



Spec Sheet 501-002

Section: 501

Effective: October 2017

Replaces: October 2012



LG1 Series

Sliding Vane Pumps for Cylinder Filling



LGF1E
and LGF1PE model

Reliability

Durable pumps for fast and quiet operation. Sliding vane design provides sustained performance and trouble-free operation.

Unique Features

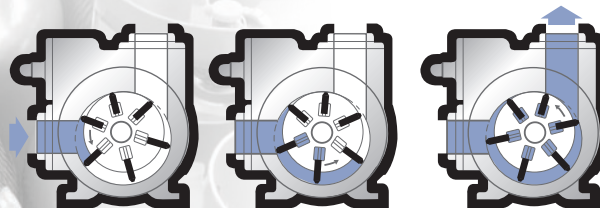
The latest 6-vane design contributes to reduced noise levels in the pumps. All models have 1-in. NPT tapped parts and use an exclusive "combination" valve that acts as both a back-to-tank bypass valve and an internal safety valve (no separate bypass valve is needed). The LGF1 pumps accept standard C-face mounted motors.

Flow Rates

At motor speed 1,750, the LG1 Series pumps provide approximately 8.0 gpm (30.3 L/min) at 50 psi (3.4 bar) and the LG1P models provide 13 gpm (49.2 L/min) at 50 psi (3.4 bar).

Applications

Cylinder filling, motor fueling, small vaporizers and dispensers.



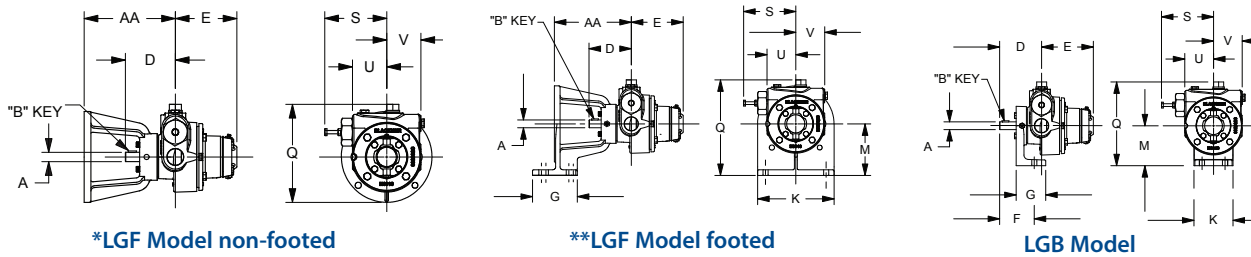
How Blackmer's sliding vane action works



LGB1E and
LGB1PE model



LG1 Series Sliding Vane Pumps for Cylinder Filling



*LGF Model non-footed

**LGF Model footed

LGB Model

Dimensions

Pump Model			A	B	D	E	G	K	M	Q	S	U	V	AA	Approximate Wt.	
															lbs.	kg
*LGF1E	C-Face Mount	in.	1 ¹ / ₁₆	3 ¹ / ₁₆	3 ¹¹ / ₁₆	4 ¹ / ₂	—	—	—	7 ¹ / ₈	4 ¹ / ₂	2 ¹ / ₂	2 ¹ / ₂	6 ¹¹ / ₁₆	39	17.7
LGF1PE		mm	—	—	93.7	114.3	—	—	—	181.0	114.3	63.5	63.5	169.9		
**LGF1E	C-Face Mount	in.	1 ¹ / ₁₆	3 ¹ / ₁₆	3 ¹¹ / ₁₆	4 ¹ / ₂	3 ⁷ / ₈	6 ⁵ / ₈	4 ¹ / ₂	8 ⁵ / ₁₆	4 ¹ / ₂	2 ¹ / ₂	2 ¹ / ₂	6 ¹¹ / ₁₆	39	17.7
LGF1PE		mm	—	—	93.7	114.3	98.4	168.3	114.3	211.1	114.3	63.5	63.5	169.9		
LGB1E	Bracket Mount	in.	1 ¹ / ₁₆	3 ¹ / ₁₆	3 ¹¹ / ₁₆	4 ¹ / ₂	2 ⁹ / ₁₆	3 ³ / ₈	3 ¹ / ₂	7 ⁵ / ₁₆	4 ¹ / ₂	2 ¹ / ₂	2 ¹ / ₂	—	19	8.6
LGB1PE		mm	—	—	93.7	114.3	65.1	85.7	88.9	185.7	114.3	63.5	63.5	—		

Performance Data

Assembled Pump Units		Pump and Motor Speed (rpm) ¹	Approx. Delivery of Propane at Diff Pressures and Pump Speeds				Maximum Differential Pressure		Maximum Working Pressure ²		Typical Motor ³	Motor Size for Standard Base ⁴	
			50 psi (3.5 bar)		100 psi (6.9 bar)								
			Model	RV Setting	gpm	L/min	gpm	L/min	psi	bar	psi	bar	hp
LGF1E	105 psi (7.2 bar)	1,750	8.0	30.3	6.0	22.7	125	8.6	350	24.1	1	56C	184C ⁴
LGB1E-DM	105 psi (7.2 bar)	1,750	8.0	30.3	6.0	22.7	125	8.6	350	24.1	1	56	184
LGF1PE	120 psi (8.3 bar)	1,750	13.0	49.2	10.0	37.9	125	8.6	350	24.1	1.5	56C	184C ⁴
LGB1PE-DM	120 psi (8.3 bar)	1,750	13.0	49.2	10.0	37.9	125	8.6	350	24.1	1.5	56	184

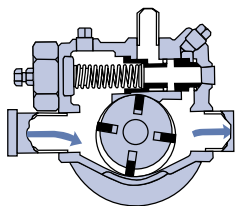
¹ Maximum pump speed is 1,750 rpm. Slower electric motor speeds may be used with a corresponding reduction in flow rate.

² Maximum rated working pressure is 350 psi (24.1 bar) for LPG and NH₃ (limited by U.L. and N.E.P.A. 58).

³ Motors may be specified from dimension charts above and electric motor price list No. 10-MTRG-01 (explosion proof manual start switch for 1 and 1½ horsepower single phase motors also available).

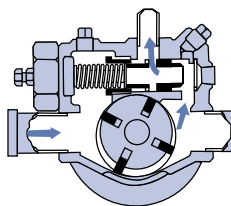
⁴ Pump flange accepts NEMA C-face motors with 5 7/8" bolt circle diameter. Pump flange will not accept 182TC or 184TC frames.

Combination Relief/Bypass Valve



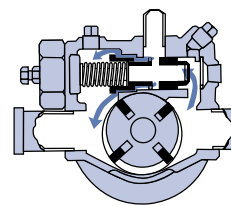
Normal Operation

Valve is completely closed during normal operation with discharge line open.



Back-to-Tank Bypassing

Discharge pressure exceeding the valve settings opens valve to second stage, returning all or part of pump flow back to supply tank.



Pressure Relief

If back-to-tank line is closed, valve opens to third stage, passing flow back to inlet side of pump.



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