Gardner Denver®

DUAL SPLASH LUBRICATION | PD BLOWERS AND PUMPS

Legend DSL Series

Experience Proven Results
Sutorbilt® Legend® DSL

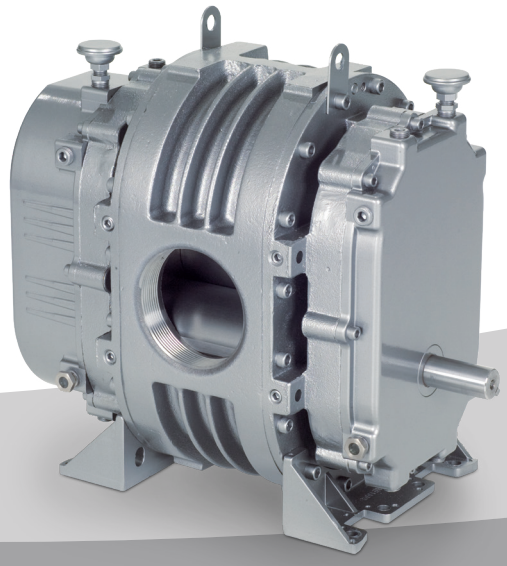
Improving a great, trusted and proven product was the challenge. The Legend DSL integrates proven experience with world-class blower design and manufacturing to create a product worthy of the name “Legend.”

Quality + Tradition = Trust

- Tradition: 150 years of quality manufacturing with proven results
- Every Legend DSL is manufactured in our ISO 9001 certified facility in Sedalia, Missouri
- Each Legend DSL is individually tested to meet rigorous performance specifications
- Superior and consistent quality can be found in each Legend DSL as a result of:
  - Continual investment in the training of world-class manufacturing personnel
  - Quality inspections throughout the entire manufacturing process
- Requested by leading Original Equipment Manufacturers (OEMs) worldwide for a wide range of applications
- A Legend is at the heart of an ever-expanding variety of air solutions working every minute of every day
- Supported by a worldwide network of experienced and trusted sales and service professionals
- Quiet Series available with reduced noise up to 5 dBA
- The Legend DSL Warranty
  - 18 months from the date of shipment or
  - 24 months from the date of installation, whichever occurs first

Legend DSL Provides

- Pressure to 15 psig
- Vacuum to 16″ Hg
- Airflow to 950 cfm
- 18/24 Warranty



Innovation

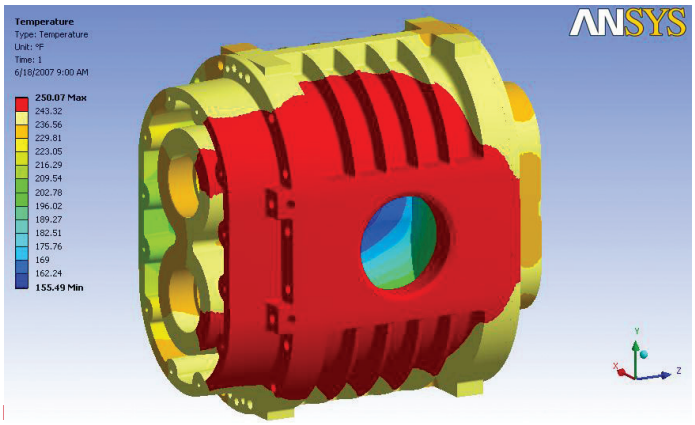
- Refined timing and locking device incorporates frictional keyless shaft gear locking rings
  - Improves blower life with more resistance to slipped timing
  - Allows for easier maintenance
- Spherical roller bearing on drive shaft (4–6″ gear diameters only)
  - Provides greater allowance for misaligned drives, and improves longevity

Results

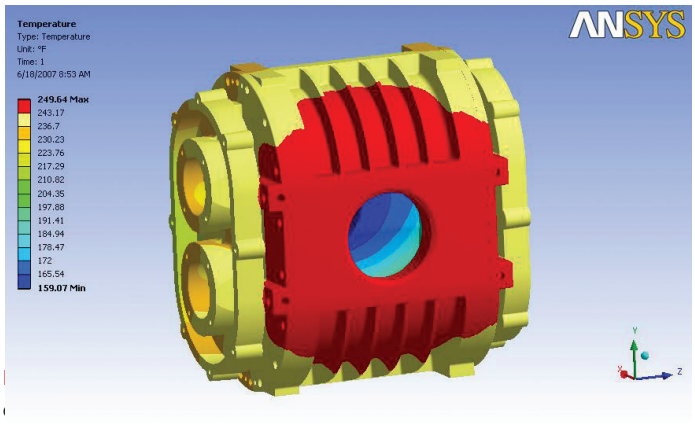
- Drop-in replacement for current Legend products
- Operating temperatures which can be up to 15° F cooler compared to leading competitive brands
- Greater durability with an increased capacity for overhung load by as much as 30%
- Unmatched strength and rigidity from increased mass, which can be up to 37% more than leading competitive brands
- Universal mounting feet allows for easy field conversion

Advanced Engineering Capabilities

Finite Element Analysis (FEA) – thermal analysis



the benefit of FEA thermal analysis.



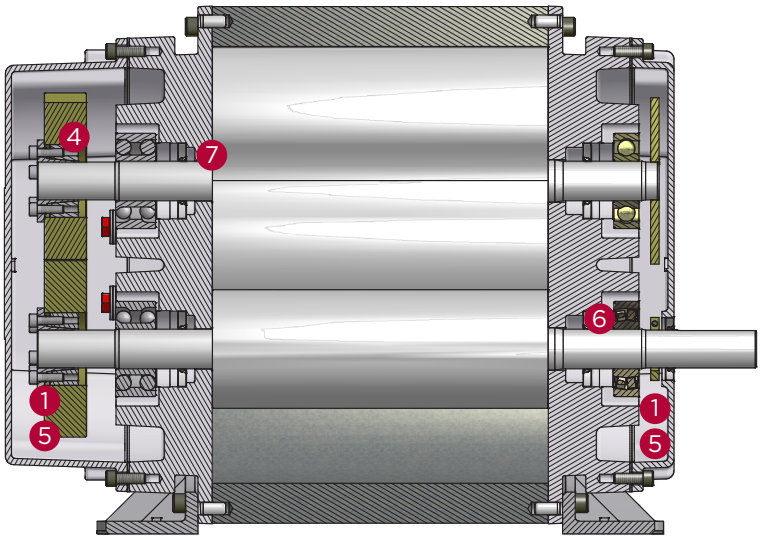
- Innovative bearing housing design with air gaps reduce drive end sump temperatures which can be up to 15° F, extending lubricant, bearing, and blower life

LEGENDARY DSL Design

Features & Benefits

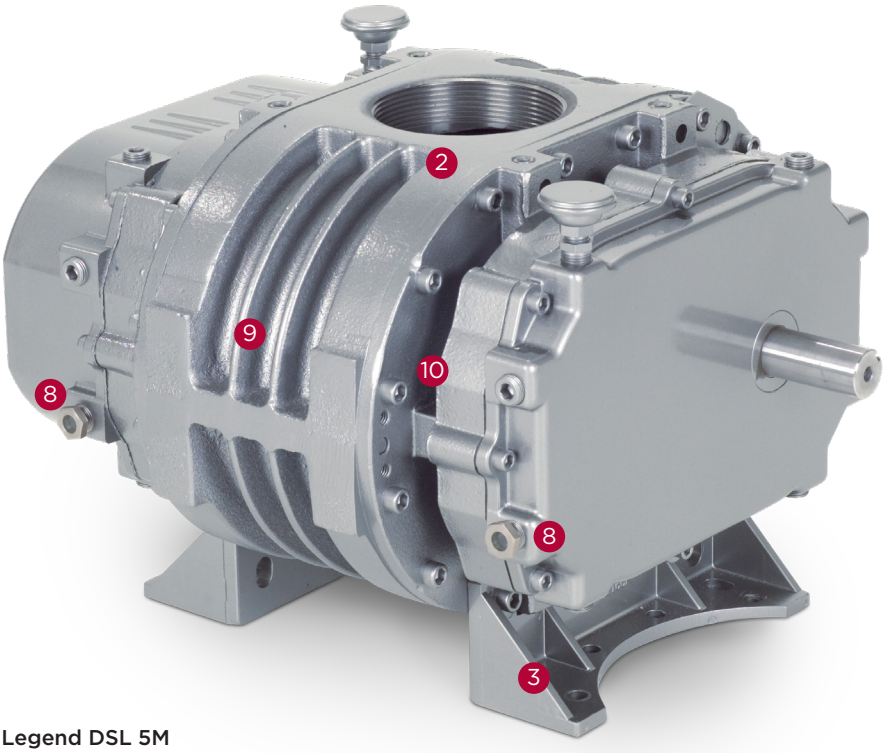
Mechanical Gas Seals

- The Legend DSL design accommodates mechanical gas seals for critical gas applications



Robust Design Improves Performance & Efficiency

- Additional weight provides more rigidity to the blower allowing greater efficiency and tighter clearances
- The Legend DSL weights are greater than leading competitive brands which can be up to 37% heavier



Legend DSL 5M

1. Dual Splash Lubrication

- Reliable splash lubrication on both gear and drive ends for longer product life
- One-piece slingers are securely clamped on both shafts to ensure efficient lubrication, and allow installation flexibility

2. Single Piece Cylinder

Provides Greater Strength & Rigidity

- Heavy-duty reinforced cast iron cylinder retains internal clearance
- DSL design utilizes the existing Legend cylinder and rotors with proven results

3. Universal Feet

- Drop-in replacement for current Legend design
- Reduce inventory and provide installation flexibility
- One set of feet for vertical and horizontal configurations

4. Improved Timing = Improved Reliability

- Grip rings expand against the bore and compress on the shaft for a secure, mechanical shrink fit
- Replaces pinning of timing gears
- Easier and more cost effective to teardown and rebuild

5. Larger Sump Capacities = Cooler Running Bearings

- Sump capacity is increased as much as 30% on drive end and 62% on gear end over leading competition

6. Greater Overhung Load Capacity Increases Blower Life

- Improving overhung load capabilities by as much as 30%
- Belt drive capabilities are independent of blower/motor orientation for improved packaging options
- Spherical roller drive bearing provides better misalignment capabilities (4–6″ gear diameter)
- Cylindrical drive bearing on 3″ gear diameter

7. High Temperature Viton® Oil Seals

- Maximize the seal life in continuous, severe-duty applications to provide leak-free operation

8. Site Glasses

- Installed on side of unit and can be readily converted in the field

9–10. Cooler Operating Temperatures Increases Blower Life

- Integral ribs (9) improve heat dissipation and performance
- Engineered air gap (10) to isolate the oil sumps from hot air
- Engineered lubrication channels ensure ample lubrication reaches critical components

Pressure and Vacuum Performance Dimensional Data

LOW PRESSURE

SIZE	DIA. INLET & OUTLET	DISPL. CU. FT./REV.	RPM	2 PSIG		3 PSIG		4 PSIG		5 PSIG		6 PSIG		7 PSIG	
				CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP
3L 3LV	2½"-S	0.104	1,760	149	1.9	142	2.8	135	3.7	130	4.5	124	5.2	120	6.1
			2,265	202	2.4	194	3.5	188	4.7	182	5.6	177	6.7	172	7.8
			2,770	254	2.9	247	4.3	240	5.5	235	6.8	230	8.2	225	9.6
			3,600	341	3.7	333	5.3	327	7.1	321	8.9	316	10.6	311	12.4
4L 4LV	3"-S	.170	1,760	253	3.0	243	4.5	234	5.7	227	7.1	220	8.5	213	9.9
			2,190	326	3.7	316	5.3	307	7.1	300	8.8	293	10.6	286	12.4
			2,620	400	4.4	389	6.3	381	8.4	373	10.6	366	12.7	360	14.8
			3,600	566	5.8	556	8.7	547	11.6	539	14.5	533	17.4	526	20.3
5L 5LV	4"-S	.350	1,500	463	5.2	449	7.5	438	10.0	427	12.4	418	14.9	409	17.4
			1,760	554	5.8	540	8.8	529	11.7	518	14.6	509	17.5	500	20.4
			2,100	673	7.0	659	10.5	648	13.9	637	17.4	628	20.9	619	24.4
			2,850	936	9.5	922	14.2	910	18.9	900	23.6	890	28.4	882	33.1
6L 6LV	6"-F	.718	1,170	739	8.0	716	11.9	697	15.9	680	19.9	664	23.9	650	27.9
			1,760	1,162	12.0	1,139	18.0	1,120	24.0	1,103	29.9	1,088	35.9	1,074	41.9
			1,930	1,284	13.1	1,261	19.7	1,242	26.3	1,225	32.8	1,210	39.4	1,196	46.0
			2,350	1,586	16.0	1,563	24.0	1,544	32.0	1,527	40.0	1,512	48.0	1,497	56.0

MEDIUM PRESSURE

SIZE	DIA. INLET & OUTLET	DISPL. CU. FT./REV.	RPM	7 PSIG		9PSIG		10 PSIG		12 PSIG		13 PSIG		14 PSIG	
				CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP
3M 3MV	2"-S	0.060	1,760	64	3.6	59	4.6								
			2,265	95	4.6	89	5.8	87	6.4						
			2,770	125	5.5	119	7.1	117	7.9	112	9.5				
			3,600	175	7.2	169	9.2	167	10.2	162	12.3				
4M 4MV	2½"-S	.117	1,760	144	6.8	136	8.8	132	9.8						
			2,190	194	8.5	186	10.9	182	12.1						
			2,620	245	10.2	236	13.1	233	14.5						
			3,600	359	14.0	351	18.0	347	20.0						
5M 5MV	4"-S	.210	1,500	237	10.5	227	13.4	222	14.9	213	17.9	209	19.4		
			1,760	292	12.3	281	15.8	277	17.5	268	21.0	263	22.8		
			2,100	363	14.6	353	18.8	348	20.9	339	25.1	335	27.2		
			2,850	521	19.9	510	25.5	506	28.4	497	34.0	493	36.9		
6M 6MV	5"-S	.383	1,170	332	14.9	316	19.1	309	21.2	296	25.5	289	27.6	283	29.7
			1,760	558	22.4	542	28.8	535	32.0	522	38.3	515	41.5	509	44.7
			1,930	622	24.5	607	31.5	600	35.0	587	42.0	580	45.5	574	49.1
			2,350	784	29.9	768	38.4	761	42.7	748	51.2	741	55.5	735	59.7

HIGH PRESSURE

SIZE	DIA. INLET & OUTLET	DISPL. CU. FT./REV.	RPM	7 PSIG		8 PSIG		9 PSIG		11 PSIG		13 PSIG		15 PSIG	
				CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP
3M 3MV	1¼"-S	0.045	1,760	46	2.6	44	3.0	41	3.4						
			2,265	69	3.4	66	3.9	64	4.3	60	5.3				
			2,770	91	4.1	89	4.7	87	5.3	83	6.5				
			3,600	129	5.4	126	6.1	124	6.9	120	8.4	117	10.0	113	11.5
4M 4MV	1½"-S	.069	1,760	80	4.0	77	4.6	74	5.2						
			2,190	110	5.0	107	5.7	104	6.4	99	7.9				
			2,620	139	6.0	137	6.9	134	7.7	129	9.4	124	11.1		
			3,600	207	8.2	204	9.4	201	10.6	196	13.0	192	15.3	188	17.7
5M 5MV	2½"-S	.140	1,500	154	7.0	151	8.0	147	9.0	140	10.9				
			1,760	191	8.2	187	9.3	183	10.5	177	12.8	171	15.2	165	17.5
			2,100	238	9.8	235	11.1	231	12.5	224	15.3	218	18.1	213	20.9
			2,850	343	13.2	340	15.1	336	17.0	329	20.8	323	24.6	318	28.4
6M 6MV	3"-S	.227	1,170	188	8.8	182	10.1	177	11.3	168	13.8	159	16.4		
			1,760	321	13.3	316	15.1	311	17.0	302	20.8	293	24.6	285	28.4
			1,930	360	14.5	355	16.6	350	18.7	340	22.8	332	27.0	324	31.1
			2,350	455	17.7	450	20.2	445	22.8	436	27.8	427	32.9	419	37.9

DIMENSIONAL DATA—HORIZONTAL CONFIGURATIONS

SIZE	WT.	CONN.	A	B	C	D	E	F	G	H	J	K	L	M	N	O	P	R	S	T	U
V	71	S	6.75	2.69	2.69	7.75	3.88	5.00	3.50	8.88	11.26	1.25	5.86	12.05	3.50	1.78	1.63	0.19	0.75	0.25	.62 x 1.12
3M	79	S	7.62	3.13	2.69	7.75	3.88	5.00	3.50	8.88	11.26	2.00	6.30	12.92	4.36	1.78	1.63	0.19	0.75	0.25	.62 x 1.12
3L	95	S	10.24	4.44	2.69	7.75	3.88	5.00	3.50	8.88	11.26	2.5	7.61	15.55	7.00	1.78	1.63	0.19	0.75	0.25	.62 x 1.12
4H	98	S	7.25	3	3	8.25	4.19	6.25	4	10.44	12.38	1.5	6.88	13.75	4	2.38	1.81	.19	.875	.38	.5 x .75
4M	117	S	9.5	4.13	3	8.25	4.19	6.25	4	10.44	12.38	2.5	8	16	6.25	2.38	1.81	.19	.875	.38	.5 x .75
4L	142	S	12	5.38	3	8.25	4.19	6.25	4	10.44	12.38	3	9.25	18.5	8.75	2.38	1.81	.19	.875	.38	.5 x .75
5H	196	S	10.88	3.5	3.5	9	5.19	7	5	12.19	15.38	2.5	8.19	16.38	4.88	2.5	2	.25	1.125	.38	.5625 x .75
5M	215	S	12.88	4.5	3.5	9	5.19	7	5	12.19	15.38	4	9.19	18.38	6.88	2.5	2	.25	1.125	.38	.5625 x .75
5L	255	S	16.88	6.5	3.5	9	5.19	7	5	12.19	15.38	4	11.19	22.38	10.88	2.5	2	.25	1.125	.38	.5625 x .75
6H	329	S	9.75	3.94	4	16.5	6	8.75	6	14.75	18	3	9.19	18.63	5.75	2.94	2	.31	1.375	.5	.75 x 1
6M	377	S	13	5.56	4	16.5	6.19	8.75	6	14.94	18	5	10.81	21.88	9	2.94	2	.31	1.375	.5	.75 x 1
6L	549	F	20	9.06	4	16.5	7.5	8.75	6	16.25	18	6	14.31	28.88	16	2.94	2	.31	1.375	.5	.75 x 1

DIMENSIONAL DATA—VERTICAL CONFIGURATIONS

SIZE	WT.	CONN.	A	B	C	D	E	F	G	H	J	K	L	M	N	O	P	R	S	T	U
3H	71	S	6.75	2.69	2.69	7.75	4.5	6.25	8	11.88	7.75	1.25	5.86	12.05	3.5	1.78	1.63	0.19	0.75	0.25	.62 x 1.12
3M	79	S	7.62	3.13	2.69	7.75	4.5	6.25	8	11.88	7.75	2	6.3	12.92	4.36	1.78	1.63	0.19	0.75	0.25	.62 x 1.12
3L	95	S	10.24	4.44	2.69	7.75	4.5	6.25	8	11.88	7.75	2.5	7.61	15.55	7	1.78	1.63	0.19	0.75	0.25	.62 x 1.12
4H	98	S	7.25	3	3	8.25	4.5	6.5	8.5	12.69	8.38	1.5	6.88	13.75	4	2.38	1.81	0.19	0.875	0.38	.5 x .75
4M	117	S	9.5	4.13	3	8.25	4.5	6.5	8.5	12.69	8.38	2.5	8	16	6.25	2.38	1.81	0.19	0.875	0.38	.5 x .75
4L	142	S	12	5.38	3	8.25	4.5	6.5	8.5	12.69	8.38	3	9.25	18.5	8.75	2.38	1.81	0.19	0.875	0.38	.5 x .75
5H	196	S	10.88	3.5	3.5	9	5.5	8	10.5	15.88	10.38	2.5	8.19	16.38	4.88	2.5	2	0.25	1.125	0.38	.5625 x .75
5M	215	S	12.88	4.5	3.5	9	5.5	8	10.5	15.88	10.38	4	9.19	18.38	6.88	2.5	2	0.25	1.125	0.38	.5625 x .75
5L	255	S	16.88	6.5	3.5	9	5.5	8	10.5	15.88	10.38	4	11.19	22.38	10.88	2.5	2	0.25	1.125	0.38	.5625 x .75
6H	329	S	9.75	3.94	4	10.5	8.75	11.75	14.75	20.75	12	3	9.19	18.63	5.75	2.94	2	0.31	1.375	0.5	.75 x 1
6M	377	S	13	5.56	4	10.5	8.75	11.75	14.75	20.75	12.38	5	10.81	21.88	9	2.94	2	0.31	1.375	0.31	.75 x 1
6L	549	F	20	9.06	4	10.5	8.75	11.75	14.75	20.75	15	6	14.31	28.88	16	2.94	2	0.31	1.375	0.31	.75 x 1

S = Threaded connections standard NPT. F = flange connections. Inlet and outlet connections are the same type and size. Dimensions are in inches. Weights are in pounds and approximate.

LOW VACUUM

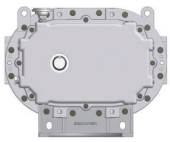
SIZE	DIA. INLET & OUTLET	DISPL. CU. FT./REV.	RPM	2 "HG		4 "HG		8 "HG		10 "HG		12 "HG		14 "HG	
				CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP
3L 3LV	2½"-S	0.104	1,760	158	1.1	147	1.9	128	3.6	118	4.5	108	5.1		
			2,265	211	1.3	200	2.4	180	4.6	171	5.5	160	6.6		
			2,770	264	1.5	252	2.9	233	5.4	223	6.7	213	8.1		
			3,600	350	1.9	338	3.7	319	7.0	309	8.7	299	10.5	288	12.2
4L 4LV	3"-S	.170	1,760	266	1.6	250	3.0	224	5.6	211	7.0	197	8.4		
			2,190	339	1.9	323	3.7	297	6.9	284	8.7	270	10.4		
			2,620	412	2.3	396	4.3	370	8.3	357	10.4	343	12.4	329	14.5
			3,600	579	3.1	563	5.7	537	11.4	524	14.3	510	17.1	495	20.0
5L 5LV	4"-S	.350	1,500	480	2.6	459	5.1	424	9.8	406	12.2	388	14.7		
			1,760	571	3.1	550	5.7	515	11.5	497	14.3	479	17.2	459	20.1
			2,100	690	3.6	669	6.8	634	13.7	616	17.1	598	20.5	578	24.0
			2,850	953	4.8	932	9.3	896	18.6	879	23.2	860	27.9	840	32.5
6L 6LV	6"-F	.718	1,170	766	4.1	732	7.8	674	15.7	645	19.6	615	23.5		
			1,760	1,190	5.9	1,115	11.8	1,097	23.5	1,068	29.4	1,038	35.3	1,005	41.2
			1,930	1,312	6.5	1,278	12.9	1,219	25.8	1,191	32.3	1,160	38.7	1,127	45.2
			2,350	1,614	7.9	1,579	15.7	1,521	31.4	1,492	39.3	1,462	47.2	1,429	55.0

MEDIUM VACUUM

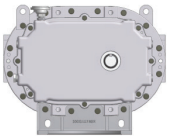
SIZE	DIA. INLET & OUTLET	DISPL. CU. FT./REV.	RPM	6 "HG		10 "HG		12 "HG		14 "HG		15 "HG		16 "HG	
				CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP
3M 3MV	2"-S	0.060	1,760	76	1.6	63	2.6	57	3.1						
			2,265	106	2.0	93	3.3	87	3.9						
			2,770	136	2.4	124	4.0	117	4.7	110	5.4				
			3,600	186	3.1	174	5.0	167	6.0	160	7.0	156	7.5		
4M 4MV	2½"-S	.117	1,760	161	3.0	142	4.9	132	5.8						
			2,190	211	3.7	193	6.0	183	7.2						
			2,620	262	4.4	243	7.1	233	8.6	222	10.0				
			3,600	376	5.9	358	9.8	348	11.8	337	13.7	331	14.7	325	15.7
5M 5MV	4"-S	.210	1,500	258	4.5	235	7.3	223	8.8	209	10.3				
			1,760	313	5.2	290	8.6	277	10.3	264	12.1				
			2,100	384	6.2	361	10.3	349	12.3	335	14.4	328	15.4		
			2,850	542	8.4	519	13.9	506	16.7	493	19.5	485	20.9	477	22.3
6M 6MV	5"-S	.383	1,170	363	6.3	328	10.4	310	12.5	290	14.6	279	15.7	267	16.7
			1,760	589	9.4	554	15.7	536	18.8	516	22.0	505	23.5	493	25.1
			1,930	655	10.3	619	17.2	601	20.7	581	24.1	570	25.8	558	27.5
			2,350	815	12.6	780	21.0	762	25.2	741	29.3	731	31.4	719	33.5

HIGH VACUUM

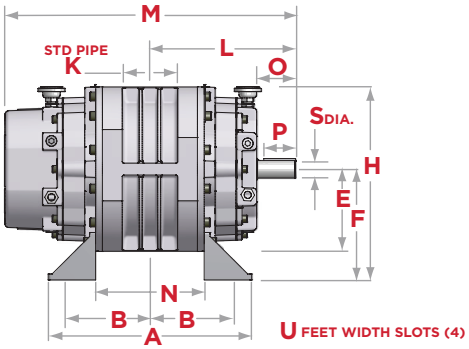
SIZE	DIA. INLET & OUTLET	DISPL. CU. FT./REV.	RPM	6 "HG		8 "HG		12 "HG		14 "HG		15 "HG		16 "HG	
				CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP	CFM	BHP
3H 3HV	1¼"-S	0.045	1,760	55	1.1	50	1.5	40	2.2						
			2,265	78	1.4	73	1.9	62	2.8						
			2,770	100	1.7	95	2.3	85	3.5	79	4.1	76	4.4		
			3,600	138	2.3	133	3.0	122	4.5	117	5.3	113	5.7	110	6.0
4H 4HV	1½"-S	.069	1,760	91	1.7	85	2.3	72	3.4						
			2,190	121	2.1	115	2.8	102	4.2	95	4.9	105	5.8		
			2,620	151	2.5	144	3.4	132	5.1	124	5.9	120	6.3		
			3,600	218	3.5	212	4.6	199	6.9	192	8.1	188	8.7	184	9.3
5H 5HV	2½"-S	.140	1,500	170	2.9	161	3.9	144	5.9	134	6.8				
			1,760	206	3.4	198	4.6	180	6.9	171	8.0	165	8.6		
			2,100	254	4.1	245	5.5	228	8.2	218	9.6	213	10.3		
			2,850	359	5.6	350	7.4	333	11.2	323	13.0	318	14.0	312	14.9
6H 6HV	3"-S	.227	1,170	209	3.7	197	4.8	173	7.4	159	8.7	152	9.3		
			1,760	343	5.6	331	7.4	307	11.2	293	13.0	286	14.0	278	14.9
			1,930	381	6.1	370	8.2	345	12.2	332	14.3	325	15.3	317	16.3
			2,350	477	7.5	165	9.9	441	14.9	427	17.4	420	18.6	412	19.9

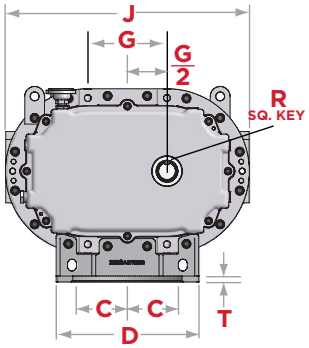


LH LEFT HAND
(OPTIONAL ASSEMBLY)



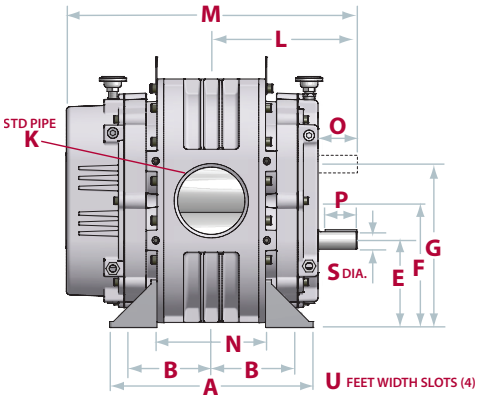
RHC
RIGHT HAND
(STANDARD ASSEMBLY)
CENTER TIMED FOR
ROTATION IN EITHER
DIRECTION

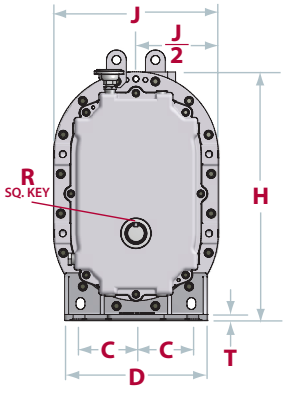




THC
TOP HAND
(OPTIONAL ASSEMBLY)

BHC
BOTTOM HAND
(STANDARD ASSEMBLY)
CENTER TIMED FOR
ROTATION IN EITHER
DIRECTION





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Please recycle after use.