

M-D Pneumatics™

COMPETITOR SL™

Rotary Positive Blowers – Metric Version

Designed with features found ordinarily on high-end blowers, **COMPETITOR SL** blowers are still designed to be interchangeable, with respect to foot print, shaft height and diameter, with equivalent sizes of Roots Universal RAI/RAI-J®, and many Sutorbilt® California Series Legend™ Series L and P, as well as M-D Pneumatics COMPETITOR PLUS™ blowers.

Splash Oil Lubrication at Both Ends

COMPETITOR SL blowers include splash oil lubrication at both the gear end **and** drive end of the blower. Splash lubrication provides for longer bearing and seal life through improved heat dissipation versus grease lubrication.

Revolutionary Noise Reduction Technology

Many sizes of **COMPETITOR SL** blowers are available with Tuthill's unique noise reduction technology with tri-lobe rotors specially designed for maximum displacement and special porting on the discharge side to significantly reduce noise.

Helical Gearing

COMPETITOR SL blowers are timed with hardened, precision helical gears, keyed to the rotor shafts, not taper fit spur gears offered by other manufacturers which have greater backlash, and can slip and lose timing. Helical gears are also quieter, further reducing mechanical noise.

Stronger Bearings

All **COMPETITOR SL** blowers include double row ball bearings at the gear end, stronger than single row ball bearings offered by other manufacturers. Drive shaft bearing is cylindrical roller type for additional strength against side loading from V-belt drives. As a result of this superior design, **COMPETITOR SL** blowers offer significantly longer bearing life than models offered by other manufacturers.

Rotors with Integral Shafts

COMPETITOR SL blowers include precision machined ductile iron rotors with large, integrally cast shafts, not press fit and/or pinned shafts offered by other manufacturers, which can loosen over time and cause rotor clash. All rotors are dynamically balanced for vibration-free rotation.

Positive End Clearances

End clearances are positively established at the blower gear end, eliminating the risk of shifting end clearances when installing or removing drive components. This also eliminates the need for those special fork and saddle tools required by other brands to reset end clearances.

Polished Drive Shaft Sealing Surfaces

All shaft surfaces in contact with sealing members are polished to reduce seal wear and risk of leakage.

Individually Tested

Every **COMPETITOR SL** blower is factory tested to assure you of the highest quality. While some manufacturers perform only sample testing, Tuthill Vacuum & Blower Systems goes the distance to insure that your blower meets our rigid ISO 9001 registered quality standards.

ISO 9001 Registration

COMPETITOR SL blowers are manufactured under Tuthill Vacuum & Blower Systems ISO 9001 registered quality assurance program, the first American manufacturer of rotary blowers to gain such international recognition.

Versatility

COMPETITOR SL blowers can be field converted from horizontal to vertical flow, or vice versa, without any special tools or additional components.

Metric Availability

All **COMPETITOR SL** blowers are available with metric drive shaft and process connections.

Worldwide Sales and Service

With sales offices and service facilities located on six continents, you can be assured of availability and service for your **COMPETITOR SL** blowers.

Material Specifications:

Housing: Cast iron

End Plates: Cast iron

End Covers: Cast iron

Rotors: Ductile iron

Shafts: Ductile iron cast integrally with rotors

Bearings: Gear end - Double row ball, both rotors

Drive end - Cylindrical roller on drive rotor

Single row ball on driven rotor

Drive Shaft: Ductile iron, cast integrally with drive rotor

Gears: Heat treated alloy steel, helical cut

Seals: Lip seals on rotor shafts and drive shaft

Lubrication: Oil splash on both ends

Model Size	Maximum Nominal Pressure (kgf/cm ²)	Maximum Nominal Vacuum (mbar g)	Maximum RPM
3002	1.05	542	3600
3003	0.84	508	
3006	0.49	508	
4002	1.05	542	3600
4005	0.70	542	
4007	0.49	508	
5003	1.05	542	2850
5006	0.91	542	
5009	0.56	508	
6005	1.05	542	2350
6008	0.98	542	
6015	0.49	474	

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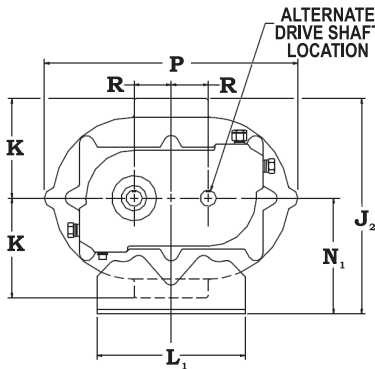
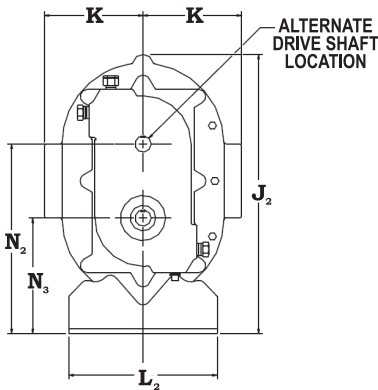
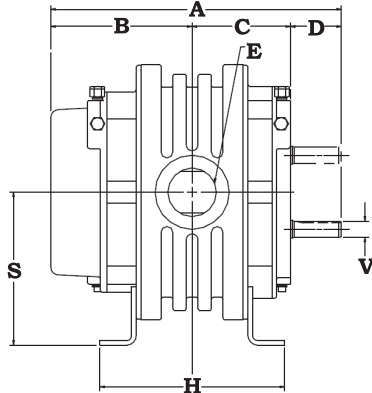
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Performance

Pressure performance is based on inlet conditions of 1.02 kgf/cm² A and 20° C. Vacuum performance is based on inlet temperature of 20° C and discharge pressure of 1.02 kgf/cm² A. In conjunction with our program of continuous testing and upgrading, all specifications are subject to change without notice. All data are approximate. Request a quotation for your specific application.



Blower Model	Style	SPEED (RPM)	0.49 kgf/cm ²		0.56 kgf/cm ²		0.70 kgf/cm ²		0.84 kgf/cm ²		0.91 kgf/cm ²		1.05 kgf/cm ²		Max. Vacuum			
			m ³ /min	kW	m ³ /min	kW	m ³ /min	kW	m ³ /min	kW	m ³ /min	kW	m ³ /min	kW	m ³ /min	kW	mbar	m ³ /min
3002	2-lobe	1170	0.57	1.42	0.51	1.57										339	0.54	1.04
		1750	1.33	2.09	1.27	2.31	1.13	2.91								440	1.08	1.94
		3600	3.79	4.25	3.71	4.85	3.60	5.89	3.48	7.01	3.43	7.46	3.31	8.95	542	3.23	4.77	
3003	2-lobe	1170	0.79	1.79												339	0.76	1.27
		1760	1.81	2.68	1.73	3.06	1.49	4.79	7.46	4.64	8.95				440	1.50	2.46	
		3600	5.04	5.52	4.96	6.19	4.79	7.46	4.64	8.95				508	4.47	5.74		
	3-lobe	1170	0.79	1.79												339	0.76	1.34
		1760	1.84	2.68	1.76	3.06										440	1.50	2.54
		3600	5.10	5.59	5.01	6.26	4.84	7.46	4.70	8.95				508	4.53	5.82		
3006	2-lobe	1170	1.61	2.83												373	1.44	2.24
		1760	3.31	4.33												440	2.86	3.95
		3600	8.64	8.95											508	7.84	8.95	
	3-lobe	1170	1.67	2.91												406	1.36	2.46
		1760	3.40	4.33												440	2.92	3.95
		3600	8.75	8.95											508	7.99	9.69	
4002	2-lobe	880	0.48	1.34	0.42	1.49										339	0.45	0.97
		1760	1.98	2.68	1.93	3.06	1.78	3.73	1.67	4.40	1.61	4.77			474	1.64	2.61	
		3600	5.15	5.52	5.07	6.19	4.96	7.46	4.84	8.95	4.79	9.69	4.67	11.2	542	4.59	6.11	
4005	2-lobe	880	1.10	2.54	0.96	2.91										339	1.05	1.86
		1760	4.11	5.15	3.96	5.82	3.74	7.16							474	3.43	5.00	
		3600	10.4	10.4	10.3	11.9	10.0	14.9							542	9.34	11.9	
	3-lobe	880	1.05	2.46	0.93	2.76										339	1.02	1.79
		1760	3.94	4.92	3.82	5.52	3.57	6.86							474	3.28	4.77	
		3600	9.94	9.69	9.83	11.2	9.60	14.2							542	8.95	11.19	
4007	2-lobe	880	1.47	3.36												305	1.59	2.16
		1760	5.44	6.64											440	4.76	6.11	
		3600	13.8	13.4											508	12.6	14.2	
3-lobe	880	1.39	3.21												305	1.53	2.09	
	1760	5.18	6.34											440	4.53	5.82		
	3600	13.1	13.4											508	12.0	13.4		
5003	2-lobe	710	1.08	2.31	0.96	2.61										339	1.02	1.64
		1760	4.98	5.67	4.87	6.41	4.67	8.20	4.50	9.69	4.42	10.4			474	4.42	5.59	
		2850	9.06	8.95	8.95	10.4	8.75	12.7	8.58	15.7	8.50	16.4	8.33	18.6	542	8.18	10.4	
	3-lobe	710	1.78	3.73	1.61	4.25										339	1.73	2.68
		1760	8.35	8.95	8.18	10.4	7.84	12.7	7.53	15.7	7.39	17.2			474	7.42	8.95	
		2850	15.2	14.9	15.0	17.2	14.7	20.9	14.4	25.4	14.2	27.6			542	13.7	16.4	
5006	2-lobe	710	1.84	3.73	1.67	4.25										339	1.78	2.68
		1760	8.47	9.69	8.27	10.4	7.96	13.4	7.65	15.7	7.50	17.2			474	7.50	8.95	
		2850	15.3	14.9	15.1	17.2	14.8	20.9	14.5	25.4	14.4	27.6			542	13.8	17.2	
	3-lobe	710	3.54	5.37	3.34	6.11										339	3.45	3.80
		1760	13.1	13.4	12.9	14.9										474	12.1	13.4
		2850	23.1	21.6	22.9	24.6									508	21.8	22.4	
5009	2-lobe	710	3.20	5.37	2.94	6.11										339	3.09	3.80
		1760	12.8	13.4	12.6	14.9										474	11.6	13.4
		2850	22.8	21.6	22.6	24.6									508	21.3	23.1	
6005	2-lobe	700	2.49	4.18	2.32	4.77	2.01	5.89								406	2.04	3.58
		1760	9.85	10.4	9.71	12.0	9.40	14.9	9.12	17.9	9.00	19.4	8.75	21.6	542	8.55	11.9	
		2350	14.0	14.2	13.82	16.03	13.5	20.1	13.2	23.9	13.1	25.4	12.9	29.1	542	12.7	15.7	
6008	2-lobe	700	3.99	6.56	3.71	7.46	3.23	8.95								406	3.26	5.59
		1760	15.8	16.4	15.57	18.8	15.1	23.1	14.6	27.6	14.4	29.8			508	14.1	17.2	
		2350	22.4	22.4	22.17	25.13	21.7	31.3	21.2	37.3	21.0	40.3			542	20.3	24.6	
6015	2-lobe	700	7.45	11.9												339	7.28	8.20
		1760	29.7	30.6											474	27.1	29.8	
		2350	42.0	40.3											474	39.4	39.5	

Dimensions shown are in mm. Values shown are approximate and should not be used for construction. Certified drawings are available through your local Tuthill Vacuum & Blower Systems professional.

Dimensions

Model Size	Style	A	B	C	D	E	H	J1	J2	K	L1	L2	N1	N2	N3	P	R	S	V	
3002	2-lobe	294	144	86		1 1/4" BSP	174													
		316	157	95	64	2" BSP	194	227	325	100	184	184	127	216	127	310	44	171	22	
		376	187	125		2 1/2" BSP	254													
3003	3-lobe	314	156	106	52	2" BSP	194	244	325	117	184	184	127	216	127	310	44	171	22	
		375	186	137		2 1/2" BSP	254													
4002	2-lobe	329	159	94		1 1/2" BSP	184													
		396	194	129	76	2 1/2" BSP	254	270	384	111	203	203	159	260	159	348	51	210	24	
		443	216	151		3" BSP	298													
	3-lobe	396	194	135	70	2 1/2" BSP	254	294	384	130	203	203	159	260	159	348	51	210	24	
		443	216	157		3" BSP	298													
5003	2-lobe	387	187	114		2 1/2" BSP	213													
		454	221	148	86	4" BSP	279	308	441	137	267	267	171	286	159	437	64	222	28	
		530	259	186		4" BSP	356													
5006	3-lobe	454	221	156	79	4" BSP	281	337	441	165	267	267	171	286	159	437	64	222	28	
		530	259	194		4" BSP	357													
6005	3-lobe	476	240	143	94	3" BSP	257	383	441	159	267	267	171	286	159	437	64	222	28	
		552	278	181		5" BSP	334	383	551	159	432	279	222	375	222	503	76	298	32	
		730	367	270		150 DN	511	418												

1 m³/min = 35.315 CFM
 1 kgf/cm² = 10000 mm H₂O = 980.7 mbar = 14.22 PSI
 1 kW = 1.341 HP

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