

## Equalizer DF

**Models:** 4504, 4506, 4509, 4512

Bi-directional Rotation  
17 Series - Horizontal Air Flow  
46 Series - Vertical Air Flow

Designed to be interchangeable with equivalent Gardner Denver Duroflow® models, EQUALIZER DF rotary positive blowers offer many distinct advantages.

### Features

#### Higher Pressure Capability

Due to the high degree of precision to which EQUALIZER DF blowers are manufactured, most models are rated to 18 PSIG discharge pressure. This provides you with an increased level of security since your EQUALIZER DF blower has more safety factor already built in.

#### Designed for True, Drop-in Replacement

The last thing you need is an “interchangeable” blower that really isn’t. EQUALIZER DF blowers are designed to be dimensionally interchangeable with competing models, even to the point of matching the port connector bolt patterns.

#### Helical Gearing

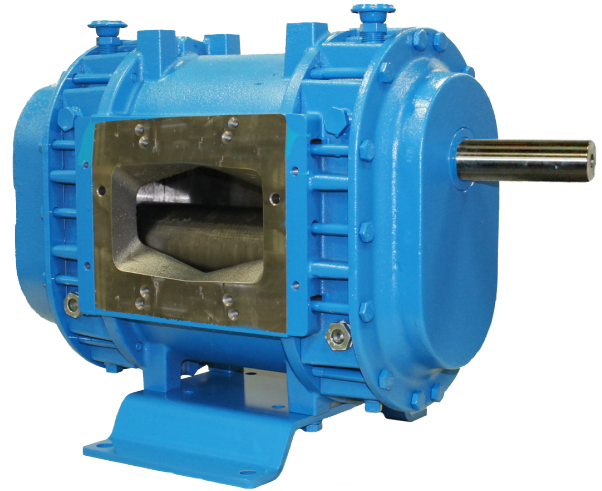
EQUALIZER DF blowers are timed with precision helical gears that are keyed to the rotor shafts. Helical gearing reduces backlash and mechanical noise as compared to spur gears offered by other manufacturers. Keyed interference fit reduces the risk of slippage of the gear on the shaft and loss of timing, one of the leading causes of blower failure.

#### One Piece Housing

Every EQUALIZER DF blower includes a housing constructed of a single piece of precision machined cast iron, rather than a two piece housing which is subject to misalignment and loss of operating clearances.

#### Rotors with Integral Shafts

EQUALIZER DF blowers include precision machined ductile iron rotors with large, integrally cast shafts to provide single, unitized rotors to prevent clash as a result of the impeller moving on its shaft.



Model Size	Max. Press. PSI	Max. Vac. (in. Hg)	Maximum RPM	Displ. CFR	Net Wgt. (lbs.)*
4504	18	16	4000	.112	235
4506	18	16	4000	.164	285
4509	18	16	4000	.242	320
4512	15	16	4000	.321	360

\*Approximate shipping weight.

### Material Specifications:

**Housing:** Cast iron  
**End Plates:** Cast iron  
**End Covers:** Cast iron  
**Rotors:** Ductile iron  
**Shafts:** Ductile iron cast integrally with rotor  
**Bearings:** Gear end - Double row ball  
 Drive end - Cylindrical roller  
**Drive Shaft:** Ductile iron cast integrally with drive rotor  
**Gears:** Heat treated alloy steel, helical cut  
**Seals:** Lip and piston ring labyrinth type on rotor shafts;  
 lip seal on the drive shaft  
**Lubrication:** Oil splash system, both ends

### Versatility

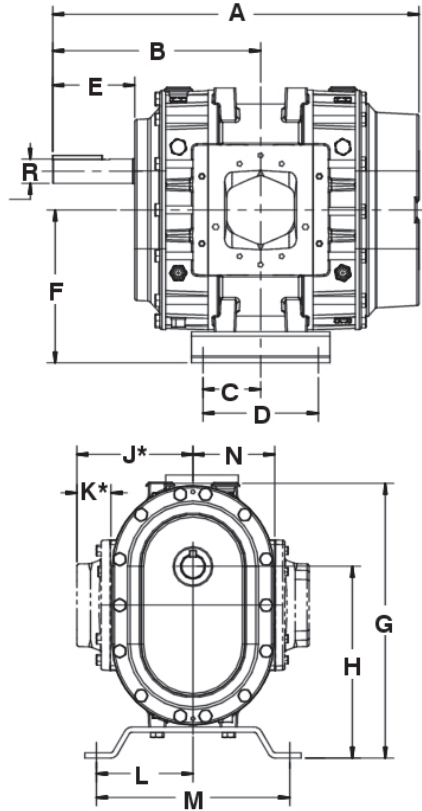
Flow configuration is completely field convertible from horizontal to vertical flow, or vice versa simply by rearranging oil breathers, drains and changing the mounting feet.

## Performance Tables

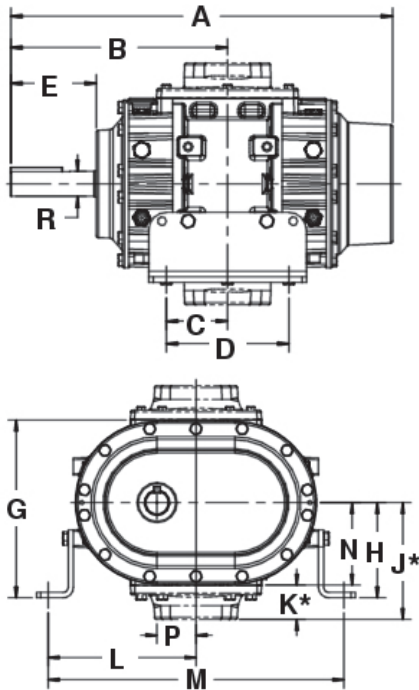
In conjunction with our program of continuous testing and design upgrading, all specifications are subject to change without notice. All data are approximate. Request a quotation for your specific application.

### Pressure (14.70 PSIA and 70° F Inlet)

#### Horizontal Flow



#### Vertical Flow



MODEL	REPLACEMENT FOR	SPEED (RPM)	5 PSIG		8 PSIG		10 PSIG		12 PSIG		15 PSIG		18 PSIG		MAX. VACUUM		
			CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	" HG	CFM	BHP
4504	DUROFLOW® 4504	1150	62	3.9	44	5.6									11	41	4.2
		1750	129	6.0	111	8.5	101	10	92	12					13	95	7.2
		2950	263	10	246	14	235	17	226	20	214	24	203	29	16	207	14
		3500	325	12	307	17	297	20	288	24	276	29	265	34	16	269	17
		4000	381	14	363	20	353	23	344	27	332	33	321	39	16	325	19
4506	DUROFLOW 4506	1150	105	5.2	82	7.7									11	79	5.6
		1750	203	8.0	181	12	168	14	157	17					14	152	10
		2950	400	13	378	20	365	24	354	28	339	35	325	41	16	330	19
		3500	491	16	468	23	456	28	444	34	429	41	415	49	16	420	23
		4000	573	18	551	27	538	33	527	38	511	47	497	55	16	502	26
4509	DUROFLOW 4509	1150	170	7.2	142	11	125	13							12	127	8.3
		1750	316	11	287	16	271	20	256	24					15	238	15
		2950	607	18	578	28	562	34	547	40	527	50	509	59	16	516	27
		3500	740	22	711	33	695	40	680	48	661	59	643	70	16	649	32
		4000	861	25	832	38	816	46	802	55	782	67	764	80	16	770	37
4512	DUROFLOW 4512	1150	240	9.2	206	14	187	17							13	175	11
		1750	433	14	399	21	380	26	362	31					15	340	20
		2950	819	24	784	36	765	44	748	52	724	65			16	710	35
		3500	996	28	961	43	942	52	924	62	901	77			16	887	42
		4000	1156	32	1122	49	1103	60	1085	71	1062	88			16	1048	48

### Dimensions

MODEL	SERIES	A	B	C	D	E	F	G	H	L	M	N	P	R	WT. (LBS.)
4504	17	18.45	10.02	2.44	4.88	3.52	9.09	16.34	11.40	5.75	11.50	4.88	2.30	1.437	270
	46			2.50	5.00		—	10.50	5.63	8.75	17.50				
4506	17	21.82	12.39	3.44	6.88	4.89	9.09	16.34	11.40	5.75	11.50	4.88	2.30	1.437	310
	46			3.50	7.00		—	10.50	5.63	8.75	17.50				
4509	17	24.80	13.87	3.44	6.88	4.89	9.09	16.34	11.40	5.75	11.50	4.88	2.30	1.437	350
	46			3.50	7.00		—	10.50	5.63	8.75	17.50				
4512	17	27.81	15.38	4.94	9.88	4.89	9.09	16.34	11.40	5.75	11.50	4.88	2.30	1.437	390
	46			5.00	10.00		—	10.50	5.63	8.75	17.50				

### Optional Port Connectors

MODEL	NPT	J*	K*	WT. (LBS.) EACH CONNECTOR
4504	4"	9.02	4.15	11
	4" (short)	6.94	2.03	11
4506	4" (long)	10.94	6.03	19
	4" (short)	6.94	2.03	17
4509	5" (short)	12.47	2.93	15
	5" (long)	7.84	12.47	28
4512	6" (short)	7.63	2.72	19
	6" (long)	13.19	8.28	36

Values are approximate and should not be used for construction. Certified prints are available through your local Tuthill Vacuum & Blower Systems Sales Professional.

Your Local Tuthill Vacuum Blower Systems Sales Professional:



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