



Sky Blower Systems

SKY ROTARY TWIN LOBE AIR BLOWERS/COMPRESSORS

Sky is a leading manufacturer of Roots Blowers in India, offers a complete range of Twin Lobe Rotary Air Blowers (Roots Blowers), available for flow rates from 10m³/hr to 7,000 m³/hr in single stage and upto any capacity in parallel configuration, for working pressures upto 1 Kg/cm². They are available as package units, ready to install or as bare blower units for replacement.

SKY DESIGN & CONSTRUCTION FEATURES

- 100% oil free air delivery
- Energy Efficient Blowers
- Low Noise Level
- Factory engineered, Factory guaranteed, superior product
- Alloy steel hardened and ground timing gears, oil splash lubricated
- Anti-friction bearings
- Rigid one piece CI casing & end plates
- Horizontal & Vertical configurations available
- Easy rotor timing setting, Easy to operate and maintain
- Extended shaft design for cool running
- Dynamically balanced rotor shaft assembly (Grade 6.3 ISO 1940-1986)
- Large inlet & outlet connections for minimal loss and maximum flow
- Alloy steel toughened shafts ground to close tolerances
- Performance testing as per standard test procedure STP-01 based on BS 1571-2:1975 and ISO 1217:2009
- All blowers are manufactured on state of the art, imported CNC machines, machined to close tolerances with high degree of accuracy on profile machining, ensuring high volumetric efficiency.
- All major components are interchangeable making Sky the first and only manufacturer to attain the same



APPLICATIONS

- **Water Treatment Plants** for backwashing of filter/mixed beds.
- **Effluent Treatment Plants** for diffused aeration and agitation of effluent
- **Sewage Treatment Plants** for diffused aeration and agitation of sewage.
- **Cement Plants** for blending, aeration, fluidization and conveying.
- **Aquaculture** for maintaining the dissolved oxygen level.
- **Chemical Plants** for supply of process air.
- **Electroplating Plants** for oil free air agitation of electrolyte.
- **Paper Plants** for knife edge coating, drying, conveying and vacuum pickup.
- **Yarn Drying** for vacuum/pressure drying.
- **Polyester Chip Conveying & Drying** for transfer of polyester chips and other similar materials.
- **Bag Filters** for reverse cleaning of filter bags.
- **Pneumatic Conveying** for vacuum, pressure and combination conveying of cereals, cement, husk, baggase, granules, powders and other similar material.
- **Regeneration of Dryers & Molecular Sieves**



PRODUCT RANGE

Air Cooled Blowers - Water Cooled Blowers - Gas Blowers - Acoustic Enclosures

PERFORMANCE CHART

A complete range of Standard Air Cooled Blowers is Available for flow rates from 10 m³/hr to 7,000 m³/hr in single stage and upto any capacity in parallel configurations, for working pressure upto 0.7 kg/cm². They are available as total package units, ready to install or as bare blower units for replacement.

AIR COOLED BLOWERS



MODEL NO	SPEED (RPM)	0.1Kg/cm ²		0.2Kg/cm ²		0.3.Kg/cm ²		0.4.Kg/cm ²		0.5.Kg/cm ²		0.6.Kg/cm ²		0.7.Kg/cm ²		OPENING MM NB	STANDARD ORIENTATION
		M3/hr	BHP	M3/hr	BHP	M3/hr	BHP	M3/hr	BHP	M3/hr	BHP	M3/hr	BHP	M3/hr	BHP		
M365AC 1HP I 2HP	800	57	0.6	46	0.9	38	1.2	31	1.5	25	1.8	20	2.1	15	2.4	40	HF
	1100	88	0.8	77	1.2	69	1.6	62	2.0	56	2.5						
	1400	118	1.3	108	1.6	100	2.1	93	2.6								
42AC 2HP I 3HP 5HP I 7.5HP	1000	77	0.7	67	1.1	59	1.5	52	1.5	46	2.2	40	2.6	35	3.0	40	HF
	1200	98	0.9	87	1.3	79	1.8	72	1.8	66	2.7	61	3.1	56	3.6		
	1500	129	1.1	118	1.7	110	2.2	103	2.2	97	3.4	92	3.9	87	4.5		
44AC 3HP I 5HP 7.5HP	900	97	0.9	82	1.3		1.8	60	2.3	81	2.8	43	3.3	36	3.8	65	HF
	1200	142	1.1	127	1.8	115	2.4	105	3.1	96	3.8	88	4.4				
	1500	187	1.4	172	2.2	160	3.1	150	3.9	141	4.7	133	5.5				
47AC 3HP I 5HP 7.5HP	900	181	1.5	155	2.4	135	3.3	118	4.2							80	HF
	1200	263	2.0	237	3.2	217	4.4	200	5.5								
	1500	345	2.5	318	3.9	298	5.4										
53AC 5HP I 7.5HP 10 I 12.5 I 15HP	900	165	1.4	150	2.2	137	2.9	127	3.6	118	4.4	110	5.1	103	5.8	65	VF
	1200	232	1.9	216	2.9	205	3.8	194	4.8	185	5.8	177	6.8	170	7.8		
	1500	300	2.4	283	3.6	272	4.8	262	6.0	253	7.3	245	8.5	237	9.7		
55AC 5HP I 7.5HP 10 I 12.5 I 15HP	900	205	1.6	182	2.5	165	3.5	150	4.4	137	5.4	125	6.3	115	7.3	80	VF
	1200	291	2.1	269	3.4	251	4.6	236	5.9	223	7.2	212	8.4				
	1500	378	2.6	355	4.2	338	5.8	323	7.4	310	9.0	298	10.5				
57AC 5HP I 7.5HP 10 I 12.5 I 15 I 20HP	900	287	2.0	255	3.3	230	4.6	210	5.9	192	7.3	175	8.6			100	RA
	1200	408	2.6	376	4.4	350	6.1	331	7.9	313	9.7						
	1500	530	3.3	497	5.5	473	7.7	452	9.9	434	12.1						
59AC 5HP I 7.5HP 10 I 12.5 I 15 I 20HP	900	402	2.7	364	4.5	335	6.3	310	8.0							100	VF
	1200	567	3.6	529	6.0	500	8.4	475	10.8								
	1500	731	4.5	693	7.5	664	10.5										
65AC 5HP I 7.5HP 10 I 12.5 I 15 I 20HP	900	263	2.1	232	3.4	209	4.6	190	5.8	172	7.0	157	8.3	142	9.5	80	VF
	1200	375	2.8	345	4.5	321	6.1	302	7.7	284	9.4	269	11.0	254	12.6		
	1500	487	3.5	457	5.6	433	7.6	414	9.7	396	11.7	380	13.7	366	15.8		
67AC 15HP I 20 I 25HP 10 I 12.5 I 15 I 20HP	900	398	2.7	353	4.6	319	6.4	291	8.3	266	10.1	243	11.9	222	13.8	125	VF
	1200	566	3.6	521	6.1	488	8.6	459	11.0	434	13.5	411	15.9	390	18.4		
	1500	734	4.6	690	7.6	656	10.7	627	13.8	602	16.8	579	19.9	558	23.0		
610AC 15HP I 20 I 25HP 30 I 40 IHP	900	531	3.4	472	5.8	427	8.3	388	10.7	355	13.2	324	15.6	296	18.1	125	VF
	1200	756	4.5	697	7.8	651	11.0	613	14.3	579	17.6	549	20.9	521	24.1		
	1500	980	5.6	921	9.7	876	13.8	838	17.9	804	22.0	774	26.1	746	30.2		
615AC 15HP I 20 I 25HP 30 I 40 IHP	900	808	4.7	725	8.3	662	12.0	604								150	VF
	1200	1144	6.2	1061	11.1	998	16.0	944	20.9								
	1500	1480	7.8	1400	13.9	1334	20.0	1280	26.2								
78AC 25HP I 30 I 40-50HP 60 I 75 IHP	1200	980	5.6	930	9.6	892	11.0	860	17.6	831		806	25.6	782	29.6	125	VF
	900	705	4.2	655	7.2	617	10.2	585	13.2	556	16.2	531	19.2	507	22.2		
	1500	1255	7.0	1205	12.0	1167	13.8	1135	22.0	1107		1081	32.0	1057	37.0		
710AC 25HP I 30 I 40-50HP 60 I 75 IHP	900	884	4.9	823	8.7	776	12.5	736	16.2	702	20.0	670	23.7	641	9.5	150	VF
	1200	1228	6.6	1167	11.6	1120	16.6	1080	21.6	1045	26.6	1014	31.7	985	12.6		
	1500	1572	8.2	1511	14.5	1464	20.8	1424	27.0	1389	33.3	1358	39.6	1329	15.8		
713AC 25HP I 30 I 40-50HP 60 I 75 IHP	900	1145	6.1	1064	10.9	1002	15.8	950	20.7	904	25.6	862	30.5	824	35.4	150	VF
	1200	1591	8.1	1510	14.6	1448	21.1	1396	27.6	1350	34.1	1308	40.6				
	1500	2039	10.1	1958	18.2	1895	26.4	1843	34.5	1797	42.7	1755	50.8				
717AC 25HP I 30 I 40-50HP 60 I 75 IHP	900	1499	7.9	1393	14.3	1312	20.7	1244	27.1							200	VF
	1200	2084	10.6	1978	19.1	1897	27.6	1828	36.2								
	1500	2668	13.2	2562	23.9	2481	34.5	2413	45.2								
812AC	900	1279	8.8	1216	14.0	1168	19.2	1127	24.5	1091	29.7	1059	34.9	1030	40.1	125	VF
	1200	1755	11.8	1693	18.7	1645	25.7	1604	32.6	1568	39.6	1536	46.5	1506	53.5		
	1500	2232	14.7	2170	23.4	2122	32.1	2080	40.8	2045	49.5	2012	58.1	1983	66.9		
816AC	900	1705	10.6	1621	17.5	1557	24.5	1502	31.4	1456	38.4	1413	45.3			200	VF
	1200	2340	14.1	2256	23.3	2192	32.6	2138	41.9	2090	51.1	2048	60.4				
	1500	2976	17.6	2892	29.2	2828	40.8	2775	52.4	2727	64.0						
820AC	900	2130	12.3	2027	21.0	1880	38.4									200	VF
	1200	2925	16.4	2822	28.0	2673	51.2										
	1500	3720	20.5	3615	35.0	3468	64.0										
1012AC	900	2185	13.4	2078	22.3	1995	31.2	1927	40.2	1867	49.1	1810	58.0	1760	66.9	150	VF
	1200	3000	17.9	2893	29.8	2810	41.6	2743	53.6	2680	65.4	2625	77.3	2527	89.2		
	1500	3680	21.6	3573	36.0	3490	50.3	3420	64.7	3360	79.1	3305	93.4	3255	108.0		
1016AC	900	2937	16.5	2793	28.5	2683	40.4	2590	52.4	2507	64.4	2433	76.4	2365	88.4	200	VF
	1200	4032	22.0	3890	38.0	3778	53.9	3683	69.9	3602	85.9	3527	102.0	3460	118.0		
	1450	4945	26.6	4800	45.8	4690	65.2	4598	84.5	4515	104.0	4440	123.0	4373	142.0		
1020AC	900	3755	19.8	3573	35.1	3430	50.5	3310	65.8	3205	81.1	1810	96.4			250	VF
	1200	5157	26.4	4759	46.9	4830	67.3	4713	87.7	4608	108.0	2625	129.0				
	1500	6325	31.9	6140	56.6	6000	81.3	5880	106.0	5775	131.0	3305	155.0				
1024AC	900	4415	22.5	4195	40.5	4030	58.5	3890	76.5	3765	94.5					300	VF
	1200	6060	30.0	5840	54.0	5675	78.0	5535	102.0	5410	126.0						
	1450	7430	36.3	7210	65.2	7045	94.2	6905	123.0	6780	152.0						

PERFORMANCE CHART

WATER COOLED BLOWERS

SKY WATER COOLED BLOWERS are similar to air cooled type in construction and performance except in the change of cooling arrangement. In water cooled blowers and plates have water jackets around them, where water is circulated, which dissipates the heat of compression generated and keeps the internals cool. Water cooled blowers are recommended for applications where discharge pressures exceed 7000 mm wg, since it is essential to dissipate heat for efficient working and long life of the bearings and seals.



Model No	SPEED	5000 MMWG		6000 MMWG		7000 MMWG		3000 MMWG		9000 MMWG		1000 MMWG		COOLING WATER	OPENING
	(RPM)	M3/hr	BHP	M3/hr	BHP	M3/hr	BHP	M3/hr	BHP	M3/hr	BHP	M3/hr	BHP	WATER	mm NB
53WC	950	132	4.6	124	5.4	116	6.2	110	7.0	103	7.8	97	8.6	4-5 LPM	65
	1200	186	5.8	178	6.8	7.8	7.8	163	8.7	154	9.7	151	10.7		
	950	253	7.3	245	8.5	238	9.7	231	10.9	224	12.2	218	13.4		
55WC	950	154	5.7	142	6.7	132	7.7	122	8.8	112	9.8	103	10.8	4-5 LPM	80
	1200	224	7.2	212	8.4	201	9.7	191	10.9	181	12.2				
	1440	293	8.6	281	10.1	270	11.6	260	13.1						
65WC	1000	210	7.8	194	9.2	179	10.5	166	11.9	153	13.3	141	14.6	5-6 LPM	80
	1300	322	10.2	306	11.9	292	13.7	278	15.5	266	17.2	254	19.0		
	1600	434	12.5	418	14.7	404	16.9	390	19.0	378	21.2	366	23.4		
67WC	1000	322	11.2	298	13.3	278	15.3	258	17.3	240	19.4	223	21.4	5-6 LPM	125
	1300	490	14.6	467	17.2	446	19.9	427	22.5	408	25.2	391	27.9		
	1500	658	17.9	635	21.2	615	24.5	595	27.8	577	31.0	559	34.2		
610WC	1000	430	14.7	400	17.4	371	20.1	345	22.8	321	25.6	298	28.3	6-8 LPM	150
	1300	655	19.0	624	22.6	596	26.1	570	29.7	546	33.2		27.9		
	1500	805	22.0	774	26.1	746	30.2	720	34.3				34.2		
78WC	1000	649	18.0	623	21.4	600	24.7	578	28.0	557	31.4	537	34.7	6-8 LPM	125
	1300	924	23.4	898	27.8	875	32.1	853	3.5	832	40.8	813	45.2		
	1600	1200	28.8	1174	34.2	1150	39.5	1128	44.9	1108	50.2	1088	55.6		
710WC	1000	817	22.2	786	26.4	757	30.6	730	34.7	704	38.9	680	43.1	8-10 LPM	125
	1300	1161	28.9	1130	34.3	1101	39.7	1074	45.2	1049	50.6	1026	56.0		
	1600	1506	35.5	1474	42.2	1445	48.9	1418	55.6						
812WC	1000	1252	33.0	1219	38.8	1190	44.6	1162	50.4	1136	56.2	1111	61.9	10-12 LPM	125
	1200	1570	39.6	1538	46.5	1508	53.5	1480	60.4	1454	67.4	1430	74.3		
	1440	1952	47.5	1919	55.8	1890	64.2	186	72.5						
1012WC	1000	2140	54.5	2084	64.4	2034	74.3	1986	84.2	1942	94.2	1900	61.9	10-12 LPM	125
	1200	2684	65.4	2628	77.3	2578	89.2	2530	101.1	2486	113.0	2444	74.3		
	1440	3336	78.5	3281	92.8	3230	107.1	3138	121.3	3138	135.6	3096			
1016WC	1000	2875	71.6	2801	84.9	2733	98.2	2669	111.5	2609	124.8	2553	138.1	10-12 LPM	125
	1200	3606	85.9	3532	101.8	3464	117.8	3400	133.8	3340	149.8	3284	165.7		
	1440	4483	103.0	4409	122.2	4341	141.3	4277	160.5						

AQUA BLOWERS FOR AQUACULTURE

100% OIL FREE DELIVERY

SKY has introduced its new range of AQUA Series Twin Lobe Rotary Air Blowers (Roots Blowers) to meet the growing demand for aquaculture requirements which essentially demand 100% Oil Free Air. These blowers are totally dry machines where lubricating chambers are physically isolated from the main gas chamber ensuring 100% Oil Free Air delivery. They deliver, practically, a constant flow rate irrespective of back pressures thereby maintaining dissolved oxygen levels.



MODEL	CAPACITY	PRESSURE (mmwc)	RPM	HP	LINE SIZE	ORIENTATION
47AQUA	250	2000	1200	5HP	80	VF
59AQUA	550	2000	1200	7.5HP / 10 HP	100	VF
615AQUA	1050	2000	1200	12.5 HP	150	VF

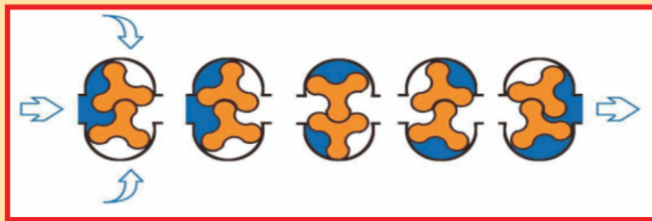
Conversion : 1 m3/hr = 0.588 CFM ; 1000 MMWG = 1.42 PSIG = 0.1 kg/cm2 = 100mtr

Avg Line Friction losses of PSI per 100ft Length of Pipe

Estimated rise of discharge air temperature may be as 12°C per 0.1 kg/cm2 pressure

Sky Blower Systems

Sky Twin Lobe Rotary Compressors/Blowers are positive displacement units, whose pumping capacity is determined by size, operating speed and pressure conditions. It employs two Twin Lobe impellers mounted on parallel shafts, rotating in opposite direction within a casing closed at the ends by side plates. As the impellers rotate, air is drawn into one side of the casing and forced out of the opposite side against the existing pressures. The differential pressure developed, therefore, depends upon the resistance of the connected system. The Blowers, being positive displacement type, do not develop pressure within the casing but the discharge pressure depends upon the system resistance/back pressure. Effective sealing of the compressor inlet area from the discharge area is accomplished by use of very small operational clearance, eliminating the need of any internal lubrication of the lobes. A pair of accurately machined alloy steel, hardened and ground timing gears maintain clearances between the impellers, during rotation. The air, thus delivered, is 100% OIL FREE. As a thumb rule the discharge air temperature increases @ 10 C for every 0.1 Kg/cm of P above the inlet temperature.



THE Sky ADVANTAGE

Retain your advantage with factory genuine replacement parts & accessories. All parts meet original manufacturing specifications and tolerances for guaranteed fit and function. Pre-packaged overall kits with detailed service manuals are available on request.

FEATURES

Readily available
Fast delivery
Guaranteed fit and function
Service kits for routine product

SPARES

- Bearings
- Oil Seals
- Gears
- Rotors
- Snacer Rushes
- Blower Lubricant
- Gaskets
- Piston Rings
- Filter

ROOTS AIR BLOWERS ALL SPARE PARTS



RING BLOWER



BLOWER ALL PARTS



BEARINGS

ACCESSORIES

- Safety Relief Valves
- Filters
- Suction Silencers
- Discharge Silencers
- Pulleys
- Vee Belts
- Couplings
- Pressure Gauge
- Vacuum Gauge
- Non Return Valves
- Base Frame
- Bell Guard



NON RETURN VALVE



BELT



OIL SEALS



GEAR OIL



RELIEF VALVE



PRESSURE GAUGE



GEARS



Sky Blower Systems

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