

SPECIFICATIONS

EASYAIR™ 8000

blowers compressors

compressors



ROOTS™ Universal RAI DSL® Dual Splash Lubricated Rotary Positive Blowers

Frames 33, 42, 45, 47, 53, 56, 65, 68, 615

BASIC BLOWER DESCRIPTION

URAI DSL® (Dual Splash Lubricated) blowers are heavy-duty rotary blowers designed with detachable, rugged steel mounting feet. The compact, sturdy design is engineered for continuous service when operated in accordance with speed and pressure ratings.

This model consists of a cast iron casing, carburized and ground alloy steel spur timing gears secured to steel shafts with a taper mounting and lock-



nut, and cast iron involute impellers. Oversized antifriction bearings are used, with a cylindrical roller bearing at the drive shaft to withstand V-belt pull.

The URAI DSL® blower features splash oil lubrication on both the gear end AND drive end. ROOTS' exclusive "figure-eight" gearbox design improves oil distribution to maximize gear and bearing life. Sight glasses (3/8") are provided for accurate oil level confirmation. After testing, the unit is sprayed with a protective paint, and boxed or skid mounted for delivery.

ROOTS™ RAM™ Rotary Positive Blowers

Frames 409 thru 616

RAM™ stands for Reliability, Availability and Maintainability. Today, more than ever, ROOTS is committed to supplying our customers with reliable products manufactured with state-of-the-art CNC machine tools. Production and inventory are being scheduled and controlled to ensure these units will be available when you need them. Design improvements such as repositionable rugged steel mounting feet and die-cast aluminum drive end covers and gear covers help to reduce installation costs and make normal maintenance easier.



casing are grey iron, while the drive end cover and gear cover are aluminum. Carburized and ground alloy steel spur timing gears are taper mounted on the shafts, secured with a locknut. Cylindrical roller bearings are used on all units.

Piston rings reduce air leakage through the shaft openings in the headplates, and lip-type oil seals prevent lubricant from entering the air chamber. A hydrodynamic seal on the drive shaft prevents shaft seal oil leaks. RAM rotary blowers incorporate thrust control, with splash oil lubrication at both ends of the blower.

All frame sizes are designed with rugged steel mounting feet which permit horizontal installation requirements.

BASIC BLOWER DESCRIPTION

RAM™ rotary blowers are heavy-duty units designed with integral-shaft ductile iron impellers having an involute profile. The headplates and rigid, one-piece



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PERFORMANCE TABLE: ROOTS EasyAir™ 8000 URAI-DSL

Frame Size	Speed RPM	4 PSI		5 PSI		6 PSI		7 PSI		8 PSI		9 PSI		10 PSI		12 PSI		13 PSI		14 PSI		15 PSI		VACUUM DATA			
		CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	INHG	V. CFM
33	1750	75	1.9	71	2.4	67	2.9	64	3.3	61	3.8	58	4.3	56	4.7	51	5.7								13	53	3.0
	2950	149	3.3	145	4.1	141	4.9	138	5.7	135	6.5	132	7.3	130	8.1	125	9.7								15	119	5.9
42	1750	78	1.9	74	2.4	71	2.8	69	3.3	66	3.7	64	4.2	61	4.7	57	5.6								14	55	3.2
	2950	150	3.3	147	4.1	144	4.9	141	5.7	139	6.5	136	7.2	134	8.0	130	9.6								16	121	6.2
45	1750	161	3.8	155	4.7	150	5.6	145	6.6	140	7.5	136	8.4	132	9.3										14	121	6.4
	2950	306	6.7	300	8.2	295	9.8	290	11.3	285	12.9	281	14.4	277	16.0										16	253	12.5
47	1750	215	5.0	208	6.2	201	7.4	195	8.6																14	165	8.4
	2950	407	8.8	399	10.8	392	12.9	386	14.9																15	348	15.4
53	1170	113	2.7	108	3.4	103	4.1	99	4.8	96	5.4	92	6.1	89	6.8	82	8.1								13	85	4.3
	1750	189	4.2	184	5.2	180	6.2	176	7.2	172	8.2	168	9.2	165	10.3	159	12.3								15	151	7.5
56	1170	196	4.6	188	5.7	182	6.9	175	8.0	170	9.1	164	10.2	159	11.4	150	13.6								14	146	7.8
	1750	324	7.0	316	8.7	310	10.4	304	12.1	298	13.8	292	15.5	287	17.2	278	20.5	273							15	266	12.6
65	1170	223	5.2	215	6.4	208	7.7	202	8.9	196	10.2	190	11.5	185	12.7	175	15.2	171							14	171	8.7
	1750	365	8.0	358	9.9	351	11.8	344	13.7	339	15.6	333	17.4	328	19.3	318	23.1	313							16	297	15.1
68	1170	358	8.3	345	10.3	334	12.3	324	14.3	314	16.3	305	18.3	297	20.3	281	24.4	274							14	275	13.9
	1750	587	12.7	574	15.7	563	18.7	553	21.8	544	24.8	535	27.8	526	30.8	510	36.8	503							16	478	24.0
615	2350	824	17.8	811	21.8	800	25.9	790	29.9	781	34.0	772	38.0	763	42.1	747	50.2	740							16	715	32.8
	1170	670	15.4	647	19.1	626	22.9	607	26.7																11	581	20.5
1750	1099	23.4	1076	29.1	1055	34.7	1036	40.4																	12	989	33.7

NOTES: 1. Performance based on inlet air at standard pressure of 14.7 psia, standard temperature of 68° F, and specific gravity of 1.0.
2. Vacuum ratings based on inlet air at standard temperature of 68° F, discharge pressure of 30" Hg and specific gravity of 1.0.

PERFORMANCE TABLE: EasyAir™ 8000 RAM

FRAME SIZE	SPEED RPM	4 PSI		6 PSI		8 PSI		10 PSI		12 PSI		15 PSI		VACUUM DATA	
		CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	INHG	CFM
409	1750	338	8.5	315	12.0	296	15.8	279	20.0	264	23.5	544	49.8	14.0	259
	2950	638	15.2	615	21.5	596	27.8	579	34.1	564	40.4	806	67.9	15.0	546
	4000	900	24.0	878	30.0	859	38.1	842	46.8	827	55.0	1074	90.0	16.0	795
412	1750	450	11.0	420	16.0	394	21.0	372	26.0	352	32.0	724	66.0	14.0	343
	2950	849	19.9	819	28.3	794	36.6	772	45.0	752	53.4	1074	90.0	15.0	728
	4000	1199	28.8	1169	39.9	1144	51.0	1121	62.2	1101	73.3	1404	126.0	16.0	1059
418	1750	675	16.5	630	24.0	592	31.7	559	39.0					14.0	515
	2950	1275	29.5	1230	42.1	1192	54.7	1159	67.3					15.0	1092
	4000	1800	42.9	1755	59.7	1717	73.4	1684	93.1					16.0	1590
616	1170	718	16.9	672	24.9	633	32.9	599	40.9	568	49.0				
	1750	1176	26.2	1130	38.2	1091	50.1	1056	62.0	1025	73.9				
	2400	1650	37.6	1584	53.7	1536	69.8	1494	85.9	1456	102.0				

NOTES: 1. Pressure ratings based on inlet air at standard pressure of 14.7 psia, standard temperature of 68° F, and specific gravity of 1.0.
2. Vacuum ratings based on inlet air at standard temperature of 68° F, discharge pressure of 30" Hg and specific gravity of 1.0.



WARRANTY PERIOD

Twenty-Four (24) months from date of original unit
start-up or 30 months from date of original shipment, whichever occurs first.