

MODEL LUBK (Belt Drive) UPBLAST PROPELLER ROOF EXHAUSTERS

Application

Model LUBK is a high capacity roof mounted exhauster rated from 3,560 to 42,000 CFM. It is a general ventilation unit designed to economically remove large volumes of air, fumes and vapors from commercial and industrial buildings such as warehouses, manufacturing and assembly plants, chemical plants, foundries and paper mills.

Straight-through air flow design results in maximum exhaust efficiency. During operation, high air flow velocity opens butterfly dampers and prevents rain or snow from entering. Dampers close and cover the venturi opening when unit is not in use.

The roof mounted location eliminates interference with processes and equipment inside the building. It also permits locating the exhauster over a source of heated or contaminated air, allowing direct upward venting to the outside, unlike wall mounted exhausters which may move contaminated air through adjacent work spaces.

Construction/Specification Checklist

Panel Assembly

- Heavy-gauge galvanized steel panel on all sizes.
- One piece venturi for maximum efficiency.
- All welded support structure of 10 gauge angle.
- Motor/bearing plates of minimum 10 gauge galvanized steel.

Windband/Butterfly Dampers

- Heavy-gauge galvanized steel windband.
- Aluminum dampers standard.
- Galvanized rain channel drains water from damper area onto roof.
- Galvanized damper shaft rotates in aluminum hinges.

Propeller

- Three and four cast/airfoil aluminum blades.
- Steel hub plate with steel taper lock bushing.

Drives (Belt Drive Models)

- Sized for minimum 150% of drive horsepower.
- Single belt adjustable pitch sheaves through 5 HP.
- Two belt adjustable pitch sheaves through 10 HP.
- Non-static oil resistant V-belts.
- Keyed, turned, ground and polished shafts.

Bearings

- Bearings designed for minimum 200,000 hour life.
- Cast iron self-aligning pillow block ball bearings.
- Bearings are sealed, prelubricated with relube fittings.

Motors

- Brands are nationally recognized and locally serviced.
- Open drip-proof construction is standard.
- High efficiency, explosion proof, totally enclosed fan cooled (TEFC) and corrosion duty motors are optional.

Options/Accessories

Roof Curb: Prefabricated heavy-gauge galvanized steel. Welded construction, 8" high with 1-1/2" treated wood nailer. Options include burglar bars, single and double pitch construction.

Disconnect Switch: Non-fused safety disconnects are available for all motor sizes in raintight or open enclosures. Explosion proof, NEMA 4 and NEMA 4X are also available.

Magnetic Latches: Help reduce damper chatter when the units are not in operation.

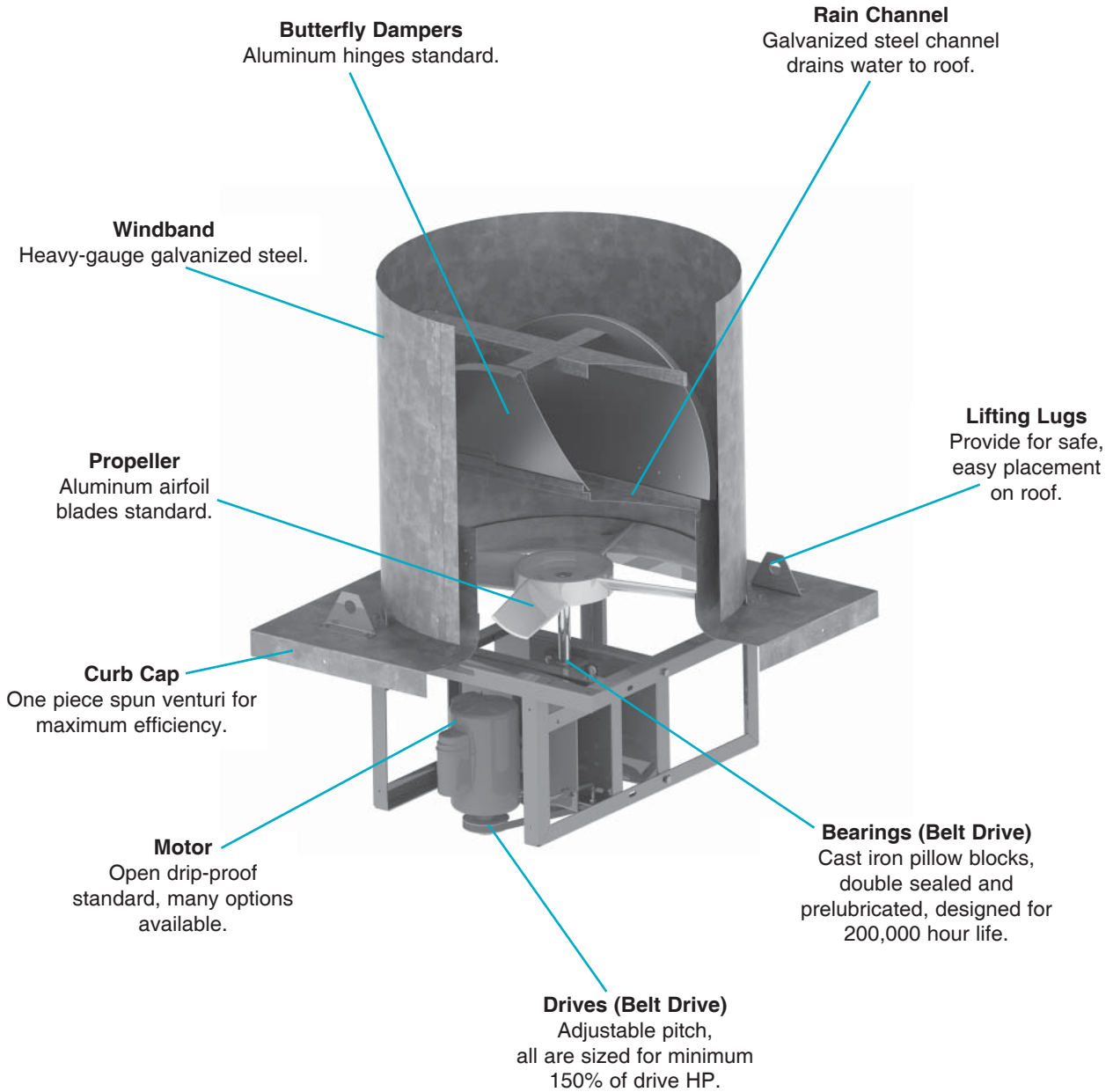
Fusible Link: Opens damper doors when temperature exceeds 165°F. Allows heat and smoke to escape building without use of fan power.

Outlet Guard: 1/2" x 1" wire mesh guard will prevent birds and other objects from entering the fan.

Air Dry Heresite: Phenolic coating resulting in a hard, durable surface which is resistant to saltwater, chemical fumes and moisture temperature to 150°F.

ARC: A modified epoxy-polyamid coating, presents a smooth chemically resistant finish, exceptional hardness and durability, that is easily cleaned and maintained. Temperature to 275°F dry heat continuous and 320°F surges of periodic steam cleaning.

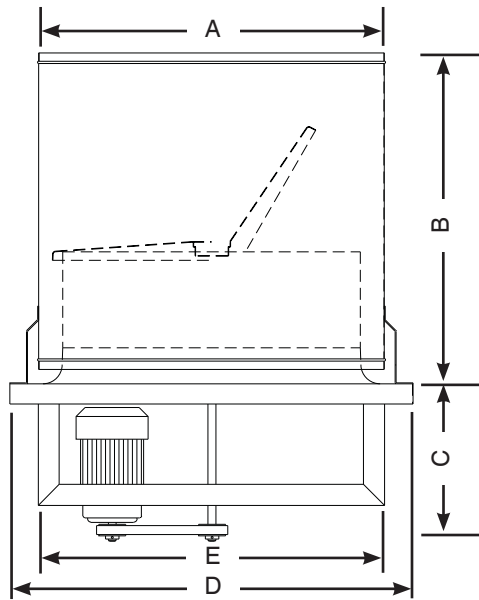
CONSTRUCTION FEATURES



Upblast Propeller Fans



Factory Run and Tested
For quality assurance and dependable operation.



MODEL LUBK

Model LUBK	Dimensions In Inches							Avg. Wt.
	A	B	C	D	E	F	G	
24	29	28-1/2	16	36	30	34	31	145
30	35-1/2	31-1/2	16	42	36	40	37	170
36	41	34-1/2	16	48	42	46	43	200
42	47	37-1/2	20	54	48	52	49	225
48	53	40-1/2	20	60	54	58	55	270

Dimension:

- A** — Outside diameter of wind band.
- B** — Height of unit above curb cap.
- C** — Maximum depth of unit below top of curb, actual depth varies with motor size.
- D** — Inside dimension of square curb cap.

- E** — Minimum inside dimension of curb opening required for adequate clearance of fan frame.
- F** — Outside dimension of factory built pre-fab curb.
- G** — Recommended roof opening (inside dimension of factory built pre-fab curb).

PERFORMANCE DATA
Model LUBK24 - Belt Drive

Model LUBK24	RPM	Sones (.125" P _s)	P _s (in. H ₂ O)								
			0.000	0.125	0.250	0.375	0.500	0.625	0.750	1.000	1.250
			CFM BHP	CFM BHP	CFM BHP	CFM BHP	CFM BHP	CFM BHP	CFM BHP	CFM BHP	CFM BHP
1/4 L1	825	12.8	3561 0.13	2448 0.14	1143 0.13						
	925	14.5	3993 0.18	3041 0.20	1670 0.18						
	1025	16.7	4424 0.25	3605 0.27	2334 0.25	1475 0.25					
1/3 M1	1050	17.4	4532 0.27	3738 0.29	2546 0.27	1602 0.27	898 0.29				
	1100	18.7	4748 0.31	3994 0.33	2958 0.32	1861 0.30	1233 0.32				
	1150	20	4964 0.35	4247 0.38	3359 0.38	2141 0.34	1529 0.36				
1/2 P1	1175	21	5072 0.37	4372 0.40	3513 0.40	2277 0.36	1659 0.38				
	1250	23	5396 0.45	4745 0.48	3961 0.49	2813 0.44	2037 0.45	1511 0.46			
	1325	26	5719 0.54	5111 0.57	4397 0.58	3442 0.55	2456 0.52	1912 0.54			
3/4 R1	1350	27	5827 0.57	5233 0.60	4540 0.61	3646 0.59	2593 0.55	2040 0.57	1529 0.59		
	1425	29	6151 0.67	5594 0.70	4962 0.72	4217 0.72	3089 0.65	2430 0.66	1958 0.68		
	1500	31	6475 0.78	5952 0.81	5364 0.84	4668 0.84	3726 0.79	2848 0.76	2341 0.78		
1 S1	1525	32	6583 0.82	6071 0.85	5492 0.88	4816 0.88	3933 0.84	2984 0.79	2466 0.82	1541 0.86	
	1600	34	6907 0.94	6421 0.98	5874 1.01	5254 1.02	4541 1.00	3513 0.92	2881 0.93	2023 0.97	
	1700	37	7338 1.13	6881 1.17	6375 1.21	5824 1.23	5199 1.22	4356 1.16	3427 1.09	2542 1.14	1689 1.20
1-1/2 T1	1725	38	7446 1.18	6995 1.22	6499 1.26	5964 1.29	5349 1.28	4562 1.23	3608 1.14	2668 1.19	1856 1.24
	1800	41	7770 1.34	7338 1.39	6868 1.42	6378 1.46	5791 1.45	5166 1.44	4252 1.35	3060 1.33	2321 1.38
	1875	43	8094 1.52	7679 1.56	7234 1.60	6764 1.64	6225 1.65	5658 1.64	4877 1.57	3479 1.48	2711 1.54
2 V1	1900	44	8202 1.58	7792 1.63	7356 1.67	6892 1.71	6368 1.71	5809 1.70	5081 1.65	3617 1.54	2838 1.60
	2000	48	8633 1.84	8244 1.89	7838 1.93	7397 1.98	6933 2.00	6401 1.99	5870 1.98	4237 1.79	3350 1.84
	2100	52	9065 2.14	8695 2.18	8316 2.23	7896 2.27	7476 2.32	6981 2.31	6475 2.30	5091 2.15	3910 2.08

NOTES:

1. Performance certified is for installation type A: free inlet, free outlet.
2. Performance ratings (bhp) do not include transmission losses.
3. Performance ratings do not include the effects of accessories.
4. The sound ratings are shown loudness values in fan sones at 5 ft. (1.5m) in a hemispherical free field. Values are for installation type A: free inlet hemispherical sone levels.

Upblast Propeller Fans

PERFORMANCE DATA
Model LUBK30 - Belt Drive

Model LUBK30	RPM	Sones (.125" P _s)	P _s (in. H ₂ O)								
			0.000	0.125	0.250	0.375	0.500	0.625	0.750	1.000	1.250
			CFM BHP	CFM BHP	CFM BHP	CFM BHP	CFM BHP	CFM BHP	CFM BHP	CFM BHP	CFM BHP
1/3 M1	660	13.6	6043 0.22	3797 0.22	1845 0.25						
	720	14.5	6593 0.258	4724 0.30	2561 0.31						
	780	15.4	7142 0.36	5477 0.38	3177 0.37	1857 0.42					
1/2 P1	840	16.4	7692 0.45	6192 0.48	3757 0.43	2645 0.50	1310 0.56				
	900	17.9	8241 0.55	6851 0.59	4780 0.54	3335 0.59	2134 0.65				
3/4 R1	960	19.8	8790 0.67	7498 0.71	5815 0.69	3937 0.68	2934 0.75	1668 0.81			
	1025	22	9386 0.82	8186 0.87	6767 0.87	4565 0.79	3700 0.88	2669 0.94			
1 S1	1080	24	9889 0.96	8760 1.01	7460 1.02	5390 0.93	4263 0.99	3361 1.07	2271 1.13		
	1140	26	10439 1.13	9379 1.19	8170 1.20	6523 1.14	4853 1.12	4068 1.22	3157 1.28		
1-1/2 T1	1200	28	10988 1.31	9983 1.38	8890 1.41	7521 1.37	5427 1.26	4691 1.36	3884 1.45		
	1260	30	11537 1.52	10581 1.59	9550 1.62	8347 1.61	6494 1.48	5285 1.52	4585 1.63		
	1300	32	11904 1.67	10976 1.74	9984 1.78	8852 1.77	7254 1.67	5671 1.63	4993 1.75		
2 V1	1360	34	12453 1.91	11567 1.98	10629 2.03	9597 2.04	8262 1.97	6240 1.81	5591 1.93	4178 2.14	
	1425	37	13048 2.20	12202 2.28	11318 2.33	10388 2.36	9256 2.32	7599 2.16	6222 2.15	4948 2.39	
3 W1	1480	39	13552 2.46	12737 2.54	11896 2.60	11002 2.63	9956 2.62	8561 2.49	6743 2.35	5551 2.61	4177 2.80
	1560	43	14284 2.89	13512 2.97	12727 3.04	11879 3.08	10954 3.08	9885 3.03	8304 2.83	6353 2.93	5143 3.17
	1640	46	15017 3.35	14282 3.44	13547 3.53	12743 3.56	11930 3.59	10945 3.56	9692 3.42	7132 3.29	6056 3.58
5 X1	1700	49	15566 3.73	14857 3.82	14148 3.92	13383 3.96	12605 3.99	11700 3.97	10684 3.91	7702 3.57	6664 3.87
	1750	52	16024 4.07	15335 4.17	14646 4.26	13912 4.31	13156 4.35	12319 4.35	11397 4.31	8513 3.91	7161 4.13
	1800	55	16482 4.43	15812 4.53	15143 4.62	14437 4.69	13703 4.72	12931 4.74	12034 4.70	9561 4.35	7650 4.40

NOTES:

1. Performance certified is for installation type A: free inlet, free outlet.
2. Performance ratings (bhp) do not include transmission losses.
3. Performance ratings do not include the effects of accessories.
4. The sound ratings are shown loudness values in fan sones at 5 ft. (1.5m) in a hemispherical free field. Values are for installation type A: free inlet hemispherical sone levels.

PERFORMANCE DATA
Model LUBK36 - Belt Drive

Model LUBK36	RPM	Sones (.125" P _s)	P _s (in. H ₂ O)								
			0.000	0.125	0.250	0.375	0.500	0.625	0.750	1.000	1.250
			CFM BHP	CFM BHP	CFM BHP	CFM BHP	CFM BHP	CFM BHP	CFM BHP	CFM BHP	CFM BHP
3/4 R1	620	15.7	10331 0.63	8275 0.65	4648 0.64	2375 0.77	322 0.92				
	700	19.1	11664 0.91	9941 0.94	6535 0.85	4418 1.00	2324 1.13	534 1.30			
1 S1	750	21	12497 1.12	10952 1.15	8790 1.15	5505 1.15	3614 1.33	1767 1.46	152 1.66		
	800	24	13330 1.36	11944 1.40	9964 1.40	6495 1.31	4894 1.51	3055 1.66	1413 1.83		
1-1/2 T1	850	26	14163 1.63	12887 1.67	11104 1.68	7794 1.52	6031 1.70	4335 1.91	2651 2.04		
	900	29	14996 1.94	13794 1.98	12194 2.00	9659 1.86	7035 1.91	5612 2.13	3956 2.32	1044 2.71	
2 V1	950	31	15829 2.28	14694 2.33	13238 2.35	11509 2.33	8085 2.14	6736 2.37	5238 2.60	2266 2.96	
	1000	34	16662 2.66	15586 2.71	14264 2.74	12668 2.73	9527 2.46	7742 2.63	6498 2.88	3552 3.28	1010 3.75
3 W1	1045	37	17412 3.03	16385 3.08	15174 3.12	13689 3.13	11546 2.98	8621 2.88	7467 3.15	4715 3.62	2122 4.02
	1090	40	18162 3.44	17180 3.50	16073 3.54	14675 3.55	13126 3.52	9850 3.21	8373 3.43	5868 3.96	3225 4.33
	1140	44	18995 3.94	18059 3.99	17062 4.05	1575 4.06	14290 4.04	11271 3.62	9353 3.76	7138 4.33	4545 4.79
5 X1	1190	48	19828 4.48	18934 4.54	18005 4.60	16759 4.61	15431 4.61	13997 4.58	10674 4.18	8281 4.71	5817 5.28
	1240	52	20661 5.07	19807 5.13	18915 5.19	17779 5.22	16550 5.23	15175 5.19	12099 4.67	9297 5.12	7109 5.73
	1290	56	21494 5.71	20676 5.77	19819 5.83	18788 5.87	17606 5.88	16331 5.86	14826 5.76	10287 5.55	8364 6.20
	1340	61	22328 6.40	21542 6.46	20717 6.53	19786 6.58	18648 6.59	17467 6.59	16194 6.55	11330 6.02	9454 6.68
7-1/2 Y1	1380	65	22994 6.99	22234 7.05	21433 7.12	20577 7.18	19473 7.19	18363 7.21	17127 7.17	12496 6.51	10266 7.09
	1420	69	23661 7.61	22924 7.68	22145 7.75	21363 7.82	20290 7.84	19216 7.85	18047 7.82	13638 7.03	11063 7.51
	1460	73	24327 8.28	23613 8.34	22856 8.42	22098 8.49	21100 8.51	20056 8.53	18956 8.52	15110 7.76	11847 7.95
	1500	77	24994 8.98	24301 9.05	23564 9.12	22827 9.19	21904 9.23	20888 9.24	19855 9.25	17580 9.16	12722 8.44

NOTES:

1. Performance certified is for installation type A: free inlet, free outlet.
2. Performance ratings (bhp) do not include transmission losses.
3. Performance ratings do not include the effects of accessories.
4. The sound ratings are shown loudness values in fan sones at 5 ft. (1.5m) in a hemispherical free field. Values are for installation type A: free inlet hemispherical sone levels.

Uplast Propeller Fans

PERFORMANCE DATA
Model LUBK42 - Belt Drive

Model LUBK42	RPM	Sones (.125" P _s)	P _s (in. H ₂ O)								
			0.000	0.125	0.250	0.375	0.500	0.625	0.750	1.000	1.250
			CFM BHP	CFM BHP	CFM BHP	CFM BHP	CFM BHP	CFM BHP	CFM BHP	CFM BHP	CFM BHP
3/4 R1	510	15.7	14029 0.68	10830 0.71	5692 0.70						
	550	17.8	15130 0.85	12219 0.89	7088 0.82	3962 1.03					
1 S1	580	19.4	15955 1.00	13204 1.04	9733 1.02	5231 1.13	2273 1.34				
	610	21	16780 1.16	14173 1.20	11071 1.20	6421 1.23	3440 1.47				
1-1/2 T1	650	23	17881 1.40	15446 1.45	12718 1.46	7868 1.40	5232 1.65				
	700	26	19256 1.75	17010 1.81	14553 1.83	9569 1.62	7244 1.88	4665 2.15			
2 V1	740	29	20356 2.07	18244 2.13	15981 2.16	13247 2.14	8715 2.09	6396 2.38			
	770	31	21182 2.33	19156 2.39	17021 2.43	14557 2.43	9756 2.26	7602 2.55	5254 2.85		
3 W1	820	34	22570 2.82	20655 2.88	18665 2.93	16463 2.94	13754 2.89	9485 2.87	7387 3.19		
	880	38	24207 3.48	22435 3.55	20599 3.60	18639 3.63	16414 3.62	11558 3.31	9740 3.62		
5 X1	920	42	25308 3.98	23612 4.05	21868 4.11	20055 4.15	18014 4.15	15523 4.08	11153 3.95	7431 4.68	
	960	45	26408 4.52	24783 4.60	23124 4.66	21407 4.71	19492 4.72	17308 4.68	12527 4.31	9059 5.04	5232 5.75
	1000	49	27508 5.11	25949 5.19	24368 5.26	22720 5.31	20944 5.33	19049 5.33	16650 5.23	10636 5.41	7049 6.20
	1040	53	28609 5.75	27109 5.83	25601 5.91	24017 5.96	22371 6.00	20565 6.00	18446 5.94	12096 5.84	8779 6.67
7-1/2 Y1	1080	57	29709 6.44	28265 6.52	26820 6.61	25299 6.66	23774 6.71	22038 6.72	20200 6.70	13490 6.29	10395 7.12
	1120	61	30809 7.18	29417 7.27	28024 7.36	26569 7.42	25098 7.47	23486 7.49	21810 7.49	14852 6.78	11968 7.59
	1160	66	31910 7.97	30565 8.07	29220 8.16	27828 8.23	26407 8.28	24913 8.32	23295 8.32	19466 8.18	13426 8.12
	1200	71	33010 8.83	31710 8.93	30410 9.02	29076 9.10	27703 9.16	26321 9.21	24757 9.21	21260 9.12	14825 8.68

NOTES:

1. Performance certified is for installation type A: free inlet, free outlet.
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3. Performance ratings do not include the effects of accessories.
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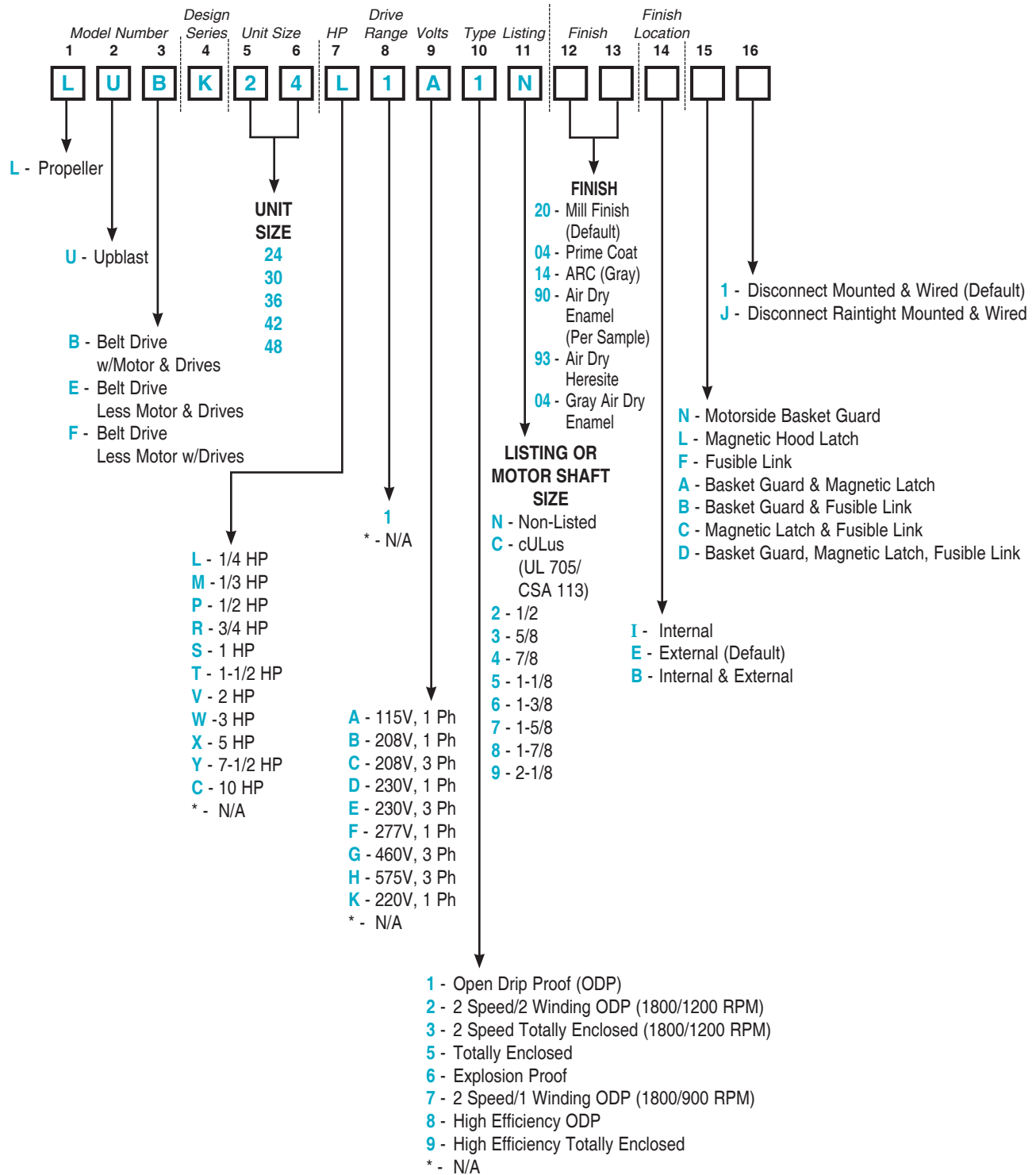
PERFORMANCE DATA
Model LUBK48 - Belt Drive

Model LUBK48	RPM	Sones (.125" P _s)	P _s (in. H ₂ O)								
			0.000	0.125	0.250	0.375	0.500	0.625	0.750	1.000	1.250
			CFM BHP	CFM BHP	CFM BHP	CFM BHP	CFM BHP	CFM BHP	CFM BHP	CFM BHP	CFM BHP
1 S1	450	17.9	18039 0.84	13774 0.90	7952 0.92	3130 1.14					
	490	19.9	19643 1.09	15881 1.17	9731 1.10	6155 1.33					
1-1/2 T1	520	22	20845 1.30	17346 1.39	11949 1.33	8178 1.50					
	560	25	22449 1.63	19260 1.72	15008 1.72	10141 1.74	6705 2.01				
2 V1	590	28	23652 1.90	20670 2.01	16935 2.03	11476 1.94	8750 2.23				
	620	31	24854 2.21	22063 2.32	18590 2.36	13352 2.23	10491 2.46				
3 W1	660	35	26458 2.66	23888 2.79	20742 2.85	16397 2.75	12311 2.80	9807 3.12			
	710	41	28462 3.32	26073 3.45	23296 3.54	20035 3.54	14963 3.34	12504 3.61			
5 X1	750	46	30065 3.91	27804 4.05	25236 4.15	22257 4.17	17991 4.00	14301 4.05	12414 4.41		
	790	52	31669 4.57	29522 4.72	27145 4.83	24426 4.88	21076 4.81	16435 4.59	14253 4.90		
	840	60	33673 5.49	31654 5.65	29494 5.79	27072 5.88	24263 5.86	20227 5.62	16476 5.57		
7-1/2 Y1	880	67	35277 6.32	33350 6.48	31349 6.64	29041 6.73	26464 6.74	23317 6.64	19127 6.38	14985 7.02	
	920	74	36880 7.22	35037 7.39	33185 7.56	30977 7.66	28621 7.71	26056 7.70	22143 7.39	16810 7.68	
	960	82	38484 8.20	36717 8.38	34951 8.56	32887 8.68	30739 8.77	28281 8.75	25238 8.60	18589 8.39	15627 9.34
10 C1	990	89	39686 8.99	37973 9.18	36260 9.37	34306 9.50	32254 9.60	29921 9.60	27504 9.58	20067 9.01	17036 9.93
	1020	96	40889 9.83	39226 10.03	37564 10.22	35713 10.37	33721 10.48	31539 10.51	29226 10.49	22382 9.95	18406 10.55
	1050	104	42092 10.73	40477 10.93	38861 11.13	37110 11.29	35175 11.40	33138 11.47	30891 11.45	24648 10.94	19752 11.20

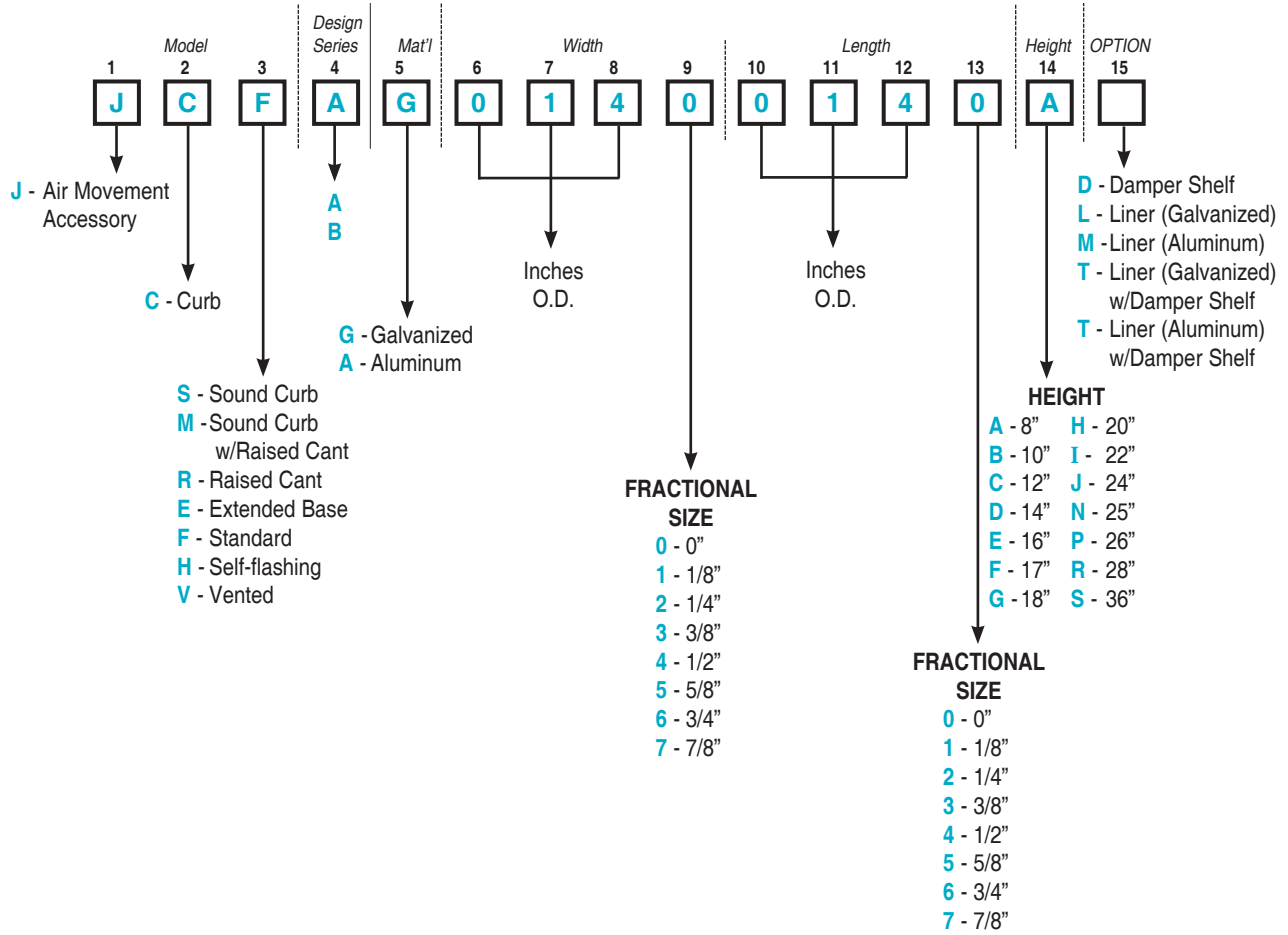
NOTES:

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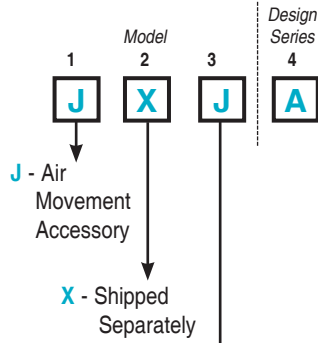
Upblast Propeller Fans



▼ Curbs LUBK (Standard)

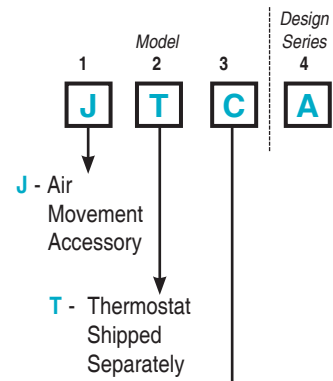


▼ Electrical Accessories



DISCONNECT SWITCHES

- J - 3 Pole, 3 Ph Explosion Proof (EX3)
- K - 2 Pole, 1 Ph Explosion Proof (EX3)
- L - 2 Pole, 1 Ph Safety Disconnect (DS2)
- M - 3 Pole, 3 Ph Safety Disconnect (DS3)
- N - 3 Pole, 3 Ph NEMA 1 (K-3) with Lock Out
- P - 2 Speed, 6 Pole NEMA 3R Non-Fusible
- F - Raintight - NEMA 3R - 2 Pole, 1 ϕ , 120-230V, 1/2 - 2 HP
- H - Raintight - NEMA 3R - 3 Pole, 3 ϕ , 208-460V



- C - Line Voltage Thermostat w/Coiled Capillary
- D - Line Voltage Thermostat w/22" Capillary and Remote Bulb

MODEL LUBA (Belt Drive) and LUDA (Direct Drive) UPBLAST PROPELLER ROOF EXHAUSTERS

Application

Models LUBA and LUDA are high capacity roof mounted exhausters rated from 5,900 to 78,000 CFM. They are general ventilation units designed to economically remove large volumes of air, fumes and vapors from commercial and industrial buildings such as warehouses, manufacturing and assembly plants, chemical plants, foundries and paper mills.

Straight-through air flow design results in maximum exhaust efficiency. During operation, high air flow velocity opens butterfly dampers and prevents rain or snow from entering. Dampers close and cover the venturi opening when unit is not in use.

The roof mounted location eliminates interference with processes and equipment inside the building. It also permits locating the exhauster over a source of heated or contaminated air, allowing direct upward venting to the outside, unlike wall mounted exhausters which may move contaminated air through adjacent work spaces.

Belt drive units usually operate more quietly and afford easier performance adjustments while direct drive models require less maintenance.

Construction/Specification Checklist

Panel Assembly

- Heavy-gauge galvanized steel panel on all sizes.
- One piece venturi for maximum efficiency.
- LUBA/LUDA, all welded support structure of schedule 40 galvanized pipe; LUBK 10 gauge angle.
- Motor/bearing plates of minimum 10 gauge galvanized steel.

Windband/Butterfly Dampers

- Heavy-gauge galvanized steel windband.
- Steel dampers standard.
- Translucent fiberglass dampers available on sizes 54, 60, 72.
- Galvanized rain channel drains water from damper area onto roof.
- Galvanized damper shafts rotates in brass hinges.

Propeller

- Three and four cast/airfoil aluminum blades.
- Steel hub plate with steel taper lock bushing.
- Adjustable pitch for optimum efficiency.
- Die formed steel blades are optional where required on sizes 54, 60, 72.

Drives (Belt Drive Models)

- Sized for minimum 150% of drive horsepower.
- Single belt adjustable pitch sheaves through 5 HP.
- Two belt adjustable pitch sheaves through 10 HP.
- Adjustable tension rods for belt adjustment on sizes 54, 60, 72.
- Non-static oil resistant V-belts.
- Keyed, turned, ground and polished shafts.

Bearings

- Bearings designed for minimum 200,000 hour life.
- Cast iron self-aligning pillow block ball bearings.
- Bearings are sealed, prelubricated with relube fittings.

Motors

- Brands are nationally recognized and locally serviced.
- Open drip-proof construction is standard.
- High efficiency, explosion proof, totally enclosed fan cooled (TEFC) and corrosion duty motors are optional.

Options/Accessories

Roof Curb: Prefabricated heavy-gauge galvanized steel. Welded construction, 8" high with 1-1/2" treated wood nailer. Options include burglar bars, single and double pitch construction, and additional curb heights.

Disconnect Switch: Non-fused safety disconnects are available for all motor sizes in raintight or open enclosures. Explosion proof, NEMA 4 and NEMA 4X are also available.

Magnetic Latches: Help reduce damper chatter when the units are not in operation.

Heat/Smoke Vent: Opens damper doors when temperature exceeds 165°F. Allows heat and smoke to escape building without use of fan power.

Outlet Guard: 1/2" x 1" wire mesh guard will prevent birds and other objects from entering the fan.

Extended Grease Lines: Extended grease lines allow motor and/or fan bearings to be relubricated from the exterior.

Aluminum Construction: Optional aluminum construction available on windbands, curb caps, panel and blades.

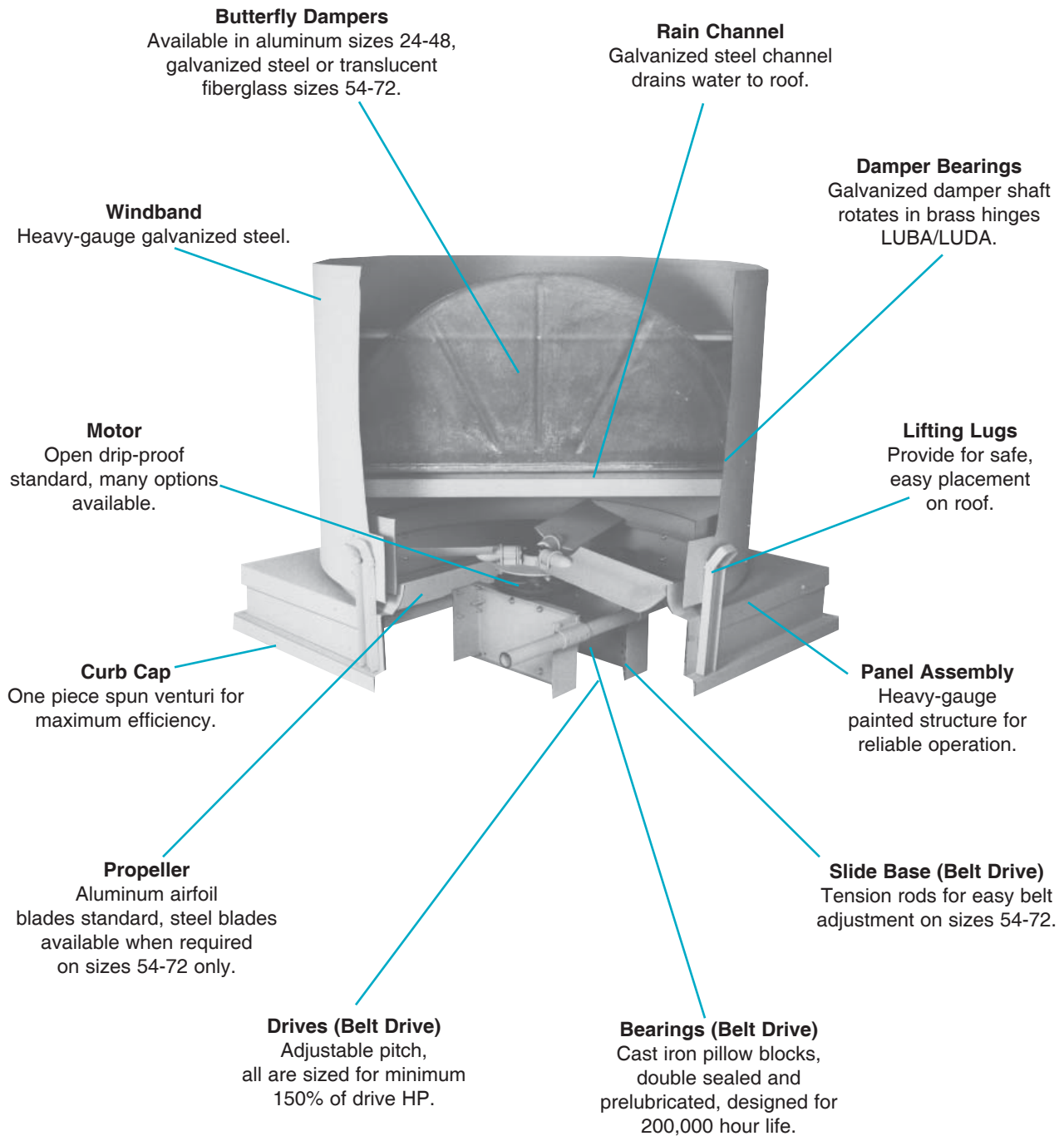
Epoxy Finish: For use in an alkaline type atmosphere (exceptions are acetic and nitric acids). Epoxy forms an excellent hard, heavy film barrier against chemical as well as physical damage from direct impact and abrasion.

Vinyl Finish: For acid type atmospheres that do not exceed 160°F.

Air Dry Heresite: Phenolic coating resulting in a hard, durable surface which is resistant to saltwater, chemical fumes, and moisture temperature to 150°F.

ARC: A modified epoxy-polyamid coating, presents a smooth chemically resistant finish, exceptional hardness and durability, that is easily cleaned and maintained. Temperature to 275°F dry heat continuous and 320°F surges of periodic steam cleaning.

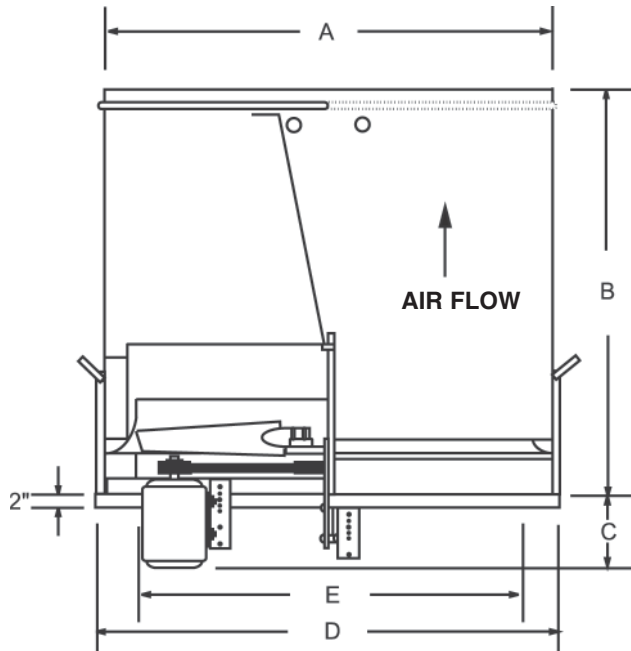
CONSTRUCTION FEATURES



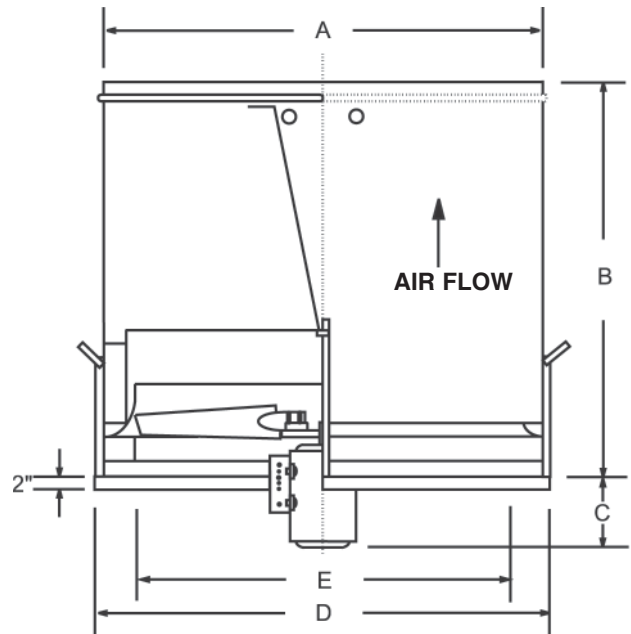
Upblast Propeller Fans



Factory Run and Tested
For quality assurance and dependable operation.



MODEL LUBA (54, 60, 72 only) — Belt Drive



MODEL LUDA — Direct Drive

	Model LUBA/ LUDA	Dimensions In Inches							Metal Gauges			Avg. Wt.
		A	B	C	D	E	F	G	Wind Shroud	Curb Cap	Fan Panel	
LUDA	24	30	33	16	32	24	30	27	18	14	16	310
	30	36	36	17	38	30	36	33	18	14	16	340
	36	42	37	17	44	36	42	39	18	14	16	430
	42	48	41	18	50	42	48	45	18	14	16	490
LUBA	48	54	44	22	56	48	54	51	18	14	14	640
	54	60	47	22	62	54	60	57	18	14	14	840
	60	66	50	22	68	60	66	63	18	14	14	1000
	72	80	80	31	82	72	80	77	18	12	11	1550

Dimension:

- A** — Outside diameter of wind band.
- B** — Height of unit above curb cap.
- C** — Maximum depth of unit below top of curb, actual depth varies with motor size.
- D** — Inside dimension of square curb cap.

- E** — Minimum inside dimension of curb opening required for adequate clearance of fan frame.
- F** — Outside dimension of factory built pre-fab curb.
- G** — Recommended roof opening (inside dimension of factory built pre-fab curb).



The Carnes Company certifies that the Model LUBA shown herein are licensed to bear the AMCA Seal. The ratings shown are based on test and procedures performed in accordance with AMCA Publication 211 and AMCA Publication 311 and comply with the requirements of the AMCA Certified Ratings Program.

PERFORMANCE DATA

Model LUBA54, 60, 72 - Belt Drive

Model LUBA	HP	RPM	Sone @ 5 ft.	Max. BHP	CFM @ Static Pressure					No. of Blades	
					0	1/8	1/4	3/8	1/2		
54	W2	3	545	28	3.39	35000	30200	24200			3
	X1	5	640	40	5.49	41200	36900	32500	27000		3
	Y1	7-1/2	735	50	8.32	47200	43700	39800	35700	30900	3
	C1	10	805	58	10.92	51800	48500	45000	41300	37400	3
60	X1	5	550	38	5.50	48200	42600	36000	27800		3
	Y1	7-1/2	630	51	8.27	55200	50300	45000	38800		3
	C1	10	695	60	11.10	61000	56600	51900	46700	40700	3
72	X1	5	410	31	5.47	61700	51900	40500			3
	Y1	7-1/2	470	42	8.24	70700	62300	53200			3
	C1	10	520	50	11.15	78200	70800	52800	53300		3

NOTES:

1. Performance certified is for installation type A: free inlet, free outlet.
2. Performance ratings (bhp) do not include transmission losses.
3. Performance ratings do not include the effects of accessories.
4. The sound ratings are shown loudness values in fan sones at 5 ft. (1.5m) in a hemispherical free field calculated per AMCA Standard 301. Values are for installation type A: free inlet hemispherical sone levels. The AMCA ratings sound seal applies to sone ratings only.



The Carnes Company certifies that the Model LUDA shown herein are licensed to bear the AMCA Seal. The ratings shown are based on test and procedures performed in accordance with AMCA Publication 211 and AMCA Publication 311 and comply with the requirements of the AMCA Certified Ratings Program.

PERFORMANCE DATA

Model LUDA - Direct Drive

Model LUDA	HP	RPM	Sone @ 5 ft.	Max. BHP	CFM @ Static Pressure					No. of Blades	
					0	1/8	1/4	3/8	1/2		
24	P2	1/2	870	15	0.54	5900	5200				6
	P3	1/2	1160	18	0.55	6300	5400				2
	R3	3/4	1160	22	0.81	6900	6300	5600			3
	S3	1	1160	23	1.10	7400	6900	6400	5700		6
	R4	3/4	1750	30	0.82	6600	6100	5500	4900		2
	S4	1	1750	32	1.09	7500	7100	6500	5900	5200	2
	T4	1-1/2	1750	36	1.63	9100	8500	7900	7300	6600	2
	V4	2	1750	45	2.20	9500	9100	8700	8200	7800	3
	W4	3	1750	54	3.30	11200	10800	10400	10000	9700	4
30	R2	3/4	870	21	0.83	10100	8700				4
	S2	1	870	22	1.11	10600	9400	7900			6
	R3	3/4	1160	27	0.81	9800	8500				2
	S3	1	1160	30	1.08	10900	9600	8300			2
	T3	1-1/2	1160	34	1.62	12300	11300	10100	8600		3
	V3	2	1160	37	2.20	13800	12900	11900	10700		4
	T4	1-1/2	1750	44	1.65	10800	10000	9100	8200	7890	2
	V4	2	1750	48	2.19	12800	12000	11200	10400	9500	2
	W4	3	1750	58	3.30	15800	15000	14100	13200	12300	2
	X4	5	1750	70	5.51	18600	17900	17200	16500	15600	3
36	S2	1	870	23	1.10	14200	12000				2
	T2	1-1/2	870	25	1.64	15900	14300	12500			4
	V2	2	870	33	2.17	17700	16200	14300	12400		4
	W2	3	870	36	3.24	18900	17700	16300	14800	12700	6
	T3	1-1/2	1160	36	1.65	15700	14200	12400			2
	V3	2	1160	38	2.19	17600	16000	14300	12200		2
	W3	3	1160	42	3.32	20000	18400	16700	14900	12700	2
	X3	5	1160	58	5.40	23000	22000	20700	19400	18000	4
	W4	3	1750	75	3.26	17900	16700	15500	14300	13100	2
	X4	5	1750	77	5.60	23700	22800	21700	20700	19500	2
Y4	7-1/2	1750	78	8.20	27400	26500	25300	24200	23100	2	

NOTES:

1. Performance certified is for installation type A: free inlet, free outlet. Performance ratings (bhp) do not include transmission losses.
2. Performance ratings do not include the effects of accessories.
3. The sound ratings are shown loudness values in fan sones at 5 ft. (1.5m) in a hemispherical free field calculated per AMCA Standard 301. Values are for installation type A: free inlet hemispherical sone levels. The AMCA ratings sound seal applies to sone ratings only.

Uplast Propeller Fans



The Carnes Company certifies that the Models LUDA shown herein are licensed to bear the AMCA Seal. The ratings shown are based on test and procedures performed in accordance with AMCA Publication 211 and AMCA Publication 311 and comply with the requirements of the AMCA Certified Ratings Program.

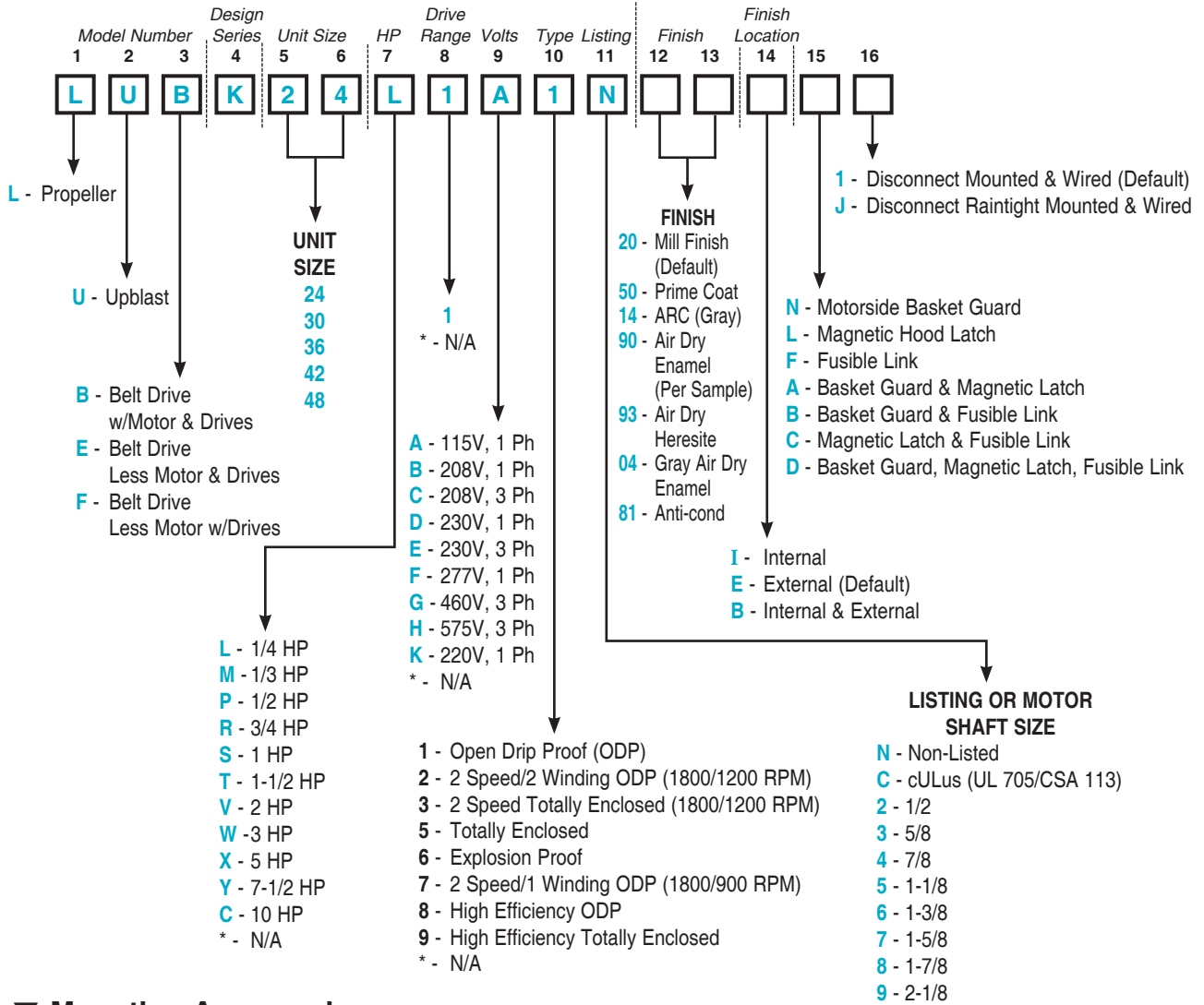
PERFORMANCE DATA
Model LUDA - Direct Drive
(Continued)

Model LUDA	HP	RPM	Sone @ 5 ft.	Max. BHP	CFM @ Static Pressure					No. of Blades	
					0	1/8	1/4	3/8	1/2		
42	T1	1-1/2	680	25	1.65	20300	17800	14800			4
	V1	2	680	26	2.18	22400	20000	16900			4
	T2	1-1/2	870	28	1.60	20400	17800	14000			2
	V2	2	870	31	2.24	22800	19800	16700			2
	W2	3	870	33	3.27	25400	23500	21400	19100	15900	4
	V3	2	1160	42	2.23	20800	18700	16200	13300		2
	W3	3	1160	44	3.18	25200	23200	20900	18300	15000	2
	X3	5	1160	50	5.58	30800	28300	26000	23600	21500	2
	Y3	7-1/2	1160	58	8.20	34600	33300	31800	30200	28500	4
Y4	7-1/2	1750	92	8.15	32800	31500	30000	28500		2	
48	V1	2	680	28	2.20	26200	22700	18100			3
	V2	2	870	33	2.17	26200	22800	19700			2
	W2	3	870	38	3.35	30800	27200	23200	18600		2
	X2	5	870	42	5.60	36300	33500	30500	27000	21500	3
	Y2	7-1/2	870	48	8.27	40300	37700	34800	31800	27600	3
	W3	3	1160	49	3.40	27900	25000	22100	19700		2
	X3	5	1160	57	5.55	35900	33500	31000	28900	24300	2
	Y3	7-1/2	1160	67	8.23	41800	39300	36500	33900	30700	2
	C3	10	1160	69	11.10	45800	43000	40200	37400	34500	2
54	V1	2	680	31	2.22	32200	26700	19500			2
	W2	3	870	47	3.28	35700	31600	26700	19400		2
	X2	5	870	54	5.55	43900	39200	34600	29300	21900	2
	Y2	7-1/2	870	59	8.32	48900	45500	41900	38100	33300	3
	X3	5	1160	68	5.55	38500	35200	31800	28300	25000	2
	Y3	7-1/2	1160	75	8.40	49200	46400	43000	39700	35700	2
	C3	10	1160	77	11.20	55600	52500	49200	46400	41900	2
60	V1	2	680	36	2.26	35200	28700				2
	W2	3	870	51	3.21	36800	31100	25100			2
	X2	5	870	59	5.58	49300	44600	39200	32400		2
	Y2	7-1/2	870	64	8.30	57200	52600	47500	41800	35100	2
72	X1	5	680	55	5.40	59800	51400	41000			2
	Y1	7-1/2	680	61	8.30	72400	64800	56700	46000	42400	2
	C1	10	680	63	10.97	78900	71700	63700	46900		2
	Y2	7-1/2	870	78	8.24	65500	59000	52000	44000		2

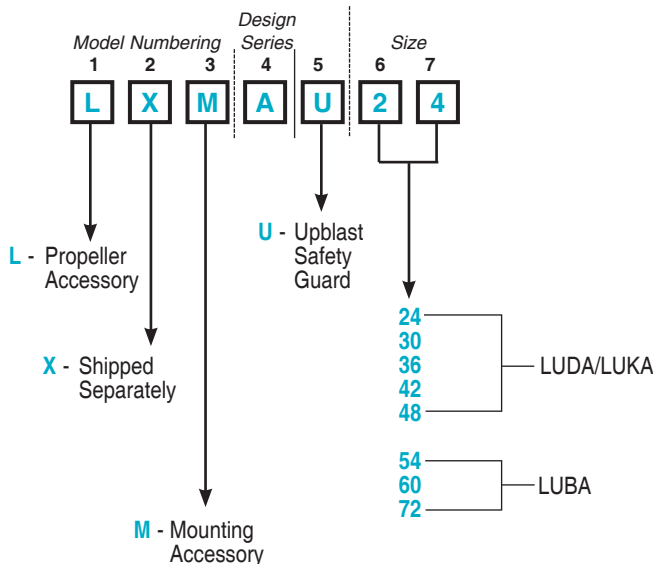
NOTES:

1. Performance certified is for installation type A: free inlet, free outlet performance ratings (bhp) do not include transmission losses.
2. Performance ratings do not include the effects of accessories.
3. The sound ratings are shown loudness values in fan sones at 5 ft. (1.5m) in a hemispherical free field calculated per AMCA Standard 301. Values are for installation type A: free inlet hemispherical sone levels. The AMCA ratings sound seal applies to sone ratings only.

▼ **Upblast Propeller Roof Ventilators**

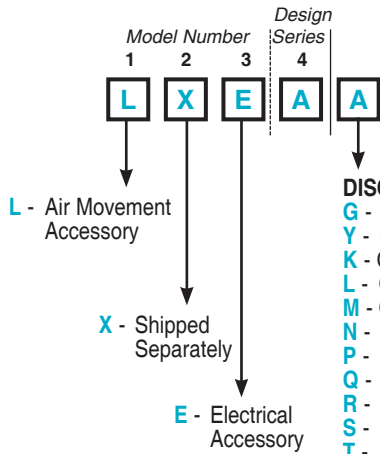


▼ **Mounting Accessories**



Upblast Propeller Fans

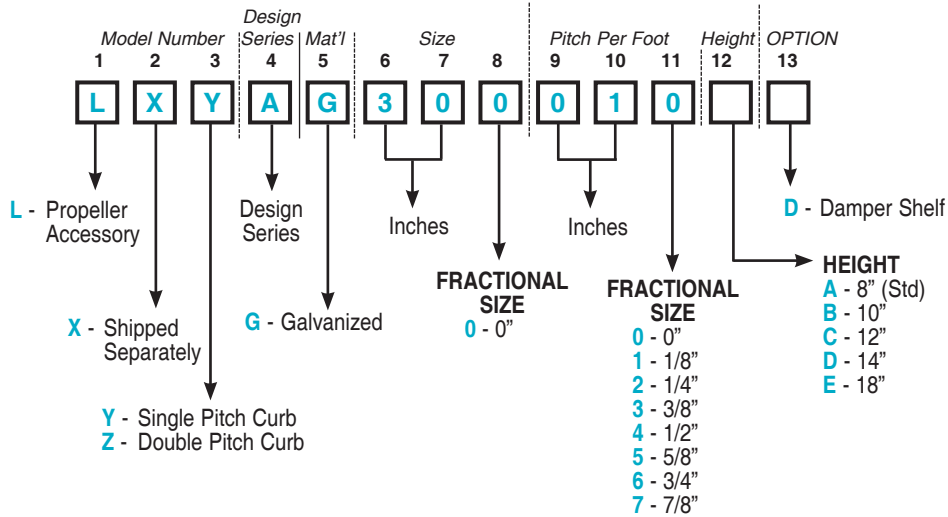
▼ **Electrical Accessories**



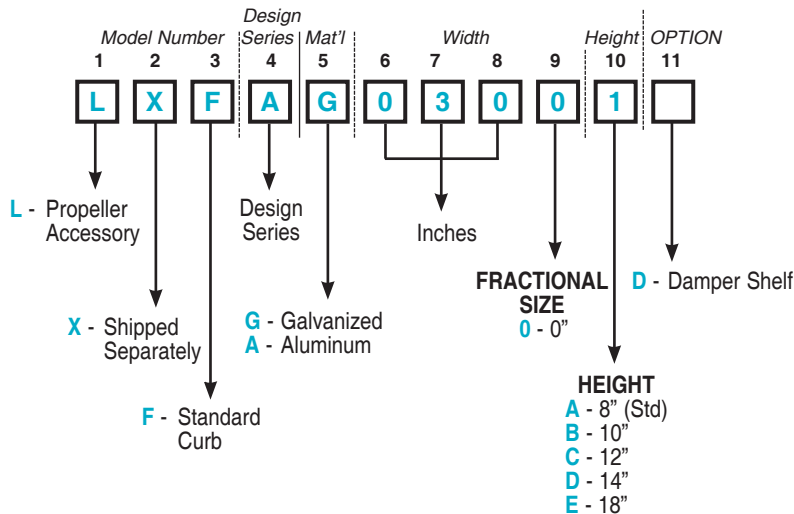
DISCONNECT SWITCHES

- G - Raintight Disconnect - NEMA 3 (6 Pole) 1 or 3 Phase, 115V-600V to 7-1/2 HP Max
- Y - Explosion Proof Disconnect - NEMA 7 and 9, 230V-460V 3 HP to 5 HP
- K - Open Disconnect - NEMA 1, 1 Phase, 115V - 230V to 1 HP - 2 HP
- L - Open Disconnect - NEMA 1, 3 Phase, 208V, 230V - 460V to 1 HP - 2 HP
- M - Open Disconnect - NEMA 1, 3 Phase, 208V, 230V - 460V to 7-1/2 HP - 10 HP
- N - Raintight Disconnect - NEMA 3, 1 Phase, 115V - 230V to 1 HP to 2 HP
- P - Raintight Disconnect - NEMA 3, 1 Phase, 115V - 230V to 1 HP - 2 HP
- Q - Raintight Disconnect - NEMA 3, 1 Phase, 115V - 230V to 10 HP
- R - Raintight Disconnect - NEMA 3, 3 Phase, 208V, 230V - 460V to 7-1/2 HP - 10 HP
- S - Raintight Disconnect - NEMA 3, 3 Phase, 208V, 230V - 460V to 7-1/2 HP - 15 HP
- T - Raintight Disconnect - NEMA 4, 1 Phase, 115V - 230V to 1 HP to 2 HP
- W - Raintight Disconnect - NEMA 4X, 3 Phase, 230V - 460V to 7-1/2 to 10 HP
- X - Explosion Proof Disconnect - NEMA 7 and 9, 1 Phase, 115V - 230V to 1 HP
- U - Raintight Disconnect - NEMA 4, 3 Phase, 230V-460V to 7-1/2 HP to 10 HP
- V - Raintight Disconnect - NEMA 4X, 1 Phase, 115V-230V to 1 HP to 2 HP

▼ **Pitched Curbs**



▼ **Curbs**



MODEL LUKA REMOTE DRIVE UPBLAST PROPELLER ROOF EXHAUSTERS

Application

Model LUKA units are high capacity belt driven roof mounted exhausters rated from 4,500 to 72,000 CFM. The motor and drives are located outside of the exhaust airstream, making these units especially suited for the removal of heated or contaminated air from commercial and industrial buildings or processes where these conditions exist. All models are capable of continuous operation exhausting air to 200°F.

The remote drive construction allows for easy rooftop belt and motor access for maintenance. For increased air performance (in clean conditions) with the same easy maintenance access, the LUKA is available without the belt and bearing enclosures. See the LUBA performances herein.

Straight-through air flow design results in maximum exhaust efficiency. During operation, high air flow velocity opens butterfly dampers and prevents rain or snow from entering. Dampers close and cover the venturi opening when unit is not in use.

The roof mounted location eliminates interference with processes and equipment inside the building. It also permits locating the exhauster over a source of heated or contaminated air, allowing direct upward venting to the outside, unlike wall mounted exhausters which may move contaminated air through adjacent work spaces.

Construction/Specification Checklist

Panel Assembly

- Heavy-gauge galvanized steel panel, sizes 24-72.
- One piece spun venturi for maximum efficiency and strength.
- All welded support structure of schedule 40 galvanized pipe (minimum).
- Motor/bearing plates of minimum 10 gauge galvanized steel.

Windband/Butterfly Dampers.

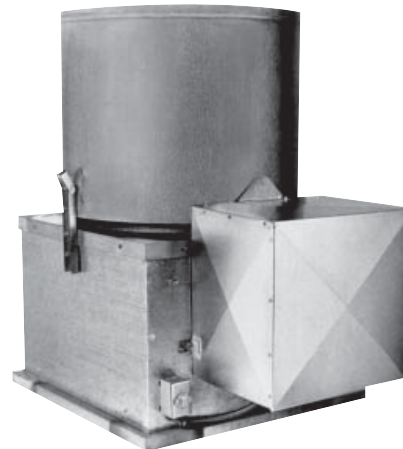
- Heavy-gauge galvanized steel windband.
- Steel dampers standard.
- Translucent fiberglass dampers available on all sizes.
- Galvanized rain channel drains water from damper area of roof.
- Galvanized damper shafts rotate in bronze bushing.

Propeller

- Two, three, four or six airfoil aluminum blades.
- Steel hub plate with steel taper lock bushing.
- Adjustable pitch for optimum efficiency.
- Die formed steel blades are optional where required.

Drives

- Shielded from airstream by galvanized steel enclosure.
- Sized for minimum 150% of drive horsepower.
- Single belt adjustable pitch sheaves through 3 HP.
- Two belt fixed pitch sheaves through 10 HP.
- Adjustable pitch sheaves are optional above 3 HP.
- Adjustable tension rods for belt adjustment.
- Non-static oil resistant V-belts.
- Keyed, turned, ground and polished shafts.



Bearings

- Bearings designed for minimum 200,000 hour life.
- Cast iron self-aligning pillow block ball bearings.
- Bearings are sealed, prelubricated with relube fittings.

Motors

- Located outside airstream under weather cover.
- Brands are nationally recognized and locally serviced.
- Open drip-proof construction is standard.
- High efficiency, explosion proof, totally enclosed fan cooled (TEFC) and corrosion duty motors are optional.

Options/Accessories

Roof Curb: Prefabricated heavy-gauge galvanized steel. Welded construction, 8" high with 1-1/2" treated wood nailer. Options include burglar bars, single and double pitch construction and additional curb heights.

Disconnect Switch: Non-fused safety disconnects are available for all motor sizes in raintight or open enclosures. Explosion proof, NEMA 4 and NEMA 4X are also available.

Magnetic Latches: Helps reduce damper chatter when the units are not in operation.

Heat/Smoke Vent: Opens damper doors when temperature exceeds 165°F. Allows heat and smoke to escape building without use of fan power.

Outlet Guard: 1/2" x 1" wire mesh guard will prevent birds and other objects from entering the fan.

Extended Grease Lines: Extended copper grease lines allow motor and/or fan bearings to be relubricated from the exterior.

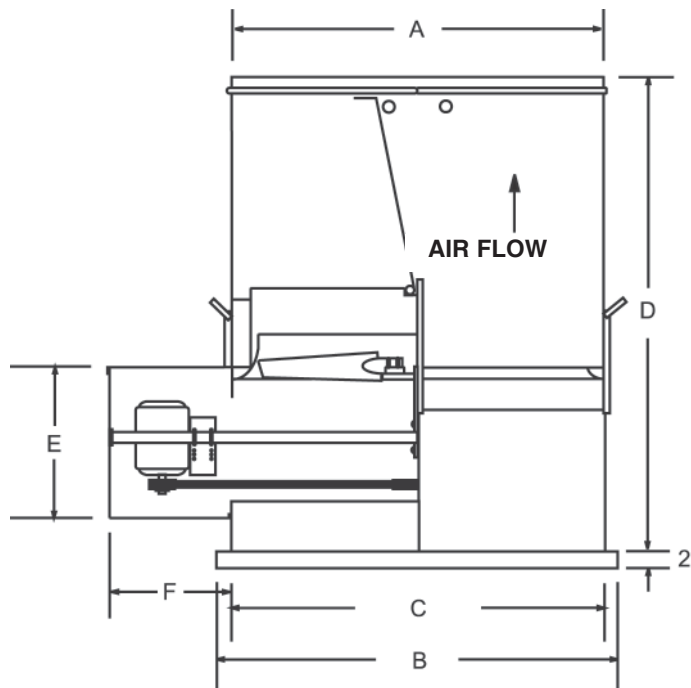
Aluminum Construction: Optional aluminum construction available on windbands, curb caps, panel and blades. (Sizes 24-54.)

Epoxy Finish: For use in an 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.

Vinyl Finish: For acid type atmospheres that do not exceed 160°F.

DRAWINGS/DIMENSIONS

Model LUKA



MODEL LUKA

Model LUKA	Dimensions In Inches						
	A	B	C	D	E	F	G
24	30	32	30	50	22	16	31
30	36	38	36	54	22	16	37
36	42	44	42	56	22	16	43
42	48	50	48	59	22	16	49
48	54	56	54	68	22	22	55
54	60	62	60	70	22	22	61
60	66	68	66	74	22	22	67
72	80	82	80	86	22	22	81

- Legend:**
- A — Outside diameter of wind band.
 - B — Inside dimension of square curb cap.
 - C — Inside dimension of square fan base.
 - D — Height of unit above curb.
 - E — Height of motor cover.
 - F — Length of motor cover.
 - G — Outside dimension of factory built pre-fab curb.

PERFORMANCE DATA

Model LUKA

Model LUKA	HP	RPM	Sone @ 5 ft.	Max. BHP	CFM @ Static Pressure					No. of Blades	
					0	1/8	1/4	3/8	1/2		
24	R2	3/4	1210	20	0.82	6605	5980	5262	4416		3
	S2	1	1335	23	1.11	7286	6715	6081	5410		3
	T2	1-1/2	1525	30	1.65	8353	7866	7323	6752	6127	3
	V2	2	1680	35	2.21	9200	8740	8280	7774	7268	3
30	S2	1	960	23	1.15	10230	9114	7812			3
	T2	1-1/2	1090	31	1.69	11625	10602	9579	8370		3
	V2	2	1200	37	2.25	12741	11904	10881	9858	8742	3
	W2	3	1370	44	3.35	14508	13764	12927	12090	11160	3
36	S2	1	700	19	1.10	12861	10752				3
	T2	1-1/2	795	25	1.57	14688	12768	10656			3
	V2	2	895	30	2.30	16512	14880	12960	10848		3
	W2	3	1020	35	3.48	18816	17280	15744	14112	12192	3
42	T2	1-1/2	640	23	1.68	18414	15624				3
	V2	2	710	28	2.30	20553	17949	14880			3
	W2	3	805	35	3.35	23250	21018	18414	15624		3
	X1	5	950	43	5.51	27261	25668	23529	21390	18879	3
48	V2	2	575	23	2.31	24196	20700	16192			3
	W2	3	655	32	3.41	27784	24564	20884	16376		3
	X1	5	770	43	5.54	32660	29900	27048	23736	19780	3
	Y1	7-1/2	880	52	8.27	37352	34960	32476	29992	26956	3
	C1	10	970	58	11.07	41216	39100	36892	34500	32016	3
54	W2	3	545	26	3.39	33250	28690	22990			3
	X1	5	640	38	5.49	39140	35055	30875	25650		3
	Y1	7-1/2	735	48	8.32	44840	41515	37810	33915	29355	3
	C1	10	805	56	10.92	49210	46075	42750	39235	35530	3
60	X1	5	550	36	5.50	44826	39618	33480	25854		3
	Y1	7-1/2	630	49	8.27	51336	46779	41850	36084		3
	C1	10	695	58	11.10	56730	52638	48267	43431	37851	3
72	X1	5	410	29	5.47	57381	48267	37665			3
	Y1	7-1/2	470	40	8.24	65751	57939	49476			3
	C1	10	520	48	11.15	72726	65844	58404	49569		3

NOTES:

1. Model LUKA is not licensed to bear the AMCA Seal.