



mb air systems ltd

**hibon**

## *Air Injection Blowers*

**SIAV & VTB Three-Lobe Series**



mb air systems ltd



# SIAV & VTB Series Blowers

## High vacuum without water or oil sealing

The Hibon SIAV & VTB Series are the only dry positive displacement blowers capable of attaining 28" Hg vacuum/93% vacuum.

Siav unit special design eliminates:

- water cooling
- heat exchangers
- sewerage

Reduces: pre-cooler requirements

Provides: oil-free and water-free operation

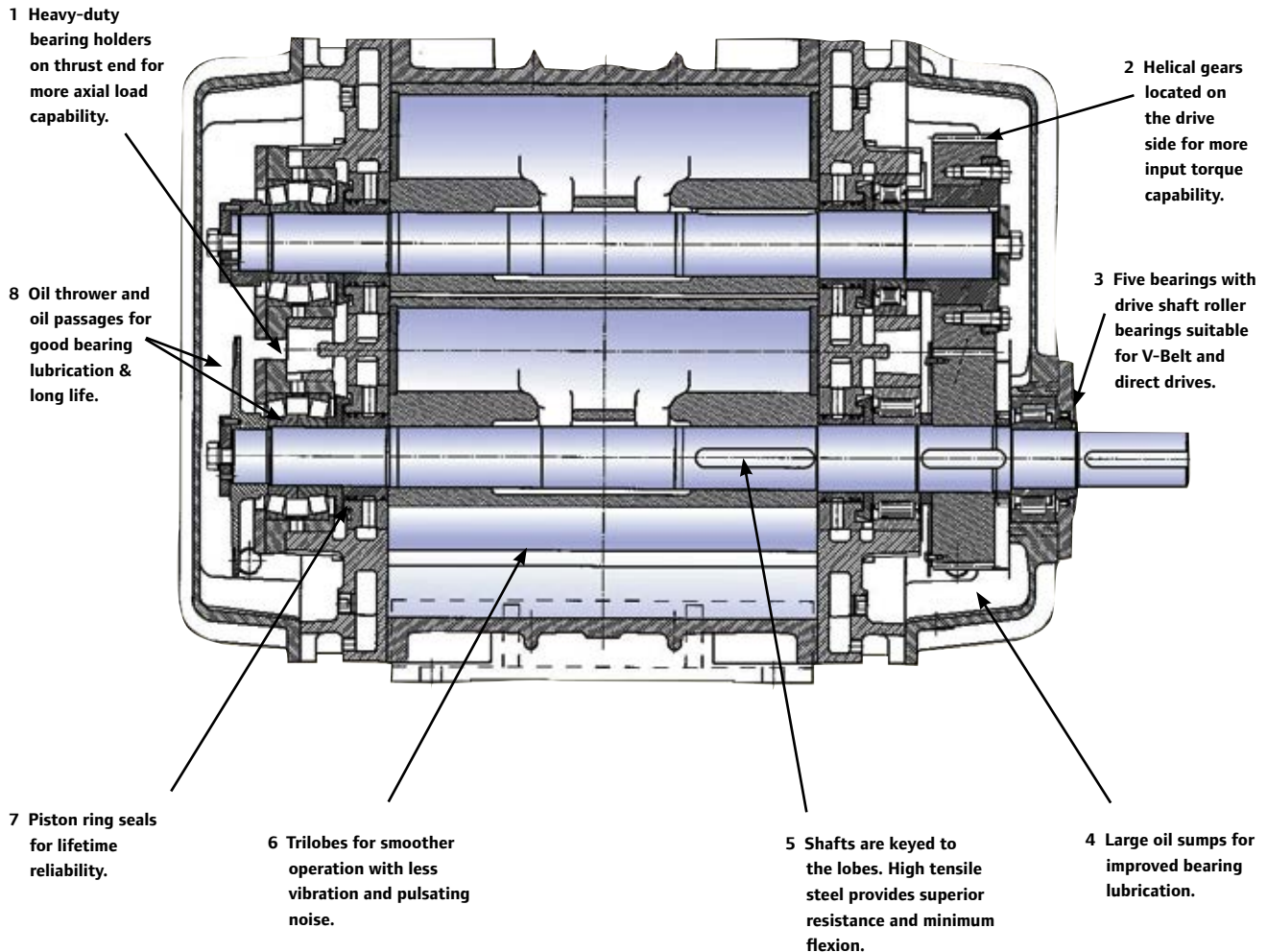
## Applications

- Mobile waste handling units, industrial, municipal, wet and dry.
- Pneumatic conveying (fly ash, chemicals, pharmaceuticals, etc).
- Central vacuum systems (packaging, envelope manufacturing, etc).
- Deaeration (chemical, plastics, brick and ceramics, etc.).

## Packages

Complete packages available, standard or custom built to customer specifications.

# Heavy duty construction of the SIAV & VTB Series High Vacuum Blowers



The Hibon SIAV & VTB series blowers are self cooling, requiring no vacuum relief valve and are designed for continuous industrial use, 24 hours a day.

The self-cooling design enables warm gases to be handled and eliminates or reduces the need for precooling.

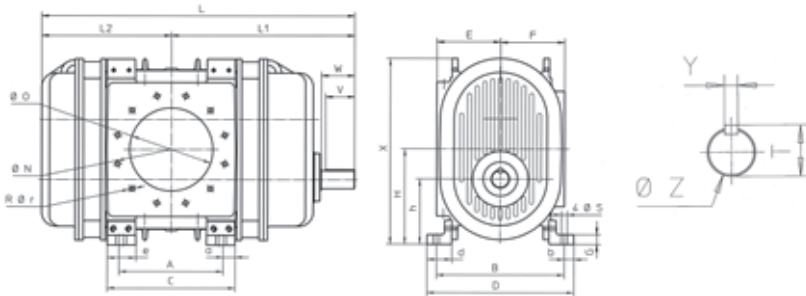
The Hibon SIAV & VTB series blowers are very efficient for vacuuming a large variety of products, wet or dry.

Readily adaptable as a replacement unit, the SIAV & VTB series blowers are available in various configurations, e.g., high or low shaft, counter or clockwise rotation.

Please consult the factory offices listed overleaf for assistance.

# SIAH & VTB series high vacuum blowers

Dimensions of bare shaft unit without manifold

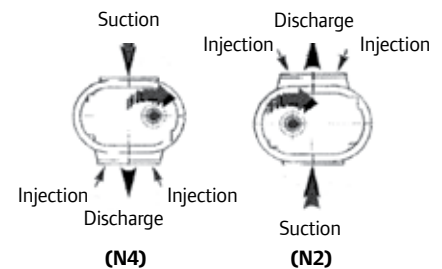
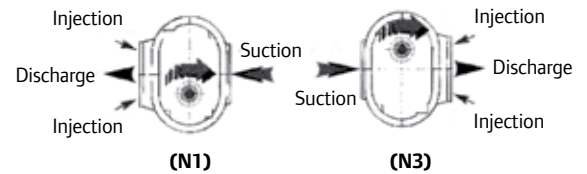


	VTB 810 A		VTB 820 A		SIAV 822		SIAV 840		SIAV 8702		SIAV 8902	
	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.
<b>A</b>	185	7.28	300	11.81	360	14.17	375	14.76	430	16.93	590	23.23
<b>a</b>	27.5	1.08	30	1.18	35	1.38	46	1.81	50	1.97	45	1.77
<b>B</b>	374	14.72	370	14.57	390	15.35	600	23.62	540	21.26	540	21.26
<b>b</b>	22	0.87	24	0.94	30	1.18	35	1.38	35	1.38	35	1.38
<b>C</b>	240	9.45	360	14.17	432	17.01	467	18.39	530	20.87	680	26.77
<b>D</b>	418	16.46	418	16.46	450	17.72	670	26.38	610	24.02	610	24.02
<b>d</b>	54	2.13	54	2.13	103	4.06	84	3.31	80	3.15	115	4.53
<b>E</b>	155	6.10	155	6.10	185	7.28	230	9.06	340	13.39	340	13.39
<b>e</b>	240	9.45	360	14.17	72	2.83	107	4.21	95	3.74	680	26.77
<b>F</b>	155	6.10	155	6.10	185	7.28	230	9.06	280	11.02	280	11.02
<b>G</b>	10	0.39	10	0.39	25	0.98	35	1.38	18	0.71	20	0.79
<b>H</b>	217.5	8.56	217.5	8.56	281.5	11.08	343.5	13.52	420	16.54	420	16.54
<b>h</b>	150	5.91	150	5.91	195	7.68	235	9.25	285	11.22	285	11.22
<b>L</b>	643	25.31	763	30.04	982	38.66	1127	44.37	1271	50.04	1421	55.94
<b>L1</b>	370	14.57	430	16.93	571	22.48	660.5	26.00	737	29.02	812	31.97
<b>L2</b>	273	10.75	333	13.11	411	16.18	466.5	18.37	534	21.02	609	23.98
<b>N</b>	210	8.27	240	9.45	295	11.61	400	15.75	400	15.75	400	15.75
<b>O</b>	125	4.92	150	5.91	200	7.87	300	11.81	300	11.81	300	11.81
<b>R<sub>ø</sub></b>	4 (M16)	4 (M16)	4 (M20)	4 (M20)	8 (M20)	8 (M20)	12 (M20)	12 (M20)	12 ø 22	12 ø 0.87	12 ø 22	12 ø 0.87
<b>S</b>	18	0.71	18	0.71	22	0.87	22	0.87	27	1.06	27	1.06
<b>T</b>	45	1.77	45	1.77	53.5	2.11	69	2.72	74.5	2.93	74.5	2.93
<b>V</b>	75	2.95	75	2.95	90	3.54	105	4.13	130	5.12	130	5.12
<b>W</b>	80	3.15	80	3.15	100	3.94	120	4.72	140	5.51	140	5.51
<b>X</b>	430	16.93	430	16.93	544.5	21.44	670	26.38	815	32.09	815	32.09
<b>Y</b>	12	0.47	12	0.47	14	0.55	18	0.71	20	0.79	20	0.79
<b>Zm6</b>	42	1.65	42	1.65	50	1.97	65	2.56	70	2.76	70	2.76
<b>Weight</b>	200 kg	441 lb.	230 kg	507 lb.	390 kg	860 lb.	570 kg	1118 lb.	1010 kg	2227 lb.	1192 kg	2628 lb.

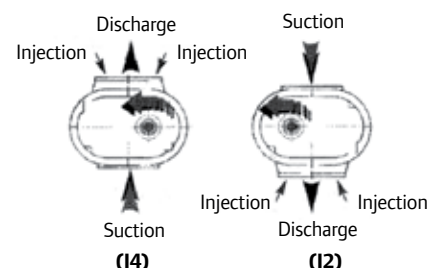
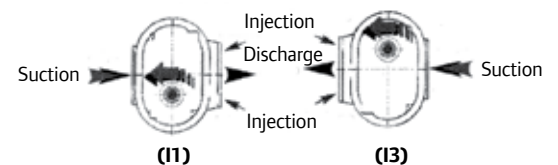
## Configurations available

Required direction of rotation and shaft position must be confirmed at time of order. SIAV & VTB Series High Vacuum Blowers can replace advantageously competitive products.

### CLOCKWISE

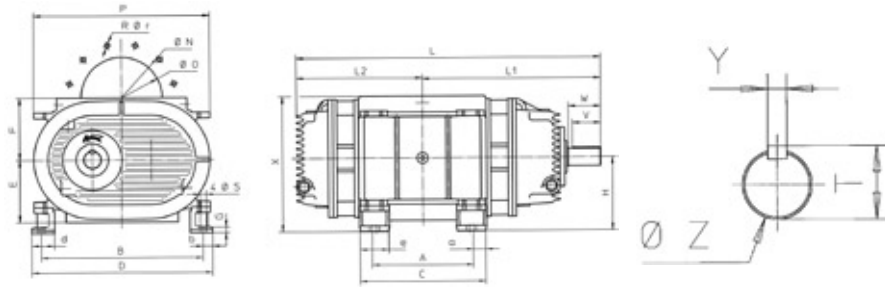


### COUNTER CLOCKWISE



# SIAH & VTB series high vacuum blowers

Dimensions of bare shaft unit without manifold



	VTB 810 A		VTB 820 A		SIAH 822		SIAH 840		SIAH 8702	
	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.
<b>A</b>	n/a	n/a	n/a	n/a	360	14.17	375	14.76	430	16.93
<b>a</b>	n/a	n/a	n/a	n/a	35	1.38	46	1.81	50	1.97
<b>B</b>	n/a	n/a	n/a	n/a	505	19.88	600	23.62	710	27.95
<b>b</b>	n/a	n/a	n/a	n/a	30	1.18	35	1.38	40	1.57
<b>C</b>	n/a	n/a	n/a	n/a	430	16.93	467	18.39	530	20.87
<b>D</b>	n/a	n/a	n/a	n/a	565	22.24	670	26.38	790	31.10
<b>d</b>	n/a	n/a	n/a	n/a	70.5	2.78	84	3.31	90	3.54
<b>E</b>	155	6.10	155	6.10	185	7.28	230	9.06	340	13.39
<b>e</b>	n/a	n/a	n/a	n/a	70	2.76	107	4.21	100	3.94
<b>F</b>	155	6.10	155	6.10	185	7.28	230	9.06	280	11.02
<b>G</b>	n/a	n/a	n/a	n/a	11	0.43	20	0.79	40	1.57
<b>H</b>	n/a	n/a	n/a	n/a	185	7.28	343.5	13.52	340	13.39
<b>h</b>	n/a	n/a	n/a	n/a	185	7.28	270	10.63	340	13.39
<b>L</b>	643	25.31	763	30.04	982	38.66	1127	44.37	1271	50.04
<b>L1</b>	370	14.57	430	16.93	571	22.48	660.5	26.00	737	29.02
<b>L2</b>	273	10.75	333	13.11	411	16.18	466.5	18.37	534	21.02
<b>N</b>	210	8.27	240	9.45	295	11.61	400	15.75	400	15.75
<b>O</b>	125	4.92	150	5.91	200	7.87	300	11.81	300	11.81
<b>P</b>	420	16.50	420	16.50	490	19.30	652	25.67	790	31.10
<b>Rør</b>	4 (M16)	4 (M16)	4 (M20)	4 (M20)	8 (M20)	8 (M20)	12 (M20)	12 (M20)	12 ø 22	12 ø 0.87
<b>S</b>	n/a	n/a	n/a	n/a	22	0.87	22	0.87	27	1.06
<b>T</b>	45	1.77	45	1.77	53.5	2.11	69	2.72	74.5	2.93
<b>V</b>	75	2.95	75	2.95	90	3.54	105	4.13	130	5.12
<b>W</b>	80	3.15	80	3.15	100	3.94	120	4.72	140	5.51
<b>X</b>	n/a	n/a	n/a	n/a	370	14.57	500	19.69	620	24.41
<b>Y</b>	12	0.47	12	0.47	14	0.55	18	0.71	20	0.79
<b>Zm6</b>	42	1.65	42	1.65	50	1.97	65	2.56	70	2.76
<b>Weight</b>	200 kg	441 lb.	230 kg	507 lb.	390 kg	860 lb.	570 kg	1118 lb.	1010 kg	2227 lb.

# Performance CFM

Actual capacities for inlet temperature of = 68°F at sea level

Performances guaranteed for 100°F ambient temperature

BO = Blanked off

Blower	Speed (rpm)	Vacuum																	
		6"HG		9"HG		12"HG		15"HG		18"HG		21"HG		24"HG		27"HG		28"HG	
		CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP
VTB 810 (860 cfm*)	3300	791	15	769	20	748	25	720	31	662	36	616	41	492	47	103	52		
	3000	713	14	691	18	667	23	641	28	604	33	540	38	383	42	25	47		
	2700	634	12	612	17	588	21	563	25	525	29	461	34	305	38	BO			
	2400	556	11	534	15	510	18	484	22	447	26	382	30	226	34				
VTB 820 (1400 cfm*)	3400	1272	21	1235	29	1197	37	1153	47	1091	56	984	64	723	73	126	82		
	3200	1190	20	1153	27	1115	35	1071	44	1009	52	902	60	641	68	44	77		
	3000	1108	18	1071	26	1033	33	989	42	927	49	820	57	559	64	BO	72		
	2800	1027	17	989	24	951	31	907	39	845	46	738	53	478	60				
	2600	945	16	908	22	869	29	825	36	763	43	656	49	396	56				
	2200	781	13	744	19	705	24	661	30	599	36	492	41	232	47				
SIAV 822 (2650 cfm*)	3000	2369	37	2352	52	2313	67	2269	83	2206	98	2098	114	1836	131	1234	147	BO	153
	2750	2180	34	2143	48	2104	62	2080	76	1997	90	1889	105	1627	120	1025	135		
	2450	1929	30	1892	42	1853	55	1809	68	1746	80	1638	93	1376	107	774	120		
	2150	1678	26	1641	37	1602	48	1558	59	1495	70	1387	82	1125	94	523	105		
	1850	1427	23	1390	32	1351	42	1307	51	1244	60	1136	71	874	81	271	91		
	1600	1218	20	1180	28	1141	36	1097	44	1035	52	927	61	684	70	62	78		
SIAV 840 (3800 cfm*)	2600	3577	56	3510	80	3439	104	3377	120	3269	144	3083	168	2632	192	1596	218	BO	225
	2340	3219	50	3159	72	3095	93	3039	108	2942	129	2775	151	2369	172	1436	196		
	2165	2940	46	2873	66	2802	86	2739	100	2630	120	2443	140	1989	162	947	186		
	1850	2464	40	2391	57	2314	74	2246	85	2129	102	1926	119	1435	136	BO	153		
	1410	1814	30	1738	43	1658	56	1588	65	1466	78	1257	91	748	103				
	800	951	17	884	25	814	32	751	37	643	44	457	52	6	59				
SIAV 8702 (5250 cfm*)	2000	4927	74	4863	105	4796	135	4721	171	4613	202	4427	234	3976	267	2940	300	BO	311
	1800	4414	67	4350	94	4283	122	4207	154	4099	282	3913	211	3462	241	2427	271		
	1600	3900	60	3836	84	3769	108	3693	137	3585	162	3400	187	2949	214	1913	241		
	1400	3387	52	3322	73	3255	95	3180	120	3072	142	2886	164	2435	187	1400	211		
	1200	2873	45	2809	63	2742	81	2666	103	2558	121	2372	140	1921	160	886	181		
	800	1846	30	1781	42	1714	54	1639	68	1531	81	1345	94	894	107	BO	120		
SIAV 8702 (6600 cfm*)	2000	6352	95	5952	129	5815	166	5778	220	5654	248	5707	301	5126	344	3790	387	BO	401
	1800	5409	82	5338	118	5215	150	5156	189	5025	221	4795	258	4242	294	2974	332		
	1600	4780	72	4717	103	4609	131	4526	168	4390	193	4167	230	3613	263	2344	294		
	1400	4151	64	4097	91	4003	115	3916	146	3763	166	3536	200	2984	230	1716	258		
	1200	3521	54	3475	78	3395	98	3267	126	3197	146	3063	173	2354	197	1085	222		
	800	2262	36	2232	52	2181	64	2009	84	1846	97	1648	115	1095	131	BO	148		

\*Free air displacement at maximum speed.

# Performances m<sup>3</sup>/h

Actual capacities for inlet temperature t<sub>1</sub> = 20°C at sea level

Performances guaranteed for 38°C ambient temperature

BO = Blanked off

Blower	Speed T/mn	20% Vacuum		30% Vacuum		40% Vacuum		50% Vacuum		60% Vacuum		70% Vacuum		80% Vacuum		90% Vacuum		93% Vacuum	
		m <sup>3</sup> /h	KW	m <sup>3</sup> /h	kW	m <sup>3</sup> /h	KW	m <sup>3</sup> /h	KW	m <sup>3</sup> /h	KW	m <sup>3</sup> /h	KW	m <sup>3</sup> /h	KW	m <sup>3</sup> /h	KW	m <sup>3</sup> /h	KW
VTB 810 (1500 m <sup>3</sup> /h*)	3300	1344	11	1307	15	1271	19	1223	23	1125	27	1047	31	836	35	175	39		
	3000	1211	10	1174	13	1133	17	1089	21	1026	25	917	28	651	31	42	35		
	2700	1077	9	1040	13	999	16	957	19	892	22	783	25	518	28	80			
	2400	945	8	907	11	866	13	822	16	759	19	649	22	384	25				
VTB 820 (2400 m <sup>3</sup> /h*)	3400	2161	16	2098	22	2034	28	1959	35	1854	42	1672	48	1228	54	214	61		
	3200	2022	15	1959	20	1894	26	1820	33	1714	39	1533	45	1089	51	75	57		
	3000	1882	13	1820	19	1755	25	1680	31	1575	37	1393	43	950	48	80	54		
	2800	1745	13	1680	18	1616	23	1541	29	1436	34	1254	40	812	45				
	2600	1606	12	1543	16	1476	22	1402	27	1296	32	1115	37	673	42				
	2200	1327	10	1264	14	1198	18	1123	22	1018	27	836	31	394	35				
SIAV 822 (4500 m <sup>3</sup> /h*)	3000	4025	28	3996	39	3930	50	3855	62	3748	73	3565	85	3119	98	2097	110	BO	114
	2750	3704	25	3641	36	3575	46	3534	57	3393	67	3209	78	2764	89	1741	101		
	2450	3277	22	3215	31	3148	41	3073	51	2966	60	2783	69	2338	80	1315	89		
	2150	2851	19	2788	28	2722	36	2647	44	2540	52	2357	61	1911	70	889	78		
	1850	2424	17	2362	24	2295	31	2221	38	2114	45	1930	53	1485	60	460	68		
	1600	2069	15	2005	21	1939	27	1864	33	1758	39	1575	45	1162	52	105	58		
SIAV 840 (6500 m <sup>3</sup> /h*)	2600	6077	42	5964	60	5843	78	5738	89	5554	107	5238	125	4472	143	2712	163	BO	168
	2340	5469	37	5367	54	5258	69	5163	81	4998	96	4715	113	4025	128	2440	146		
	2165	4995	34	4881	49	4761	64	4654	75	4468	89	4151	104	3379	121	1609	139		
	1850	4186	30	4062	43	3931	55	3816	63	3617	76	3272	89	2438	101	80	114		
	1410	3082	22	2953	32	2817	42	2698	48	2491	58	2136	68	1271	77				
	800	1616	13	1502	19	1383	24	1276	28	1092	33	776	39	10	44				
SIAV 8702 (9000 m <sup>3</sup> /h*)	2000	8371	55	8262	78	8148	101	8021	128	7838	151	7521	174	6755	199	4995	224	BO	232
	1800	7499	50	7391	70	7277	91	7148	115	6964	140	6648	157	5882	180	4123	202		
	1600	6626	45	6517	63	6404	81	6274	102	6091	121	5777	139	5010	160	3250	180		
	1400	5755	39	5644	54	5530	71	5403	89	5219	106	4903	122	4137	139	2379	157		
	1200	4881	34	4773	47	4659	60	4530	77	4346	90	4030	104	3264	119	1505	135		
	800	3136	22	3026	31	2912	40	2785	51	2601	60	2285	70	1519	80	80	89		
SIAV 8902 (11160 m <sup>3</sup> /h*)	2000	10792	70	10112	96	9879	124	9817	164	9606	185	9205	224	8268	256	6113	289	BO	299
	1800	9190	61	9070	88	8861	112	8760	141	8538	165	8147	192	7208	219	5052	247		
	1600	8121	54	8015	77	7830	98	7689	125	7458	144	7079	171	6139	196	3983	219		
	1400	7053	48	6961	68	6801	86	6654	109	6394	124	6008	149	5070	171	2915	192		
	1200	5982	40	5904	58	5768	73	5551	94	5431	109	5204	129	4000	147	1844	165		
	800	3843	27	3793	39	3706	48	3413	62	3137	72	2800	86	1861	98	80	110		

\*Free air displacement at maximum speed.



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