



The Industrial Choice.

**Model BSB40**



**UPBLAST TUBEAXIAL  
ROOF VENTILATORS**

**Model BSB40**

# Tubeaxial Roof Ventilators



**Model BSB40**



All models are cULus 705 listed, for electrical, File No. E158680.

Model BSB40 is UL listed for Smoke Control Systems, 500°F for 4 hours and 1000°F for 15 minutes.

## Upblast

### Model BSB40

Aerovent Tubeaxial Roof Ventilators provide cost effective, general-purpose ventilation of commercial buildings. Belt driven models are standard with adjustable pitch, cast aluminum propellers to meet specific application requirements.

Upblast Model BSB40 includes a heavy-duty, galvanized steel stack cap with butterfly dampers to discharge air upward and prevent recirculation into the building. A splash guard located over the damper pivot area protects against rain entry.

#### Sizes

14 to 54 inch wheel diameters

#### Performance

Airflow to 67,400 CFM

Static pressure to 1.5 inches w.g.

## Construction Features



**Curb Base**



**Motor Cover**

#### Windband

Painted steel windband on stack cap.

#### Butterfly Damper

Aluminum (sizes 14" to 36") and galvanized steel (sizes 42" to 54") butterfly dampers on stack cap.

#### Curb Base

Heavy-duty, painted steel curb base includes venturi inlet for efficient airflow and pre-punched mounting holes for easy installation.

#### Galvanized Steel Frame

Structural, galvanized steel frame provides strong support and mounting base for motor and drive.

#### Motors

Motors are ball bearing type, available in ODP, TE and EXP with a variety of standard voltages.

#### Motor Cover

Motor cover is standard on Model BSB40.

#### Lube Lines

Lube lines are standard on belt driven fans.

## Accessories

### Access Door, Bolted

A bolted access door allows for inspection and maintenance of internal fan components.

### Inlet Safety 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 an inlet safety guard on all non-ducted installations.

### Birdscreen

A zinc plated steel birdscreen protects the fan discharge from birds and other types of debris.

### Fusible Link Assembly

Allows the damper blades to open when the link melts at 165°F.

### Magnetic Damper Latches

Used to hold butterfly dampers closed when fan is not in operation. Damper blades must be steel with magnetic damper latches.

### Shaft Seal

Shaft seal consists of a non-asbestos rubbing ring at the wheel end of the inner cylinder. A shaft seal is recommended when the fan is exposed to wet, corrosive or dirty contaminants. The shaft seal does not make the fan gas tight.

### Spark Resistant Construction – Type B

Type B Spark Resistant Construction is available on belt driven fans with cast aluminum propellers only.

### Roof Curbs

Prefabricated roof curbs are available in heavy duty galvanized steel or aluminum in heights of 8", 12" or 18". Both types, canted and self-flashing, are provided with 1½" of insulation and feature continuously welded seams for added rigidity and moisture protection.

### Special Coatings

Aerovent has an in-house, specialty coating facility offering a wide range of protective coating solutions for fans that are exposed to corrosive atmospheres. Mild steel fans parts are coated with enamel as standard.

### Disconnect Switch

A NEMA 1, 3R, 4 or 7/9 safety disconnect switch is available for positive electrical shutoff of the fan and the protection of service personnel. Disconnects are shipped loose for field mounting and wiring.

### Metal Nameplate

Available in aluminum or stainless steel.



Bolted Access Door



Birdscreen



Shaft Seal



Galvanized Steel  
Roof Curb



NEMA 4  
Disconnect Switch



# Engineering Data



Model BSB40

## Material Specifications

FAN SIZE	GAUGES			SHAFT SIZE (IN.)	APPROX. SHIP WT. (LB)
	WIND BAND	CURB CAP	PROPELLERS		
14	18	16	DIE CAST ALUM.	3/4	65
16	18	16		3/4	97
18	18	16		3/4	113
21	18	16		3/4	157
24	18	16		1	178
30	16	16		1	289
36	16	16		1 3/16	424
42	16	16		1 7/16	539
48	14	14		1 7/16	871
54	14	14		1 7/16	1103

## Model Nomenclature

**BSB40 - 24 - B - 1 - 05 - 25**

**Model** \_\_\_\_\_  
BSB40 = Upblast Tubeaxial Roof Ventilator, Belt Driven

**Fan Size** \_\_\_\_\_

**Propeller Type** \_\_\_\_\_  
B = Backswept

**Hub Designation** \_\_\_\_\_

**Blade Count** \_\_\_\_\_

**Blade Angle** \_\_\_\_\_



**BSB40 | Size 14 - 18**

MODEL INFO			MOTOR HP	FAN RPM	MAX. BHP	LwiA	CFM/STATIC PRESSURE (IN. W.G.)											
SIZE	NO. OF BLADES	PROPELLER					0.000	0.125	0.250	0.375	0.500	0.625	0.750	0.875	1.000	1.250	1.500	
14	5	14B10520	1/4	2068	0.27	86	1853	1677	1574	1475	1342	1186						
				14B10525	1892	0.27	85	2017	1798	1687	1558	1375	1151					
				14B10530	1747	0.27	77	2140	1860	1739	1520	1229						
		14B10520	1/3	2268	0.36	89	2032	1864	1761	1676	1574	1447	1303					
				14B10525	2075	0.36	87	2212	1999	1889	1790	1647	1475	1267				
				14B10530	1916	0.36	79	2347	2065	1955	1811	1576						
		14B10520	1/2	2605	0.55	92	2334	2178	2074	1996	1922	1836	1731	1613	1485			
				14B10525	2384	0.55	90	2541	2339	2225	2140	2052	1932	1784	1634	1433		
				14B10530	2201	0.55	82	2696	2410	2305	2210	2073	1867	1652				
		14B10520	3/4	2982	0.82	95	2672	2528	2426	2346	2280	2216	2147	2063	1968	1757		
				14B10525	2728	0.82	94	2908	2717	2600	2517	2444	2368	2273	2154	2023	1740	
				14B10530	2520	0.83	84	3087	2802	2691	2608	2524	2410	2239	2059	1860		
16	5	16B10520	1/4	1755	0.27	85	2353	2098	1959	1800	1592							
				16B10525	1600	0.27	84	2560	2242	2085	1862	1594						
				16B10530	1475	0.28	77	2638	2309	2111	1769							
		16B10520	1/3	1925	0.36	88	2581	2335	2198	2071	1905	1707						
				16B10525	1755	0.36	86	2808	2492	2346	2179	1949	1693					
				16B10530	1618	0.36	79	2894	2565	2406	2136	1797						
		16B10520	1/2	2211	0.55	92	2965	2733	2594	2487	2374	2232	2068	1882				
				16B10525	2016	0.55	89	3226	2917	2772	2650	2496	2296	2089				
				16B10530	1859	0.55	82	3325	2995	2856	2698	2443	2159					
		16B10520	3/4	2531	0.82	96	3394	3176	3036	2932	2840	2744	2627	2493	2346	1982		
				16B10525	2307	0.82	92	3691	3392	3241	3132	3025	2893	2727	2546	2363		
				16B10530	2128	0.83	84	3806	3475	3341	3224	3077	2857	2612	2336			
		16B10520	1	2785	1.10	99	3735	3528	3389	3283	3196	3112	3024	2920	2803	2537	2206	
				16B10525	2539	1.10	95	4062	3771	3616	3508	3412	3313	3191	3044	2881	2544	
				16B10530	2342	1.10	86	4189	3860	3724	3616	3506	3360	3157	2933	2704		
18	5	18B10520	1/4	1496	0.28	76	2932	2572	2382	2131	1808							
				18B10525	1359	0.28	73	3185	2734	2498	2162							
				18B10530	1251	0.27	70	3162	2806	2471								
		18B10520	1/3	1641	0.36	78	3216	2861	2685	2488	2232	1913						
				18B10525	1491	0.36	76	3495	3041	2841	2567	2241						
				18B10530	1372	0.36	73	3468	3120	2869	2455							
		18B10520	1/2	1885	0.55	82	3695	3352	3177	3030	2849	2630	2380	2005				
				18B10525	1712	0.55	79	4013	3556	3374	3187	2936	2655					
				18B10530	1576	0.55	77	3984	3644	3456	3176	2804						
		18B10520	3/4	2157	0.83	85	4228	3901	3720	3586	3457	3302	3119	2916	2689			
				18B10525	1960	0.83	83	4594	4137	3955	3806	3635	3419	3177	2922			
				18B10530	1804	0.82	80	4560	4226	4059	3883	3614	3287	2932				
		18B10520	1	2374	1.10	87	4653	4338	4153	4021	3905	3785	3643	3480	3300	2887		
				18B10525	2157	1.10	85	5056	4602	4414	4274	4137	3972	3774	3555	3330		
				18B10530	1985	1.10	83	5018	4688	4528	4380	4194	3931	3633	3325			
		18B10520	1 1/2	2718	1.65	90	5327	5029	4846	4708	4597	4495	4394	4282	4152	3856	3520	
				18B10525	2469	1.65	89	5787	5337	5140	5004	4884	4766	4633	4473	4294	3908	3466
				18B10530	2273	1.65	86	5746	5423	5267	5137	5006	4850	4639	4384	4126		

**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 power ratings shown are in decibels, referred to 10<sup>-12</sup> watts calculated per AMCA Standard 301.
5. Values shown are for inlet LwiA sound power levels for installation Type A: Free inlet, free outlet. Ratings do not include the effects of end correction.
6. Sound power values shown are at the peak cataloged pressure for each RPM.

## BSB40 | Size 21 - 24

SIZE	MODEL INFO		MOTOR HP	FAN RPM	MAX. BHP	LwiA	CFM/STATIC PRESSURE (IN. W.G.)													
	NO. OF BLADES	PROPELLER					0.000	0.125	0.250	0.375	0.500	0.625	0.750	0.875	1.000	1.250	1.500			
21	5	BLADES	1/4	21B10520	1220	0.27	75	3819	3271	2953	2502									
				21B10525	1104	0.27	73	4019	3454	3026	2437									
				21B10530	1013	0.27	70	3961	3514	2888										
				21B10520	1339	0.36	77	4191	3645	3378	3013	2549								
			1/3	21B10525	1211	0.36	75	4408	3851	3501	3032									
				21B10530	1112	0.36	72	4348	3931	3428										
				21B10520	1537	0.55	80	4811	4267	4028	3773	3442	3052							
				21B10525	1390	0.55	78	5060	4506	4235	3878	3460								
			1/2	21B10530	1277	0.55	75	4993	4606	4265	3738									
				21B10520	1760	0.82	84	5509	4973	4735	4538	4303	4018	3695	3310					
				21B10525	1592	0.83	82	5795	5243	5000	4744	4419	4055	3646						
				21B10530	1461	0.82	79	5713	5347	5091	4718	4241								
			3/4	21B10520	1937	1.10	86	6063	5536	5291	5108	4924	4698	4437	4148	3825				
				21B10525	1752	1.10	84	6377	5826	5591	5378	5119	4813	4482	4125					
				21B10530	1608	1.10	82	6288	5935	5706	5431	5038	4601	4082						
				21B10520	2217	1.65	90	6939	6426	6171	5993	5835	5676	5492	5279	5045	4521	4521	3726	
			1 1/2	21B10525	2005	1.65	88	7298	6752	6516	6328	6141	5917	5660	5379	5087	4367			
				21B10530	1841	1.65	85	7199	6863	6655	6454	6197	5859	5477	5094					
				21B10520	2240	1.70	90	7011	6499	6243	6065	5909	5752	5573	5366	5137	4626	4626	3915	
				21B10525	2207	2.20	90	8034	7496	7252	7072	6905	6731	6526	6295	6046	5516	4866		
21B10530	2026	2.20	87	7922	7598	7400	7221	7028	6777	6467	6120	5776								
24	5	BLADES	1/3	24B10520	1131	0.36	76	5146	4373	3927	3297									
				24B10525	1018	0.36	72	5233	4578	3972										
				24B10530	933	0.36	71	5801	4626	3771										
				24B10520	1299	0.55	79	5910	5132	4788	4332	3759								
			1/2	24B10525	1170	0.55	76	6015	5390	4933	4345									
				24B10530	1072	0.55	75	6666	5478	4837	3977									
				24B10520	1487	0.82	82	6766	5980	5670	5344	4928	4437	3757						
				24B10525	1339	0.83	80	6883	6277	5921	5461	4934								
			3/4	24B10530	1227	0.83	77	7629	6388	5934	5275									
				24B10520	1637	1.10	85	7448	6658	6354	6085	5754	5361	4914	4357					
				24B10525	1474	1.10	83	7577	6982	6660	6289	5843	5356	4763						
				24B10530	1350	1.10	80	8394	7098	6737	6198	5576								
			1	24B10520	1874	1.65	88	8527	7740	7425	7187	6949	6663	6335	5970	5567				
				24B10525	1687	1.65	86	8672	8090	7793	7513	7172	6785	6366	5927					
				24B10530	1546	1.65	84	9613	8221	7925	7556	7062	6519	5930						
				24B10520	2062	2.20	90	9382	8599	8272	8041	7830	7610	7347	7053	6731	5999			
			1 1/2	24B10525	1857	2.20	88	9546	8974	8686	8434	8166	7843	7490	7112	6722				
				24B10530	1701	2.20	86	10577	9104	8834	8548	8160	7693	7198	6685					
				24B10520	2361	3.30	93	10743	9965	9625	9390	9195	9011	8824	8618	8379	7848	7245		
				24B10525	2125	3.30	92	10924	10368	10084	9854	9636	9405	9134	8838	8525	7856	7104		
24B10530	1947	3.30	89	12106	10500	10256	10022	9764	9430	9039	8610	8180	7134							

**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 power ratings shown are in decibels, referred to 10<sup>-12</sup> watts calculated per AMCA Standard 301.
5. Values shown are for inlet LwiA sound power levels for installation Type A: Free inlet, free outlet. Ratings do not include the effects of end correction.
6. Sound power values shown are at the peak cataloged pressure for each RPM.



**BSB40 | Size 30 - 36**

MODEL INFO			MOTOR HP	FAN RPM	MAX. BHP	LwiA	CFM/STATIC PRESSURE (IN. W.G.)												
SIZE	NO. OF BLADES	PROPELLER					0.000	0.125	0.250	0.375	0.500	0.625	0.750	0.875	1.000	1.250	1.500		
30	5	30B10520	1/2	969	0.55	78	8161	7141	6276	5019									
		30B10525		864	0.55	76	9229	7300	6192										
		30B10530		788	0.55	75	9556	7229											
		30B10520	3/4	1109	0.83	81	9340	8353	7702	6825	5636								
		30B10525		989	0.83	77	10564	8615	7720	6666									
		30B10530		902	0.83	77	10939	8621	7417										
		30B10520	1	1221	1.10	83	10283	9312	8766	8049	7173	5967							
		30B10525		1088	1.10	81	11622	9616	8853	7960	6834								
		30B10530		993	1.10	80	12042	9687	8652	7451									
		30B10520	1 1/2	1397	1.65	86	11765	10810	10331	9809	9159	8406	7492						
		30B10525		1246	1.65	83	13310	11186	10584	9859	9062	8151							
		30B10530		1136	1.65	83	13776	11290	10494	9512									
		30B10520	2	1538	2.20	89	12953	12008	11552	11123	10595	9986	9299	8494	7423				
		30B10525		1371	2.20	87	14645	12415	11899	11272	10592	9853	9022						
		30B10530		1251	2.20	85	15171	12550	11898	11058	10150								
		30B10520	3	1760	3.30	92	14823	13895	13452	13080	12700	12242	11729	11167	10548	9018			
		30B10525		1569	3.30	90	16760	14350	13902	13423	12859	12268	11634	10973	10198				
		30B10530		1432	3.30	89	17366	14510	14016	13356	12603	11807	10982						
30B10520	5	2087	5.50	95	17576	16688	16234	15891	15578	15265	14927	14529	14103	13163					
30B10525		1861	5.51	93	19879	17186	16793	16419	16019	15554	15070	14569	14041	12926					
30B10530		1697	5.50	92	20580	17353	16960	16515	15955	15339	14679	14007	13332						
36	6	36B20620	3/4	819	0.82	86	12504	10385	9186	7855									
		36B20625		743	0.82	77	13529	10750	9300										
		36B20630		683	0.83	72	14242	10852	9299										
		36B20620	1	901	1.10	89	13756	11636	10584	9414	8199								
		36B20625		818	1.10	81	14895	12099	10811										
		36B20630		752	1.10	77	15681	12248	10827										
		36B20620	1 1/2	1032	1.65	92	15756	13596	12713	11752	10714	9647							
		36B20625		936	1.65	83	17044	14171	13083	11921									
		36B20630		861	1.65	79	17954	14401	13169	11936									
		36B20620	2	1135	2.20	96	17328	15114	14327	13486	12582	11626	10656						
		36B20625		1031	2.20	86	18773	15810	14843	13813	12746								
		36B20630		947	2.20	80	19747	16068	14960	13827	12726								
		36B20620	3	1300	3.31	98	19847	17518	16846	16141	15397	14612	13790	12942	12098				
		36B20625		1180	3.31	88	21487	18346	17522	16653	15745	14812	13881						
		36B20630		1084	3.30	81	22604	18684	17731	16748	15760	14794							
		36B20620	5	1541	5.50	101	23526	20989	20433	19858	19264	18647	18004	17339	16648	15224			
		36B20625		1399	5.51	91	25474	22024	21344	20639	19906	19148	18372	17583	16795				
		36B20630		1286	5.51	85	26816	22484	21695	20883	20055	19221	18392	17580					
		36B20620	7 1/2	1764	8.26	105	26931	24174	23694	23201	22697	22179	21646	21097	20531	19351	18118		
		36B20625		1601	8.26	95	29153	25384	24797	24194	23574	22935	22280	21608	20927	19548			
		36B20630		1472	8.26	88	30694	25946	25264	24566	23854	23131	22403	21673	20953				

**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 power ratings shown are in decibels, referred to 10<sup>-12</sup> watts calculated per AMCA Standard 301.
5. Values shown are for inlet LwiA sound power levels for installation Type A: Free inlet, free outlet. Ratings do not include the effects of end correction.
6. Sound power values shown are at the peak cataloged pressure for each RPM.

## BSB40 | Size 42 - 48

SIZE	MODEL INFO		MOTOR HP	FAN RPM	MAX. BHP	LwiA	CFM/STATIC PRESSURE (IN. W.G.)														
	NO. OF BLADES	PROPELLER					0.000	0.125	0.250	0.375	0.500	0.625	0.750	0.875	1.000	1.250	1.500				
42	4	BLADES	1	42B30420	740	1.10	87	17932	14392	12464											
				42B30425	674	1.10	88	19111	14646	12493											
				42B30430	619	1.09	85	19777	14589												
			1½	42B30420	847	1.65	91	20525	16954	15344	13588										
				42B30425	772	1.65	90	21889	17345	15482											
				42B30430	709	1.64	91	22653	17322	15372											
			2	42B30420	933	2.21	93	22608	18967	17547	16002	14389									
				42B30425	849	2.20	93	24073	19417	17747	16030										
				42B30430	780	2.18	92	24921	19429	17652											
			3	42B30420	1068	3.31	97	25880	22076	20875	19588	18221	16809	15428							
				42B30425	972	3.30	97	27560	22665	21238	19750	18252									
				42B30430	893	3.28	96	28531	22722	21173	19626										
			5	42B30420	1266	5.51	101	30678	26563	25578	24545	23460	22325	21151	19956	18781					
				42B30425	1153	5.51	101	32692	27356	26183	24963	23709	22440	21189							
				42B30430	1058	5.45	102	33803	27441	26145	24833	23526	22238								
			7½	42B30420	1449	8.26	104	35112	30662	29815	28938	28028	27083	26105	25093	24062	21985				
				42B30425	1319	8.25	104	37399	31603	30594	29549	28477	27381	26272	25169	24081					
				42B30430	1211	8.18	105	38691	31755	30631	29492	28345	27202	26071	24954						
10	42B30420	1594	11.00	107	38626	33889	33126	32341	31532	30699	29837	28952	28041	26167	24280						
	42B30425	1452	11.01	107	41170	34980	34071	33137	32177	31197	30201	29195	28189								
	42B30430	1333	10.91	108	42589	35167	34152	33122	32082	31041	30002	28973	27955								
48	4	BLADES	1½	48B30420	732	1.65	90	25194	20196	17736	15189										
				48B30425	665	1.65	90	26712	20468	17771											
				48B30430	607	1.61	87	27354	20244												
			2	48B30420	806	2.21	92	27741	22682	20510	18183										
				48B30425	732	2.20	92	29404	23041	20593											
				48B30430	668	2.15	92	30103	22814	20297											
			3	48B30420	922	3.30	95	31733	26497	24663	22691	20650									
				48B30425	838	3.30	95	33662	27025	24912	22767										
				48B30430	765	3.22	96	34475	26817	24606	22430										
			5	48B30420	1094	5.51	100	37653	32040	30545	28966	27306	25590	23875							
				48B30425	994	5.51	100	39928	32759	31012	29213	27401	25626								
				48B30430	907	5.37	100	40874	32549	30684	28824	26989									
			7½	48B30420	1252	8.27	103	43091	37059	35778	34442	33049	31603	30112	28604	27113					
				48B30425	1138	8.27	103	45712	37966	36462	34915	33338	31752	30189							
				48B30430	1038	8.05	103	46777	37753	36128	34495	32872	31267								
			10	48B30420	1378	11.02	106	47428	41029	39877	38685	37453	36175	34860	33507	32141	29427				
				48B30425	1252	11.01	105	50292	42050	40696	39305	37885	36449	35007	33584						
				48B30430	1142	10.72	106	51464	41844	40370	38888	37406	35933	34476	33030						

**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 power ratings shown are in decibels, referred to 10<sup>-12</sup> watts calculated per AMCA Standard 301.
5. Values shown are for inlet LwiA sound power levels for installation Type A: Free inlet, free outlet. Ratings do not include the effects of end correction.
6. Sound power values shown are at the peak cataloged pressure for each RPM.



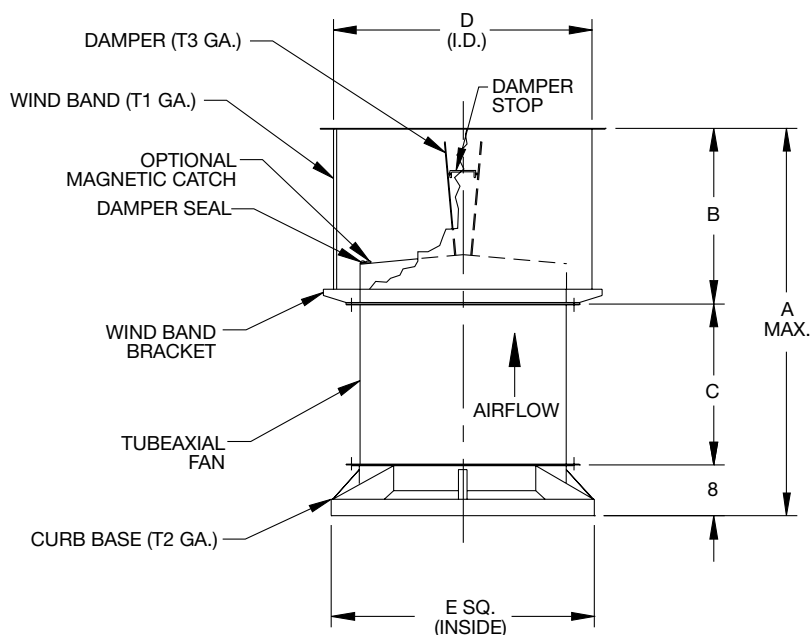
**BSB40 | Size 54**

MODEL INFO			MOTOR HP	FAN RPM	MAX. BHP	LwIA	CFM/STATIC PRESSURE (IN. W.G.)											
SIZE	NO. OF BLADES	PROPELLER					0.000	0.125	0.250	0.375	0.500	0.625	0.750	0.875	1.000	1.250	1.500	
54	6 BLADES	54B40620	1½	562	1.66	83	27962	22480	19294									
		54B40625		510	1.65	82	29986	22969	19337									
		54B40630		469	1.65	80	31300	23004										
		54B40620	2	618	2.20	86	30749	25276	22482	19412								
		54B40625		562	2.21	84	33044	25992	22723									
		54B40630		516	2.20	83	34436	26037	22608									
		54B40620	3	708	3.31	90	35227	29661	27330	24771	22071							
		54B40625		643	3.31	87	37806	30578	27791	24892								
		54B40630		591	3.30	86	39442	30756	27746									
		54B40620	5	839	5.51	94	41744	35896	34010	31989	29829	27561	25293					
		54B40625		762	5.51	91	44803	37139	34865	32470	30019							
		54B40630		700	5.49	90	46716	37437	34914	32372								
		54B40620	7½	960	8.25	98	47765	41563	39952	38258	36470	34590	32631	30632	28662			
		54B40625		872	8.26	94	51271	43092	41148	39114	37005	34862						
		54B40630		802	8.26	94	53523	43568	41388	39169	36953	34776						
		54B40620	10	1057	11.02	99	52591	46065	44620	43116	41546	39903	38192	36422	34605			
		54B40625		960	11.02	97	56445	47804	46062	44248	42370	40444	38497	36564				
		54B40630		882	10.99	96	58862	48321	46352	44346	42326	40315	38337					
		54B40620	15	1210	16.52	103	60204	53116	51871	50588	49264	47897	46481	45020	43511	40384	37222	
		54B40625		1099	16.53	99	64618	55187	53686	52139	50544	48908	47236	45537	43839			
54B40630	1010	16.50		99	67404	55859	54157	52422	50665	48901	47138	45396	43675					

**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 power ratings shown are in decibels, referred to 10<sup>-12</sup> watts calculated per AMCA Standard 301.
5. Values shown are for inlet LwIA sound power levels for installation Type A: Free inlet, free outlet. Ratings do not include the effects of end correction.
6. Sound power values shown are at the peak cataloged pressure for each RPM.

## BSB40 | Belt Driven



SIZE	A MAX.	B	C	D	E	T1	T2	T3	SHAFT SIZE	MAX. FRAME
14	47 <sup>3</sup> / <sub>4</sub>	20 <sup>3</sup> / <sub>4</sub>	19	20 <sup>3</sup> / <sub>8</sub>	23 <sup>7</sup> / <sub>8</sub>	20 GA.	16 GA.	.032 GA.	3/4	56
16	47 <sup>3</sup> / <sub>4</sub>	20 <sup>3</sup> / <sub>4</sub>	19	22 <sup>3</sup> / <sub>8</sub>	23 <sup>7</sup> / <sub>8</sub>	20 GA.	16 GA.	.032 GA.	3/4	143T
18	48 <sup>3</sup> / <sub>4</sub>	21 <sup>3</sup> / <sub>4</sub>	19	25 <sup>3</sup> / <sub>8</sub>	27 <sup>7</sup> / <sub>8</sub>	20 GA.	16 GA.	.032 GA.	3/4	145T
21	52 <sup>3</sup> / <sub>4</sub>	23 <sup>3</sup> / <sub>4</sub>	21	26 <sup>7</sup> / <sub>8</sub>	31 <sup>3</sup> / <sub>8</sub>	20 GA.	16 GA.	.032 GA.	3/4	145T
24	53 <sup>3</sup> / <sub>4</sub>	24 <sup>3</sup> / <sub>4</sub>	21	28 <sup>7</sup> / <sub>8</sub>	35 <sup>3</sup> / <sub>8</sub>	20 GA.	16 GA.	.032 GA.	1	184T
30	61 <sup>3</sup> / <sub>4</sub>	27 <sup>3</sup> / <sub>4</sub>	26	36 <sup>7</sup> / <sub>8</sub>	42 <sup>3</sup> / <sub>8</sub>	18 GA.	16 GA.	.040 GA.	1	213T
36	65 <sup>3</sup> / <sub>4</sub>	30 <sup>3</sup> / <sub>4</sub>	27	42 <sup>7</sup> / <sub>8</sub>	48 <sup>3</sup> / <sub>8</sub>	18 GA.	16 GA.	.040 GA.	1 <sup>3</sup> / <sub>16</sub>	215T
42	72 <sup>3</sup> / <sub>4</sub>	33 <sup>3</sup> / <sub>4</sub>	31	48 <sup>7</sup> / <sub>8</sub>	54 <sup>3</sup> / <sub>8</sub>	18 GA.	16 GA.	.063 GA.	1 <sup>7</sup> / <sub>16</sub>	215T
48	79 <sup>3</sup> / <sub>4</sub>	36 <sup>3</sup> / <sub>4</sub>	35	54 <sup>7</sup> / <sub>8</sub>	60 <sup>3</sup> / <sub>8</sub>	18 GA.	14 GA.	.063 GA.	1 <sup>7</sup> / <sub>16</sub>	254T
54	87 <sup>3</sup> / <sub>4</sub>	39 <sup>3</sup> / <sub>4</sub>	40	60 <sup>3</sup> / <sub>4</sub>	74 <sup>3</sup> / <sub>8</sub>	18 GA.	14 GA.	.063 GA.	1 <sup>7</sup> / <sub>16</sub>	256T

Dimensions are not to be used for construction.

D-4850-1B

## Model BSB40

Upblast Tubeaxial Roof Ventilators shall be Model BSB40 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** — Housings, curb caps, and wind bands shall be constructed of heavy gauge, continuously welded steel to prevent air leakage. Motor and bearing supports shall be constructed of heavy-gauge steel and shall be suitably braced to prevent vibration or pulsation. Butterfly dampers shall contain a splash guard over the pivot area to protect against rain entry. Butterfly damper blades shall be aluminum (sizes 14-36) and galvanized steel (sizes 42-54).

**PROPELLERS** — Propellers shall be constructed of cast aluminum blades and hubs. Propellers shall be secured to the fan shaft with a taperlock bushing.

**SHAFTS** — 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** — 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** — Motor sheaves shall be cast iron, and supplied as either variable pitch or fixed pitch. Drives 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** — The entire fan assembly, excluding the shaft, shall be thoroughly degreased and deburred before application of a rust-preventative primer. After the fan is completely assembled, a finish coat of paint shall be applied to the entire assembly. The fan shaft shall be coated with a petroleum-based rust protectant. Aluminum components shall be unpainted.

**ACCESSORIES** — When specified, accessories such as fusible link assembly, magnetic damper latches, access door, shaft seal, spark resistant construction, roof curb and disconnect switch 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 of its belt driven BSB40 Upblast Tubeaxial Roof Ventilators for at least one (1) year from startup or eighteen (18) months from shipment, whichever occurs first.



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