

M-D Pneumatics™

# COMPETITOR<sup>®</sup> PLUS™

## Rotary Positive Blowers

**COMPETITOR PLUS** rotary blowers are designed to be interchangeable with equivalent sizes of Roots Universal RA<sup>®</sup>, and many Sutorbilt<sup>®</sup> California Series B and F, and Legend™ Series L and P blowers. **COMPETITOR PLUS** models are rated up to 15 PSIG discharge pressure or 16" Hg dry vacuum.

In addition to interchangeability, Tuthill Vacuum & Blower Systems has improved on existing designs with the following superior features ordinarily found only on premium blowers:

### Helical Gearing

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

### Stronger Bearings

All **COMPETITOR PLUS** 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 PLUS** blowers offer design bearing life as much as 50% greater than models offered by other manufacturers.

### Rotors with Integral Shafts

**COMPETITOR PLUS** 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 Sealing Surfaces

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

### Individually Tested

Every **COMPETITOR PLUS** blower is factory tested to assure you of the highest quality. While some manufacturers perform only sample testing, We go the distance to insure that your blower meets our rigid ISO 9001 registered quality standards.

### ISO 9001 Registration

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

### Warranty

Every **COMPETITOR PLUS** blower is backed by the Tuthill Vacuum & Blower Systems limited warranty for a period of 18 months after installation or 2 years after original blower shipment, whichever occurs first.

### Reduced Noise Versions Available

Many **COMPETITOR PLUS** models are available with tri-lobe rotors and specially tuned housing to reduce blower noise.

### 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 PLUS** blowers.

### Material Specifications:

**Housing:** Cast iron

**End Plates:** Cast iron

**End Cover:** 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 gear end, grease on drive end

Model Size	Max. Press. PSI	Max. Vac. (in. Hg)	Maximum RPM	Displacement CFR
2002	12	16	5275	.016
2004	7	16	5275	.032
3002	15	16	3600	.0467
3003	12	15	3600	.0616
3006	7	15	3600	.102
4002	15	16	3600	.061
4005	10	16	3600	.121
4007	7	15	3600	.160
5003	15	16	2850	.132
5006	13	16	2850	.221
5009	8	15	2850	.323
6005	15	16	2350	.246
6008	14	16	2350	.395
6015	7	14	2350	.740
7006	15	16	2050	.402
7011	10	16	2050	.738
7018	6	12	2050	1.200

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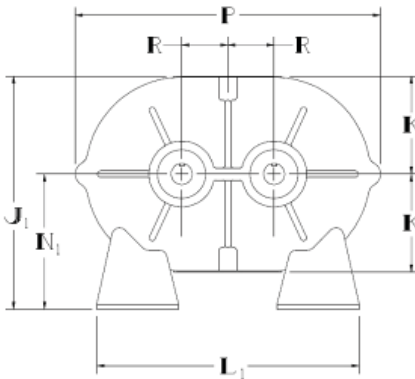
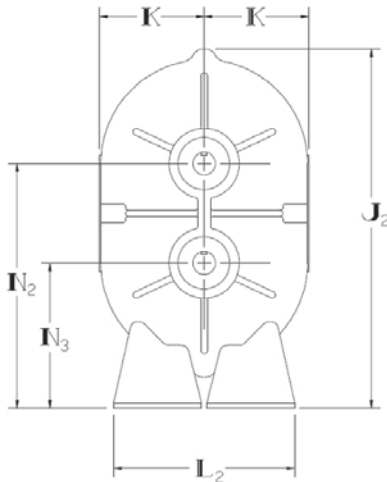
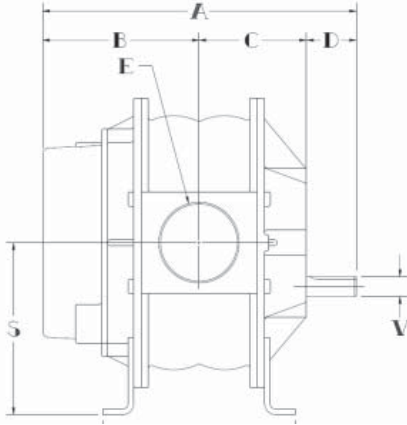
**TUTHILL**  
Vacuum & Blower Systems

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## Performance

Pressure performance is based on inlet conditions of 14.70 PSIA and 70° F. Vacuum performance is based on inlet temperature of 70° F and discharge pressure of 14.70 PSIA. 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	SPEED (RPM)	6 PSIG		7 PSIG		10 PSIG		12 PSIG		13 PSIG		14 PSIG		15 PSIG		Max. Vacuum		
		CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	"Hg	CFM	BHP
2002	1750	8	0.9	6	1	2	1.4									9	7	0.7
	3600	38	1.8	36	2.1	32	2.8	29	3.3							14	28	2.1
	5275	64	2.7	63	3.1	59	4.2	56	4.9							16	51	3.4
2004	1750	24	1.6	22	1.9											10	21	1.4
	3600	83	3.3	81	3.8											15	65	4
	5275	137	4.9	135	5.6											16	116	6.3
3002	1150	22	1.6	19	1.8											10	18	1.3
	2700	94	3.8	92	4.3	85	6	81	7.1	79	7.6	77	8.2	75	8.7	16	72	4.8
	3600	136	5	134	5.7	127	7.9	123	9.4	121	10	119	11	118	12	16	114	6.4
3003	1150	30	2	27	2.4											10	26	1.7
	2700	126	4.8	122	5.5	114	7.7	109	9.2						14	107	5.4	
	3600	181	6.4	178	7.4	169	10	164	12						15	158	7.7	
3006	1150	61	3.3	57	3.8											11	50	3
	2700	219	7.7	215	8.9											15	187	9.3
	3600	311	10	306	12											15	279	12
4002	850	17	1.5	15	1.7											10	14	1.3
	1760	72	3.1	70	3.6	62	5	58	5.9	56	6.4	54	6.9		14	56	3.5	
	3600	184	6.4	181	7.4	174	10	170	12	168	13	166	14	164	15	16	161	8.2
4005	850	41	2.9	36	3.3											9	39	2.2
	1760	151	5.9	146	6.9	133	9.6	125	11						14	122	6.7	
	3600	373	12	368	14	355	20	348	24						16	331	16	
4007	850	54	3.7	47	4.3											9	51	2.8
	1760	199	7.7	192	8.9										13	168	8.2	
	3600	492	16	486	18										15	445	19	
5003	700	37	2.6	32	3											10	31	2.2
	1760	176	6.6	172	7.6	160	11	153	13	150	14	147	15		14	150	7.5	
	2850	320	11	316	12	304	17	297	21	294	22	291	24	288	25	16	282	14
5006	700	70	4.3	63	4.9											10	60	3.5
	1760	304	11	297	12	279	17	269	21	264	23				14	264	12	
	2850	545	17	538	20	520	28	510	34	505	37				16	487	22	
5009	700	118	6.1	109	7.1											11	97	5.5
	1760	460	15	451	18										14	409	18	
	2850	812	25	803	29										15	750	30	
6005	700	94	4.9	88	5.6	71	7.9									12	72	4.8
	1760	355	12	348	14	332	20	322	24	318	26	313	27	309	29	16	302	16
	2350	500	16	493	19	477	27	467	32	463	34	458	37	454	39	16	447	21
6008	700	151	7.6	141	8.8	114	12	129	14	124	15					12	115	7.5
	1760	569	19	559	22	533	31	517	37	510	40	503	43		15	498	23	
	2350	802	26	792	30	766	42	750	50	743	54	736	58		16	717	33	
6015	700	282	14	263	16											10	257	11
	1760	1067	35	1048	41										14	957	40	
	2350	1503	47	1484	54										14	1393	53	
7006	650	168	7.2	160	8.3	141	12	129	14	124	15					13	133	7.6
	1760	614	19	606	23	587	32	575	38	570	41	565	44	560	47	16	551	25
	2050	731	23	723	26	703	37	692	44	686	48	681	51	676	55	16	667	29
7011	650	317	13	304	15	270	21									13	257	14
	1760	1136	35	1123	41	1089	58								16	1026	45	
	2050	1350	41	1337	47	1303	67								16	1240	53	
7018	650	545	21													10	519	17
	1760	1877	56												12	1811	55	
	2050	2225	65												12	2159	64	

## Dimensions

Model Size	A	B	C	D	E	H	J1	J2	K	L1	L2	N1	N2	N3	P	R	S	V
2002	10.00	4.88	2.63	2.50	1" NPT	5.00	6.88	9.69	3.13	5.13	5.13	3.75	6.25	3.75	9.38	1.25	5.00	.625
2004	12.00	5.88	3.63		2" NPT	7.00												
3002	11.56	5.69	3.38		1 1/4" NPT	6.75												
3003	12.44	6.19	3.75	2.50	2" NPT	7.63	8.94	12.81	3.94	7.25	7.25	5.00	8.50	5.00	12.19	1.75	6.75	.875*
3006	14.81	7.38	4.94		2 1/2" NPT	10.00												
4002	12.94	6.25	3.69		1 1/2" NPT	7.25												
4005	15.69	7.63	5.06		2 1/2" NPT	10.00	10.63	15.13	4.38	8.00	8.00	6.25	10.25	6.25	13.69	2.00	8.25	.875
4007	17.44	8.50	5.94	3.00	3" NPT	11.75												
5003	15.25	7.38	4.50		2 1/2" NPT	8.38												
5006	17.88	8.69	5.81	3.38	4" NPT	11.00	12.13	17.38	5.38	10.50	10.50	6.75	11.25	6.25	17.19	2.50	8.75	1.125
5009	20.88	10.19	7.31		4" NPT	14.00												
6005	18.75	9.44	5.63		3" NPT	10.13	15.06		6.25									
6008	21.75	10.94	7.13	3.69	5" NPT	13.13	15.06	21.69	6.25	17.00	11.00	8.75	14.75	8.75	19.81	3.00	11.75	1.375
6015	28.75	14.44	10.63		6" FLG	20.13	16.44		7.50									
7006	20.31	10.31	5.94		4" NPT	11.75	20.63		9.63									
7011	25.31	12.69	8.44		6" FLG	16.75	19.50	26.13	8.50	21.00	14.00	11.00	18.00	11.00	23.25	3.50	14.50	1.562
7018	32.31	16.31	11.94	4.06	8" FLG	23.75	19.50		8.50									

Values shown are approximate and should not be used for construction.

Certified drawings are available through your local Tuthill Vacuum & Blower Systems Sales Professional.

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