



C. Emery Nelson, Inc.

INDUSTRIAL AND POWER PLANT EQUIPMENT

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Legend® DSL Series Dual Splash Lubrication

Positive Displacement Blowers
& Vacuum Pumps



GD
GARDNER DENVER

Experience Proven Results

Sutorbilt® Legend® DSL Series

Gardner Denver

- Tradition
- Quality
- Innovation
- 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
 - **30 months** from the date of shipment or
 - **24 months** from the date of installation, whichever occurs first

Experience Proven Results with the Legend DSL

Legend DSL Provides

- Pressure to 15 psig
- Vacuum to 16" Hg
- Airflow to 950 cfm
- 24/30 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

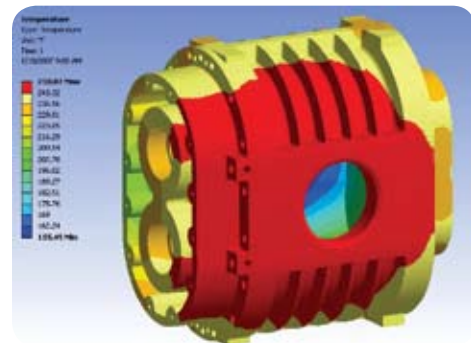


Figure 1 – Previous design was developed without the benefit of FEA thermal analysis.

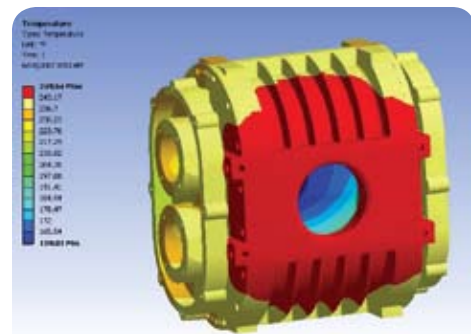
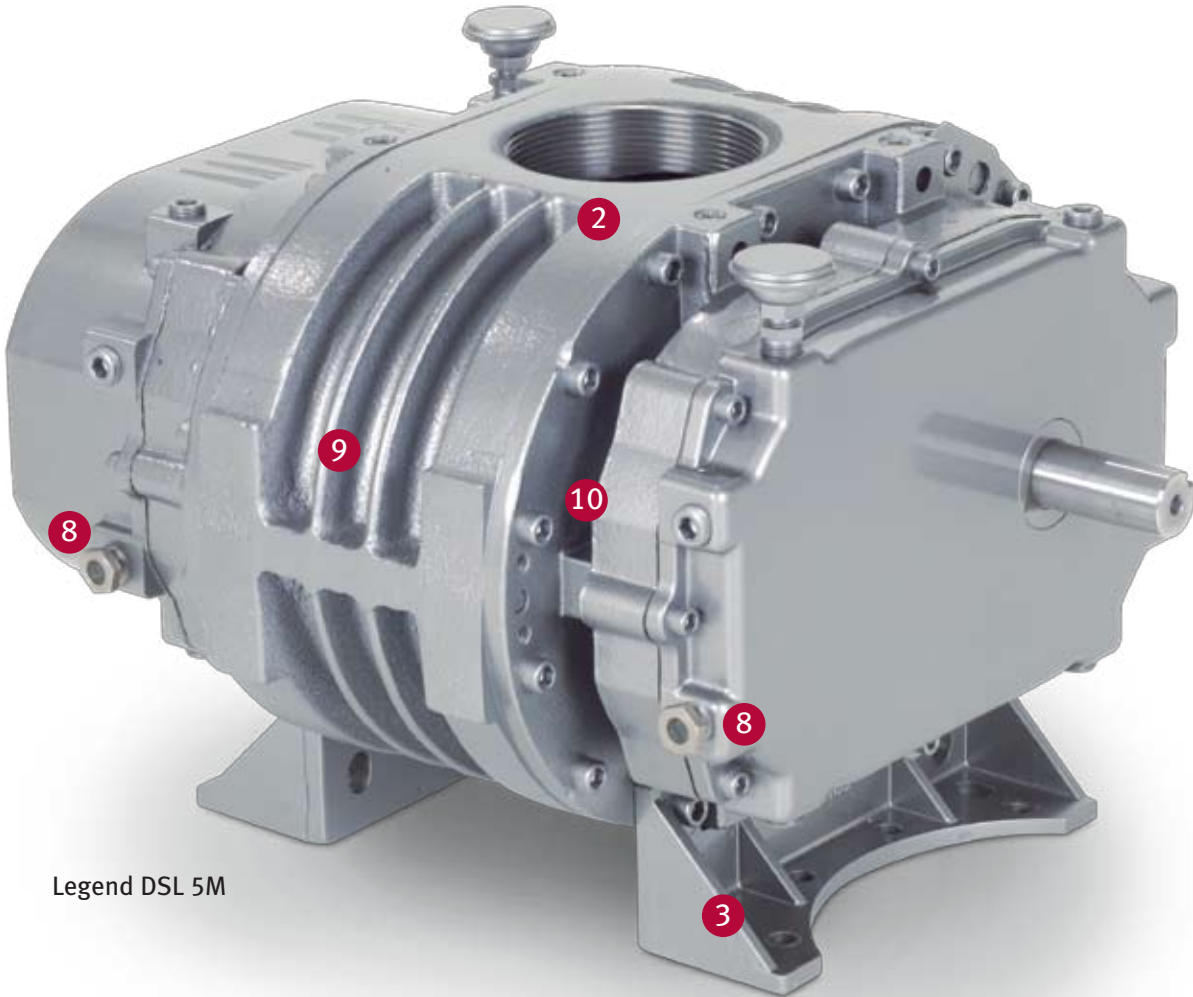


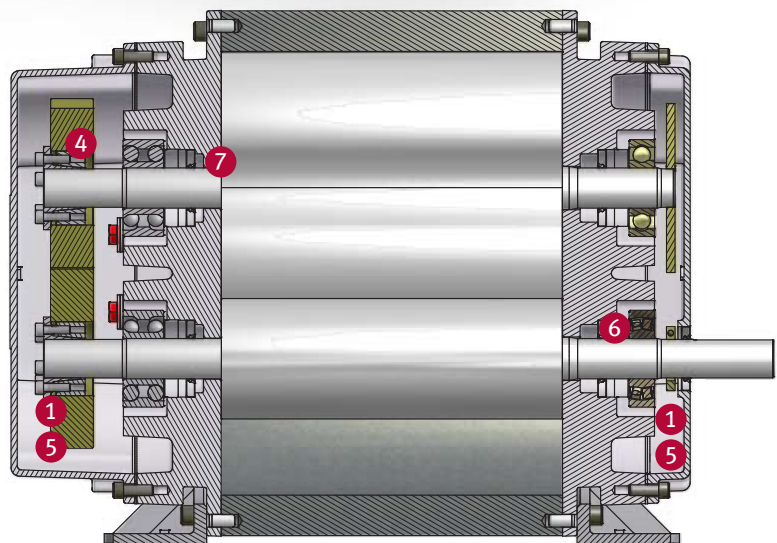
Figure 2 – With FEA thermal analysis, a good design was made great.

- 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



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



Robust Design Improves Performance & Efficiency

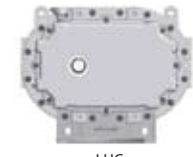
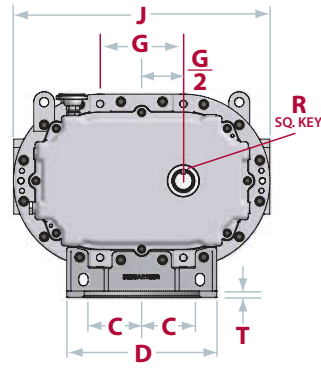
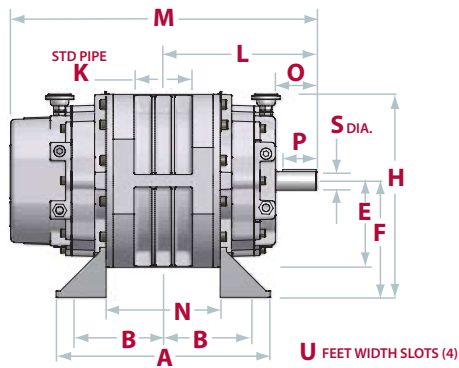
- Additional weight provides more rigidity to the blower allowing greater efficiency and tighter clearances
- The Legend DSL weights are greater than leading competitive brands which can be up to 37% heavier

Mechanical Gas Seals

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

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
3H	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



LHC
LEFT HAND
(OPTIONAL ASSEMBLY)

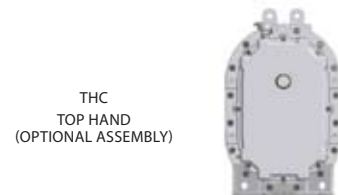
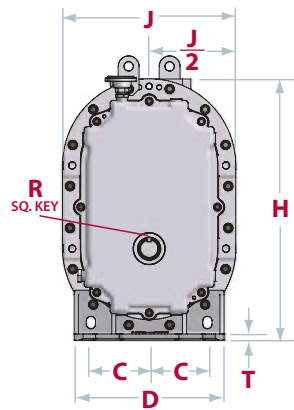
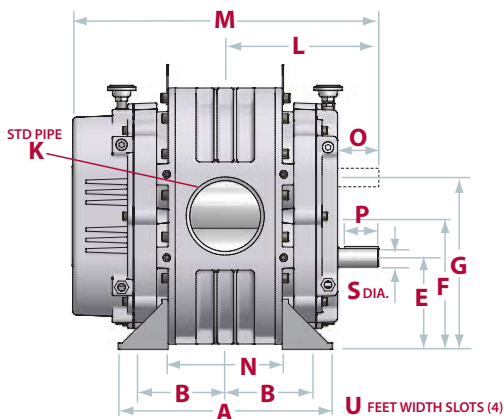


RHC
RIGHT HAND
(STANDARD ASSEMBLY)
CENTER TIMED FOR ROTATION
IN EITHER DIRECTION

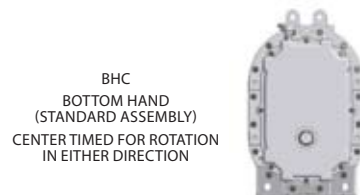
Dimensional Data – Vertical Configurations

SIZE	WT.	CONN.	A	B	C	D	E	F	G	H	J	K	L	M	N	O	P	R	S	T	U
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3M	79	S	7.62	3.13	2.69	7.75	4.50	6.25	8.00	11.88	7.75	2.00	6.30	12.92	4.36	1.78	1.63	0.19	.75	0.25	.62 x 1.12
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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	.31	1.375	.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 are approximate.



THC
TOP HAND
(OPTIONAL ASSEMBLY)



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

Genuine Gardner Denver Parts & Lubricants

- Maintain the Gardner Denver performance advantage and reliability with Genuine GD Replacement Parts available through authorized sales and service representatives
- Protect your Gardner Denver investment with AEON® PD, the only lubricant specially formulated for all blowers in any environment
 - Now available:
 - » AEON® PD-XD (eXtreme Duty)
 - » Designed specifically for high ambient and high discharge temperature applications
 - Also available:
 - » AEON® PD (standard applications)
 - » AEON® PD-FG (Food Grade)



Quality Promise

- Gardner Denver industrial blowers are manufactured under rigid ISO 9001 quality standards
- All models are thoroughly tested to meet the highest performance standards for unequaled service life under the most severe operating conditions



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**Gardner
Denver®**



Member



Please recycle after use.

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