

Low Silhouette — Power Roof Ventilator Propeller

Contemporary Styling

Carnes line of low silhouette power roof ventilators are ideal for installations requiring high performance and a clean, modern appearance. The low profile presented by these units provides the inconspicuous yet functional look popular with many architects, engineers and building owners.

Application Flexibility

These units are available for exhaust, supply or filtered supply applications. Their similar design allows varied functions to be accomplished and still retain a uniform and uncluttered roof design. A choice of direct and belt drive models allow for optimum selection.

▼ Specifications

Model LT: Exhaust Ventilator

Direct and Belt Drive

The Model LT is configured for exhaust applications and is available in both belt drive, LTBA, and direct drive, LTDA, versions. This model is available in seven sizes from 24" to 60" with air movement capabilities to 40,000 cubic feet per minute.

The Carnes Model LT provides efficient and economical building exhaust and should be specified for medium pressure applications where its low profile proves advantageous.

Model LF: Filtered Supply

Direct and Belt Drive

For filtered supply or make-up air applications requiring a low silhouette, the Model LF is an excellent choice. Utilizing 2 inch thick, aluminum permanent filters, the Model LF can provide over 38,000 cubic feet per minute of filtered ventilation. Maintenance is greatly enhanced by the hinged hood allowing fast replacement of filters.

The Model LF should be considered for all clean air make-up and low profile applications.

Model LG: Supply Ventilator

Direct and Belt Drive

Carnes Model LG is similar in construction to the Model LT, utilizing the identical fan selection inverted for supply or make-up air situations. In this configuration air volumes of up to 54,000 cubic feet per minute are possible. Model LGBA is belt driven while Model LGDA is direct driven.

Specify Carnes Model LG for economical supply air requirements and uniform appearance.

CONSTRUCTION FEATURES
Model LTBA and LTDA

All galvanized and welded construction.

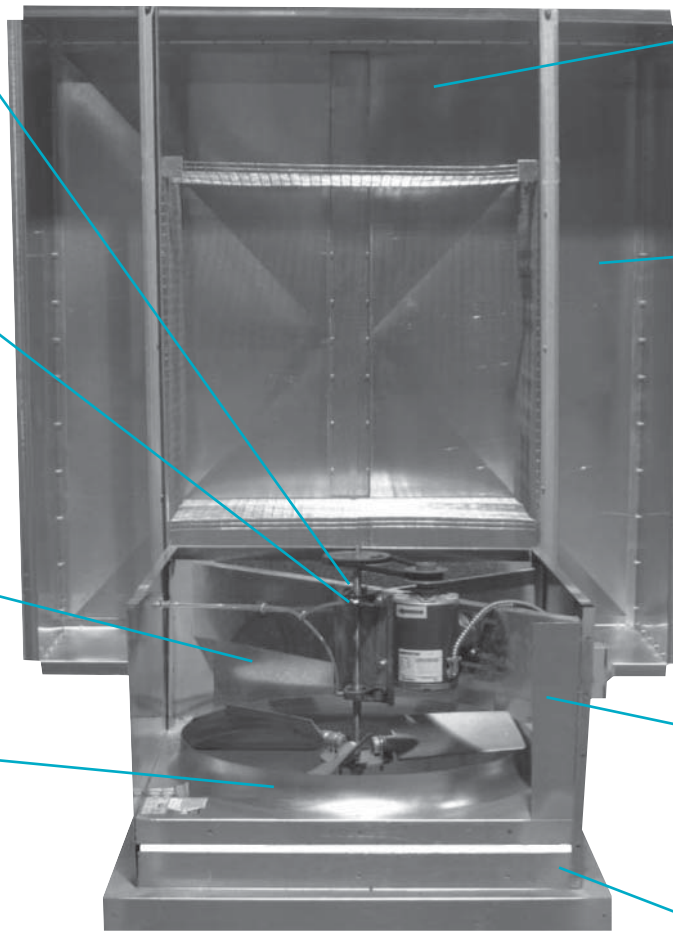
Drives (Belt Drive)
 Adjustable pitch through 3 HP, sized for minimum 150% of drive HP with outboard drives for ease of maintenance.

Bearings (Belt Drive)
 Cast iron pillow blocks, double sealed and prelubricated, designed for 200,000 hour life.

Propeller
 Adjustable pitch aluminum airfoil blades.

Panel Assembly
 All welded, heavy-duty spun galvanized structure for reliable and efficient operation.

AMCA Seal
 Assures rating of Air and Sound performance.



Hood
 Heavy-gauge galvanized steel pivots for access to fan.

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 Heavy-gauge galvanized steel (aluminum optional) pivots for access to fan - removal is not necessary.

Rain Gutter
 To prevent water entrainment.

Access Panel
 Removable side panel for fan and damper access.

Stack/Curb Cap
 All galvanized heavy-duty steel (aluminum optional).

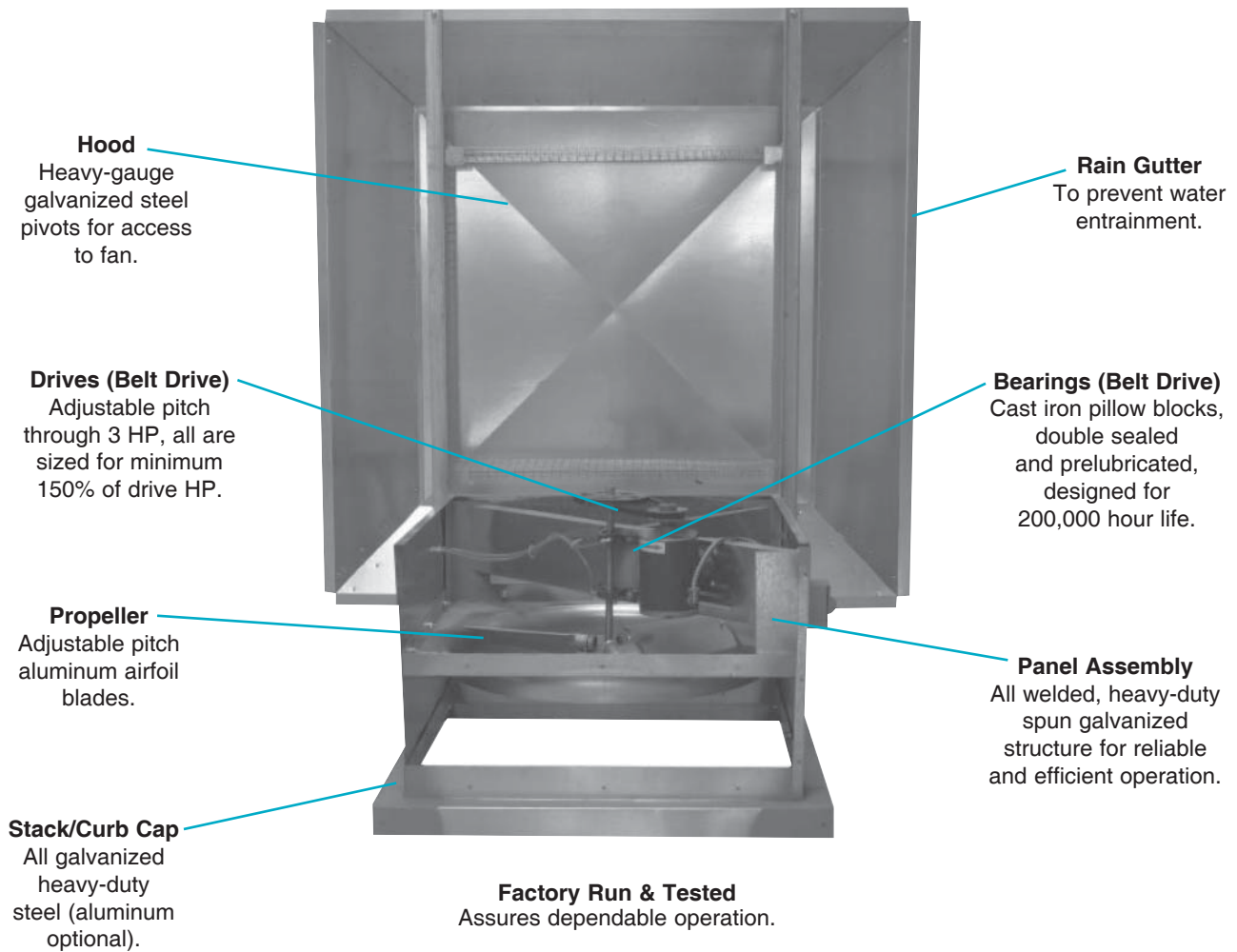
Factory Run & Tested
 Assures dependable operation.



UL Standard 705 (optional)
 Listing assures electrical safety and reliability. Not available on LTDA units.

CONSTRUCTION FEATURES

Model LGBA and LGDA

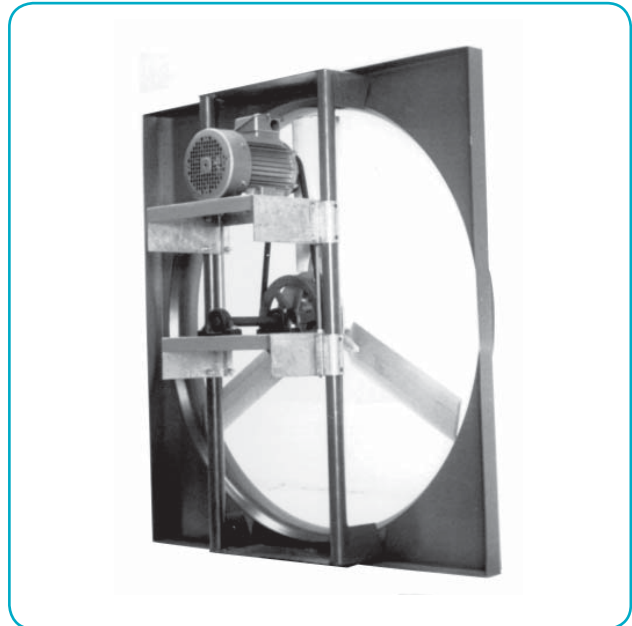


UL Standard 705 (optional)
Listing assures electrical reliability. Not available on LGDA units.

Belt Drive

Belt drive models feature totally enclosed or open drip proof motors, and pillow block bearings with grease fittings for lubrication purposes.

Propellers are special high strength, aluminum airfoil extrusions, selected for optimum performance at low noise levels.



Direct Drive

Direct drive models provide economical operation and low maintenance. High strength aluminum airfoil blades enhance efficient operation.



Features

Easily Convertible

The Model LT (Exhaust) or LG (Supply) are easily field convertible by inverting the fan section.

Rugged Construction

Standard construction is of galvanized steel. Welded frames add to overall stability, reliability and performance.

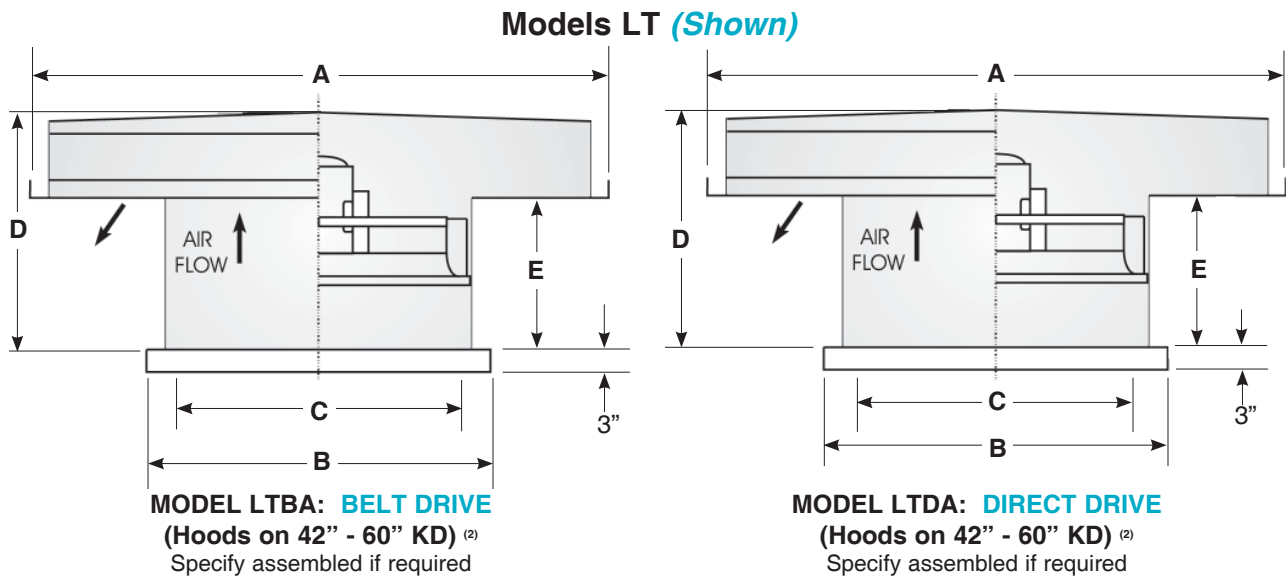
Integral hood gutters carry water to roof corners providing additional protection against moisture entrainment and also increase hood rigidity.

Direct Drive

Hinged hoods are standard on all LT, LG and LF Models for simplified maintenance. In addition, an access panel is also standard allowing even greater serviceability.

Patented Blade Attachment

The unique blade attachment allows for all radial and axial stresses to be carried by the strongest element — the extrusion itself.



DIMENSIONS LISTED IN INCHES

Model LTBA LTDA	A Sq. O. D. Hood ⁽²⁾	B ID Curb Cap	C Min. ID Opening	D Height	E Stack	Prefab Curb O. D.	Metal Gauges ⁽¹⁾			Avg. Wt. (Lbs.)
							Crown/Side Hood	Stack	Cap	
24	58	35	30	44	23	33-1/4	18/18	18	14	423
30	66	41	36	44	23	39-1/4	18/18	18	14	550
36	78	47	42	44	23	45-1/4	18/18	18	14	700
42	87	53	48	51	30	51-1/4	18/18	16	14	800
48	99	59	54	51	30	57-1/4	18/18	16	14	1100
54	111	65	60	51	30	63-1/4	18/16	16	14	1300
60	111	71	66	51	30	69-1/4	18/16	16	14	1550
60	123	71	66	51	30	69-1/4	18/16	16	14	1690

- NOTES:**
1. All materials are G90 galvanized steel.
 2. Due to shipping limitations, 87" and larger hoods may ship separate requiring field attaching. Specify if factory attaching is required and consult factory.
 3. Hoods will hinge and front panel is removable for access to fan and optional damper.
 4. Propellers are 2, 3, 4 or 6-bladed adjustable pitch, airfoil aluminum. (Fixed pitch steel and aluminum are also available.)
 5. Dampers mount on accessory flanges inside curbs due to space restrictions. Factory supplied curbs have shelf included.
 6. Delay switch required on models 10 HP and larger.

ACCESSORIES

BIRDSCREEN — Galvanized steel wire is available on Models LT and LG. Typically installed vertically, horizontal application is available.

FINISHES — Two part epoxy and vinyl coating are available for increased exterior and interior protection.

ANTI-CONDENSATE — A special cork asphalt coating may be applied to the hood interior to prevent condensation from forming.

ALUMINUM CONSTRUCTION — Hood and throat material may be aluminum for reduced weight and increased weather resistance, LB - Exhaust, LH - Supply and LD - Filtered Supply.

DISCONNECT SWITCHES — A service switch may be provided in a NEMA 1 enclosure under the hood. Factory wiring is also available.

BACKDRAFT DAMPERS — Automatic or motor operated dampers are available. Typical mounting is at the base of the roof curb.

PREFABRICATED CURBS — Prefabricated curbs in 18 gauge galvanized-welded construction, 1-1/2" thick insulation, 8" high and wood nailer. The following are options:

- Aluminum.
- Single and double pitch.
- Additional height curbs.

PERFORMANCE DATA

Model LTBA

Belt Drive: EXHAUST

Blade Dia.	HP/ Drive	H. P.	RPM	Max. B. H. P.	Sones @ 5 Feet	CFM @ STATIC PRESSURE							No. of Blades	Estimated Shipping Weight
						.000 S.P.	.125 S.P.	.250 S.P.	.375 S.P.	.500 S.P.	.625 S.P.	.750 S.P.		
24	M2	1/3	970	.42	14.9	5,702	4,678	3,661	2,480	1,159			3	340
	P2	1/2	1110	.63	18.3	6,525	5,613	4,764	3,792	2,730	1,582		3	350
	R2	3/4	1270	.90	23	7,466	6,653	5,914	5,153	2,471	3,399	2,240	3	360
	S2	1	1400	1.20	26	8,230	7,482	6,806	6,134	5,417	4,592	3,809	3	370
	T2	1-1/2	1585	1.74	32	9,318	8,647	8,038	7,450	6,850	6,220	5,501	3	380
	V2	2	1760	2.39	38	10,347	9,735	9,176	8,641	8,113	7,569	7,003	3	390
30	M2	1/3	680	.40	13.2	7,209	5,018	3,176					3	440
	P2	1/2	780	.61	16.3	8,269	6,517	4,594	3,076				3	450
	R2	3/4	890	.91	20	9,435	7,802	6,092	4,715	3,378			3	460
	S2	1	980	1.21	24	10,389	8,811	7,407	5,963	4,761	3,524		3	480
	T2	1-1/2	1120	1.81	29	11,874	10,351	9,420	7,876	6,728	5,675	4,619	3	490
	V2	2	1235	2.42	34	13,093	11,601	10,764	9,647	8,292	7,287	6,332	3	500
	W2	3	1415	3.64	44	15,001	13,542	12,783	12,052	10,959	9,741	8,829	3	510
36	M2	1/3	580	.39	13.3	8,786	6,104	2,134					3	500
	P2	1/2	665	.59	16.5	10,073	7,683	5,107					3	510
	R2	3/4	765	.91	20	11,588	9,473	7,492	4,732				3	530
	S2	1	840	1.19	23	12,724	10,811	9,014	6,896	3,781			3	540
	T2	1-1/2	960	1.79	29	14,542	12,808	11,215	9,677	7,717	5,057		3	560
	V2	2	1055	2.37	33	15,981	14,338	12,909	11,537	9,985	8,167	5,613	3	570
	W2	3	1210	3.58	42	18,329	16,799	15,675	14,345	12,167	11,855	10,286	3	590
42	P2	1/2	500	.60	14.9	12,466	8,498	3,210					3	650
	R2	3/4	570	.89	18.1	14,211	10,756	7,172					3	660
	S2	1	630	1.20	21	15,707	12,613	9,405	5,533				3	680
	T2	1-1/2	720	1.79	26	17,951	15,283	12,444	9,640	5,864			3	690
	V2	2	795	2.41	30	19,821	17,431	14,861	12,333	9,694	5,655		3	700
	W2	3	910	3.62	37	22,688	20,627	18,414	16,163	13,965	11,091	8,937	3	710
	R2	3/4	450	.91	16.3	15,781	12,968	9,524					6	875
48	S2	1	495	1.20	18.9	17,360	14,879	11,860	8,269				6	885
	T2	1-1/2	565	1.76	23	19,814	17,669	15,126	12,415	9,098			6	900
	V2	2	625	2.38	27	21,919	19,977	17,838	15,433	12,834	9,694		6	930
	W2	3	715	3.59	32	25,075	23,364	21,654	19,566	17,502	15,250	12,688	6	950
	X1	5	850	6.10	43	29,809	28,351	26,957	25,466	23,707	21,940	20,147	6	980
	Y1	7-1/2	965	8.94	53	33,842	32,546	31,316	30,072	28,720	27,168	25,584	6	1000
	C1	10	1065	12.02	62	37,349	36,166	35,044	33,932	32,782	31,524	30,116	6	1100
	V2	2	530	2.32	28	28,075	24,746	21,152	17,397	13,225			6	1200
54	W2	3	610	3.59	34	32,312	29,421	27,975	23,156	19,939	16,352		6	1230
	X1	5	715	5.79	44	37,874	35,407	32,940	30,341	27,494	24,714	21,912	6	1250
	Y1	7-1/2	815	8.57	55	43,171	41,007	38,843	36,670	34,336	31,840	29,337	6	1280
	C1	10	900	11.55	66	47,674	45,714	43,754	41,794	39,797	37,648	35,385	6	1300
	V2	2	450	2.26	26	28,479	23,920	19,370	13,910				6	1430
60	W2	3	525	3.68	33	33,225	29,133	25,508	21,380	16,669	10,364		6	1460
	X1	5	605	5.60	41	38,288	34,526	31,547	28,288	24,575	20,563	15,845	6	1500
	Y1	7-1/2	700	8.70	53	44,301	40,836	38,290	35,595	32,709	29,610	26,232	6	1550
	C1	10	765	11.37	62	48,414	45,118	42,732	40,389	37,818	35,137	32,275	6	1600

NOTES: Performance shown is for propeller roof ventilators without ducts.
 Performance certified is for installation type A, free inlet, free outlet.
 Performance ratings do not include the effects of accessories.
 Performance ratings (bhp) do not include transmission losses.

PERFORMANCE DATA
Model LTDA
Direct Drive: EXHAUST

Blade Dia.	HP/ Drive	H. P.	RPM	Max. B. H. P.	Sones @ 5 Feet	CFM @ STATIC PRESSURE							No. of Blades	Estimated Shipping Weight
						.000 S.P.	.125 S.P.	.250 S.P.	.375 S.P.	.500 S.P.	.625 S.P.	.750 S.P.		
24	R3	3/4	1160	.98	23	7,394	6,553	5,687	4,861	3,981	2,755	1,715	3	390
	S3	1	1160	1.26	24	8,361	7,480	6,758	6,041	5,084	3,481	2,323	4	400
	S2	1	1750	1.11	31	7,115	6,567	5,995	5,406	4,802	4,138	3,369	3	395
	T2	1-1/2	1750	1.73	43	9,535	8,870	8,189	7,487	6,759	5,990	5,159	2	400
	V2	2	1750	2.35	37	10,288	9,673	9,112	8,574	8,042	7,494	6,924	3	430
30	R4	3/4	870	.90	19.7	8,885	7,507	6,113	5,385	4,050	2,400		4	515
	S3	1	1160	1.27	29	10,694	9,425	7,878	6,528	4,881	2,873		2	525
	T3	1-1/2	1160	1.93	30	12,020	10,870	9,633	8,269	7,103	6,316	5,272	3	550
	V3	2	1160	2.55	33	12,847	11,665	10,635	9,601	8,715	7,782	6,963	4	560
	T2	1-1/2	1750	1.91	45	11,188	10,321	9,469	8,618	7,767	6,726	6,050	2	520
	V2	2	1750	2.54	46	12,938	12,151	11,337	10,304	9,364	8,331	7,503	3	540
	W2	3	1750	3.90	54	15,195	14,454	13,595	12,668	11,692	10,813	9,858	2	550
36	R4	3/4	870	.85	22	10,708	9,073	7,377	5,612				3	610
	S4	1	870	1.20	26	12,730	11,041	9,168	7,346	5,061			3	620
	T4	1-1/2	870	1.75	30	13,685	12,339	10,479	8,588	6,455	3,906		3	615
	V4	2	870	2.41	28	16,374	14,844	13,309	11,779	10,037	7,407	4,676	4	660
	W4	3	870	3.47	32	18,199	16,805	15,502	14,102	12,081	9,540	6,836	4	680
	T3	1-1/2	1160	1.90	34	14,053	12,929	11,650	10,402	9,167	7,833	6,471	3	620
	V3	2	1160	2.22	35	14,679	13,505	12,290	10,972	9,636	8,405	7,148	3	630
	W3	3	1160	3.58	37	17,582	16,319	15,067	13,775	12,491	11,275	9,950	3	675
	X3	5	1160	5.77	47	21,936	20,539	19,232	17,980	16,773	15,581	14,152	3	685
	W2	3	1750	3.55	74	15,035	14,138	13,355	12,613	11,869	11,060	10,171	3	610
	X2	5	1750	5.91	75	20,465	19,705	18,927	18,129	17,312	16,476	15,609	3	620
Y2	7-1/2	1750	8.72	81	24,839	24,078	23,262	22,392	21,480	20,544	19,609	3	675	
42	T4	1-1/2	870	1.61	33	16,570	14,167	11,262	7,973				2	730
	V4	2	870	2.31	37	19,940	17,744	15,655	13,058	10,682			3	780
	W4	3	870	3.42	44	22,773	20,341	17,842	15,424	13,535	10,973		3	800
	V3	2	1160	2.47	57	19,172	16,971	15,337	13,305	11,137	8,864		2	740
	W3	3	1160	3.52	58	21,966	20,500	18,953	17,344	15,718	14,022	12,180	3	790
	X3	5	1160	5.83	59	26,310	24,753	23,272	21,656	19,945	18,332	16,737	3	805
	X2	5	1750	5.75	93	20,253	19,103	17,959	16,823	15,703	14,611	13,403	3	780
48	V4	2	870	2.42	41	20,688	19,025	16,940	15,074	13,092	10,681	7,827	4	1000
	W4	3	870	3.48	44	25,857	23,353	20,843	18,197	15,375	12,299	8,647	3	1010
	X4	5	870	5.76	48	30,637	28,009	25,382	22,872	20,457	17,925	14,299	3	1050
	Y4	7-1/2	870	8.66	50	34,585	33,085	31,514	29,874	28,175	26,449	24,689	6	1075
	X3	5	1160	5.89	71	30,735	28,107	25,346	22,591	19,994	17,423	14,714	2	1010
	Y3	7-1/2	1160	8.26	79	34,476	32,589	30,723	28,848	26,934	24,944	22,873	3	1050
	C3	10	1160	11.92	99	38,005	35,927	34,081	32,323	30,562	28,647	26,258	3	1075
54	W4	3	870	3.54	43	27,942	25,431	22,691	19,504	16,154	12,685	9,565	3	1130
	X4	5	870	5.32	58	37,098	34,410	31,722	29,013	26,232	23,290	20,389	4	1180
	Y4	7-1/2	870	8.86	67	44,330	41,565	38,801	36,024	33,088	29,922	26,445	4	1200
	X3	5	1160	5.86	87	27,088	25,568	23,941	22,218	20,425	18,586	16,718	4	1175
	Y3	7-1/2	1160	8.96	92	36,365	34,710	33,103	31,500	29,856	28,086	26,063	4	1195
60	X4	5	870	5.77	66	35,503	32,460	29,353	26,221	23,041	19,648	15,435	3	1350
	Y4	7-1/2	870	8.90	72	43,092	40,226	36,882	33,231	29,364	25,142	20,427	3	1390

NOTE: Performance shown is for propeller roof ventilators without ducts.
 Performance certified is for installation type A, free inlet, free outlet.
 Performance ratings do not include the effects of accessories.

PERFORMANCE DATA

Model LGBA
Belt Drive: SUPPLY

Blade Dia.	HP/ Drive	H. P.	RPM	Max. B. H. P.	Sones @ 5 Feet	CFM @ STATIC PRESSURE							No. of Blades	Estimated Shipping Weight
						.000 S.P.	.125 S.P.	.250 S.P.	.375 S.P.	.500 S.P.	.625 S.P.	.750 S.P.		
24	M2	1/3	930	.38	15	4,724	4,043	2,979					3	325
	P2	1/2	1060	.58	19	5,444	4,844	4,022	3,000				3	330
	R2	3/4	1215	.85	24	6,171	5,648	5,049	4,244	3,315			3	335
	S2	1	1335	1.13	28	6,781	6,302	5,841	5,121	4,374	3,493		3	340
	T2	1-1/2	1530	1.70	34	7,771	7,354	6,946	6,467	5,830	5,189	4,436	3	345
	V2	2	1680	2.25	41	8,533	8,153	7,777	7,412	6,881	6,298	5,715	3	345
30	M2	1/3	660	.37	13	7,099	5,557	3,085					3	380
	P2	1/2	775	.58	16	8,194	6,922	5,008					3	385
	R2	3/4	865	.85	21	9,304	8,246	6,822	4,979				3	390
	S2	1	950	1.15	24	10,310	9,369	8,175	6,585				3	395
	T2	1-1/2	1090	1.70	30	11,724	10,915	9,991	8,841	7,402			3	400
	V2	2	1200	2.27	36	12,908	12,173	11,373	10,448	9,266	7,946		3	400
	W2	3	1370	3.44	45	14,669	13,780	12,876	11,851	10,820	9,824	8,804	3	420
36	M2	1/3	495	.38	11	9,903	6,558						3	425
	P2	1/2	565	.58	14	11,381	8,600						3	430
	R2	3/4	645	.85	18	12,993	10,696	7,433					3	435
	S2	1	710	1.14	21	14,302	12,333	9,637					3	440
	T2	1-1/2	815	1.73	27	16,417	14,783	12,589	10,000				3	445
	V2	2	895	2.29	31	18,029	16,541	14,686	12,604				3	445
	W2	3	1025	3.44	39	20,647	19,348	17,959	16,131	14,300	11,940		3	465
42	P2	1/2	445	.58	13	14,503	9,169						3	540
	R2	3/4	510	.85	16	16,525	12,079						3	545
	S2	1	560	1.15	19	18,251	14,350						3	550
	T2	1-1/2	640	1.72	24	20,858	17,815	13,510					3	555
	V2	2	705	2.30	35	22,977	20,268	16,414	12,245				3	555
	W2	3	805	3.43	46	26,236	23,863	20,873	17,540	13,601			3	575
	48	R2	3/4	405	.86	14	19,542	11,487						3
S2		1	445	1.14	17	21,742	14,137						3	665
T2		1-1/2	500	1.72	21	24,493	17,864	10,164					3	670
V2		2	560	2.30	25	27,161	22,026	15,327					3	670
W2		3	640	3.40	30	30,881	26,694	20,675	15,035				3	690
X1		5	760	5.71	40	36,671	33,145	28,874	23,792	19,200			3	710
Y1		7-1/2	870	8.55	53	46,322	38,899	35,818	31,144	26,982	23,220		3	820
C1		10	960	11.49	64	49,979	43,530	40,739	37,344	32,782	29,339	25,924	3	835
54	V2	2	465	2.09	23	29,628	23,717	14,745					3	775
	W2	3	530	3.10	28	33,769	29,093	22,202					3	805
	X1	5	630	4.99	37	39,709	35,990	31,085	25,359				3	815
	Y1	7-1/2	720	7.47	47	45,382	42,128	38,469	33,640	28,551	21,662		3	920
	C1	10	795	10.07	58	50,109	47,162	44,215	40,031	35,603	30,935		3	930
	60	V2	2	390	2.02	20	30,739	25,920						3
W2		3	450	3.05	26	35,284	31,586	23,994					3	885
X1		5	530	4.99	35	41,557	38,758	34,372					3	915
Y1		7-1/2	610	7.59	44	47,830	45,398	42,206	37,327	29,300			3	1010
C1		10	670	10.07	52	52,534	50,320	47,771	44,348	38,702			3	1030

NOTES: Performance shown is for propeller roof ventilators without ducts.
 Performance certified is for installation type A, free inlet, free outlet.
 Performance ratings do not include the effects of accessories.
 Performance ratings (bhp) do not include transmission losses.

The sound ratings shown are loudness in fan sones at 5 ft. (1.5m) in a hemispherical free field calculated per AMCA Standard 301 @ free air. Values shown are installation Type A, free inlet hemispherical sone levels.

PERFORMANCE DATA

Model LGDA
Direct Drive: SUPPLY

Blade Dia.	HP/ Drive	H. P.	RPM	Max. B. H. P.	Sones @ 5 Feet	CFM @ STATIC PRESSURE							No. of Blades	Estimated Shipping Weight
						.000 S.P.	.125 S.P.	.250 S.P.	.375 S.P.	.500 S.P.	.625 S.P.	.750 S.P.		
24	L4	1/4	870	.27	13	4,160	3,384	2,174					3	280
	P4	1/2	870	.57	17	4,645	4,210	3,779	3,286	2,509			3	280
	M3	1/3	1160	.38	17	4,455	3,793	2,703					2	270
	P3	1/2	1160	.56	19	5,433	4,766	3,747					2	275
	R3	3/4	1160	.86	21	6,336	5,750	5,077	4,202	3,203			3	285
	S3	1	1160	1.13	22	6,756	6,091	5,460	4,730	3,978	3,168		4	295
	S2	1	1750	1.14	30	6,232	5,838	5,348	4,705	3,942	3,175		2	275
	T2	1-1/2	1750	1.71	34	7,709	7,308	6,880	6,322	5,619	4,786		2	280
	V2	2	1750	2.26	38	8,646	8,212	7,722	7,157	6,486	5,650		2	280
	W2	3	1750	3.34	42	9,447	9,023	8,599	8,208	7,811	7,340	6,917	4	300
30	P4	1/2	870	.58	17	8,261	6,920	4,465					2	330
	R4	3/4	870	.84	19	9,272	8,232	6,830	5,009				3	340
	S4	1	870	1.13	29	10,276	9,223	8,132	6,732	5,191			4	350
	R3	3/4	1160	.85	23	8,691	7,744	6,428	4,459				2	325
	S3	1	1160	1.14	25	10,150	9,275	8,152	6,209				2	330
	T3	1-1/2	1160	1.71	29	11,973	11,016	9,766	8,085	5,714			2	340
	V3	2	1160	2.28	33	13,020	12,213	11,322	10,281	9,004	7,572	6,106	3	360
	V2	2	1750	2.30	43	11,269	10,688	9,930	9,101	7,924	6,719	5,504	2	330
	W2	3	1750	3.41	47	14,249	13,723	13,109	12,374	11,661	10,595	9,225	2	350
	X2	5	1750	5.65	58	17,790	17,198	16,557	15,818	14,918	14,219	13,147	2	360
36	S5	1	680	1.14	19	14,217	11,919	8,747					3	460
	T5	1-1/2	680	1.72	21	17,324	15,520	13,614	10,589				4	465
	R4	3/4	870	.85	21	12,436	10,693	7,806					2	405
	S4	1	870	1.13	23	14,185	12,501	10,031					2	405
	T4	1-1/2	870	1.73	26	16,237	14,884	13,175	11,021	8,499			3	410
	V4	2	870	2.34	29	18,084	16,439	14,310	11,982				3	420
	T3	1-1/2	1160	1.73	32	15,289	14,160	12,700	10,280				2	400
	V3	2	1160	2.29	33	17,594	16,478	14,962	13,317	10,332			2	430
	W3	3	1160	3.41	37	20,753	19,552	18,052	16,345	13,852			2	460
	X3	5	1160	5.66	49	24,253	23,000	21,746	20,165	18,307	16,643	14,526	3	490
42	X2	5	1750	5.70	65	22,388	21,666	20,886	19,790	18,910	17,717	16,129	2	430
	Y2	7-1/2	1750	8.46	70	27,417	26,691	25,942	25,145	24,055	23,018	22,187	2	505
	S5	1	680	1.15	18	18,160	15,132						2	470
	T5	1-1/2	680	1.73	23	20,757	17,344						2	480
	V5	2	680	2.30	26	22,873	19,806	15,303	10,405				3	490
	S4	1	870	1.13	27	15,924	13,504	9,568					2	500
	T4	1-1/2	870	1.74	28	20,258	18,236	15,266	10,310				2	510
	V4	2	870	2.25	29	22,642	20,590	17,805					2	530
	W4	3	870	3.43	35	26,128	23,792	20,453	15,603				2	555
	V3	2	1160	2.27	43	18,942	17,133	14,621	11,562	7,988			2	510
48	W3	3	1160	3.34	43	24,423	22,947	21,061	18,816	15,600			2	545
	X3	5	1160	5.71	48	30,979	29,471	27,836	25,605	23,318	19,844	15,452	2	555
	X2	5	1750	5.72	92	21,071	19,517	17,487	15,477	13,897	11,833		2	580
	Y2	7-1/2	1750	8.49	91	30,329	29,285	28,177	26,703	25,307	23,501	21,555	2	610
	S5	1	680	1.13	23	19,172	14,905						2	550
	T5	1-1/2	680	1.70	24	23,378	20,013	13,975					2	560
	V5	2	680	2.29	26	26,407	22,763	16,577					2	570
	V4	2	870	2.32	34	24,151	21,396	17,029					2	550
	W4	3	870	3.40	35	29,404	26,778	23,214	18,540				2	570
	X4	5	870	5.71	41	35,765	32,909	29,547	24,033	18,298			2	700
54	Y4	7-1/2	870	8.55	49	41,979	38,899	35,818	31,144	26,982	23,220	18,390	3	810
	X3	5	1160	5.64	57	32,705	30,685	28,585	25,121	21,863	17,961		2	670
	Y3	7-1/2	1160	8.46	59	40,052	38,113	36,090	33,945	30,299	26,778	23,119	2	800
	C3	10	1160	11.40	64	45,047	43,029	40,906	38,618	35,611	31,538	27,579	2	820
	T5	1-1/2	680	1.51	28	24,856	19,528	11,747					2	740
	V5	2	680	2.07	29	29,759	25,278	18,639					2	750
	V4	2	870	2.09	42	22,216	16,431	11,185					2	730
	W4	3	870	3.00	43	30,680	26,741	21,701	15,541				2	750
	X4	5	870	5.03	45	40,916	37,281	33,916	28,589	22,590			2	820
	Y4	7-1/2	870	7.70	49	48,263	44,578	40,654	35,983	29,521			2	890
60	X3	5	1169	4.97	73	29,622	25,570	21,185	17,668				2	810
	Y3	7-1/2	1160	7.70	71	43,139	40,158	37,454	33,863	29,948	26,098	20,042	2	880
	C3	10	1160	10.02	72	50,109	47,343	44,544	42,270	38,346	34,362	30,282	2	900
	V5	2	680	2.03	34	32,449	26,076	17,980					2	775
	X4	5	870	5.01	54	45,982	40,467	36,597	30,818	22,737			2	775
	Y4	7-1/2	870	7.54	55	56,591	51,552	47,212	43,054	36,833			2	1010

NOTE: Performance shown is for propeller roof ventilators without ducts. Performance certified is for installation type A, free inlet, free outlet. Performance ratings do not include the effects of accessories. The sound ratings shown are loudness in fan sones at 5 ft. (1.5m) in a hemispherical free field calculated per AMCA Standard 301 @ free air. Values shown are installation Type A, free inlet hemispherical sone levels.

PERFORMANCE DATA

Model LFBA

Belt Drive: FILTERED SUPPLY

Blade Dia.	HP/ Drive	H. P.	RPM	Max. B. H. P.	Sones @ 5 Feet	CFM @ STATIC PRESSURE							No. of Blades	Estimated Shipping Weight
						.000 S.P.	.125 S.P.	.250 S.P.	.375 S.P.	.500 S.P.	.625 S.P.	.750 S.P.		
24	M2	1/3	930	.381	15	4,327	3,650	2,716					3	340
	P2	1/2	1060	.575	19	4,984	4,430	3,645	2,754				3	345
	R2	3/4	1215	.848	24	5,653	5,211	4,555	3,863	3,042			3	350
	S2	1	1335	1.155	28	6,277	5,891	5,344	4,698	4,052	3,270		3	355
	T2	1-1/2	1530	1.738	34	7,194	6,857	6,434	5,909	5,352	4,797	4,153	3	360
	V2	2	1680	2.300	41	7,899	7,592	7,244	6,807	6,287	5,789	5,282	3	360
30	P2	1/2	755	.582	16	7,242	6,003	4,432					3	400
	R2	3/4	865	.850	21	8,226	7,196	5,894	4,445				3	405
	S2	1	950	1.134	24	9,034	8,128	6,988	5,739	4,244			3	410
	T2	1-1/2	1090	1.713	30	10,366	9,599	8,675	7,624	6,530	5,257		3	410
	V2	2	1200	2.283	36	11,412	10,715	9,917	9,009	8,027	7,023	5,867	3	415
	W2	3	1370	2.398	45	13,028	12,418	11,782	11,024	10,211	9,350	8,483	3	435
36	P2	1/2	565	.579	14	9,637	7,192	4,033					3	445
	R2	3/4	645	.856	18	11,002	8,881	6,416					3	450
	S2	1	710	1.147	21	12,110	10,205	8,056	5,552				3	455
	T2	1-1/2	815	1.737	27	13,901	12,276	10,515	8,501	6,284			3	460
	V2	2	895	2.295	31	15,266	13,792	12,203	10,056	8,620	6,434		3	460
	W2	3	1025	3.457	39	17,483	16,196	14,851	13,452	11,915	10,281	8,550	3	480
42	R2	3/4	510	.868	16	13,841	10,120	5,578					3	565
	S2	1	560	1.147	19	15,198	11,764	8,009					3	570
	T2	1-1/2	640	1.720	24	17,369	14,370	11,270	7,653				3	575
	V2	2	705	2.296	35	19,133	16,415	13,766	10,577				3	575
	W2	3	805	3.415	46	21,846	19,467	17,070	14,716	11,851			3	595
48	S2	1	445	1.152	17	17,949	12,146						3	690
	T2	1-1/2	510	1.734	21	20,571	15,261	9,820					3	695
	V2	2	560	2.295	25	22,587	17,713	12,771					3	695
	W2	3	640	3.428	30	25,814	21,489	17,701	12,978				3	715
	X1	5	760	5.739	40	30,654	27,000	23,498	20,506	16,124	12,188		3	725
	Y1	7-1/2	870	8.610	53	35,091	31,899	28,757	25,802	23,302	19,238	16,118	3	945
	C1	10	960	11.570	64	38,721	35,828	32,935	30,200	27,684	25,195	21,506	3	860

NOTES: Performance shown is for propeller roof ventilators without ducts.
 Performance certified is for installation type A, free inlet, free outlet.
 Performance ratings do not include the effects of accessories.
 Performance ratings (bhp) do not include transmission losses.

The sound ratings shown are loudness in fan sones at 5 ft. (1.5m) in a hemispherical free field calculated per AMCA Standard 301 @ free air. Values shown are installation Type A, free inlet hemispherical sone levels.

PERFORMANCE DATA

Model LFDA

Direct Drive: FILTERED SUPPLY

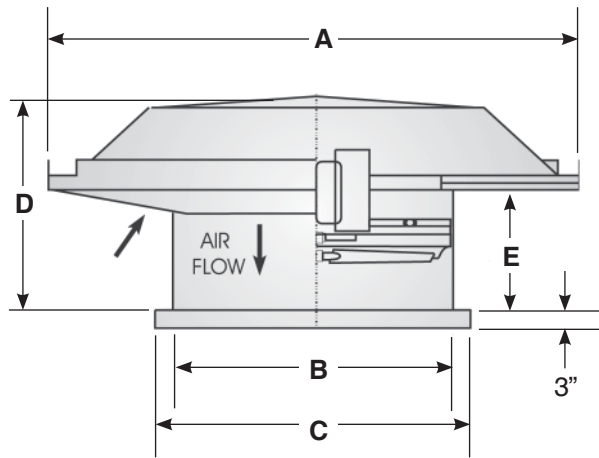
Blade Dia.	HP/ Drive	H. P.	RPM	Max. B. H. P.	Sones @ 5 Feet	CFM @ STATIC PRESSURE							No. of Blades	Estimated Shipping Weight
						.000 S.P.	.125 S.P.	.250 S.P.	.375 S.P.	.500 S.P.	.625 S.P.	.750 S.P.		
24	R3	3/4	1160	.853	21	5,274	5,215	4,523	3,773	2,889			3	295
	S3	1	1160	1.115	22	6,204	5,713	5,141	4,541	3,945	3,395	2,860	4	305
	S2	1	1750	1.149	30	5,932	5,527	5,090	4,466	3,692	2,891		2	285
	T2	1-1/2	1750	1.720	34	7,164	6,778	6,335	5,919	5,262	4,434	3,593	2	280
	V2	2	1750	2.352	38	7,988	7,544	7,057	6,567	6,002	5,256	4,429	2	280
	W2	3	1750	3.408	42	8,779	8,476	8,173	7,821	7,463	7,091	6,726	4	310
30	R4	3/4	870	.865	19	8,273	7,251	5,961	4,530				3	355
	S4	1	870	1.152	21	9,111	8,130	6,737	5,324	3,664			4	365
	R3	3/4	1160	.865	23	7,919	7,012	5,841	4,468				2	340
	S3	1	1160	1.154	25	9,019	8,119	7,087	5,733	4,094			2	345
	T3	1-1/2	1160	1.728	29	10,319	9,275	8,126	6,799	5,451			2	355
	V3	2	1160	2.306	33	11,489	10,703	9,835	8,888	7,839	6,751	5,513	3	375
	V2	2	1750	2.340	43	10,360	9,677	9,024	8,212	7,360	6,614	5,540	2	345
	W2	3	1750	3.403	47	12,739	12,155	11,560	10,934	10,224	9,351	8,439	2	365
	X2	5	1750	5.657	58	15,375	14,701	14,027	13,304	12,562	11,818	10,915	2	375
	Y2	7-1/2	1750	8.437	70	23,366	22,527	21,689	20,853	20,022	19,089	18,090	2	525
36	R4	3/4	870	.866	21	10,814	9,160	7,004					2	425
	S4	1	870	1.144	23	12,029	10,298	8,210	5,682				2	425
	T4	1-1/2	870	1.740	26	13,467	11,303	8,919	6,739				2	430
	V4	2	870	2.313	29	15,229	13,606	11,915	10,099	8,115			2	440
	T3	1-1/2	1160	1.712	32	13,211	11,941	10,567	8,903	7,115			2	420
	V3	2	1160	2.338	33	15,197	13,942	12,667	11,097	9,432	7,374		2	450
	W3	3	1160	3.442	37	17,216	15,783	14,320	12,708	10,951	9,433		2	480
	X3	5	1160	5.749	49	20,545	19,284	18,023	16,724	15,468	14,160	12,528	3	510
	X2	5	1750	5.726	65	19,654	18,794	17,943	17,155	16,187	15,117	14,010	2	450
	Y2	7-1/2	1750	8.437	70	23,366	22,527	21,689	20,853	20,022	19,089	18,090	2	525
42	S4	1	870	1.147	27	13,965	11,651	8,971	5,239				2	525
	T4	1-1/2	870	1.703	28	16,958	14,787	12,347	9,265				2	535
	V4	2	870	2.307	29	18,835	16,487	14,046	11,171				2	555
	W4	3	870	3.396	35	20,709	17,795	14,729	11,692	8,483			2	580
	V3	2	1160	2.332	43	16,755	14,814	12,823	10,921	8,346	5,653		2	535
	W3	3	1160	3.453	43	21,129	19,444	17,914	15,994	13,897	11,351		2	570
	X3	5	1160	5.739	48	25,471	23,668	21,893	20,074	18,041	15,847	13,556	2	580
	X2	5	1750	5.761	92	17,235	14,835	13,023	12,125	11,406	9,989	8,651	2	605
	Y2	7-1/2	1750	8.425	91	26,240	24,928	23,677	22,653	21,293	19,916	18,551	2	635
48	V4	2	870	2.344	34	21,205	18,422	15,525	10,623				2	580
	W4	3	870	3.397	35	24,860	22,013	19,430	16,007				2	600
	X4	5	870	5.724	41	28,822	25,302	21,915	18,436	13,330			2	730
	Y4	7-1/2	870	8.610	49	35,091	31,899	28,757	25,802	23,302	19,238	16,118	3	840
	X3	5	1160	5.709	57	28,661	26,447	24,563	22,522	20,057	16,080	12,406	2	700
	Y3	7-1/2	1160	8.473	59	33,747	31,570	29,480	27,547	25,436	22,954	19,494	2	830
	C3	10	1160	11.337	64	36,844	34,454	32,078	29,866	27,653	25,141	22,274	2	850

NOTE: Performance shown is for propeller roof ventilators without ducts.
 Performance certified is for installation type A, free inlet, free outlet.
 Performance ratings do not include the effects of accessories.

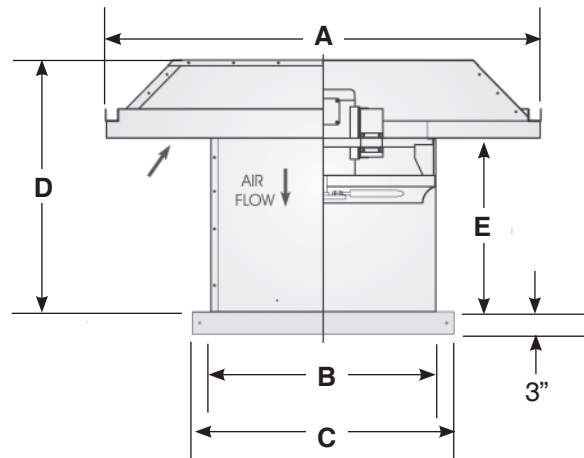
The sound ratings shown are loudness values in fan sones at 5 ft (1.5m) in a hemispherical free field calculated per AMCA Standard 301@ free air. Values shown are installation Type A, free inlet hemispherical sone levels.

Low Silhouette

SUPPLY FAN DRAWINGS - Submittal Data



Models LGBA/LGDA - Belt/Direct Drive



Models LFBA/LFDA - Filtered

DIMENSIONS LISTED IN INCHES

Model LGBA LGDA	A Sq. O. D. Hood	B Sq. Min. I. D. Opening	C Sq. I. D. Curb Cap	D Height	E Stack	O. D. Sq. Prefab Curb	Metal Gauges			Damper Size
							Crown/ Side Hood	Stack	Curb Cap	
24	58	30	35	31	23	33-1/4	18/18	18	14	26
30	66	36	41	32	23	39-1/4	18/18	18	14	32
36	78	42	47	34	23	45-1/4	18/18	18	14	38
42	87	48	53	43	30	51-1/4	18/18	18	14	44
48	99	54	59	44	30	57-1/4	18/18	16	14	50
54	111	60	65	45	30	63-1/4	18/18	16	14	56
60	111	66	71	46	30	69-1/4	18/16	16	14	62

DIMENSIONS LISTED IN INCHES

Model LFBA LFDA	HP	A ² Sq. O. D. Hood	B Sq. Min. I. D. Opening	C Sq. I. D. Curb Cap	D Height	E Stack	Prefab Curb O. D.	Standard Filter ⁶		Damper Size
								Size (Nominal)	Quantity	
24	1-1/2	↓ 58	24	35	31	23	33-1/4	15 x 20 x 2	8	26
	2	↑ 66	24	35	31	23	33-1/4	19 x 22 x 2	8	26
30	1-1/2	↓ 66	30	41	32	23	39-1/4	16 x 25 x 2	8	32
	2	↑ 78	30	41	32	23	39-1/4	19 x 22 x 2	12	32
36	2	↓ 78	36	47	34	23	45-1/4	19 x 29-3/4 x 2	8	38
	3	↑ 87	36	47	34	23	45-1/4	16-1/8 x 23-1/2 x 2	16	38
42	1-1/2	↓ 87	42	53	43	30	51-1/4	20 x 25 x 2 / 16 x 20 x 2	8 / 4	44
	2	↑ 99	42	53	43	30	51-1/4	18-3/8 x 26-1/2 x 2	16	44
48	2	↓ 99	48	59	44	30	57-1/4	19-1/8 x 23-1/2 x 2	16	50
	3-5	111	48	59	44	30	57-1/4	16-1/2 x 29-1/2 x 2	20	50
	7-1/2	↑ 123	48	59	44	30	57-1/4	17-3/4 x 35-1/2 x 2	20	50

↓ Denotes stated HP and below.
 ↑ Denotes stated HP and above.

- NOTES:**
1. All material is G90 galvanized steel.
 2. Due to shipping limitations, 87" and larger hoods may ship separate requiring field attaching. Specify if factory attaching is required and consult factory.
 3. Hoods hinge and side panels are removable for access to fan components.
 4. Propellers are 2, 3, 4 or 6-bladed adjustable pitch, airfoil aluminum (fixed pitch steel and aluminum are also available).
 5. Dampers mount on accessory flanges inside curbs due to space restrictions. Factory supplied curbs have shelf included.
 6. Filters are 2" cleanable, aluminum and may ship for field installation. Specify if factory installation is required and consult factory.

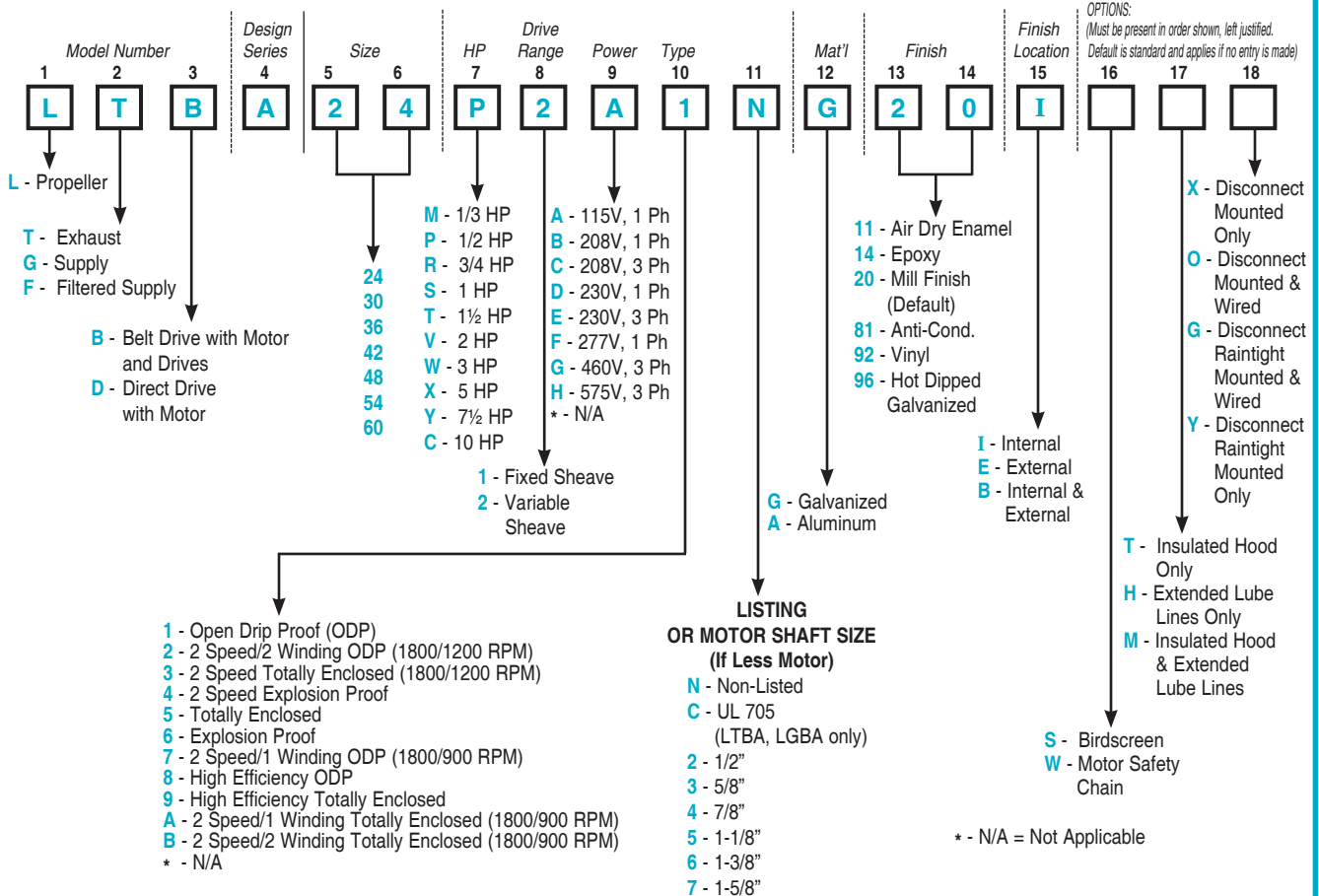
▼ Variable Pitch Sheaves

Enclosure	Phase	Voltage	Maximum H. P.	Shipped *
				Loose Model
Open NEMA 1	1	115-230	1-2	LXEBC
	3	208, 230-460	1-2	LXEBC
	3	208, 230-460	7½-10	LXEBM
	3	208, 230-460	7½-15	LXEBCN
Rain Tight NEMA 3	1	115-230	1-2	LXEBCP
	1	115-230	10-10	LXEBCQ
	3	208, 230-460	7½-10	LXEBCR
	3	208, 230-460	7½-15	LXEBCS
Rain Tight NEMA 4	1	115-230	1-2	LXEBC
	3	230-460	7½-10	LXEBCU
Rain Tight NEMA 4X	1	115-230	1-2	LXEBCV
	3	230-460	7½-10	LXEBCW
Explosion Proof NEMA 7&9	1	115-230	1-1	LXEBCX
	3	208, 230-460	3-5	LXEBCY

HP	# Grooves	
5	2	X
7-1/2	2	Y
10	2	C
15	3	N

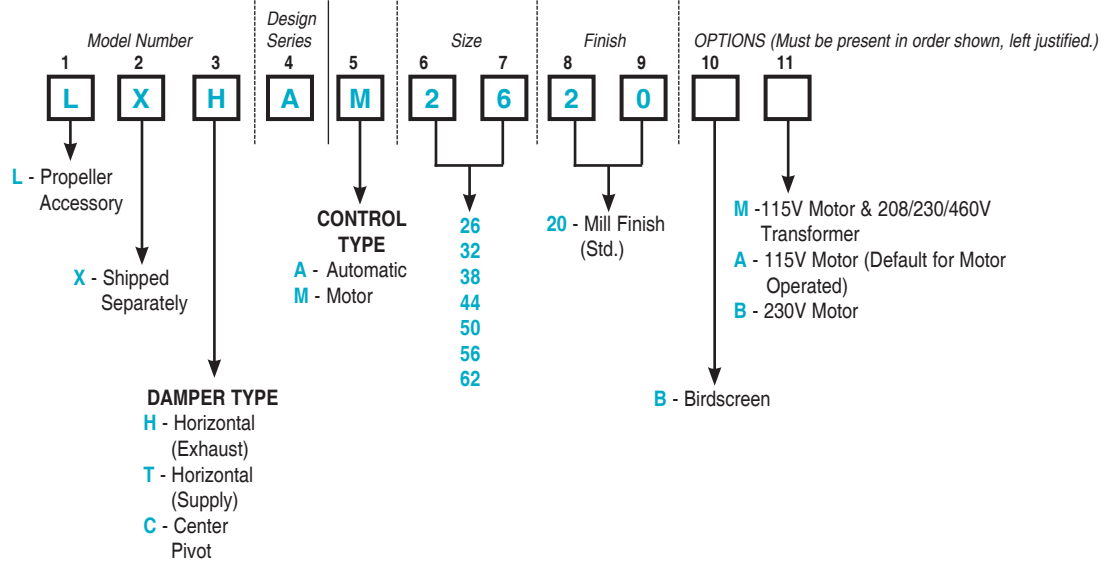
* For 2-speed motors, 2 disconnects are required.

▼ Low Silhouette Propeller Roof Ventilator

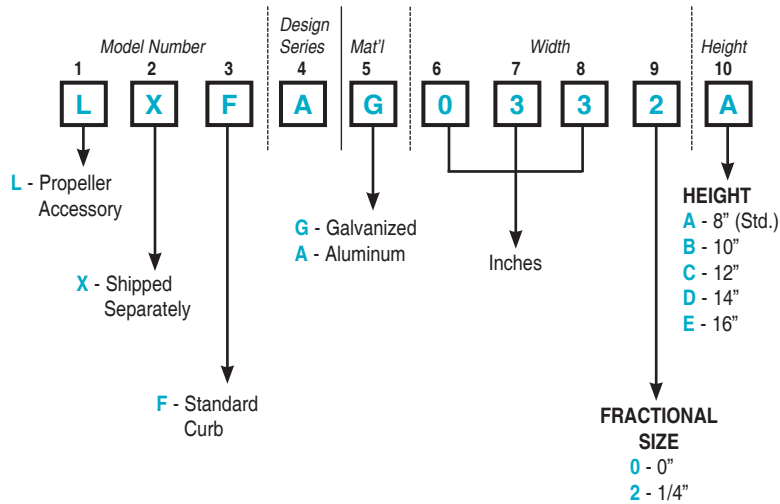


Low Silhouette

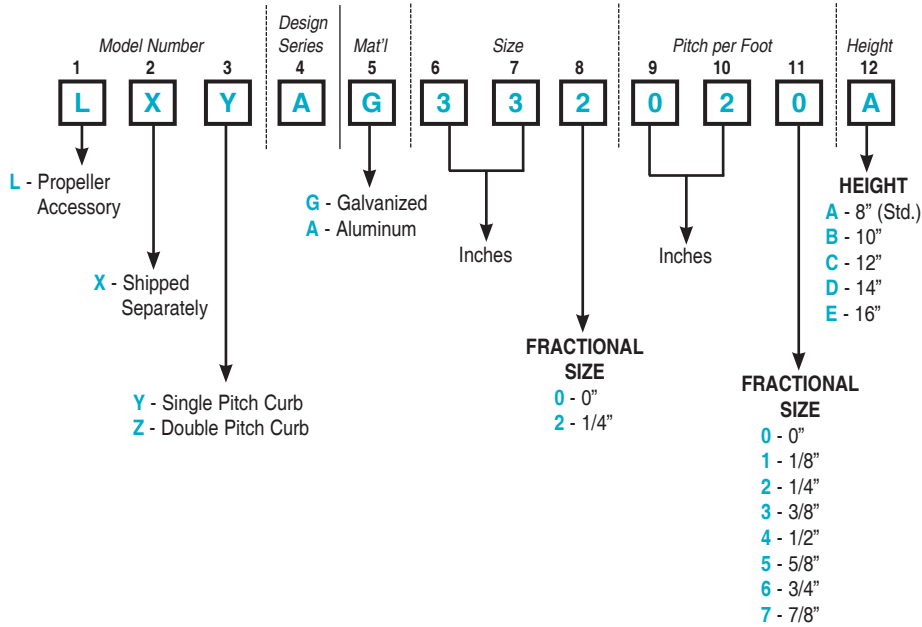
▼ Dampers



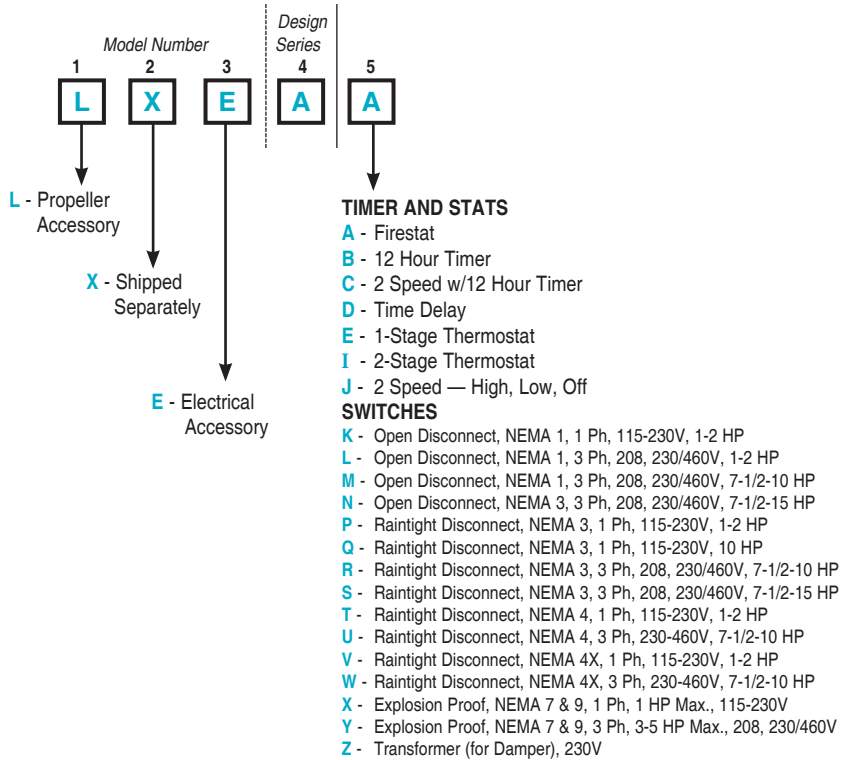
▼ Curbs



▼ Pitched Curb



▼ Electrical Accessories



▼ **Hooded Fan Accessories Footnotes**

- (1) **BIRDSCREEN** — 1/2" x 1" galvanized wire. Mounted vertically. Horizontal no longer available.
- (2) **INSULATED HOOD** — 1/2" fiberglass covers inner crown of hood. Helps prevent condensation. For supply units.
- (3) **MOTOR SAFETY CHAIN** — Safety feature for servicing or changing motor.
- (4) **SAFETY GUARD BASKET** — Basket type guard extends into curb. Must be installed before PRV. Recommended as a safety precaution for personnel working below.
- (5) **EXTENDED GREASE LINE (direct drive)** — 1 phase not available. 3 phase on 2 HP 1200 RPM and larger (180T and larger). See following notes on 6.
- (6) **EXTENDED GREASE LINE (belt drive)** — 1 phase not available. 3 phase available on 2 HP 1200 RPM and larger (180T and larger). Some motors only have 1 or 2 bearings that can be greased. A single grease line will be run from the motor if both are not available.
- (7) **PREFAB CURB** — Ships FOB supplier. See curb submittal for details. All welded construction, 18 gauge galvanized steel, 1" semi-rigid thermal insulation, 2" x 2" wood nailer. Damper shelf standard.
- (8) **MAXIMUM CFM FOR STANDARD DAMPERS** — **DO NOT EXCEED THIS CFM** with our standard damper. Dampers must mount in bottom curb on damper tray for proper clearances (1/3 diameter of fan). Damper trays must be used when furnishing own curbs. Warranty will be voided if above conditions are not met. H. D. dampers are rated for all products with proper clearances. Refer to submittal for details.
- (9) **CENTER PIVOTED DAMPERS** — Must be used in reversible applications. Ships FOB supplier. Specify voltage needed (standard voltage is 115). Units are motorized. Refer to submittal. Dampers good for 15 HP max. Must be mounted in bottom of curb on damper tray for warranty clearance distance.
- (10) **DELAY SWITCH** — Required on motorized supply dampers 5 HP and larger and exhaust motorized dampers 10 HP and larger. Allows damper to open before fan starts.
- (11) **TRANSFORMER** — Converts 208/230/460V to 115V. Ships separate only.
- (12) **DAMPER FINISHES** — Use 30% of fan coating price, consult factory for finishes on center pivot dampers.
- (13) **SINGLE GROOVE, VARIABLE PITCH SHEAVES** — Standard on 3 HP and below.
- (14) **ALUMINUM** — Consists of hood, stack and curb cap. Fan panel is galvanized and blade hub is steel.

Size	Exh./Sup. (All Sizes)	Filtered Supply	Hood Size
24"	58"	1/3 - 1½ HP	58"
		2 HP	66"
30"	66"	1/2 - 1½ HP	66"
		2 - 3 HP	78"
36"	78"	1/2 - 2 HP	78"
		3 HP	87"
42"	87"	3/4 - 1½ HP	87"
		2 -3 HP	99"
48"	99"	1 - 2 HP	99"
		3 - 5 HP	111"
		7½ - 10 HP	123"
54"	111"	ALL	123"
60"	111"	ALL	123"

- (15) **REMOTE DRIVE** — Motor is removed from stack and covered out of the airstream.

COATINGS:

- (16) **EPOXY COATING** — For use in alkaline type atmosphere (exceptions are acetic and nitric acids). Epoxy forms an excellent hard, heavy film barrier against chemical attack as well as physical damage from direct impact and abrasion. Heat resistant up to 250 degrees F. **OUTSIDE ONLY.**
- (17) **VINYL COATING** — For acid type atmospheres that do not exceed 160 degrees F.
- (18) **COAL TAR** — Helps reduce condensation and acts as a general maintenance coating for corrosive conditions where conditions are too severe for ordinary paint. Applied to the interior and exterior of unit. Not applied to blade.
- (19) **USE PAINT LIST X 1.3** — For interior and exterior price. List price printed may be used for interior only, or exterior only.