

MODEL VBO-HV

Vertiblow Roof Exhauster

Roof Exhauster For Emergency Smoke Removal



Designed to meet the normal ventilation needs of many industries, as well as the removal of smoke and fumes during a fire emergency, these high volume, high velocity exhausters are the ideal choice where reliable venting systems are required.

Engineered to meet the high temperature requirements of the Uniform Fire Code of 1000°F for a minimum of 15 minutes, and the IRI requirements of 500°F for a minimum of 4 hours. Tests were conducted by an independent testing organization and witnessed by UL engineers. Temperature ratings were tested in accordance with UL smoke control systems standards. The test conclusively proved that the VBO-HV could be operated at these elevated temperatures without failure.

The VBO-HV is a remote belt driven high velocity tube axial upblast roof exhauster which will efficiently remove dangerous smoke, fumes and contaminated air quickly from facility interiors. Its high velocity output pushes exhaust air away from the building, reducing the change of contaminated air reentering the airstream. In addition, high temperature exhaust air will not contribute to roof or roof mounted equipment damage.

ROMLAIR VERTIBLOW VBO-HV STANDARD FEATURES

- **WINDBAND** – Constructed of heavy gauge galvanized steel. Easily removable to facilitate easy access to fan components for inspection and service.
- **BUTTERFLY DAMPERS** – Steel dampers are standard for sizes 24 through 60. Provides weather and backdraft protection when fan is not in operation.
- **EXTENDED LUBE LINES** – Extended lubrication lines with grease fittings allow bearing lubrication without disassembling the fan.
- **MOTOR** – Totally enclosed fan-cooled motor is standard.
- **BEARINGS** – Heavy duty pillow block bearings with extended lubrication lines and grease fittings for easy maintenance.
- **SHEAVES** – Cast iron sheaves are sized for a minimum of 150% of driven horsepower. Variable pitch sheaves up to 7-1/2 Hp horsepower rating.
- **MOTOR OUT OF AIRSTREAM** – Motor, belts and bearings are isolated from the airstream. A removable cover provides easy access to the motor.
- **PROPELLER** – Extra heavy duty die formed steel construction.
- **DRIVE BELTS** – Multiple heat resistant drive belts.
- **UL LISTING** – UL-705 listing is standard on Model VBO-HV fans up to 10 Hp.
- **GUARANTEED PERFORMANCE** – Tested and rated in accordance with AMCA 211 Test Code. Guaranteed by the manufacturer to deliver rated performance.

HIGH TEMPERATURE OPTIONS FOR EMERGENCY SMOKE REMOVAL APPLICATION

VERTIBLOW VBO-HV FEATURES	Standard High Temp. Construction	Optional High Temp. Construction With Damper Openers	Optional High Temp. Construction With U.L.-793 Snow Load Test
UFC Temp. Req. - 1000°F for minimum of 15 min.			
IRI Temp. Req. - 500°F for minimum of 4 hours			
Minimum 2 Belt Drive			
Protective Belt Tube			
Steel Dampers			
Fusible Link Activated Damper Opener			
Meeting the Snow Load Test for Dampers in UL-793 (10 lbs./sq. ft.)			
U.L. Listing: "Power Ventilators for Smoke Control Systems"			

● OPTION 1 – STANDARD HIGH TEMPERATURE CONSTRUCTION

The standard VBO-HV construction meets specifications for the Uniform Fire Code Standard 81-3 (Mechanical Smoke-Removal Systems) where the exhaust fans will provide continued operation for not less than 15 minutes while exposed to a temperature of 1,000°F.

● OPTION 2 – HIGH TEMPERATURE CONSTRUCTION WITH DAMPER OPENERS

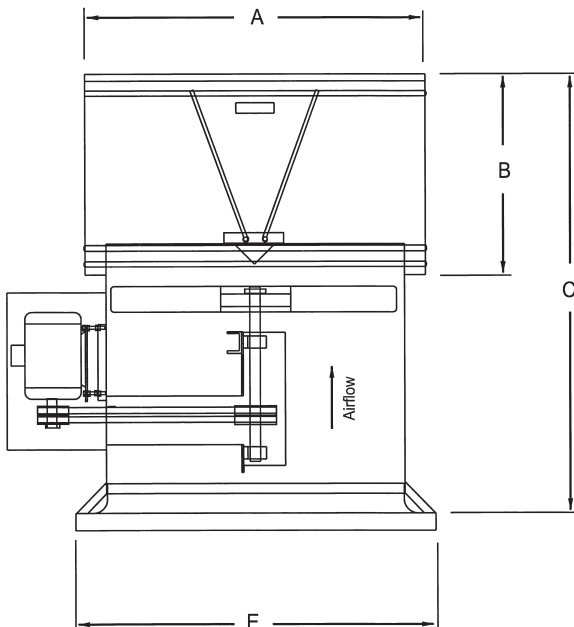
Standard high temperature construction with fusible link damper openers automatically open the fan dampers when the air temperature below the dampers exceeds 165°F. This provides smoke and heat relief in the case of power failure.

● OPTION 3 – HIGH TEMPERATURE CONSTRUCTION - U.L. LISTED "POWER VENTILATOR FOR SMOKE CONTROL SYSTEMS" – Includes Snow Load Test for Damper in UL-793

This construction meets the UL listing requirement and IRI requirements of 500°F for a minimum of 15 minutes. The Snow Load Test for dampers in UL-793 (10 lbs sq. ft) is part of this requirement.

MODEL VBO-HV

DIMENSIONAL DATA



SIZE	A	B	C	E	STEEL GAUGE			WT.
					BASE	SECT.	BAND	
24	31	19	47	34	16	16	20	390
30	37	23	52	40	16	16	20	440
36	43	25	60	46	14	16	20	575
42	49	27	63	52	14	16	20	725
48	55	31	67	56	14	16	20	810
54	61	35	77	64	21	14	20	1005
60	67	36	78	68	12	14	18	1150

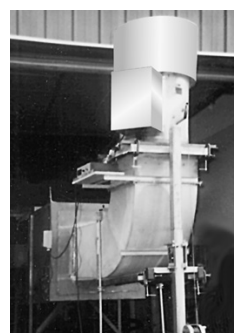
MODEL VBO-HV

PERFORMANCE DATA

MODEL	HP	RPM	TIP SPEED	MAX BHP	*SONES	STATIC PRESSURE / CAPACITY						
						.00	.10	.125	.25	.375	.50	.75
VBO-HV-244	3/4	1059	6654	.68	16.2	6424	5968	5867	5216			
VBO-HV-244	3/4	1097	6893	.75	17.1	6655	6211	6113	5512			
VBO-HV-245	1	1156	7263	.90	19.0	7012	6590	6493	5965	5066		
VBO-HV-245	1	1198	7527	1.00	20.8	7267	6860	6762	6283	5506		
VBO-HV-246	1-1/2	1312	8244	1.35	23.0	7959	7587	7494	7078	6505	5606	
VBO-HV-246	1-1/2	1371	8614	1.50	25.7	8317	7961	7872	7468	6963	6229	
VBO-HV-304	3/4	795	6244	.68	15.8	8886	8129	7904	5794			
VBO-HV-304	3/4	829	6511	.75	16.7	9266	8549	8342	6398			
VBO-HV-305	1	858	6739	.90	17.7	9590	8905	8705	6908	5099		
VBO-HV-305	1	897	7045	1.00	19.3	10026	9380	9190	7580	5790		
VBO-HV-306	1-1/2	983	7720	1.35	22.4	10987	10420	10246	8988	7257	5748	
VBO-HV-306	1-1/2	1024	8042	1.50	23.4	11445	10908	10744	9635	7990	6479	
VBO-HV-307	2	1037	8145	1.80	23.8	11591	11060	10901	9838	8219	6707	4328
VBO-HV-307	2	1102	8655	2.00	26.0	12371	11817	11685	10839	9341	7820	5277
VBO-HV-365	1	629	5928	.90	17.1	12471	11144	10777	8015			
VBO-HV-365	1	655	6173	1.00	18.3	12987	11714	11371	8781			
VBO-HV-366	1-1/2	700	6597	1.30	20.7	13879	12691	12388	10070	7658		
VBO-HV-366	1-1/2	741	6984	1.50	23.2	14692	13573	13286	11339	8931		
VBO-HV-367	2	796	7502	1.80	25.7	15783	14745	14478	12987	10573		
VBO-HV-367	2	829	7813	2.00	26.8	16473	15443	15186	13826	11529		
VBO-HV-368	3	909	8567	2.70	31.6	18023	17120	16888	15687	13932	11911	
VBO-HV-368	3	947	8925	3.00	34.2	18776	17910	17690	16551	15078	13018	
VBO-HV-369	5	1071	10094	4.50	40.7	21235	20469	20277	19291	18240	16735	13329
VBO-HV-369	5	1117	10528	5.00	44.1	22147	21412	21229	20287	19297	18110	14697
VBO-HV-426	1-1/2	584	6421	1.30	20.3	17143	15633	15262	12698	8655		
VBO-HV-426	1-1/2	614	6751	1.50	21.9	18023	16585	16232	13942	10325		
VBO-HV-427	2	645	7092	1.80	23.5	18933	17561	17225	15199	11992	8678	
VBO-HV-427	2	674	7411	2.00	25.4	19784	18469	18148	16335	13506	9974	
VBO-HV-428	3	748	8225	2.70	31.1	21957	20766	20476	18932	16911	14018	
VBO-HV-428	3	776	8533	3.00	33.0	22778	21631	21348	19895	18052	15478	
VBO-HV-429	5	898	9874	4.50	41.4	26360	25368	25120	23908	22559	20924	
VBO-HV-429	5	933	10259	5.00	45.1	27387	26433	26194	25024	23769	22326	
VBO-HV-4210	7-1/2	1021	11227	6.75	51.3	29970	29098	28880	27803	26742	25494	22391
VBO-HV-4210	7-1/2	1061	11666	7.50	54.1	31144	30305	30095	29056	28035	26883	24046
VBO-HV-486	1-1/2	505	6346	1.30	16.1	21866	19327	18707				
VBO-HV-486	1-1/2	531	6673	1.50	17.5	22992	20540	19982				
VBO-HV-487	2	551	6924	1.80	18.6	23858	21463	20952	17601			
VBO-HV-487	2	572	7188	2.00	19.9	24767	22427	21957	18976			
VBO-HV-488	3	627	7879	2.70	23.3	27148	24900	24501	22001	18221		
VBO-HV-488	3	651	8181	3.00	25.0	28188	26103	25600	23290	19912		
VBO-HV-489	5	745	9362	4.50	33.1	32258	30258	29855	27968	25699	22523	
VBO-HV-489	5	773	9714	5.00	34.1	33476	31543	31110	29329	27220	24465	
VBO-HV-4810	7-1/2	840	10556	6.60	38.6	36371	34598	34154	32496	30683	28562	22387
VBO-HV-4810	7-1/2	880	11058	7.50	43.2	38103	36410	35987	34341	32664	30750	25289
VBO-HV-548	3	534	7549	2.70	22.5	31283	29146	28580				
VBO-HV-548	3	554	7832	3.00	23.9	32454	30395	29878				
VBO-HV-549	5	625	8836	4.50	29.6	36614	34788	34332	31782			
VBO-HV-549	5	650	9189	5.00	32.0	38078	36323	35884	33469			
VBO-HV-5410	7-1/2	695	9825	6.70	37.5	40714	39073	38662	36468	34088	30862	
VBO-HV-5410	7-1/2	727	10278	7.50	41.3	42589	41020	40627	38576	36300	33493	
VBO-HV-5411	10	780	11027	9.00	44.1	45694	44231	43865	42029	39908	37744	
VBO-HV-5411	10	811	11465	10.0	46.6	47510	46103	45751	43992	41991	39950	
VBO-HV-608	3	422	6629	2.70	18.6	36779	32399	31304	25723			
VBO-HV-608	3	438	6880	3.00	20.0	38174	33953	32898	28164			
VBO-HV-609	5	501	7870	4.50	24.6	43665	39975	39052	34480	29037		
VBO-HV-609	5	519	8152	5.00	25.9	45233	41672	40781	36329	31837		
VBO-HV-6010	7-1/2	571	8969	6.70	30.5	49765	46528	45719	41672	38015	32344	
VBO-HV-6010	7-1/2	593	9315	7.50	32.5	51683	48565	47786	43889	40203	35791	
VBO-HV-6011	10	631	9912	9.00	36.9	54995	52065	51333	47671	44009	41038	
VBO-HV-6011	10	654	10273	10.00	39.8	56999	54173	53466	49933	46400	43361	

Romla Ventilator Company certifies that the fans shown have been tested and rated in accordance with AMCA Bulletin 211 and are guaranteed by the manufacturer to deliver rated performance.

*Sones shown apply to the highest cataloged CFM at each fan RPM



Test setup with Vertiblow Heat & Smoke Exhauster mounted at top. Independent tests proved operation at elevated temperatures without failure.

MODEL VBO-HV ACCESSORIES

- **HIGH TEMPERATURE OPTIONS** – Refer to page 2 for available options.
- **INLET GUARD** – Protective guards are available on the fan inlet. **Note: When an inlet guard is not ordered with the fan, it should be provided by the installer.**
- **OUTLET GUARD** – Protective outlet screens to shield the fan discharge and dampers from debris.
- **MAGNETIC DAMPER LATCHES** – Minimized damper flutter in high wind areas when fan is not in operation.
- **DISCONNECT SWITCHES** – NEMA 3R Rainproof and NEMA4 Watertight disconnect switches are available for positive electrical shut-off and safety when servicing fans.
- **ROOF CURBS** – Type CF and SF prefabricated roof curbs are available to ensure compatibility between the fan, curb, and roof opening.
- **SPECIAL COATINGS** – Special liquid coatings are available, including special color to match enamels, epoxies, and urethanes. Urethane powder coatings are available. Consult factory for information regarding which coating to use.

SPECIFICATIONS

Roof mounted upblast exhaust fans shall be of the belt driven tube axial type. Fans shall be belt driven and incorporate a fabricated steel propeller. Propellers shall be statically and dynamically balanced. All welded fan tube and curb cap shall be constructed of heavy gauge steel. Windbands shall be constructed of heavy gauge galvanized steel and beaded for additional strength. Bearing support plates shall be a minimum of 1/4" thick plate welded to interior steel channels to provide superior support. Fan shaft bearings and drives shall be isolated from the airstream. Fan bearings shall be heavy duty, grease lubricated, self-aligning pillow block type and factory. Bearings shall be selected for a minimum (L50) life in excess of 200,000 hours at maximum cataloged operating speeds. All drives shall be designed for 165% of rated horsepower. Motor drives to 7-1/2 hp shall be variable pitch. Minimum of 2 belts shall be oil resistant non static. Fans shall be Model VBO-HV as manufactured by Romla Ventilator Company of San Diego, California.

(insert applicable high temperature option into the main specification above)

Option 1 – Standard high temperature construction. Uniform Fire Code Standard 81-3 where fans will provide continued operation for not less than 15 minutes while exposed to a temperature of 1,000°F.

Option 2 – Standard high temperature construction with fusible link activated damper openers.

Option 3 – High Temperature Construction-U.L. Listed "Power Ventilator For Smoke Control Systems"– Includes Snow Load Test For Dampers in UL-793

WARRANTIES

The Romla Ventilator Company warrants this equipment to be free from defects in material and workmanship under normal use and service for a period of one year from date of delivery. During the warranty period if any parts prove to be defective, they will be repaired or replace free of charge at factory option: If upon receipt of written authorization they are delivered prepaid to the factory. This guarantee does not cover any damage caused by neglect of lubrication, accident or overload, improper installation, nor does it cover the cost of repairs made or attempted outside the factory, without authorization from Romla Fan Company. Electric motors are guaranteed only to the extend of the motor manufacturer's warranty. The Romla Ventilator Company is not responsible for the cost of removal of the defective product of part, or the installation of the repaired or replaced products or part. Correction of any verified defects by repair or replacement shall constitute fulfillment of this warranty.



WARNING! DO NOT USE IN HAZARDOUS ENVIRONMENTS where fans electrical system could provide ignition to combustible or flammable materials, unless unit is specifically built for hazardous environments. Guards must be installed when fan is within reach of personnel or within seven (7) feet of working level or when deemed advisable for safety.



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