500	64000	57000	50000	3555
	A___-844BA210STFCN3	21°	10	1750	11.20	500	97300	90500	83700	76000	66000	85500	80000	74000	66000		3575
	A___-846BA250STFCO3	25°	15	1750	16.00	455	108000	103000	96200	90000	83000	95700	90700	85700	85700		3622
	A___-846BA250STFCP3	25°	20	1750	21.40	500	118700	114300	108000	102500	96000	105300	100500	96000	90500	84500	3642
	A___-844BT222STFCQ3	22.2°	25	1750	27.50	500	122800	118000	113000	108000	102000	109000	105200	100000	95500	90000	3705
A___-846BN270STFCQ3	27°	25	1750	27.13	455	131000	126500	122000	117000	112000	116500	113000	108000	103500	98000	3705	

CFM shown is net flow at the inlet and includes static pressure loss through ventilator. Note: For aluminum construction – multiply weight by .75.

Power ratings (BHP) include transmission losses.

“G” (General Industrial) Duty construction available for models with shaded performance. “H” (Heavy Industrial) Duty construction available for all models.



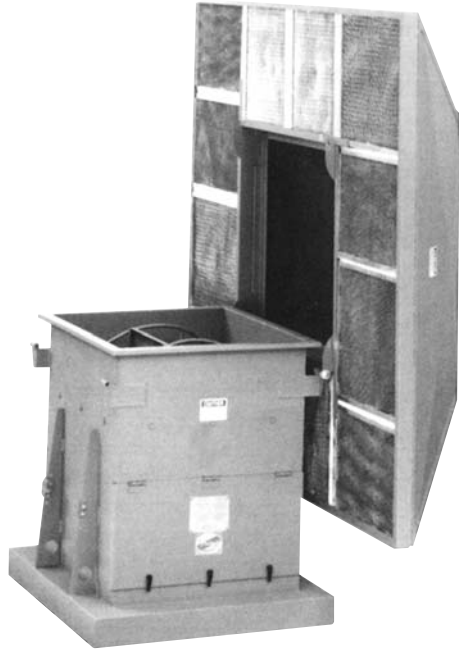
**Rating Table – Series 17 – Direct Drive Hooded Reversible Roof Ventilator
Series 17B – Belted Hooded Reversible Roof Ventilator**

Size	Model Code	Blade Angle	Motor		Peak Fan BHP	CFM @ SP – INTAKE					CFM @ SP – EXHAUST					Inst. Wt. #
			HP	RPM		0"	1/8"	1/4"	3/8"	1/2"	0"	1/8"	1/4"	3/8"	1/2"	
18"	A____-186RB---STFCI2		1½	3450	1.53	5185	5050	4900	4750	4610	4820	4700	4570	4430	4290	254
	A____-186RA---STFCD3		¾	1750	0.26	3220	2960	2650	2170	1690	2970	2710	2360	1975	1555	240
24"	A____-246RB---STFCH3		1	1750	1.25	7510	7110	6750	6400	6000	6850	6370	6240	5860	5440	358
	A____-246RA---STFCI3		1½	1750	1.73	8470	8150	7770	7400	6980	7750	7430	7100	6650	6170	363
30"	A____-306RA---STFCH4		1	1160	1.20	9650	9000	8400	7600	6650	9130	8550	7900	7150	6150	440
	A____-306RB---STFCI4		1½	1160	1.60	11350	10750	10150	9300	8400	10600	10050	9350	8600	7600	477
36"	A____-362-R---STFCJ3		2	1750	1.92	16450	14770	13030	11430	9500	14120	12840	11600	10160	7900	528
	A____-364-R---STFCH4		1	1140	1.09	13150	11600	10000	8150		11700	10450	9070	6940		528
	A____-366RA---STFCJ4		2	1160	2.20	14800	14050	13140	12350	11800	13770	13000	12300	11790	11140	576
	A____-366RB---STFCK4		3	1160	3.40	18250	17470	16750	16000	15100	16750	16150	15500	14750	13650	612
	A____-366RA---STFCH5		1	870	1.20	11030	10050	9000	7880	6030	10260	9370	8470	7300	5520	565
42"	A____-426-R---STFCK5		3	870	3.50	22600	21350	20100	19050	17950	20900	19800	18900	17800		734
	A____-426-R---STFCI6		1½	690	1.75	17850	16300	14950			16500	15300	14000			734
48"	A____-484AR200STFCL4	20°	5	1160	5.30	30900	29600	28300	27000	25600	28700	27400	26300	25000	23700	1154
	A____-484AR235STFCM4	23.5°	7½	1160	7.70	35700	34500	33300	32000	30700	32900	31800	30700	29600	28400	1216
	A____-484AR160STFCI5	16°	1½	870	1.65	18230	16750	15000	13250	10500	17200	15750	14200	12400		1095
	A____-484AR220STFCK5	22°	3	870	3.10	25200	23600	21900	20000	17550	23300	21800	20250	17400	15700	1154
	A____-486AR220STFCJ6	22°	2	690	2.30	21500	19900	18200	16250	13200	20100	18700	17100	15000	11800	1154
54"	A____-544AR170STFCK5	17°	3	870	3.20	27900	26000	23900	21800	19700	26000	24300	22600	20600	18400	1420
	A____-544AR220STFCL5	22°	5	870	5.30	36000	34200	32200	30000	27800	33100	31600	29700	27800	25500	1482
	A____-546AR250STFCM5	25°	7½	870	8.10	43300	41800	40300	38600	37000	40000	38600	37300	35800	34300	1488
	A____-546AR280STFCN5	28°	10	870	10.90	48100	46500	45100	43500	41700	44100	42600	41200	39700	38200	1568
	A____-546AR220STFCK6	22°	3	690	3.40	30800	28900	27000	25000	22700	28800	27300	25500	23300		1482
60"	A____-604AR180STFCL5	18°	5	870	5.60	40600	38400	36400	34600	32000	37900	36000	34100	32600	30000	1657
	A____-604AR220STFCM5	22°	7½	870	8.60	49400	47400	45200	43500	40700	45600	43800	41900	40300	37700	1663
	A____-604AR250STFCN5	25°	10	870	11.65	55600	53700	51700	49900	47300	51000	49000	47300	45900	43500	1743
	A____-606AR28-STFCO5	28°	15	870	17.20	66100	64600	62900	61200	59500	60700	59100	57600	55800		1768
	A____-604AR160STFCJ6	16°	2	690	2.35	29400	25900	23200	20000		26800	24500	22000	19000		1595
A____-604AR190STFCK6	19°	3	690	3.45	34200	31400	28700	25800	22000	31700	29300	26800	24000		1657	
72"	A____-724AR160STFCN5	16°	10	870	10.60	62200	59600	57200	54800	52400	58400	56200	54000	51800	49500	2304
	A____-724AR225STFCP5	22.5°	20	870	21.70	87400	85000	82600	80200	77700	80500	78300	76200	73800	71600	2371
	A____-724AR250STFCQ5	25°	25	870	27.70	96700	94000	91700	89300	86600	88200	86000	83800	81600	79400	2434
	A____-724AR220STFCN6	22°	10	690	10.90	67700	64500	61400	58000	54500	62500	59800	56600	53500	50200	2304
A____-724AR260STFCO6	26°	15	690	16.00	78200	75200	72300	69000	66000	71800	69000	66400	63500	60300	1929	

CFM shown is net flow at the inlet and includes static pressure loss through ventilator. Note: For aluminum construction – multiply weight by .75. Power ratings (BHP) include transmission losses.



Optional Filtered Hooded Ventilator



Series 15F, Size 30", with permanent filters



Series 15F, Size 42", with permanent filters and optional slide rail package

ABS Certificate of Design Assessment Received

The Hartzell Series 15F (direct drive) and 16F (belted) hooded roof ventilators are available with an optional filter rack, designed to accept standard sized filters. Permanent, washable filters and disposable filters are both available. This optional filter rack must be installed at the factory. As described on Page 18, the ventilator hood on sizes 18" through 36" is one piece. On size 42" through 84", the ventilator hood is in two pieces. Filters are accessible by removing retainer clips in the filter rack for ease of filter installation and maintenance.

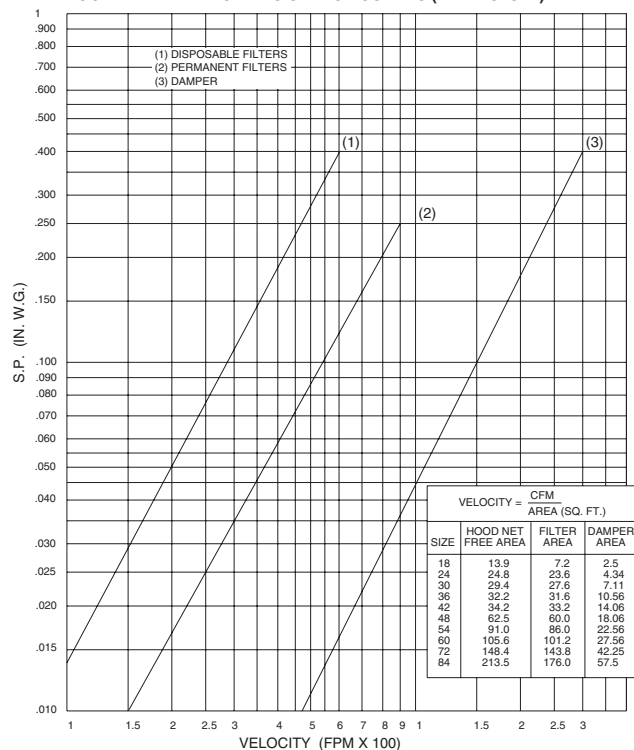
When you specify the filter option, other options and features are still available, including the slide rail package for split ventilator heads shown in the illustration above.

On the pages that follow, actual filtered supply performance ratings are provided for both the Series 15F and 16F hooded ventilators.

Features:

- **Sizes – Series 15F – Direct Drive** – size 18" through 72" performance from 1,375 to 88,000 CFM at free air.
- **Series 16F – Belted and Series 19F – Belt Drive** – size 24" through 84"... performance from 3,990 to 128,000 CFM at free air.
- **Construction and Dimensions** – are identical to the standard Series 15F and 16F units. Please refer to Pages 17 and 18, "G" (General Industrial) Duty and "H" (Heavy Industrial) Duty construction available. Refer to Rating Tables on Pages 23 and 24. The filter rack adds an additional 2¼" to the overall vertical dimension of the ventilator hood, but does not increase the overall unit height.
- **Filters** – permanent, washable filters are provided as standard and the performance ratings that follow are based on losses through permanent filters. Resistance through disposable filters tends to be higher. Please refer to the resistance curve for disposable filters on this page. Use of disposable filters will cause the fan performance to change.
- **Other Options and Accessories** – are available. Please see Pages 33 and 34.

HOODED VENTILATOR RESISTANCE CURVES (VEL. VS. S.P.)



Performance

Rating Table – Series 15F – Filtered Hooded Ventilator – Direct Drive

Size	Model Code	Blade Angle	Motor		Peak Fan BHP	CFM @ SP					Net Inst. Wt. #
			HP	RPM		0"	1/8"	1/4"	3/8"	1/2"	
18"	A15F_-188-Q---STFCDD3		1/4	1725	0.28	3175	2870	2400	1860	1490	256
	A15F_-183-L---STFCE3		1/3	1725	0.34	3430	3145	2765	1660	1175	264
	A15F_-184WB---STFCE3		1/3	1725	0.37	3730	3430	3115			264
	A15F_-184WA---STFCF3		1/2	1725	0.55	4340	4090	3710			262
	A15F_-184WA---STFCD4		1/4	1140	0.16	2790	2410				257
24"	A15F_-242NM---STFCF3		1/2	1725	0.56	6700	5630	4770	3100		377
	A15F_-242NC---STFCG3		3/4	1725	0.79	7130	6475	5760			381
	A15F_-246PA---STFCH3		1	1750	1.13	7870	7470	7030	6580	6110	385
	A15F_-246PB---STFCJ3		1 1/2	1750	1.50	8820	8450	8070	7580	6990	390
	A15F_-243-L---STFCE4		1/3	1140	0.33	5230	4640	3860			379
	A15F_-246PC---STFCF4		1/2	1140	0.52	6350	5770	4940			381
30"	A15F_-302-N---STFCJ3		1 1/2	1750	1.60	13525	12575	11550	10400	9100	463
	A15F_-306PB---STFCJ3		2	1750	2.10	13600	12925	12250	11575	10700	463
	A15F_-306PA---STFCL3		5	1750	5.25	17800	17275	16800	16200	15600	506
	A15F_-306PB---STFCG4		3/4	1140	0.71	9080	8100	6990	5520	4150	458
	A15F_-303-L---STFCH4		1	1160	1.15	11025	10175	9300	8200		459
	A15F_-303-L---STFCI4		1 1/2	1160	1.20	11125	10300	9400	8300	4800	500
	A15F_-304-W---STFCJ4		2	1160	1.75	13360	12600	11790	10875		511
	A15F_-302-N---STFCD5		1/4	850	0.18	6520	4200				457
36"	A15F_-306PA---STFCF5		1/2	850	0.48	8650	7500	4350	2875	2050	458
	A15F_-366PA---STFCI4		1 1/2	1160	1.40	14700	13600	12200	10750	8800	586
	A15F_-366PB---STFCJ4		2	1160	2.42	18400	17400	16200	15000	13200	597
	A15F_-364-W---STFCL4		5	1160	3.85	21700	20900	20000	19000	17900	656
	A15F_-363-L---STFCH5		1	870	1.03	13250	12100	10800	8800		586
	A15F_-364-W---STFCI5		1 1/2	870	1.64	16350	15150	13750	11650		597
42"	A15F_-422NB---STFCJ4		2	1160	1.80	19850	17700	15400	12050	7700	714
	A15F_-422NA---STFCK4		3	1160	2.92	23250	21425	19650	17825	14450	750
	A15F_-426-P---STFCL4		5	1160	4.60	25850	24800	23600	22350	20900	773
	A15F_-422NA---STFCI5		1 1/2	850	1.25	17450	15225	12400	6300	3250	714
	A15F_-426-L---STFCJ5		2	850	1.82	19100	17600	15950	14000	10800	750
	A15F_-423-L---STFCK5		3	850	2.68	21850	20450	19000	17400	15400	844
	A15F_-426-P---STFCH6		1	690	1.00	15325	13300	10725	7400	5400	714
48"	A15F_-482NA---STFCL4		5	1160	5.37	33800	32000	29900	27700	25000	1216
	A15F_-482NB---STFCJ5		2	870	2.19	25150	22700	19400	15000		1193
	A15F_-482NA---STFCH6		1	690	1.12	20150	16550	10800			1157
	A15F_-484AA190STFCI6	19°	1 1/2	690	1.63	23400	20800	17300			1193
	A15F_-484AA190STFCK5	19°	3	870	3.26	29500	27500	25200	22300		1216
54"	A15F_-484AA200STFCM4	20°	7 1/2	1160	8.48	41200	39000	37500	35800	34000	1278
	A15F_-542NA---STFCL4		5	1160	5.04	39500	36900	34200	31300	28200	1508
	A15F_-542NA---STFCJ5		2	870	2.13	29700	26200	22200	16700		1485
	A15F_-542NC---STFCK5		3	870	3.15	33000	29800	26000	21400		1508
	A15F_-543-L---STFCM5		7 1/2	870	8.30	45250	43500	41600	39900	38000	1576
60"	A15F_-546BA175STFCN5	17.5°	10	870	11.00	47200	45000	42500	38500	30800	1656
	A15F_-604BA100STFCK6	10°	3	690	3.31	35500	31900	28000	21500		1740
	A15F_-602BA150STFCL5	15°	5	870	5.57	44900	41300	37500	32700	26100	1740
	A15F_-604BA130STFCM5	13°	7 1/2	870	8.40	49750	47500	45100	42200	38800	1746
	A15F_-604BA165STFCN5	16.5°	10	870	10.90	55900	53600	51300	48800	46100	1826
72"	A15F_-606BA175STFCO5	17.5°	15	870	16.30	63000	61400	59800	57800	55500	1851
	A15F_-724AA140STFCN5	14°	10	870	11.00	73200	68500	63000	57000	50000	2443
	A15F_-724AA190STFCO5	19°	15	870	16.80	88000	84000	79000	73300	65500	2490
	A15F_-724AA140STFCL6	14°	5	690	5.50	58700	52000	44000	35300		2395
	A15F_-724AA190STFCM6	19°	7 1/2	690	8.40	69700	63800	57500	46600	37500	2423
A15F_-724AA230STFCN6	23°	10	690	11.20	77300	72000	66000	54000	42000	2443	

Performance certified includes resistance through filters. CFM shown is net flow at the inlet and includes static pressure loss through ventilator.

Note: For aluminum construction – multiply weight by .75.

“G” (General Industrial) Duty construction available for models with shaded performance. “H” (Heavy Industrial) Duty construction available for all models.



Rating Table – Series 16F – Filtered Hooded Ventilator – Belted
Series 19F – Filtered Hooded Ventilator – Belt Drive

Size	Model Code	Blade Angle	Motor		Peak Fan BHP	Fan RPM	CFM @ SP					Net Inst. Wt. #
			HP	RPM			0"	1/8"	1/4"	3/8"	1/2"	
24"	A -243-L---STFCD3		¼	1750	0.18	862	3990	3100				383
	A -243-L---STFCD3		¼	1750	0.27	960	4420	3660				383
	A -243-L---STFCE3		⅓	1750	0.36	1071	4940	4270	3170			390
	A -243-L---STFCF3		½	1750	0.54	1220	5610	5030	4380	2900		388
30"	A -303-L---STFCF3		½	1750	0.55	900	8520	7450	5750	2500		466
	A -303-L---STFCG3		¾	1750	0.82	1030	9710	8820	7680	5710	3330	470
	A -303-L---STFCH3		1	1750	1.10	1150	11025	10175	9300	8200	4900	474
	A -303-L---STFCI3		1½	1750	1.62	1340	12460	11840	11070	10250	9330	479
	A -303-L---STFCJ3		2	1750	2.20	1480	15300	14800	12700	11890	10750	479
36"	A -363-L---STFCF3		½	1750	0.56	666	10050	8500	4650			551
	A -363-L---STFCG3		¾	1750	0.81	764	11550	10200	8450	4100		555
	A -363-L---STFCH3		1	1750	1.10	837	12630	11470	9950	6850	4000	559
	A -363-L---STFCI3		1½	1750	1.70	980	14770	13800	12670	11200	8300	630
	A -363-L---STFCJ3		2	1750	2.08	1050	15820	14900	13900	12700	10950	630
42"	A -423-L---STFCH3		1	1750	1.10	595	14920	12600	8740	4100	2020	684
	A -423-L---STFCI3		1½	1750	1.65	725	18220	16650	14700	11740	7640	689
	A -423-L---STFCJ3		2	1750	2.20	815	20400	19100	17700	16090	13650	689
	A -423-L---STFCK3		3	1750	3.30	930	23200	21700	20000	17850	17350	726
	A -423-L---STFCL3		5	1750	5.50	1100	27100	26000	23500	22900	21400	737
48"	A -483-L---STFCH3		1	1750	1.08	525	18700	16000	10600			1149
	A -483-L---STFCJ3		2	1750	2.07	660	23250	21200	18900	14800		1154
	A -483-L---STFCK3		3	1750	3.00	740	26000	24200	22200	19750	15200	1191
	A -483-L---STFCL3		5	1750	5.10	895	31500	30000	28400	26800	24800	1202
54"	A -543-L---STFCJ3		2	1750	2.01	497	25750	23800	14800			1459
	A -543-L---STFCK3		3	1750	3.00	573	29650	27150	23700	13800		1496
	A -543-L---STFCL3		5	1750	5.03	671	34700	32700	30250	26800	17000	1507
	A -543-L---STFCM3		7½	1750	7.88	786	40650	38900	36950	34800	31800	1543
	A -544AW220STFCL3	22°	5	1750	5.30	645	38000	36000	33500			1507
60"	A -544AW220STFCM3	22°	7½	1750	8.07	737	43400	41600	39700	37300		1543
	A -603-L---STFCJ3		2	1750	2.00	437	30600	26700	21200			1658
	A -603-L---STFCL3		5	1750	5.15	595	41500	38800	35750	32000	24900	1706
	A -603-L---STFCM3		7½	1750	7.50	672	46900	44500	41800	38800	35200	1741
	A -603-L---STFCO3		15	1750	14.95	858	60000	58050	56000	53900	51800	1827
	A -604AW250STFCK3	25°	3	1750	2.95	436	36600	32800	26600			1695
	A -604AW250STFCM3	25°	7½	1750	7.86	603	50400	48000	45200	41600	32000	1742
	A -604AW250STFCN3	25°	10	1750	10.60	665	55600	53500	51100	48200	44400	1765
72"	A -604AW250STFCO3	25°	15	1750	15.80	761	63600	61700	59800	57400	55000	1737
	A -724AA220STFCL3	22°	5	1750	5.50	531	60500	53500	38000			2694
	A -724AA160STFCM3	16°	7½	1750	7.70	690	64800	59000	52000	42000	33000	2730
	A -724AA200STFCN3	20°	10	1750	11.00	690	74000	69000	62000	52000	41300	2750
	A -726BA215STFCO3	21.5°	15	1750	16.50	690	85000	80500	76500	70500	61500	2797
	A -726BA250STFCP3	25°	20	1750	21.50	690	93300	88700	85000	80000		2800
	A -726BA235STFCQ3	23.5°	25	1750	27.70	637	98000	95000	92500	89500	86500	2880
84"	A -844BA160STFCL3	16°	5	1750	5.83	455	74300	67000	59500	50700		3877
	A -844BA250STFCN3	25°	10	1750	11.00	455	93800	87000	79500	70000		3925
	A -844BA170STFCM3	17°	7½	1750	8.25	500	84000	77700	70700	63500	54000	3905
	A -844BA265STFCO3	26.5°	15	1750	16.20	500	106300	100000	93500	85700	76000	3972
	A -844BA270STFCP3	27°	20	1750	21.80	546	118000	112000	106000	99300	91300	3992
	A -846BA280STFCR3	28°	30	1750	33.00	546	135500	130000	125500	121000	115000	4097
	A -844BA290STFCP3	29°	20	1750	21.73	455	124500	118400	112500	106000	98000	3992
	A -846BN270STFCQ3	27°	25	1750	26.92	455	128000	124000	119000	114500	109500	4072

Performance certified includes resistance through filters. CFM shown is net flow at the inlet and includes static pressure loss through ventilator.

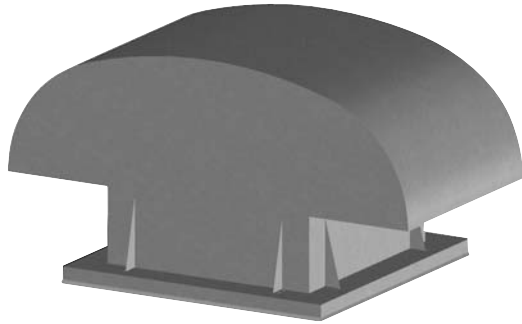
Note: For aluminum construction – multiply weight by .75

Power ratings (BHP) include transmission losses.

“G” (General Industrial) Duty construction available for models with shaded performance. “H” (Heavy Industrial) Duty construction available for all models.



Hoodjet Ventilator



Series 71 J (Direct Drive)
Series 73J (Belted)
Series 75J (Reversible)

Features

- **Construction** – galvanized steel base and hood; painted steel orifice panel and fan frame. The hood is hinged to swing back for easy access to the fan assembly. The airflow splitter in the hood allows for the same high efficiency in either direction. The aerodynamically designed hood provides a compact, low profile. Hooded ventilators are also available in painted steel and aluminum construction.
- **Motors** – belted units (Series 73J) feature close-coupled drive and totally enclosed fan cooled motors. Direct drive units (Series 71J and 75J) feature totally enclosed air over motors.
- **Propellers** – cast aluminum and airfoil type.

Options and Accessories

- **Shutters** – automatic, motor, or manually operated shutters can be mounted in either the throat of the unit or below the roof line.
- **Access Door** – hinged door with quick release latches for access to the interior of the hoodjet.
- **Bird Screen** – half-inch square opening wire mesh, constructed of either galvanized steel or aluminum.
- **Disconnect Switch** – NEMA watertight enclosure available as an option.

- **Extended Lube Tubes** – will be provided from the motor on direct drive units and from the bearings and motor on belt drive and belted units to the exterior of the housing **only** when the motor is designed for external lubrication fittings (relubricable versus sealed motor bearings).

Hartzell Hoodjet Ventilators are available in three styles: (1) air intake; (2) air exhaust; (3) reversible...combination intake and exhaust.

Direct Drive – Series 71J

An efficient, high performance ventilator, best suited for applications where the unit is in a difficult location for servicing and maintenance.

Sizes: 28" – 60" Performance from 5,480 to 36,500 CFM at free air intake; from 5,480 to 60,600 CFM at free air exhaust.

- Propellers:** 28" – 60" 2-blade, Type N
 28" – 60" 3-blade, Type L
 28" – 44" 4-blade, Type W
 28" – 44" 6-blade, Type P
 48" – 60" 4-blade and 6-blade adjustable, Type A

Belted – Series 73J

The Series 73J is close-coupled, belt driven, with the motor in the airstream. This ventilator utilizes Hartzell's exclusive "L" propeller which is designed to provide high volume airflow at low tip speeds and relatively low noise levels.

Drive shafts are ground and polished, keyed at both ends. Bearings are heavy duty, self-aligning, deep-row, radial ball type, shielded and mechanically sealed in cast iron or malleable housing; relubricable type for continuous service. Belts are oil, heat and static resistant type, over-sized for continuous duty.

Sizes: 28" – 60" Performance from 5,870 to 40,550 CFM at free air on intake; from 5,870 to 51,000 CFM at free air exhaust.

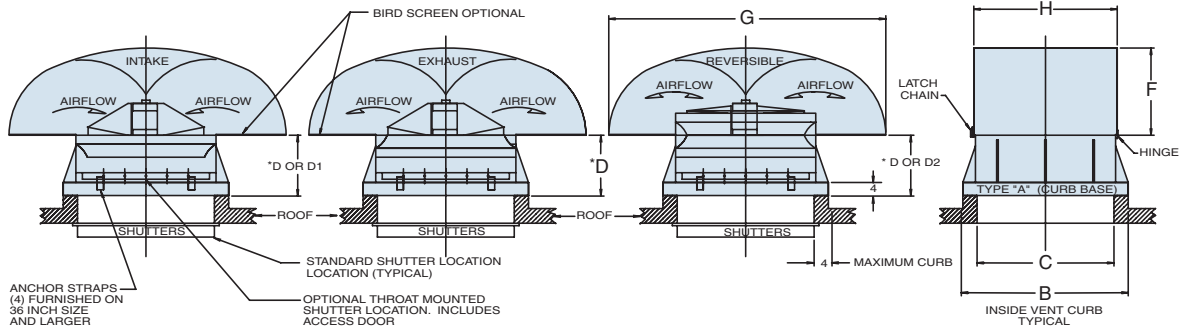
Propellers: 28" – 60" 3 blade lo-noise, Type L.

Reversible – Direct Drive – Series 75J

An ideal unit for applications where varying conditions may call for intake during some periods and exhaust during others. The Series 75J ventilator utilizes the Hartzell reversible ring fan incorporating two-curved orifice rings welded back-to-back with a fully reversible airfoil section propeller to provide the same efficient performance when operating in either direction.

Sizes: 28" – 60" Performance from 6,800 to 44,700 CFM at free air.

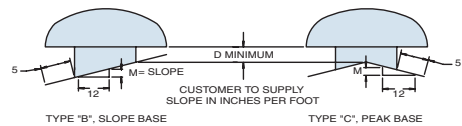
Propellers: 28" – 60" 2-, 4-, and 6-blade reversible, Type R.



Principal Dimensions – Series 71J, 73J and 75J

NOM. SIZE	B	C	D	D ₁	D ₂	F	G	H	MATERIAL GAUGE	
									HEAD	BASE
28	41 ³ / ₄	33 ¹ / ₄	18 ¹ / ₂	28	34	20 ⁷ / ₈	66	34	20	14
32	44 ¹ / ₂	36 ¹ / ₄	18 ¹ / ₂	28	34	23 ¹ / ₂	72	37	20	14
36	50 ³ / ₄	42 ¹ / ₄	18 ¹ / ₂	28	34	26 ³ / ₄	84	43	20	14
44	60 ¹ / ₄	51 ³ / ₄	21 ³ / ₄	28	34	32 ⁵ / ₈	103	52 ¹ / ₂	18	14
48	65	56 ¹ / ₂	23 ¹ / ₂	28	34	35 ¹ / ₂	112	57 ¹ / ₂	18	14
54	73 ¹ / ₄	64 ¹ / ₂	25 ³ / ₈	28	34	40	126	65 ¹ / ₂	18	14
60	79 ¹ / ₄	70 ¹ / ₂	29	28	37	45 ⁵ / ₈	143	71 ³ / ₄	18	14

Specifications and dimensions are subject to change. Certified prints are available.



NOTES:

1. "D" dimension is for all ventilators without shutters in throat, and for exhaust vents with throat mounted auto or manual shutters.
2. "D₁" dimension is for intake or exhaust vents using motor operated shutters.
3. "D₂" dimension is for reversible vents using motor operated shutters.
4. Shutters are optional, and must be specified on order along with locations.
5. With "B" or "C" type bases, the "G" dimension may be lengthwise (L) – perpendicular to slope or slopewise (S) parallel to slope. If slope exceeds 6 inches per foot, the "G" dimension must be perpendicular ("L" type) to the slope when using "B" base.
6. When using either "B" or "C" base, the direction of the "G" dimension must be specified as "BS", "BL", "CS" or "CL".
7. Lube tubes extended to the outside of the base is optional.



Series 71J - Direct Drive Hoodjet Ventilator Rating Table

Size	Model Code	HP	Max. BHP	RPM	CFM @ SP		
					0"	1/8"	1/4"
28"	A71J--282-N---STFCD3	¼	0.28	1725	5480	4160	2450
	A71J--282-N---STFCF3	½	0.45	1725	6630	5700	4600
	A71J--282-N---STFCG3	¾	0.71	1725	8230	7430	6450
	A71J--282-N---STFCH3	1	0.99	1750	8740	8000	7170
	A71J--286-P---STFCI3	1½	1.50	1750	9580	9140	8680
	A71J--286-P---STFCJ3	2	2.00	1750	11100	10670	10180
	A71J--282-N---STFCD4	¼	0.27	1140	5690	4400	
	A71J--283-L---STFCG4	¾	0.68	1140	7710	7080	6340
	A71J--284-W---STFCH4	1	1.10	1160	9370	8760	8120
A71J--284-W---STFCF5	½	0.43	850	6870	6010		
32"	A71J--322-N---STFCH3	1	1.00	1750	10590	9590	8390
	A71J--322-N---STFCJ3	2	2.00	1750	13620	12800	11870
	A71J--322-N---STFCF4	½	0.55	1140	8850	7460	
	A71J--326-P---STFCH4	1	0.83	1160	9520	8630	7450
	A71J--323-L---STFCI4	1½	1.50	1160	11580	10750	10050
	A71J--324-W---STFCJ4	2	2.20	1160	13730	13100	12370
	A71J--323-L---STFCF5	½	0.60	850	8500	7400	5000
	A71J--324-W---STFCH5	1	0.93	870	10300	9430	
36"	A71J--362-N---STFCH3	1	1.10	1750	12700	11160	9200
	A71J--362-N---STFCJ3	2	2.00	1750	15650	14500	13270
	A71J--362-N---STFCK3	3	2.80	1750	18100	17180	16200
	A71J--362-N---STFCF4	½	0.54	1140	10180	8220	5400
	A71J--362-N---STFCH4	1	1.10	1160	13460	12080	10500
	A71J--363-L---STFCJ4	2	2.30	1160	16530	15750	14870
	A71J--364-W---STFCL4	5	3.80	1160	20300	19460	18540
	A71J--362-N---STFCF5	½	0.43	850	9790	7680	
	A71J--363-L---STFCH5	1	1.00	870	12510	11450	10220
	A71J--364-W---STFCI5	1½	1.60	870	15230	14100	12650
44"	A71J--442-N---STFCH4	1	0.97	1160	16640	14350	11270
	A71J--442-N---STFCJ4	2	2.20	1160	21880	19800	17600
	A71J--442-N---STFCK4	3	3.50	1160	25600	23950	22200
	A71J--446-P---STFCL4	5	5.10	1160	28500	27450	26300
	A71J--442-N---STFCH5	1	0.98	870	16830	13840	9600
	A71J--442-N---STFCI5	1½	1.50	870	19300	17100	14450
	A71J--446-P---STFCJ5	2	2.10	870	21100	19600	17900
	A71J--443-O---STFCK5	3	3.10	870	24000	22700	21300
	A71J--444-W---STFCL5	5	5.00	870	29450	27930	26400
	A71J--482-N---STFCJ4	2	2.20	1160	24450	22230	19900
48"	A71J--482-N---STFCK4	3	3.10	1160	27530	25400	23050
	A71J--482-N---STFCL4	5	5.40	1160	32800	31000	29050
	A71J--482-N---STFCJ5	2	2.20	870	24450	21850	18700
	A71J--484-A---STFCK5	3	3.30	870	28570	26650	24350
	A71J--483-L---STFCL5	5	4.30	870	30100	28550	26900
	A71J--484-A---STFCJ6	2	2.20	690	25230	22650	19300
	A71J--542-N---STFCK4	3	2.90	1160	30500	27650	24450
54"	A71J--542-N---STFCL4	5	5.00	1160	38200	35750	33200
	A71J--542-N---STFCM4	7½	7.10	1160	42500	40200	37750
	A71J--542-N---STFCK5	3	3.20	870	31900	28800	25300
	A71J--544-A---STFCL5	5	5.50	870	34400	31500	25750
	A71J--544-A---STFCM5	7½	8.20	870	41050	38800	35700
	A71J--544-A---STFCK6	3	3.35	690	30100	26800	18400
	A71J--546-A---STFCL6	5	5.50	690	36200	33100	26700
	A71J--602-N---STFCK4	3	3.80	1160	36000	32250	28300
60"	A71J--602-N---STFCL4	5	5.20	1160	42650	39700	36000
	A71J--602-B---STFCM4	7½	7.40	1160	48500	45600	42650
	A71J--602-N---STFCN4	10	9.90	1160	54000	50400	46000
	A71J--602-N---STFCK5	3	3.00	870	36500	32200	27250
	A71J--602-A---STFCL5	5	5.60	870	45650	42000	38280
	A71J--604-A---STFCM5	7½	8.40	870	48600	46350	13850
	A71J--604-A---STFCN5	10	10.90	870	54400	52200	19950
	A71J--603-L---STFCO5	15	13.50	870	60600	58750	56600
	A71J--604-A---STFCK6	3	3.30	690	34370	30900	26930
	A71J--604-A---STFCL6	5	5.50	690	43050	40250	37270
	A71J--603-L---STFCM6	7½	6.80	690	48100	45700	43200

Series 73J - Belted Hoodjet Ventilator Rating Table

Size	Model Code	HP	Max. BHP	RPM	CFM @ SP		
					0"	1/8"	1/4"
28"	A73J--283-L---STFCE3	¼	0.36	883	5870	5010	2800
	A73J--283-L---STFCF3	½	0.54	1035	6870	6160	5200
	A73J--283-L---STFCG3	¾	0.74	1165	7750	7130	6430
32"	A73J--323-L---STFCF3	½	0.53	825	8100	7050	4500
	A73J--323-L---STFCG3	¾	0.76	945	9270	8360	7200
	A73J--323-L---STFCH3	1	1.00	1045	10280	9460	8510
	A73J--323-L---STFCI3	1½	1.50	1190	11690	10980	10190
36"	A73J--323-L---STFCJ3	2	1.90	1305	12820	12170	11490
	A73J--363-L---STFCF3	¼	0.57	666	9520	8000	4470
	A73J--363-L---STFCG3	¾	0.81	764	10900	9600	7640
	A73J--363-L---STFCH3	1	1.10	837	11930	10820	9300
44"	A73J--363-L---STFCI3	1½	1.70	980	14000	13030	11880
	A73J--363-L---STFCJ3	2	2.00	1050	15000	14090	13100
	A73J--443-L---STFCI3	1½	1.50	680	18800	17000	14850
	A73J--443-L---STFCJ3	2	1.90	738	20400	18950	16930
48"	A73J--443-L---STFCK3	3	3.00	853	23500	22220	20630
	A73J--443-L---STFCL3	5	4.80	1010	27850	26900	25600
	A73J--483-L---STFCJ3	2	2.00	660	22730	20750	18250
	A73J--483-L---STFCK3	3	2.90	740	25400	23650	21650
54"	A73J--483-L---STFCL3	5	4.90	895	30700	29350	27800
	A73J--543-L---STFCJ3	2	2.00	497	25150	22170	14000
	A73J--543-L---STFCK3	3	3.00	573	28970	26500	22600
	A73J--543-L---STFCL3	5	4.80	671	33950	31900	29500
60"	A73J--543-L---STFCM3	7½	7.50	786	39700	37970	36100
	A73J--603-L---STFCK3	3	3.00	496	33800	30500	26400
	A73J--603-L---STFCL3	5	5.00	595	40550	37900	34900
	A73J--603-L---STFCM3	7½	7.30	672	45750	43400	40700
A73J--603-L---STFCN3	10	9.70	747	51000	49000	46700	

All belted fan ratings include transmission losses.

Series 75J - Reversible Hoodjet Ventilator Rating Table

Size	Model Code	HP	Max. BHP	RPM	CFM @ SP		
					0"	1/8"	1/4"
28"	A75J--282-R---STFCF3	½	0.55	1725	6800	5750	4600
	A75J--284-R---STFCH3	1	1.10	1750	8450	7750	7130
	A75J--284-R---STFCE4	¾	0.32	1140	5570	4560	2790
36"	A75J--362-R---STFCJ3	2	1.90	1750	14480	13050	11730
	A75J--364-R---STFCH4	1	1.10	1160	11870	10580	9200
	A75J--366-R---STFCK4	3	3.20	1160	18000	16300	15650
	A75J--362-R---STFCF4	½	0.60	1140	9600	7570	4400
44"	A75J--446-R---STFCL4	6	5.60	1160	26400	25300	24000
	A75J--446-R---STFCJ5	2	2.30	870	19800	18150	16470
	A75J--446-R---STFCH6	1	1.20	690	15400	13430	11770
44"	A75J--482-R---STFCK4	3	3.40	1160	25670	23200	20700
54"	A75J--542-R---STFCK4	3	2.90	1160	29200	26800	24000
60"	A75J--602-R---STFCM4	7½	6.50	1160	37000	34300	31500
	A75J--602-R---STFCN4	10	9.40	1160	44700	42100	39500
	A75J--602-R---STFCL5	5	3.90	870	33550	30050	26000

NOTE: Shaded ratings not recommended for intake use. When specifying, be sure to include SERIES, SIZE, and TYPE.



Recirculating Roof Ventilator



Series 26



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The Series 26 unit, equipped with reversible airfoil propeller, provides exhaust ventilation in warm weather and recirculation of warm ceiling air down to floor level in cool weather.

Standard Features

- **Sizes** – 24", 30", 36", 42", 48", 54" and 60" Performance from 7,500 to 54,761 CFM at free air.
- **Construction** – a removable galvanized windband on sizes through 54". On 60" size, material shall be constructed of painted mild steel. Dampers open automatically when unit is used for exhaust, closes weather-tight when unit is used for recirculation. During exhaust operation, discharge air effectively prevents the entry of rain. The recirc section is constructed of 12 ga. hot rolled steel, painted. **Aluminum** recirc ventilators are available; entire unit is constructed of aluminum with stainless steel hardware.
- **Propellers** – one-piece cast aluminum reversible airfoil propeller in a direct drive reversible panel fan in the recirc section of the housing.
 - **Sizes** – 24" to 42" – 6 blade – Type R
 - **Sizes** – 48" to 60" – 6-blade adjustable – Type AAR
- **Fan Assembly** – consists of two curved orifices welded together face-to-face. The same efficient performance exists for either exhaust or recirc operation.
- **Hinged Access Door** – equipped with two flush head, button-type latches providing easy access to motor, shutters and controls.
- **Shutters** – two automatic shutters constructed of aluminum are built into each unit located in the lower section of the housing.
- **Motors** – totally enclosed, fan cooled motors are standard. Special motors are available upon request.
- **Lifting lugs** – welded at two opposite (diagonal) inside corners of the plenum section furnished as standard for ease in handling this section during installation.
- **Unit Installation** – lower recirc section (containing fan and shutters, factory installed) and upper ventilation housing are shipped separately for assembly at job site. Recirc section drops through the roof for ease of installation.

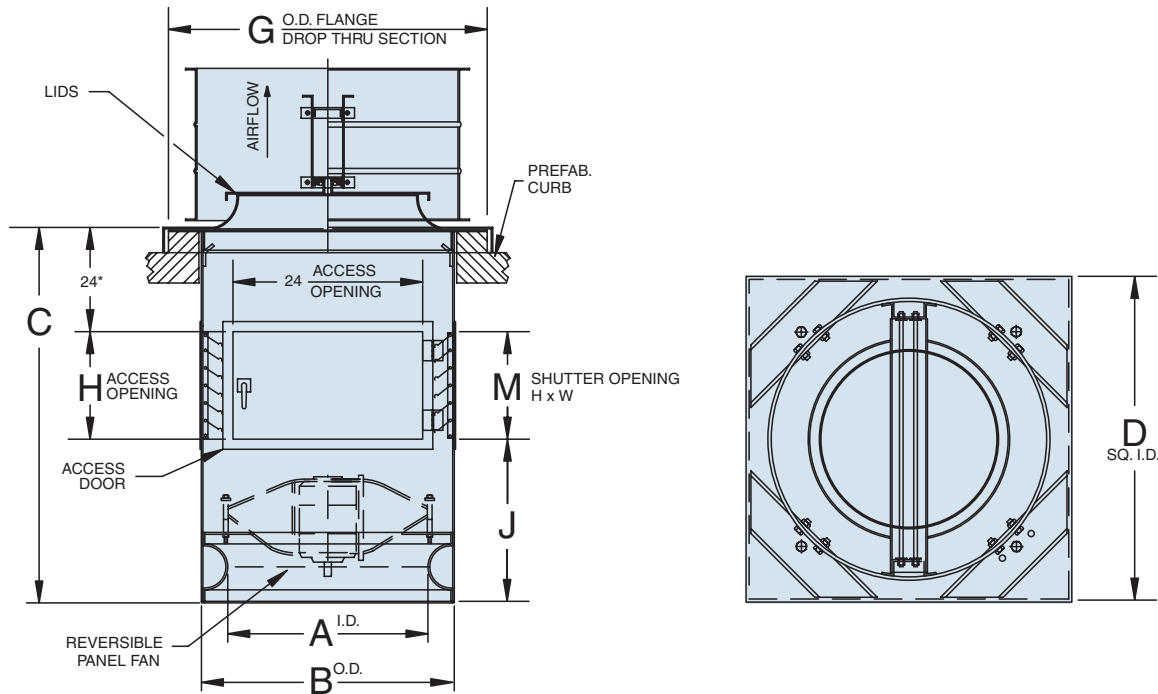
Accessories

- **Coatings** – special coatings are available upon request.
- **Diffusers** – 2-and 4-way diffusers are available for all sizes.
- **Birdscreen** – for installation in throat section. Fabricated of 1/2" wire mesh.
- **Controls** – for reversing the motor are the only ones required for unit operation. Reversal may be manual or automatic. Units available with or without controls. Units ordered without controls provided **less damper actuators**.
- **Adapter Bases** – slope or peak adapter bases available as an option. Specify slope per foot.
- **Prefabricated Curbs** – available for flat, slope or peak roof mounting. Curbs are designed for metal, concrete or wood roof decks that are not surface insulated. Available either 8" or 12" high of galvanized or aluminum construction. See Page 34.



Principal Dimensions (Inches) – Series 26

FAN SIZE	A	B	C	D	G	H	J	M
24	24 $\frac{5}{16}$	28 $\frac{1}{2}$	54	36	35 $\frac{1}{4}$	13	16 $\frac{1}{2}$	13H x 25W
30	30 $\frac{5}{16}$	35 $\frac{1}{2}$	58 $\frac{1}{2}$	42	41 $\frac{1}{4}$	16	18 $\frac{1}{2}$	16H x 32W
36	36 $\frac{5}{16}$	42 $\frac{1}{2}$	62 $\frac{3}{4}$	48	47 $\frac{1}{4}$	19	19 $\frac{1}{2}$	19H x 39W
42	42 $\frac{5}{16}$	48 $\frac{1}{2}$	67 $\frac{1}{4}$	54	53 $\frac{1}{4}$	22	21 $\frac{1}{2}$	22H x 45W
48	48 $\frac{5}{16}$	54 $\frac{1}{2}$	70 $\frac{3}{4}$	64 $\frac{1}{4}$	63 $\frac{1}{2}$	25	21 $\frac{1}{2}$	25H x 51W
54	54 $\frac{5}{16}$	60 $\frac{1}{2}$	73 $\frac{3}{4}$	70 $\frac{3}{4}$	69 $\frac{1}{2}$	28	21 $\frac{1}{2}$	28H x 57W
60	60 $\frac{5}{16}$	66 $\frac{1}{2}$	88 $\frac{1}{2}$	79 $\frac{3}{4}$	79	31	33	31H x 63W



Rating Table – Series 26

Size	Model Code	Blade Angle	Motor		Peak Fan BHP	CFM@Static Pressure				Approx. Net Install. Wt. #
			HP	RPM		0"	1/8"	1/4"	3/8"	
24"	A26---246RB250STFCH3	25°	1	1750	1.13	7530	7100	6740	6400	425
	A26---246RA290STFCI3	29°	1 $\frac{1}{2}$	1750	1.61	8500	8150	7800	7400	435
30"	A26---306RA250STFCH4	25°	1	1160	1.09	9650	8970	8230	7260	624
	A26---306RB290STFCI4	29°	1 $\frac{1}{2}$	1160	1.57	10650	10000	9325	8400	629
36"	A26---366RA240STFCJ4	24°	2	1160	2.33	14700	13950	13070	12300	745
	A26---366RB280STFCK4	28°	3	1160	3.29	15550	14600	13850	13200	770
42"	A26---426-R290STFCK5	29°	3	870	3.35	22100	20900	19700	18600	1012
	A26---486AR215STFCK5	21.5°	3	870	3.40	26250	25000	23700	22200	1199
48"	A26---486AR270STFCL5	27°	5	870	5.45	32100	30800	29400	27900	1254
	A26---546AR220STFCK6	22°	3	690	3.35	30500	28700	26800	24750	1462
54"	A26---546AR280STFCL6	28°	5	690	5.62	37700	35850	33800	31600	1577
	A26---546AR200STFCL5	20°	5	870	5.10	34900	33500	32000	30500	1422
	A26---546AR250STFCM5	25°	7 $\frac{1}{2}$	870	7.90	42800	41300	39750	38250	1476
	A26---546AR280STFCN5	28°	10	870	10.55	47550	46100	44650	43100	1532
60"	A26---606AR225STFCL6	22.5°	5	690	5.48	42911	40907	38800	36796	1750
	A26---606AR265STFCM6	26.5°	7 $\frac{1}{2}$	690	7.40	48565	46376	44188	41687	1800
	A26---606AR280STFCN6	28°	10	690	8.40	51800	49750	47500	45350	1860
	A26---606AR165STFCL5	16.5°	5	870	5.48	39412	37918	36321	34879	1600
	A26---606AR205STFCM5	20.5°	7 $\frac{1}{2}$	870	7.94	47556	46089	44361	42947	1650
	A26---606AR230STFCN4	23°	10	870	10.50	54761	53051	51600	49735	1710

NOTE: Performance includes resistance through ventilator and shutters. RPM shown is nominal and performance is based on actual speed of test.



Recirculating Hooded Roof Ventilator



Series 27



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A dual purpose ventilator offering a simple, economical approach to energy conservation in lieu of complicated and costly heat recovery systems. The Series 27 provides roof ventilation, either exhaust or intake, plus the option of recirculating ceiling air and, if desired, mixing of ceiling air with ambient outside air.

Standard Features

- **Sizes** – 24", 30", 36", 42", 48", 54" and 60" Performance from 7,350 to 53,755 CFM (intake); 7,220 to 52,316 CFM (exhaust).
- **Construction** – roof hood and base are constructed of painted galvanized steel as standard. The recirc section is 12 ga. hot rolled steel, painted. Also available in aluminum construction upon request.
- **Propellers** – one-piece cast aluminum reversible airfoil propeller in a direct drive reversible panel fan in the recirc section of the housing.
 - **Sizes** – 24" to 42" – 6-blade – Type R
 - **Sizes** – 48" to 60" – 6-blade adjustable – Type AAR
- **Hinged Access Doors** – two access doors are furnished as standard. Provide easy access to the motor operated shutter as well as the fan assembly.
- **Shutters** – heavy duty, center pivoted motor operated type. Louvers constructed of 16 ga. galvanized steel. One motor operator controls two shutters located in the lower recirc section.
- **Motors** – totally enclosed, fan cooled motors are standard. Special motors are available upon request.
- **Control Mode Package (NEMA 1)** – specify mode package required.

Mode #1 – INTAKE-RECIRC – provides intake ventilation plus the capability of recirculating ceiling air.

Mode #2 – INTAKE-EXHAUST-RECIRC – for intake or exhaust operation, recirc shutter is closed; inlet-outlet shutter is fully open. For recirculation operation, fan pulls ceiling air through recirc shutter; inlet-outlet shutter is fully closed.

Mode #3 – INTAKE-RECIRC-MIX – mix mode is used when a mixture of ambient outside air and warm ceiling air is required. Recirc shutter and intake shutter modulate to provide exact air mixture.

Mode #4 – INTAKE-RECIRC-MIX-EXHAUST – provides intake or exhaust roof ventilation; also, recirculation of ceiling air; or a combination of ambient outside air and ceiling air.

Starters – Each control mode package listed above is available with any of the following starters. Specify type required.

TYPE A – starter only

TYPE B – combination starter, non-fused disconnect.

TYPE C – combination starter, fusible disconnect. (Modes 2 and 4 use reversing starters.)

- **Control Installation** – customer must supply wiring between the starter, remote control station, and the unit. Controls are shipped separately for mounting and wiring at job site. Units ordered without controls provided **less damper actuators**.
- **Lifting Lugs** – welded to the top of the plenum section furnished as standard for ease in handling this section during installation.
- **Unit Installation** – lower recirc section (containing fan and shutters, factory installed) and upper ventilator housing (base and hood), are shipped separately for assembly at job site. Recirc section drops through the roof for ease of installation.

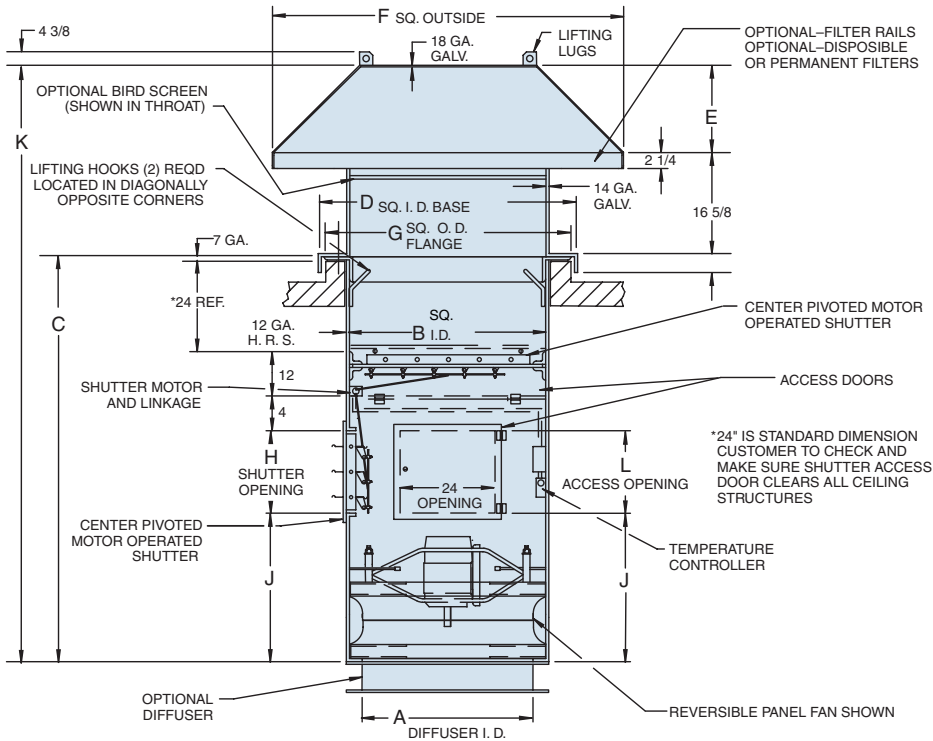
Accessories

- **Coatings** – special protective coatings available upon request.
- **Diffusers** – 2- and 4-way diffusers are available for all sizes.
- **Birdscreen** – for installation in hood or throat section. Fabricated of 1/2" wire mesh.
- **Adapter Bases** – slope or peak bases available. Specify slope per foot.
- **Prefabricated Curbs** – available for flat, slope or peak roof mounting. Curbs are designed for metal, concrete or wood roof decks that are not surface insulated. Available either 8" or 12" high of galvanized or aluminum construction. See Page 34.



Principal Dimensions – Series 27

FAN SIZE	A	B	C	D	E	F	G	H	J	K	L
24	24 $\frac{1}{4}$	28 $\frac{3}{4}$	70	36 $\frac{1}{4}$	15 $\frac{1}{4}$	72	36	13	16 $\frac{13}{16}$	102 $\frac{7}{16}$	13
30	31 $\frac{1}{4}$	35 $\frac{1}{4}$	74 $\frac{1}{2}$	43 $\frac{1}{4}$	17 $\frac{1}{2}$	80	43	16	18 $\frac{5}{16}$	108 $\frac{11}{16}$	16
36	38 $\frac{1}{4}$	42 $\frac{1}{4}$	78 $\frac{3}{4}$	50 $\frac{1}{4}$	19 $\frac{1}{4}$	90	50	19	19 $\frac{9}{16}$	115 $\frac{5}{16}$	19
42	44 $\frac{1}{4}$	48 $\frac{1}{4}$	83 $\frac{1}{4}$	56 $\frac{1}{4}$	21	96	56	22	21 $\frac{1}{16}$	120 $\frac{13}{16}$	22
48	50 $\frac{1}{4}$	54 $\frac{1}{4}$	86 $\frac{1}{4}$	62 $\frac{1}{4}$	26 $\frac{1}{4}$	120	62	25	21 $\frac{1}{16}$	129 $\frac{7}{16}$	25
54	56 $\frac{1}{4}$	60 $\frac{1}{4}$	89 $\frac{1}{4}$	68 $\frac{1}{4}$	30 $\frac{3}{8}$	140	68	28	21 $\frac{1}{16}$	137 $\frac{1}{16}$	28
60	62 $\frac{1}{4}$	66 $\frac{1}{4}$	93 $\frac{1}{4}$	74 $\frac{1}{4}$	33	150 $\frac{3}{8}$	74	31	22 $\frac{1}{16}$	143 $\frac{3}{16}$	31



Rating Table – Series 27

Size	Model Code	Blade Angle	Motor		Peak Fan BHP	CRM@S.P. Intake				CRM@S.P. Exhaust				Approx. Net Install. Wt. #
			HP	RPM		0"	1/8"	1/4"	3/8"	0"	1/8"	1/4"	3/8"	
24"	A27---246RB250STFCH3	25°	1	1750	1.12	7350	7000	6650	6300	7220	6875	6510	6180	742
	A27---246RA290STFCI3	29°	1½	1750	1.59	8300	8000	7650	7250	8200	7850	7500	7125	752
30"	A27---306RA250STFCH4	25°	1	1160	1.15	9400	8800	8050	7100	8820	8250	7450	6500	1027
	A27---306RB290STFCI4	29°	1½	1160	1.50	10450	9800	9100	8100	9750	9120	8300	7300	1032
36"	A27---366RA240STFCJ4	24°	2	1160	2.10	14550	13800	12975	12250	13300	12625	12100	11600	1256
	A27---366RB280STFCK4	28°	3	1160	2.45	15500	14750	14000	13300	14250	13600	13000	12350	1283
42"	A27---426-R290STFCK5	29°	3	870	3.60	21000	19950	19000	18000	20180	19250	18600	17200	1451
	A27---486AR22STFCK5	22°	3	870	3.40	26600	25300	24250	23000	25750	24650	23500	22250	1871
48"	A27---486AR270STFCL5	27°	5	870	5.60	32000	31000	29450	28000	31000	29750	28400	26800	1926
	A27---546AR220STFCK6	22°	3	690	3.20	30250	28500	26750	25000	29300	27750	26000	24000	2295
54"	A27---546AR280STFCL6	28°	5	690	5.40	37400	35500	33500	31500	36350	34400	32500	30350	2410
	A27---546AR200STFCL5	20°	5	870	4.80	34250	33000	31600	30200	33500	32250	31000	29500	2255
	A27---546AR250STFCM5	25°	7½	870	7.60	42600	41000	3950	38000	41300	40000	38300	36800	2305
	A27---546AR280STFCN5	28°	10	870	10.00	47300	46000	44250	42600	45900	44350	42600	41250	2365
60"	A27---606AR220STFCL6	22°	5	690	5.30	41400	39300	37400	35500	40200	38700	36500	34500	2740
	A27---606AR265STFCM6	26.5°	7½	690	7.71	48148	45855	43510	41270	46533	44292	42208	39915	2800
	A27---606AR280STFCN6	28°	10	690	8.90	51100	49000	47000	44500	49400	47350	45200	43000	2860
	A27---606AR160STFCL5	16°	5	870	5.30	38100	36750	35200	33800	37300	36000	34650	33000	2590
	A27---606AR195STFCM5	19.5°	7½	870	7.96	46454	45065	43470	41670	45374	43882	42390	40949	2645
	A27---606AR225STFCN5	22.5°	10	870	10.76	53755	52162	50620	49130	52316	50774	49335	47793	2700

NOTE: Performance includes resistance through ventilator and shutters. RPM shown is nominal and performance is based on actual speed of test.



Roof Ventilator Application

Industrial, commercial, and residential spaces need proper ventilation to facilitate a healthy and protective environment for people, inventory, machinery, and structures. Ventilation itself may be affected in a variety of ways, beginning with opening windows and doors.

Typical industrial processes generate heat; people generate heat; and building structures pass solar heat gains. Warm air rises and can be trapped if not properly allowed to escape causing stratification of air layers and contaminated conditions. Power roof ventilators are an effective and efficient alternative to ventilation by convection. The proper application and use of power ventilators allows better control of air patterns and air distribution.

Good, general ventilation practice and design ensures proper dilution ventilation, heat load control, contaminated air exhaust, and fresh air supply. As a result, operating personnel will be more comfortable and efficient; manufacturing equipment and processes will be able to function more properly.

Selection of Power Roof Ventilators

Circulating Air Volume

The rate of air change is the most frequently used method for calculating air volumes for general conditions. It is based on the theory that a complete air change must be within a certain interval. Listed below is a recommended guide for average air changes for general ventilation.

	Minutes Per Change
Assembly Halls	.2-10
Auditoriums	.2-10
Bakeries	.2-3
Boiler Rooms	.1-5
Bowling Alleys	.2-10
Churches	.5-15
Dairies	.2-5
Dance Halls	.2-10
Dry Cleaners	.1-5
Engine Rooms	.1-3
Factories	.2-5
Forge Shops	.2-5
Foundries	.1-5
Garages	.2-10
Generator Rooms	.2-5
Gymnasiums	.2-10
Kitchens – Hospital	.2-5
Kitchens – Restaurant	.1-3
Laboratories	.1-5
Laundries	.1-3
Machine Shop	.2-10
Markets	.2-10
Mills	.2-10
Offices	.2-10
Packing Houses	.2-5
Plating Rooms	.1-5
Printing Plants	.2-10
Toilets	.2-5
Transformer Rooms	.1-5
Warehouses	.2-10

Rate of Air Change Method

The rate of air change will vary with the type of structure, but a generally accepted rate is one air change every 5 minutes.

Air volume is found by determining the plant volume in cubic feet to be ventilated and then dividing the cubic feet by the desired rate of air change.

**EXAMPLE: Ventilated area 120' x 50' x 20' = 120,000 cu. ft.
Air Exchange Rate - change every 5 minutes.**

$$\frac{120,000 \text{ cu. ft.}}{5 \text{ min}} = 24,000 \text{ CFM}$$

Plant Layout

The usual method of designing plant ventilation layout is to first determine the amount of CFM required (see above). Secondly, determine the size and number of units needed to meet requirements. The units are generally symmetrically spaced.

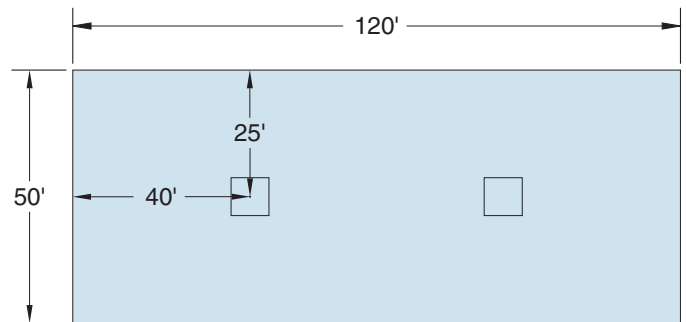
EXAMPLE: Ventilated area 120' x 50' x 20'. Air Exchange Rate - one change every 5 minutes.

$$\frac{120,000 \text{ cu. ft.}}{5 \text{ min.}} = 24,000 \text{ CFM required}$$

Determine number of ventilators required:

Divide 24,000 CFM (system requirement) by number of units desired – in this case 2. Capacity requirement for each ventilator – 12,000 CFM.

Symmetrical spacing should be used whenever possible; however, care must be taken to adequately ventilate particularly troublesome areas and that the roof ventilator air supply is not short cycled by open windows, air supply unit or wall louvers.



Exhaust and Supply

Proper ventilation design is not limited to exhaust only. Any volume of air that is exhausted from a space must be made up by supply air in some fashion. Exhaust air will be made up to a space either naturally, by entering through building cracks, open doors, etc., or by proper ventilation design. Therefore, air supply, in addition to air exhaust, should be considered. In cooler climates tempered make-up air should be considered. To effect proper sweeps and flows through the area to be ventilated, supply air may be introduced through the side walls or the roof. Contact your local Hartzell representative for additional information on wall ventilators and make-up air units.

In many cases it may be necessary to filter the supply air. Please see page 22.

There are basically two power roof ventilator configurations. Upblast units are available for exhaust applications. They are designed to throw the exhaust air volume up and away from the building. When properly designed, exhaust air flow in operation prevents the entry of weather; backdraft dampers close securely to prevent air return and leakage when a unit is not in operation. Hooded roof ventilators are available for exhaust or supply. In the supply mode, hooded roof ventilators can be fitted with permanent or disposable filters. When properly designed, the ventilator hood accommodates low air velocities so as to minimize static pressure losses through the hood and prevent entrainment of weather when used in the supply mode.

In addition, Hartzell offers a complete line of 100 percent reversible roof ventilators when periodic operation in either mode may be required.

Recirculating power roof ventilators which are designed to intake fresh air, exhaust plant air, or recirculate clean plant air are also available. Your Hartzell sales representative can provide more information on these standard units.

Ambient Conditions

The ambient air temperature and air quality require attention when power roof ventilators are being selected. Extreme heat or cold may require special motor insulation (see the table that follows) or bearings, lubricants, belts, and materials of construction.

Motor Insulation	Maximum Ambient Temperature
Standard	105°F
Class F	140°F
Class H	176°F
Class HH	212°F

Note: For extreme heat or cold, contact your Hartzell Sales Representative.

Corrosive fumes or dust in the air stream may require special materials of construction or coatings. For some extreme corrosive applications, Hartzell offers a complete line of upblast and hooded fiberglass roof ventilators. Contact your Hartzell sales representative for more information on the availability and application of these products.

Noise

Power roof ventilators generate sound at different levels depending on their power, efficiency, operating speed, and overall design. This sound may be air borne or structure borne and should be considered in accordance with industrial safety and hygiene regulations. Slow-speed, high-volume, belted roof ventilators (Series 16) are typically well suited for these applications. In severe cases, attenuating devices and materials may be applied.

In addition to in-plant requirements, sound power levels at the property line should also be considered.

Application Considerations

When a need for power roof ventilation has been identified and your initial design and selections made, you should consider the following items to ensure a proper, functional, and satisfactory selection:

- **Maintenance** – power roof ventilators are available in direct- and belt-drive. Air quality, air temperature, and maintenance requirements for belts and bearings should be considered. Accessibility for maintenance of the ventilator and accessory items is an important issue.
- **Installation** – power roof ventilator weights and sizes should be considered for lifting methods and mounting on the roof. Proper roof opening sizing, and free area in the opening are essential. Power roof ventilators should be secured to the building structure properly by means of attachment to a permanent structure or a pre-fabricated roof curb (see page 34).
- **Power Supply** – care should be taken to specify proper voltage, phase and cycle for the power roof ventilator motor as well as accessories and controls.
- **Wind** – care should be taken to ensure that exhaust and supply fan layout on the roof works with, rather than against, the prevailing winds. For example, when power roof exhaust and supply units are both used on the same roof, exhaust fans should be positioned down wind of supply fans.

In addition, wind loads should be considered and standard units modified or reinforced to operate properly in high-wind conditions (see page 34).

- **Options** – see pages 33 and 34 for typical standard options and accessories. Hartzell Fan, Inc. is able to modify standard products and accessories to meet your special requirements.

Furthermore, for variable exhaust and supply requirements, your Hartzell sales representative can assist you in the proper application of AC speed controls with power roof ventilators.

Design assistance for proper plant ventilation is available through recommended practices in industrial publications. However, your Hartzell representative can provide you with selection and application assistance based on experience with a variety of solutions to general and process ventilation problems. Contact your authorized Hartzell sales representative today.

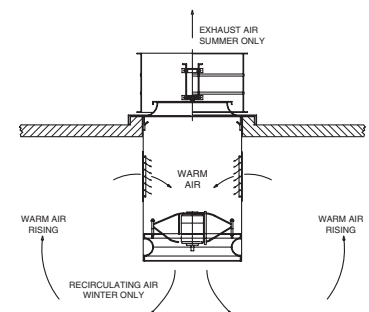
Typical Application – Series 26

The Series 26, Recirculating Roof Ventilators and Series 27, Recirculating Hooded Roof Ventilators provide roof ventilation during the summer months and heat recovery in winter by recirculating warm air from the ceiling down to floor level.

During the summer months not much can be done with hot ceiling air but to exhaust it out of the plant by use of ventilators and exhaust fans.

The huge reservoir of heated air resting at ceiling level can be recirculated for comfort heating during the cold winter months, providing the ceiling air is relatively clean and fume-free. In this age of rising fuel costs, it doesn't make "economic sense" to exhaust warm ceiling air from a plant, then spend money for fuel to heat cool air for worker comfort and efficiency.

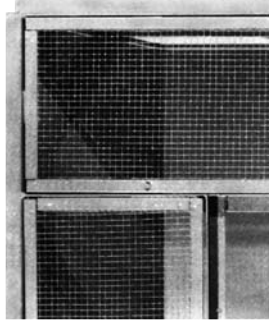
Hartzell's Recirculating Roof Ventilators were designed to economically solve both summer ventilation and winter heat recovery problems. More than 70 Hartzell offices can provide specific performance and installation data to meet your requirements. Call your Hartzell representative for technical assistance.



Options and Accessories

Bird Screen

Half-inch square opening wire mesh, 19 ga. galvanized steel available for all ventilators. Aluminum bird screen also available. Special coating may require heavier gauge.



Bird Screen
Series 15, 16 and 17

Inspection Door – Series 69

Series 69 is available with a hinged inspection door.



Disconnect Switch

NEMA watertight enclosure available mounted and wired, provides safety during maintenance.

Guard

Painted steel guard protects floor area from falling debris and the ventilator from vandalism.

Combination Motor Cover and Belt Guard

Series 69 upblast ventilator only. Provides weather protection as well as guarding of the drive sheave and belts. Covers are vented.

Extended Lube Tubes

Extended Lube Tubes will be provided from the motor on direct drive units and from the bearings and motor on belt drive and belted units to the exterior of the housing **only** when the motor is designed for external lubrication fittings (relubricable versus sealed motor bearings).

Coatings

Non-standard coatings are available. A catalyzed coal tar epoxy offers excellent resistance to weather. Also available is an air dry epoxy offering a corrosive resistant ventilator. Other types of non-standard coatings can be furnished. Standard paint is industrial grade enamel suitable for interior or exterior industrial applications. Contact your Hartzell representative for further information.

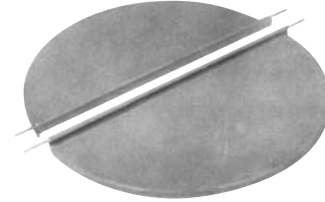
Swing-Out Fan Construction

Fan casing is split and hinged. Section containing fan, drive assembly and propeller swings open and away from installed ventilator. Provides service access to propeller and drive components. See pages 10 and 11.

Stack Cap Options

Fiberglass Damper Lids

Fiberglass lids in place of standard galvanized construction offers increased durability and longer lid life. An additional dividend is fiberglass insulation qualities resulting in less heat loss when the unit is idle during winter months. Series 61, 63 and 69 units only.



Fusible Link

Spring operated, positive lid opener for Series 61, 63 and 69 models. When the temperature through the ventilator exceeds 165°F, the fusible link allows the spring-operated lid opener to lock the stack cap lids in the upright position. Provides gravity ventilation in case electricity to the ventilator is interrupted during a fire.

Magnetic Latches

For positive lid closure when unit is not in operation. Prevents lid flutter when positive pressure exists in building. Series 61, 63 and 69 units only.

SAFETY ACCESSORIES, APPLICATION AND USE WARNING

The safe application and use of equipment supplied by Hartzell Fan, Inc. is the responsibility of the installer, the user, the owner, and the employer. Since the application and use of its equipment can vary greatly, Hartzell Fan, Inc. offers various product types, optional safety accessories, and sound performance data per laboratory tests. Hartzell Fan, Inc. sells its equipment with and without safety accessories, and accordingly, it can supply such safety accessories only upon receipt of an order. The need for safety accessories will frequently depend upon the type of system, fan location and operating procedures being employed. The proper protective safety accessories to meet company standards, local codes, and the requirements of the Occupational Safety and Health Act must be determined by the user since safety requirements vary depending on the location and use of the equipment. If applicable local conditions, standards, codes or OSHA rules require the addition of the safety accessories, the user should specify and obtain the required safety accessories from Hartzell Fan, Inc. and should not allow the operation of the equipment without them.

Owners, employers, users and installers should read "RECOMMENDED SAFETY PRACTICES FOR USERS AND INSTALLERS OF INDUSTRIAL AND COMMERCIAL FANS" published by the Air Movement and Control Association International, Inc., 30 West University Drive, Arlington Heights, Illinois 60004. A copy of this publication is enclosed with each fan shipped from Hartzell Fan, Inc., and is available upon request at Hartzell's office in Piqua, Ohio 45356.

Please contact Hartzell Fan, Inc. or your local Hartzell representative for more information on product types, safety accessories, and sound performance estimates.

Remember, the selection of safety accessories and the safe application and use of equipment supplied by Hartzell Fan, Inc. is **your** responsibility.



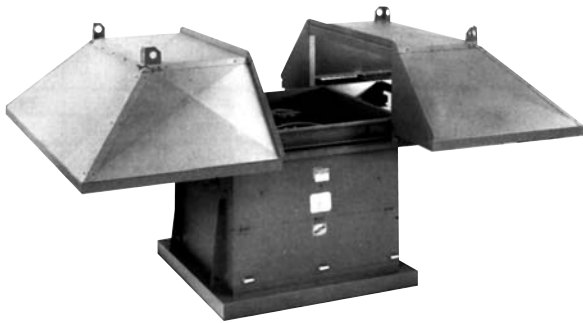
Hooded Roof Ventilator Options

High Wind Load Construction

Series 15, 16, 17 and 19 hooded ventilators are designed to withstand wind loads up to 60 mph. For wind loads between 60 mph and 90 mph, specify high wind load construction, which includes guy wires to secure hood to roof structure.

Hood Roller Slide Rail

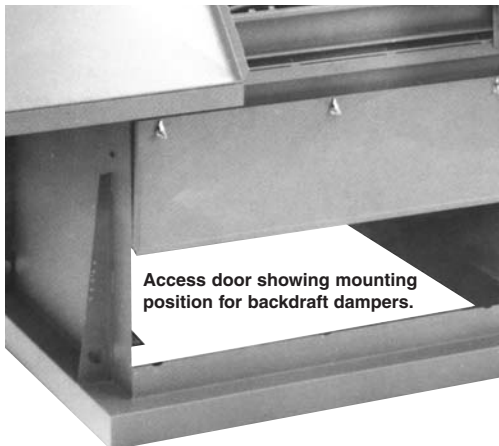
Slide rail design is available in sizes 42" – 84". They consist of roller wheels, guide rails, and rigid supports for stability. This package allows the hood halves to be unbolted and rolled apart providing 100% accessibility to the fan assembly without having to remove either of the hood halves from the unit.



Series 15, with optional filters and slide rail package

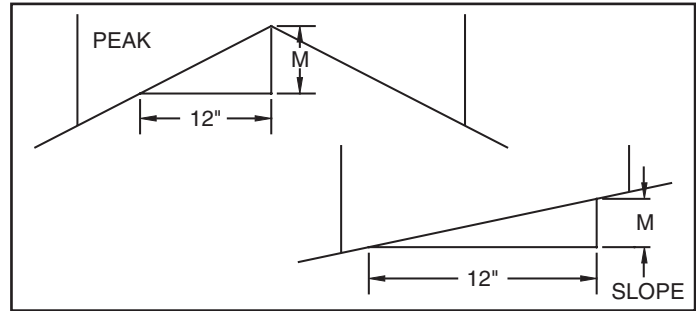
Backdraft Dampers

Available in galvanized steel, aluminum or coated construction, automatic, manual or motor operated configuration, factory installed. The damper is mounted in the base section of the ventilator. Access to the dampers is provided through a hinged type door with quick release latches. This door allows easy removal of dampers in fully open position.



Curb Adapter Base

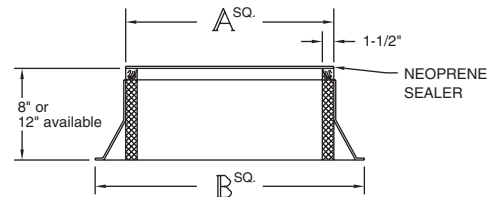
All models available for flat, slope or peak base and are suitable for high wind loads due to tubular construction.



Prefabricated Curb

The IRC-1 prefabricated curb is for flat roof installation of Hartzell roof ventilators. The curb is designed for metal, concrete or wood roof decks that are not surface insulated. The curb is available either 8" or 12" high. Sizes 12" - 60" only. For larger sized curbs, contact your Hartzell representative for assistance.

Prefabricated curbs are designed to support the weight of the fans catalogued herein, and attachments not exceeding over 100 additional pounds in a 40 mph wind. Non-standard curb construction is available.



Features:

- **Nailer Strip** – built-in cant strip facilitates fastening the ventilator to the curb.
- **Glass Fiber Insulation** – a rigid 1 1/2" thick 3 lbs. density liner eliminates condensation problems.
- **Neoprene Sealer** – 1/4" strip.
- **Construction** – galvanized steel (18 ga.) or aluminum (.063).
- **Welded Seams.**

Principal Dimensions for Series 69

Fan Size	12	14	16	18	20	24	28	30	32	36	40	42	44	48	54	60
A	21 1/4	23 1/4	25 1/4	27 1/4	29 1/4	35 1/4	41 1/4	41 1/4	41 1/4	47 1/4	49 1/4	53 1/4	53 1/4	57 1/2	63 1/2	69 1/2
B	29 1/4	31 1/4	33 1/4	35 1/4	37 1/4	43 1/4	49 1/4	49 1/4	49 1/4	55 1/4	57 1/4	61 1/4	61 1/4	65 1/2	71 1/2	77 1/2

Principal Dimensions for Series 61 and 63

Fan Size	12	14	16	18	20	24	28	32	36	40	42	48	54	60
A	21 1/4	23 1/4	25 1/4	27 1/4	29 1/4	35 1/4	41 1/4	41 1/4	47 1/4	49 1/4	53 1/4	57 1/2	63 1/2	69 1/2
B	29 1/4	31 1/4	33 1/4	35 1/4	37 1/4	43 1/4	49 1/4	49 1/4	55 1/4	57 1/4	61 1/4	65 1/2	71 1/2	77 1/2

Principal Dimensions for Series 15, 16 and 17

Fan Size	18	24	30	36	42	48	54	60
A	29 1/2	35 1/2	42 1/2	49 1/2	55 1/2	61 1/2	67 1/2	73 1/2
B	37 1/2	43 1/2	50 1/2	57 1/2	63 1/2	69 1/2	75 1/2	81 1/2

Specifications and dimensions are subject to change. Certified prints are available.

Principal Dimensions for Prefabricated Curbs – Series 27

Fan Size	24	30	36	42	48	54	60
A	35 1/2	42 1/2	49 1/2	55 1/2	61 1/2	67 1/2	73 1/2
B	43 1/2	50 1/2	57 1/2	63 1/2	69 1/2	75 1/2	81 1/2

Principal Dimensions for Prefabricated Curbs – Series 26

Fan Size	24	30	36	42	48	54	60
A	35 1/4	41 1/4	47 1/4	53 1/4	63 1/2	69 1/2	79
B	43 1/4	49 1/4	55 1/4	61 1/4	71 1/2	77 1/2	87



In addition to Power Roof Ventilators, a complete solution for your general ventilation needs...

Propeller Fans and Wall Ventilators

Propeller fans and wall ventilators are designed for general ventilation, fume removal, cooling, air supply or exhaust applications.



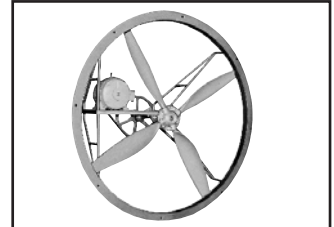
Standard and Lo-Noise Ring Fans
 Sizes: 12" to 120"
 1475 to 229,000 CFM at free air
 Request Bulletin A-109



Standard and Lo-Noise Panel Fans
 Sizes: 12" to 60"
 1475 to 66,850 CFM at free air
 Request Bulletin A-109



Reversible Ring Fans
 Sizes: 18" to 60"
 3350 to 49,800 CFM at free air
 Request Bulletin A-109



Belted High Volume Ring Fans
 Sizes: 72" to 144"
 63,000 to 327,000 CFM at free air
 Request Bulletin A-109

Cool Blast Fans

Cool blast fans are ideal for cooling personnel or equipment, smoke diffusion, product cooling and insect dissipation.



Stationary Pedestal Fans
 Sizes: 20" to 48"
 4168 to 32,700 CFM at free air
 Request Bulletin A-120



Portable Pedestal Fans
 Sizes: 20" to 48"
 4168 to 32,700 CFM at free air
 Request Bulletin A-120



Stationary or Portable Utility Fans
 Sizes: 20" to 36"
 4168 to 18,770 CFM at free air
 Request Bulletin A-120



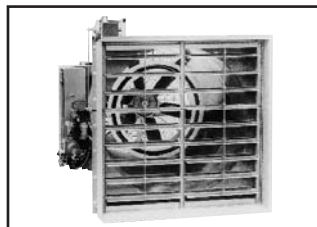
Hartkool Cooling Fans
 Sizes: 18" to 36"
 4236 to 13,450 CFM at free air
 Request Bulletin A-120

Hartzell gas and steam fired make-up air equipment can be used to supply tempered make-up air or as a total fresh air heating system. Make-up air is needed in a plant to eliminate negative pressure in a building and the "sick building syndrome" associated with this problem. Hartzell also manufactures door heaters and unit heaters to complete plant heating requirements.

Gas Fired Equipment



Gas Fired Make-up Air Units
 3,000 to 100,000 CFM Units
 300,000 to 10,000,000 BTU/HR
 Axial or Centrifugal Fan Sections. Request Bulletin A-125.

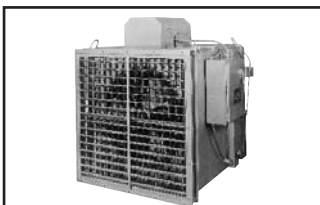


Gas Fired Econo Units
 Heating capacities from
 950,000 to 2,900,000 BTU/HR
 Request Bulletin A-125

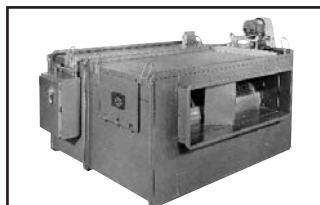


Gas Fired Door Heaters
 Heating capacities from
 700,000 to 990,000 input BTU
 Request Bulletin A-125

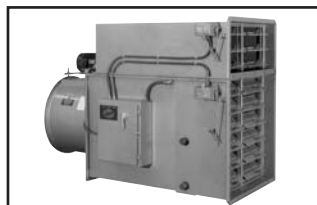
Steam Fired Equipment



Steam Fired Makeup Air Units
 With Propeller Fan Assembly
 Heating capacities from
 536,000 to 5,362,000 BTU/HR
 Request Bulletin A-128



Steam Fired Makeup Air Units
 With Centrifugal Fan Assembly
 Heating capacities from
 740,000 to 3,826,000 BTU/HR
 Request Bulletin A-128



Steam Fired Face and Bypass Units
 Axial or Centrifugal Assemblies
 Heating capacities from
 740,000 to 4,000,000 BTU/HR
 Request Bulletin A-128



Steam Unit Heaters
 With 1- or 2-row coils
 Heating capacities from
 31,000 to 524,000 BTU/HR
 Request Bulletin A-121



Hartzell Warranty

LIMITED WARRANTIES

Hartzell represents to Buyer that any goods to be delivered hereunder will be produced in compliance with the requirements of the Fair Labor Standards Act of 1938 as amended.

Hartzell also warrants to Buyer its goods to be free from defects in workmanship and material under normal use and service for one (1) year after tender of delivery by Hartzell, plus six months allowance for shipment to approved stocking dealers and distributors. No warranty extends to future performance of goods and any claims for breach of warranty or otherwise accrues upon tender of delivery. The foregoing constitute Hartzell's sole and exclusive warranties and are in lieu of all other warranties, whether written, oral, express, implied or statutory.

LIMITATION OF LIABILITY FOR BREACH OF WARRANTY

Hartzell's obligation for any breach of warranty is limited to repairing or replacing, at its option, without cost to Buyer at its factory any goods which shall, within such a warranty period, be returned to it with transportation charges prepaid, and which its examination shall disclose to its satisfaction to have been defective. Any request for repair or replacement should be directed to Hartzell Fan, Inc., P.O. Box 919, Piqua, Ohio 45356. Hartzell will not pay for any repairs made outside its factory without its prior written consent. This does not apply to any such Hartzell goods which have failed as a result of faulty installation or abuse, or incorrect electrical connections or alterations, made by others, or use under abnormal operating conditions or misapplication of the goods.

LIMITATION OF LIABILITY

To the extent the above limitation of liability for breach of warranty is not applicable, the liability of Hartzell on any claim of any kind, including negligence, for any loss or damage arising out of or connected with, or resulting from the sale and purchase of the goods or services covered by these Terms and Conditions of Sale or from the performance or breach of any contract pertaining to such sale or purchase or from the design manufacture, sale, delivery, resale, installation, technical direction installation, inspection repair, operation or use of any goods or services covered by these Terms and Conditions shall, in no case exceed the price allocable to the goods or services which gave rise to the claim and shall terminate one year after tender of delivery of said goods or services, plus six months allowance for shipment to approved stocking dealers and distributors. In no event will Hartzell be responsible or liable for any labor or other incidental costs associated with the removal or replacement of defective products or materials.

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Roof Ventilators - Steel & Fiberglass



Heating Equipment - Gas & Steam



Fiberglass Axial Flow Fans



Fiberglass Centrifugal Blowers



Marine - Mine Duty Blowers

Hartzell Fan, Inc., Piqua, Ohio 45356 • Plants in Piqua, Ohio and Portland, Indiana.