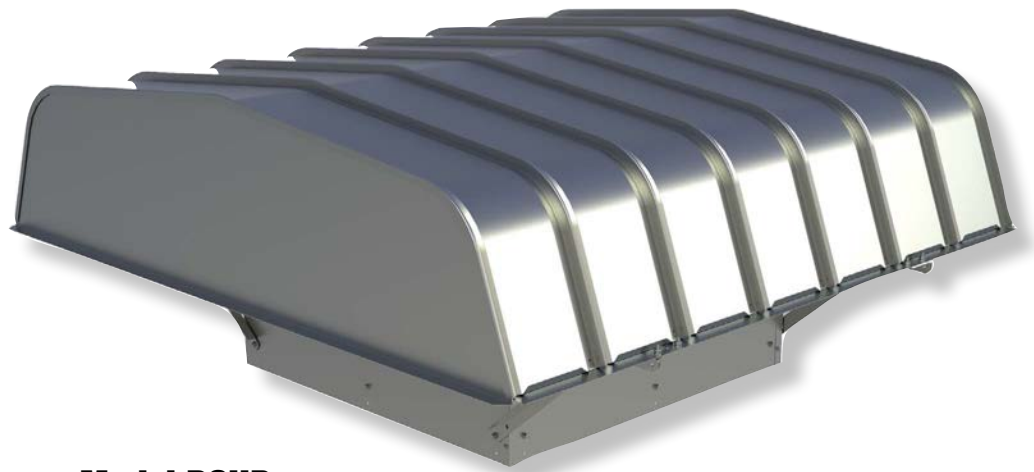




The Industrial Choice.



**Model BSHD
Direct Drive**

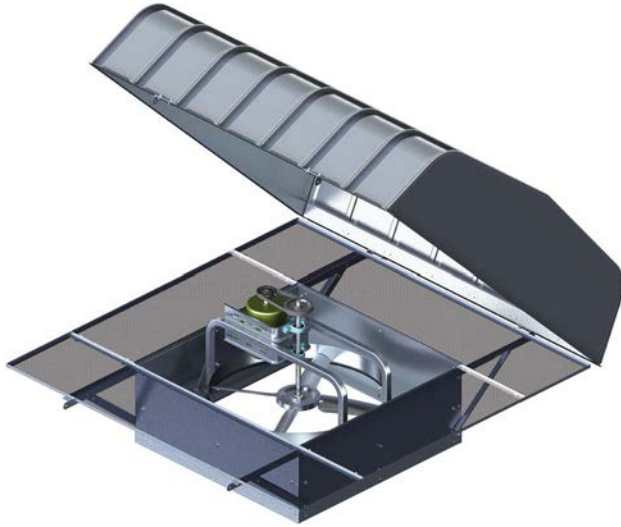
**LOW PROFILE HOODED
PROPELLER ROOF VENTILATORS**

Models BSHD / BSHB

Hooded Roof Ventilators

Models

BSHD | BSHB



BSHB with Standard Birdscreen

Aerovent Low Profile Hooded Roof Ventilators provide cost effective, general purpose ventilation solutions for commercial and light industrial applications. The aesthetically pleasing modular hood design minimizes extension above the roof line. Both direct and belt driven models are available in exhaust and supply configurations. A wide array of adjustable pitch, cast aluminum propellers are available to meet specific performances and application requirements. Aerovent also offers a complete line of options and accessories such as roof curbs, backdraft dampers, disconnect switches and special coatings to maintain single source responsibility.

Model BSHD and BSHB

Hooded non-filtered BSHD (direct drive) and BSHB (belt driven) are available for exhaust or supply service and feature a removable galvanized steel hood for cleaning and servicing the fan as well as a galvanized steel birdscreen.

Sizes and Performance

Direct Drive

- Exhaust & Supply sizes from 14 to 48 inches
- Cast aluminum propellers available in a variety of blade angles
- Capacities from 940 CFM to 30,000 CFM
- Static pressure capability up to 1.00 inches w.g.

Belt Driven

- Exhaust & Supply sizes from 21 to 54 inches
- Cast aluminum propellers available in a variety of blade angles
- Capacities from 3,200 CFM to 46,500 CFM
- Static pressure capability up to 1.00 inches w.g.



Inter-locking Panels of Modular Hood



Model Nomenclature

BSHD - 24 - B - 1 - 05 - 25

Model _____

BSHD = Low Profile Hooded Propeller Roof Ventilator, Direct Drive
BSHB = Low Profile Hooded Propeller Roof Ventilator, Belt Driven

Fan Size _____

Propeller Type _____

B = Backswept

Hub Designation _____

Blade Count _____

Blade Angle _____

Construction Features

Modular Hood Design

The stackable hood panels allow for easy field assembly when necessary. The snap together rib design provides added strength and rigidity. Hoods are constructed of galvanized steel as standard.

Birdscreen

Non-filtered units include galvanized steel birdscreen along the perimeter of the hood. Birdscreen can be easily removed for access to fan components.

Propellers

Cast aluminum blades and hubs. Propellers on belt driven units shall be secured to the fan shaft with a taperlock bushing. Propellers on direct drive units shall be mounted directly on the motor shaft with a taperlock bushing.

Mechanical Run Test & Final Vibration Check

All fans are assembled for a mechanical run test and final balance prior to shipment. Vibration readings are taken on both fan bearings in the axial, horizontal and vertical directions at the specified speed. Fans are balanced to 0.15 in./sec. peak or less.

Bearings (BSHB only)

Cast iron pillow block bearings selected for L50 average life of 200,000 hours at maximum cataloged operating speeds.

Shaft (BSHB only)

Shaft diameters are sized to have a first critical speed of at least 125% of the fan's maximum operating speed.

Motors

ODP, TEFC and Explosion proof, single and three phase motors are carefully matched to the fan load.

Drives (BSHB only)

Motor sheaves shall be of cast iron and supplied as variable pitch standard. Drives and belts shall be rated for 150% of the required motor HP.

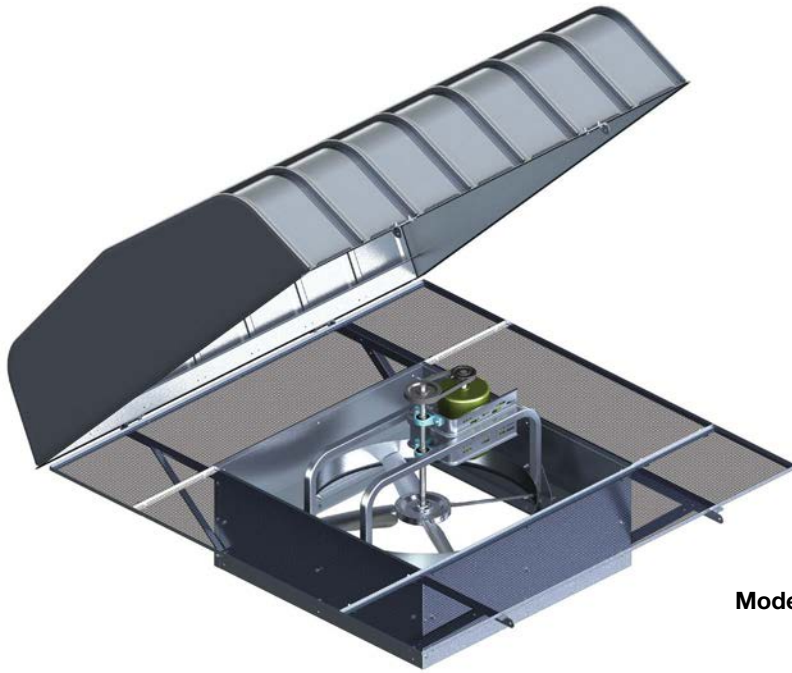
Motor and Drive Frame

Support assemblies are constructed of heavy gauge galvanized or finish painted steel.

Motor Access

Fans designed for exhaust and supply allow for service and are provided with convenient access to the motor from the roof.

Hood Construction Features



**Model BSHB with
Birdscreen**

The Aerovent modular hood provides numerous benefits over conventional sheet metal hood designs.

Hood Construction

- The Aerovent modular hood design features ribbed panels, which provide added strength and rigidity. This is particularly important in climates where snow loads are a consideration.
- Hood profile allows rain and snow to run off.
- Hoods are galvanized steel as standard, but can also be constructed of aluminum or painted steel to accommodate specific application requirements.

Easy Access

- Fan sizes 14 to 36 incorporate a pivoted hood design. By removing two fasteners, the hood can be opened up for convenient cleaning and service.
- Fan sizes 42 to 54 allow for the entire hood to be taken off by removing four fasteners.
- Exhaust and supply fans are constructed with motor and drive components easily accessible from the roof. There is no need to try and access components below the roof line or through an access door.
- Removable birdscreens can be removed with the hood still in place to allow for quick and easy inspection of the fan components without taking off the hood.

Shipping Advantage

Most units ship fully assembled as standard (see chart below for specific models and sizes) to allow for fast and easy installation at the job site. Larger units ship knocked down to the job site as standard and can be easily assembled with standard tools. Aerovent does offer the option to ship larger units fully assembled to the job site (**standard freight rates do not apply**). Contact your local sales representative for more information.

MODEL	FAN SIZE									
	14	16	18	21	24	30	36	42	48	54
BSHD	F	F	F	F	F	F	F	K	K	—
BSHB	—	—	—	F	F	F	F	K	K	K

F = Ships Fully Assembled

K = Ships Knocked Down, Field Assembly Required

Tall Base

Extended base section with access door and damper tray allows for easy access of motorized and non-motorized backdraft dampers for maintenance and cleaning. This option is advantageous over the standard fan with roof curb extension because the base ships as one piece.

Curb Side Guard

Mounted to the curb side of the fan to allow for protection of personnel below fan in non-ducted installations. Aerovent recommends the use of a curb side guard on all non-ducted installations.

Extended Lube Lines

Allow for easy lubrication of bearings on belt driven units without disassembly by extending polyethylene lines from fan bearings to exterior of base.

Tie Downs

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

Aluminum Construction

Hood and exterior of base section are constructed of aluminum in lieu of standard galvanized steel.

Insulated Hood

Inside of hood is lined with insulation to reduce sound and condensation from the hood.

Insect Screen

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

Single Point Wiring

Junction box on exterior of base houses disconnect switch and motorized damper wire connections. Available with tall base, motorized damper and wired disconnect switch only.

Dampers

Used to keep unwanted air out of the building when the fan is not in use, dampers are available as either gravity operated or motorized.

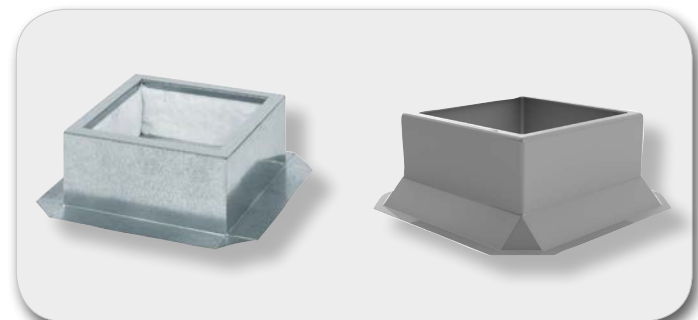
Roof Curb Extensions

Extensions work to extend the height of the roof curb. Standard curb extension is galvanized steel, 13" high and has an 8" removable panel to provide access to the backdraft damper from the roof.



**NEMA 3R
Disconnect Switch**

**NEMA 4
Disconnect Switch**



**Self-Flashing
Roof Curb**

**Standard (Canted)
Roof Curb**

Disconnect Switches

A NEMA 1, 3R, 4 or 7/9 disconnect switch is available for positive electrical shutoff of the fan and the protection of service personnel.

Roof Curbs

Prefabricated roof curbs are available in heavy duty galvanized steel or aluminum in heights of 8", 12" or 18". The standard curb (canted) is provided with a factory installed wood nailer, while the optional self flashing design is provided with a $\frac{3}{16}$ " polystyrene gasket. Both the standard curb and the self-flashing design are provided with $1\frac{1}{2}$ " of insulation as standard and feature continuously welded seams for added rigidity and moisture protections.



Direct Drive

BSHD | Size 14

PROPELLER	BLADE ANGLE	MOTOR HP	FAN RPM	MAX BHP	SONES @ 0" SP	CFM / STATIC PRESSURE (IN. W.G.)											
						0.000	0.100	0.125	0.150	0.200	0.250	0.300	0.375	0.500	0.625	0.750	1.000
14B105	10	1/4	1750	0.10	11.7	940	855	836	817	777	729	679	611	468	377	295	
	15		1750	0.15	13.8	1260	1181	1161	1141	1101	1055	996	904	780			
	20		1750	0.19	15.1	1549	1468	1447	1426	1382	1335	1275	1160				
	25		1750	0.25	16	1804	1716	1693	1669	1618	1561	1488	1363	1205			
	30	1/3	1750	0.31	16.4	2021	1912	1882	1852	1787	1710	1623	1501	1307	1037		

BSHD | Size 16

PROPELLER	BLADE ANGLE	MOTOR HP	FAN RPM	MAX BHP	SONES @ 0" SP	CFM / STATIC PRESSURE (IN. W.G.)											
						0.000	0.100	0.125	0.150	0.200	0.250	0.300	0.375	0.500	0.625	0.750	1.000
16B105	10	1/4	1750	0.16	15	1376	1276	1253	1229	1182	1131	1074	986	843	665	557	
	15		1750	0.25	17.1	1850	1756	1732	1708	1660	1611	1556	1448	1280	1123		
	20	1/3	1750	0.34	18.8	2275	2179	2154	2129	2078	2025	1967	1857	1647	1484		
	25	1/2	1750	0.43	20	2648	2542	2514	2486	2428	2366	2298	2168	1940	1750		
	30		1750	0.54	20	2961	2835	2800	2765	2691	2612	2522	2370	2132	1894	1560	

BSHD | Size 18

PROPELLER	BLADE ANGLE	MOTOR HP	FAN RPM	MAX BHP	SONES @ 0" SP	CFM / STATIC PRESSURE (IN. W.G.)											
						0.000	0.100	0.125	0.150	0.200	0.250	0.300	0.375	0.500	0.625	0.750	1.000
18B105	10	1/3	1750	0.25	18.1	1927	1807	1778	1750	1695	1638	1576	1472	1304	1109	909	662
	15	1/2	1750	0.40	21	2594	2484	2455	2427	2370	2313	2253	2151	1929	1750	1550	
	20		1750	0.54	23	3190	3078	3048	3018	2958	2897	2833	2726	2480	2262	2064	
	25	3/4	1750	0.70	25	3710	3586	3553	3520	3452	3382	3308	3183	2911	2667	2435	
	30		1750	0.87	25	4140	3993	3954	3914	3831	3744	3649	3479	3203	2921	2629	

BSHD | Size 21

PROPELLER	BLADE ANGLE	MOTOR HP	FAN RPM	MAX BHP	SONES @ 0" SP	CFM / STATIC PRESSURE (IN. W.G.)											
						0.000	0.100	0.125	0.150	0.200	0.250	0.300	0.375	0.500	0.625	0.750	1.000
21B105	10	1/2	1750	0.44	23	2984	2835	2798	2761	2689	2617	2542	2422	2200	1985	1726	1264
	15	3/4	1750	0.69	27	4032	3892	3855	3819	3746	3674	3600	3484	3245	2970	2739	1972
	20	1	1750	0.99	30	4956	4814	4776	4738	4662	4585	4507	4383	4139	3824	3551	3002
	25	1 1/2	1750	1.28	31	5754	5598	5557	5515	5432	5346	5257	5116	4836	4497	4190	3562
	30	2	1750	1.58	32	6402	6220	6173	6125	6026	5923	5816	5639	5299	4962	4597	3761

BSHD | Size 24

PROPELLER	BLADE ANGLE	MOTOR HP	FAN RPM	MAX BHP	SONES @ 0" SP	CFM / STATIC PRESSURE (IN. W.G.)											
						0.000	0.100	0.125	0.150	0.200	0.250	0.300	0.375	0.500	0.625	0.750	1.000
24B105	10	3/4	1750	0.69	31	4349	4163	4116	4069	3977	3884	3790	3644	3375	3094	2810	2111
	15	1	1750	1.13	32	5892	5716	5670	5624	5532	5439	5346	5201	4933	4602	4277	3656
	20	1 1/2	1750	1.58	33	7240	7060	7012	6964	6869	6772	6674	6522	6245	5902	5524	4853
	25	2	1750	2.07	34	8390	8191	8140	8089	7985	7880	7772	7603	7292	6920	6517	5743
	30	3	1750	2.60	34	9306	9085	9028	8970	8852	8729	8603	8404	8014	7625	7209	6222

NOTES:

1. Performance certified is for installation type A: Free inlet, free outlet.
2. Performance ratings do not include the effects of appurtenances (accessories).
3. The sound ratings shown are loudness values in fan sone 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.

Direct Drive

BSHD | Size 30

PROPELLER	BLADE ANGLE	MOTOR HP	FAN RPM	MAX BHP	SONES @ 0" SP	CFM / STATIC PRESSURE (IN. W.G.)												
						0.000	0.100	0.125	0.150	0.200	0.250	0.300	0.375	0.500	0.625	0.750	1.000	
30B105	10	1/2	1160	0.40	22	5423	4972	4849	4724	4469	4207	3924	3446	2510	1513	665		
	15	3/4	1160	0.66	23	7373	6925	6808	6689	6441	6172	5881	5421	4588	3353			
	20	1	1160	0.96	24	9039	8579	8461	8340	8089	7818	7524	7047	6169	5086			
	25	1 1/2	1160	1.31	24	10423	9951	9826	9698	9431	9132	8809	8349	7360	6107			
	30	2	1160	1.72	25	11527	11025	10891	10753	10458	10130	9811	9329	8030				

BSHD | Size 36

PROPELLER	BLADE ANGLE	MOTOR HP	FAN RPM	MAX BHP	SONES @ 0" SP	CFM / STATIC PRESSURE (IN. W.G.)												
						0.000	0.100	0.125	0.150	0.200	0.250	0.300	0.375	0.500	0.625	0.750	1.000	
36B206	10	1	1160	0.94	32	8787	8263	8126	7986	7700	7396	7067	6533	5582	4467	3280		
	15	1 1/2	1160	1.47	36	11846	11360	11228	11093	10816	10527	10221	9712	8753	7761	6368	2787	
	20	2	1160	2.14	38	14596	14098	13962	13824	13541	13246	12937	12439	11483	10427	9153	4546	
	25	3	1160	2.97	40	17026	16468	16323	16177	15876	15564	15239	14723	13767	12602	11091		
	30	5	1160	3.96	41	19023	18431	18276	18119	17795	17457	17095	16494	15551	14012	11994		

BSHD | Size 42

PROPELLER	BLADE ANGLE	MOTOR HP	FAN RPM	MAX BHP	SONES @ 0" SP	CFM / STATIC PRESSURE (IN. W.G.)												
						0.000	0.100	0.125	0.150	0.200	0.250	0.300	0.375	0.500	0.625	0.750	1.000	
42B304	10	1	860	0.78	22	11261	10399	10175	9947	9461	8924	8348	7419	5596	3480			
	15	1 1/2	860	1.23	24	14461	13556	13309	13056	12536	11992	11423	10561	9032	6631			
	20	2	860	1.76	25	17166	16191	15927	15657	15111	14549	13968	13077	11555	9450			
	25	3	860	2.40	26	19351	18309	18038	17762	17193	16584	15983	15062	13369	11035			
	30	3	860	3.15	28	21041	19978	19696	19407	18783	18133	17513	16469	14372				

BSHD | Size 48

PROPELLER	BLADE ANGLE	MOTOR HP	FAN RPM	MAX BHP	SONES @ 0" SP	CFM / STATIC PRESSURE (IN. W.G.)												
						0.000	0.100	0.125	0.150	0.200	0.250	0.300	0.375	0.500	0.625	0.750	1.000	
48B304	10	1 1/2	860	1.13	27	16183	14996	14685	14365	13675	12890	12065	10811	8375	5000			
	15	2	860	1.82	29	20820	19571	19230	18882	18169	17422	16646	15501	13576	10685			
	20	3	860	2.67	30	24650	23299	22950	22597	21871	21099	20327	19172	17227	14599			
	25	5	860	3.69	32	27651	26299	25944	25582	24820	24008	23219	22002	19739	16744			
	30	5	860	4.88	34	29962	28614	28245	27856	27001	26140	25325	23865	20709				

NOTES:

1. Performance certified is for installation type A: Free inlet, free outlet.
2. Performance ratings do not include the effects of appurtenances (accessories).
3. The sound ratings shown are loudness values in fan sone 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.

Belt Driven

BSHB | Size 21

PROPELLER	BLADE ANGLE	MOTOR HP	FAN RPM	MAX BHP	SONES @ 0" SP	CFM / STATIC PRESSURE (IN. W.G.)												
						0.000	0.100	0.125	0.150	0.200	0.250	0.300	0.375	0.500	0.625	0.750	1.000	
21B105	20	1/4	1142	0.27	14.4	3234	3007	2948	2885	2745	2559	2378	2143					
	25		1048	0.27	12.9	3446	3171	3094	3011	2804	2585	2386	2028					
	30		977	0.28	12.2	3574	3221	3109	2986	2744	2478	2187						
	20	1/3	1252	0.36	17.1	3546	3340	3287	3232	3116	2980	2807	2565	2191				
	25		1150	0.36	15.5	3781	3534	3467	3397	3238	3038	2840	2568					
	30		1072	0.36	14	3921	3607	3517	3414	3193	2967	2724	2306					
	20	1/2	1438	0.54	23	4072	3895	3849	3803	3708	3608	3498	3289	2933	2616			
	25		1320	0.54	20	4340	4128	4072	4014	3893	3758	3594	3326	2928				
	30		1231	0.55	17.9	4503	4236	4163	4086	3911	3718	3528	3217	2612				
	20	3/4	1646	0.81	28	4661	4509	4469	4428	4347	4265	4179	4040	3741	3424	3154		
	25		1511	0.83	28	4968	4785	4737	4688	4588	4483	4370	4169	3782	3437	3060		
	30		1409	0.83	23	5154	4925	4863	4800	4667	4518	4345	4099	3650	3149			

BSHB | Size 24

PROPELLER	BLADE ANGLE	MOTOR HP	FAN RPM	MAX BHP	SONES @ 0" SP	CFM / STATIC PRESSURE (IN. W.G.)												
						0.000	0.100	0.125	0.150	0.200	0.250	0.300	0.375	0.500	0.625	0.750	1.000	
24B105	20	1/3	1067	0.36	14.5	4414	4107	4025	3940	3749	3510	3272	2944					
	25		977	0.36	12.6	4684	4313	4210	4099	3833	3549	3273	2777					
	30		908	0.36	11.8	4829	4365	4219	4064	3754	3381	2959						
	20	1/2	1226	0.54	18.2	5072	4807	4738	4668	4521	4359	4164	3842	3363	2467			
	25		1122	0.55	15.8	5379	5061	4977	4889	4699	4471	4219	3859	3132				
	30		1043	0.55	15	5547	5155	5046	4927	4657	4394	4084	3565					
	20	3/4	1403	0.83	23	5804	5575	5515	5455	5333	5206	5069	4830	4366	3951	3473		
	25		1285	0.83	20	6160	5886	5814	5741	5590	5425	5237	4913	4386	3811			
	30		1194	0.83	18.6	6350	6015	5924	5830	5624	5386	5161	4778	4024				
	20	1	1544	1.08	28	6388	6181	6127	6073	5963	5851	5735	5548	5161	4745	4370		
	25		1414	1.10	24	6779	6531	6466	6401	6268	6128	5978	5719	5226	4750	4227		
	30		1314	1.10	22	6988	6687	6607	6524	6351	6157	5939	5631	5020	4304			

NOTES:

1. Performance certified is for installation type A: Free inlet, free outlet.
2. Power rating (BHP) does not include transmission losses.
3. Performance ratings do not include the effects of appurtenances (accessories).
4. 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. Values are for installation Type A: Free inlet hemispherical sone levels.

Belt Driven

BSHB | Size 30

PROPELLER	BLADE ANGLE	MOTOR HP	FAN RPM	MAX BHP	SONES @ 0" SP	CFM / STATIC PRESSURE (IN. W.G.)											
						0.000	0.100	0.125	0.150	0.200	0.250	0.300	0.375	0.500	0.625	0.750	1.000
30B105	20	1/2	962	0.55	17	7496	6935	6786	6629	6286	5906	5501	4831	2688			
	25		868	0.55	15.1	7799	7144	6958	6746	6332	5850	5266	4151				
	30		794	0.55	13.6	7890	7099	6858	6633	6069							
	20	3/4	1102	0.83	21	8587	8102	7976	7848	7576	7279	6956	6438	5468	3917		
	25		994	0.83	18.3	8931	8371	8219	8061	7701	7338	6953	6224	4617			
	30		908	0.83	16.9	9023	8358	8166	7956	7555	7083	6383					
	20	1	1212	1.10	25	9444	9005	8892	8778	8542	8290	8019	7576	6768	5854	4431	
	25		1094	1.10	22	9830	9327	9192	9054	8760	8422	8095	7559	6402			
	30		1000	1.10	19.6	9937	9343	9181	9006	8624	8268	7835	6875				
	20	1 1/2	1388	1.65	33	10815	10434	10337	10239	10040	9834	9619	9273	8632	7934	7166	4761
	25		1252	1.65	27	11249	10815	10701	10585	10344	10090	9804	9363	8587	7588	6349	
	30		1144	1.65	24	11368	10858	10722	10581	10279	9944	9626	9117	7748			
	20	2	1527	2.20	39	11898	11553	11465	11376	11198	11016	10829	10535	9995	9399	8763	7323
	25		1378	2.20	33	12381	11990	11888	11784	11571	11350	11119	10727	10073	9322	8406	
	30		1259	2.20	29	12511	12052	11930	11806	11548	11266	10961	10529	9650			
	20	3	1748	3.29	47	13620	13320	13243	13167	13012	12856	12698	12456	12029	11561	11053	9951
	25		1578	3.30	41	14178	13839	13751	13663	13482	13297	13106	12809	12245	11672	11071	9516
	30		1442	3.31	37	14329	13932	13829	13724	13508	13284	13046	12653	12020	11289	10201	

BSHB | Size 36

PROPELLER	BLADE ANGLE	MOTOR HP	FAN RPM	MAX BHP	SONES @ 0" SP	CFM / STATIC PRESSURE (IN. W.G.)											
						0.000	0.100	0.125	0.150	0.200	0.250	0.300	0.375	0.500	0.625	0.750	1.000
36B206	20	3/4	844	0.82	21	10620	9899	9698	9489	9036	8518	7953	7009	4022			
	25		757	0.83	19	11111	10219	9973	9713	9145	8479	7615	5610				
	30		688	0.83	17.2	11283	10209	9877	9546	8820	7479						
	20	1	929	1.10	25	11690	11045	10868	10686	10300	9878	9404	8632	7001	3953		
	25		834	1.10	22	12241	11443	11227	11003	10524	9994	9388	8201	4752			
	30		758	1.10	20	12430	11478	11207	10904	10318	9570	8316					
	20	1 1/2	1063	1.65	32	13376	12824	12674	12521	12204	11869	11511	10913	9792	8455	6217	
	25		954	1.65	27	14003	13314	13132	12946	12556	12139	11692	10937	9237	6249		
	30		867	1.65	25	14218	13403	13181	12951	12431	11915	11381	9863				
	20	2	1170	2.20	39	14722	14229	14094	13958	13678	13386	13081	12591	11652	10612	9394	4838
	25		1050	2.20	32	15412	14791	14629	14463	14122	13763	13383	12769	11548	9881	7068	
	30		954	2.20	29	15645	14912	14717	14515	14086	13601	13134	12369	10019			
	20	3	1339	3.28	50	16849	16427	16312	16195	15957	15713	15461	15068	14356	13543	12654	10558
	25		1202	3.30	42	17643	17105	16966	16825	16537	16240	15931	15443	14553	13513	12168	7690
	30		1092	3.30	37	17908	17276	17110	16940	16590	16220	15806	15174	14050	11944		
	20	5	1588	5.47	75	19982	19637	19542	19446	19250	19051	18848	18537	17994	17414	16781	15341
	25		1425	5.50	62	20916	20466	20351	20234	19998	19758	19512	19131	18460	17736	16943	14959
	30		1295	5.51	51	21237	20710	20573	20435	20153	19861	19560	19077	18181	17348	16079	

NOTES:

- Performance certified is for installation type A: Free inlet, free outlet.
- Power rating (BHP) does not include transmission losses.
- Performance ratings do not include the effects of appurtenances (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. Values are for installation Type A: Free inlet hemispherical sone levels.

Belt Driven

BSHB | Size 42

PROPELLER	BLADE ANGLE	MOTOR HP	FAN RPM	MAX BHP	SONES @ 0" SP	CFM / STATIC PRESSURE (IN. W.G.)												
						0.000	0.100	0.125	0.150	0.200	0.250	0.300	0.375	0.500	0.625	0.750	1.000	
42B304	20	1	735	1.10	20	14671	13503	13185	12864	12199	11509	10815	9723					
	25		664	1.10	17.3	14941	13561	13186	12789	12013	11182	10285	8435					
	30		606	1.10	15.6	14826	13223	12762	12322	11297	10084							
	20	1 1/2	842	1.65	24	16806	15808	15537	15261	14701	14123	13525	12616	11028	8610			
	25		760	1.65	21	17101	15911	15598	15277	14589	13914	13206	12065					
	30		694	1.65	19.5	16979	15627	15242	14837	14060	13179	12152						
	20	2	926	2.20	28	18483	17587	17345	17098	16595	16084	15557	14741	13363	11860	9615		
	25		836	2.20	25	18811	17737	17457	17172	16578	15948	15336	14367	12574				
	30		764	2.21	23	18692	17480	17152	16801	16070	15369	14561	13154					
	20	3	1060	3.29	35	21158	20389	20183	19973	19543	19103	18659	17977	16791	15588	14344	10625	
	25		957	3.30	31	21533	20602	20362	20119	19623	19108	18560	17748	16345	14800	12823		
	30		874	3.30	28	21383	20339	20063	19779	19173	18531	17918	16921	14889				
	20	5	1257	5.49	46	25090	24455	24285	24113	23762	23403	23037	22478	21531	20543	19530	17484	
	25		1135	5.51	41	25539	24759	24560	24359	23952	23537	23114	22449	21296	20153	18917	16091	
	30		1036	5.50	37	25347	24477	24251	24021	23549	23054	22521	21716	20385	18759	16957		

BSHB | Size 48

PROPELLER	BLADE ANGLE	MOTOR HP	FAN RPM	MAX BHP	SONES @ 0" SP	CFM / STATIC PRESSURE (IN. W.G.)											
						0.000	0.100	0.125	0.150	0.200	0.250	0.300	0.375	0.500	0.625	0.750	1.000
48B304	20	1 1/2	733	1.65	23	21010	19409	18990	18558	17648	16750	15844	14451	10791			
	25		658	1.65	20	21156	19338	18824	18292	17262	16138	14914	12456				
	30		599	1.65	18.6	20869	18731	18120	17531	16009	14138						
	20	2	807	2.20	27	23131	21686	21311	20930	20134	19306	18490	17258	14995			
	25		724	2.20	24	23278	21646	21206	20738	19781	18841	17813	16125				
	30		660	2.20	22	22994	21126	20556	20002	18890	17404	15702					
	20	3	924	3.31	33	26485	25232	24910	24584	23920	23229	22504	21432	19641	17734	14980	
	25		829	3.31	30	26654	25248	24877	24498	23689	22849	22037	20732	18283	14669		
	30		755	3.30	27	26303	24734	24279	23788	22813	21863	20665	18489				
	20	5	1095	5.50	45	31386	30336	30068	29798	29251	28695	28129	27237	25718	24203	22696	18854
	25		983	5.51	39	31605	30433	30130	29821	29189	28527	27822	26771	24997	23036	20738	
	30		895	5.51	36	31181	29893	29543	29180	28381	27539	26748	25477	22595			
	20	7 1/2	1254	8.27	56	35943	35030	34798	34564	34093	33617	33133	32397	31104	29775	28461	25815
	25		1125	8.26	49	36171	35154	34892	34628	34091	33540	32973	32064	30533	29001	27329	23391
	30		1025	8.27	44	35710	34602	34308	34007	33376	32682	31946	30884	29036	26553	23772	

NOTES:

1. Performance certified is for installation type A: Free inlet, free outlet.
2. Power rating (BHP) does not include transmission losses.
3. Performance ratings do not include the effects of appurtenances (accessories).
4. 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. Values are for installation Type A: Free inlet hemispherical sone levels.

Belt Driven

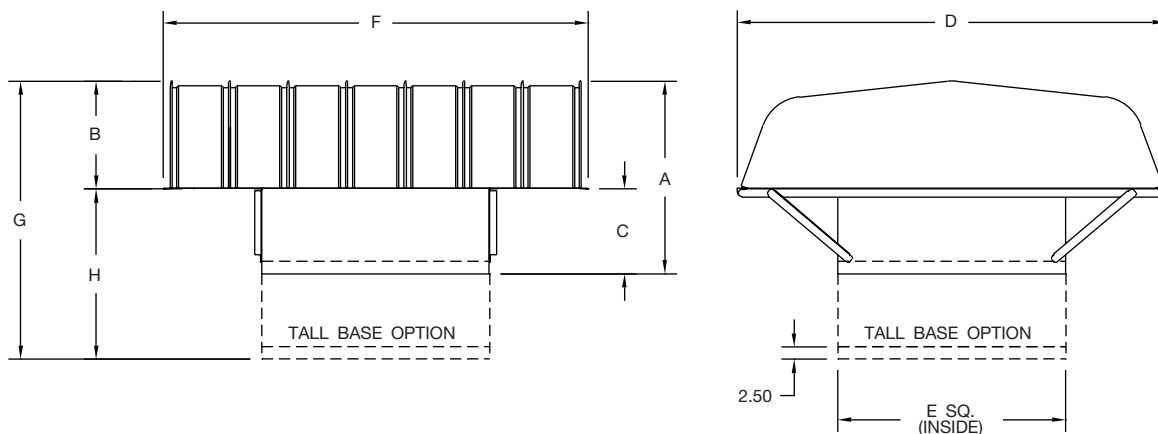
BSHB | Size 54

PROPELLER	BLADE ANGLE	MOTOR HP	FAN RPM	MAX BHP	SONES @ 0" SP	CFM / STATIC PRESSURE (IN. W.G.)												
						0.000	0.100	0.125	0.150	0.200	0.250	0.300	0.375	0.500	0.625	0.750	1.000	
54B406	20	1 1/2	554	1.65	25	23999	22006	21481	20957	19904	18784	17510	15282					
	25		498	1.65	23	24681	22403	21733	21018	19635	17980	16078						
	30		453	1.65	21	24739	21844	20874	19882	17564								
	20	2	610	2.20	29	26425	24633	24159	23682	22731	21769	20749	18998	15144				
	25		549	2.21	27	27208	25177	24619	24008	22732	21451	19944	17308					
	30		498	2.19	24	27197	24784	23857	22985	21108	18932							
	20	3	698	3.30	38	30237	28691	28284	27872	27039	26208	25374	24070	21539	18377	9755		
	25		628	3.31	33	31124	29378	28911	28429	27379	26254	25177	23297	19444				
	30		570	3.30	31	31129	29156	28539	27765	26203	24585	22748						
	20	5	828	5.51	52	35868	34584	34248	33908	33217	32517	31814	30764	28971	26970	24655	17186	
	25		744	5.50	46	36873	35422	35042	34654	33854	33006	32065	30668	28192	25206	21270		
	30		676	5.51	41	36918	35327	34876	34394	33233	31866	30599	28456					
	20	7 1/2	948	8.27	65	41066	39956	39667	39375	38782	38179	37569	36649	35119	33562	31891	27937	
	25		852	8.26	57	42225	40969	40644	40314	39640	38943	38222	37029	34991	32868	30378	23766	
	30		774	8.26	53	42270	40913	40541	40154	39322	38334	37126	35444	32357	28796			
	20	10	1043	11.01	76	45182	44178	43918	43656	43123	42582	42034	41202	39808	38418	37001	33859	
	25		938	11.03	68	46487	45352	45060	44765	44163	43546	42913	41925	40073	38251	36313	31646	
	30		852	11.02	61	46529	45312	44985	44647	43934	43162	42256	40619	38073	35146	31899		

NOTES:

1. Performance certified is for installation type A: Free inlet, free outlet.
2. Power rating (BHP) does not include transmission losses.
3. Performance ratings do not include the effects of appurtenances (accessories).
4. 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. Values are for installation Type A: Free inlet hemispherical sone levels.

Models BSHD | BSHB



SIZE	A	B	C	D	E	F	G	H
14	21.75	11.75	10.00	40.00	21.50	39.00	39.25	27.50
16	21.75	11.75	10.00	40.00	24.50	39.00	39.25	27.50
18	22.75	12.75	10.00	48.00	26.50	51.00	40.25	27.50
21	26.75	15.75	11.00	54.00	29.50	51.00	44.25	28.50
24	28.75	17.75	11.00	66.00	32.50	63.00	46.25	28.50
30	33.75	19.75	14.00	75.00	40.50	75.00	51.25	31.50
36	39.25	21.75	17.50	88.00	46.50	87.00	56.75	35.00
42	42.25	23.75	18.50	86.00	52.50	99.00	59.75	36.00
48	43.25	23.75	19.50	93.00	58.50	111.00	60.75	37.00
54	46.25	23.75	22.50	112.00	64.50	111.00	63.75	40.00

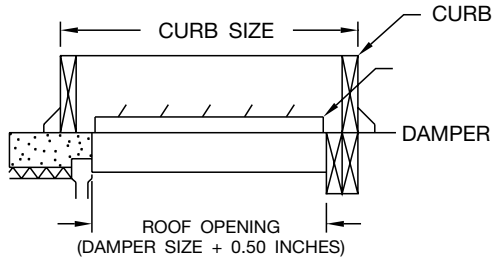
NOTE:

1. Dimensions are not to be used for construction.



Accessories

Roof Curb

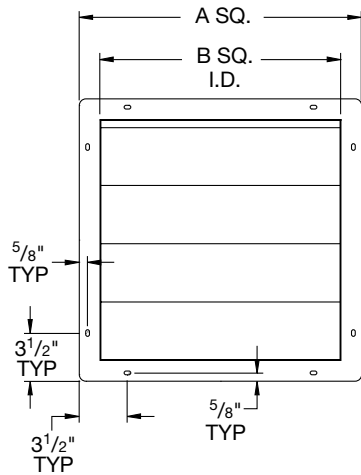


SIZE	CANTED CURB SIZE	SELF-FLASHING CURB SIZE
14	20.00 x 20.00	20.50 x 20.50
16	23.00 x 23.00	23.50 x 23.50
18	25.00 x 25.00	25.50 x 25.50
21	28.00 x 28.00	28.50 x 28.50
24	31.00 x 31.00	31.50 x 31.50
30	39.00 x 39.00	39.50 x 39.50
36	45.00 x 45.00	45.50 x 45.50
42	51.00 x 51.00	51.50 x 51.50
48	57.00 x 57.00	57.50 x 57.50
54	63.00 x 63.00	63.50 x 63.50

NOTE:

1. Curbs have 1½" thick insulation, wood nailer (canted) or ¾" polystyrene gasket (self-flashing) and damper tray as standard. A 12" high curb is required when using a motorized damper.

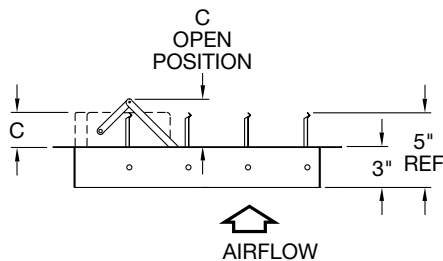
Backdraft Damper



SIZE	A SQ.	B SQ.	C	NO. OF PANELS
14	16.00	13.50	6.00	1
16	19.00	16.50	6.00	1
18	21.00	18.50	6.00	1
21	24.00	21.50	6.00	1
24	27.00	24.50	6.00	1
30	35.00	32.50	6.00	1
36	41.00	38.50	7.50	1
42	47.00	44.50	7.50	2
48	53.00	50.50	7.50	2
54	59.00	56.50	7.50	2

NOTES:

1. Exhaust damper shown (with front flange).
2. Supply damper has rear flange.



Material Specifications

FAN SIZE	GAUGE OF MATERIAL										SHAFT SIZE (IN.)
	FAN HOUSING		HOOD		FAN PANEL		DRIVE FRAME		PROPELLERS		
	BSHD	BSHB	BSHD	BSHB	BSHD	BSHB	BSHD	BSHB	BSHD	BSHB	
14	18	—	22	—	16	—	14	—	DIE CAST ALUM.	—	—
16	18	—	22	—	16	—	14	—		—	—
18	18	—	22	—	16	—	14	—		—	—
21	18	18	22	22	16	16	14	14	DIE CAST ALUM.	—	1
24	18	18	22	22	14	14	12	14		—	1
30	18	18	22	22	14	14	12	12		—	1
36	18	18	22	22	14	14	12	12		—	1
42	16	16	22	22	12	12	10	12		—	1 ^{3/16}
48	16	16	22	22	12	12	10	12	—	1 ^{7/16}	
54	—	16	—	22	—	12	—	10	—	—	1 ^{7/16}

* All gauges are minimums.

Shipping Weights

FAN SIZE	BSHD	BSHB
14	155	—
16	165	—
18	173	—
21	208	212
24	307	276
30	386	399
36	520	524
42	660	689
48	776	812
54	---	942

* Weights are only approximate and do not include accessories. Consult Fan Selector Program for actual shipping weights.



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Catalog illustrations cover the general appearance of Aerovent products at the time of publication and we reserve the right to make changes in design and construction at any time without notice.

Models BSHD | BSHB

Low Profile Hooded Propeller Roof Ventilators, shall be Model BSHD direct drive or BSHB belt driven as manufactured by Aerovent, Minneapolis, Minnesota.

PERFORMANCE — Fans shall be tested in accordance with AMCA test codes for air moving devices and shall be guaranteed by the manufacturer to deliver rated published performance levels.

CONSTRUCTION — Fan curb caps shall be constructed of heavy gauge galvanized steel or painted steel for durability and appearance. Curb caps shall have a deep formed inlet venturi for efficient airflow and pre-punched holes for easy mounting to the roof curb. Hood and hood support mechanisms shall be heavy gauge galvanized steel. Motor mount assemblies shall be constructed of heavy gauge galvanized or finish painted steel.

PROPELLERS — Propellers shall be constructed of cast aluminum blades and hubs. Propellers on direct drive units shall be mounted directly on the motor shaft with a taperlock bushing. Propellers on belt driven units shall be secured to the fan shaft with a taperlock bushing.

SHAFTS (BSHB Only) — Shafts shall be AISI 1045 cold rolled steel, accurately turned, ground, polished, and ring gauged for accuracy. Shafts shall be sized for the first critical speed of at least 1.43 times the maximum speed.

BEARINGS (BSHB Only) — Bearings are to be pillow block, heavy-duty, anti-friction, self-aligning, grease lubricated, ball type. Each fan's bearings are sized with a minimum average life, per AFBMA, in excess of 200,000 hours when operating at the maximum RPM of the fan size.

DRIVES (BSHB Only) — Motor sheaves shall be cast iron, and supplied as variable pitch standard. Drives and belts shall be rated for a minimum of 150% of the required motor HP.

MOTORS — All motors shall be single phase or three phase induction, permanently lubricated, heavy-duty, ball bearing type, closely matched to the fan load and provided at the voltage, phase, hertz, and enclosure as provided on the fan schedule.

FINISH AND COATING — Fans shall have galvanized steel or finish painted steel curb caps, motor supports, hoods and hood supports.

ACCESSORIES — When specified, accessories such as backdraft and motorized dampers, curb extension, roof curbs and disconnect switches shall be provided by Aerovent to maintain one source responsibility.

FACTORY RUN TEST — All fans prior to shipment shall be completely assembled and test run as a unit at operating speed or maximum RPM allowed for the particular construction type. Each propeller shall be statically and dynamically balanced in accordance with ANSI/AMCA 204-96 "Balance Quality and Vibration Levels for Fans" to Fan Application Category BV-3, Balance Quality Grade G6.3. Balance readings shall be taken by electronic type equipment in the axial, vertical, and horizontal directions on each of the bearings. Records shall be maintained and a written copy shall be available upon request.

GUARANTEE — The manufacturer shall guarantee the workmanship and materials for its direct drive BSHD and belt driven BSHB low profile hooded propeller roof ventilators for at least one (1) year from startup or eighteen (18) months from shipment, whichever occurs first.

**PROPELLER FANS | TUBEAXIAL & VANEAXIAL FANS | CENTRIFUGAL FANS & BLOWERS | ROOF VENTILATORS
INDUSTRIAL AIR HANDLERS | AIR MAKE-UP | FIBERGLASS FANS | CUSTOM FANS**



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