Overview

The **LK** Series metering pump is the largest in the high performance line of pumps from Walchem Corporation. The LK is a motor-driven, mechanically actuated diaphragm metering pump with a maximum capacity of 114 GPH (432 l/h) and a maximum pressure of 225 PSI (1.5 MPa).

The heart of the LK is a compact and very reliable dual-cam system drive and worm gear reducer. Roller bearings and oil bath lubrication ensure outstanding durability and wear resistance in continuous operation.

The LK Series is ideal for chemical feed applications in a wide range of fields, including water treatment, chemical process, agriculture, mining and paper.



LK Series

Motor-Driven Metering Pumps

Summary of Benefits

- **Liquid Ends**

  Drive from the gear reduction unit is directly transferred to the diaphragm. This design is economical, yet retains a high degree of versatility. Liquid ends are available in PVC, PVDF and 316 SS for handling acids, bases, solvents, polymers and slurries.

- **Stroke Adjustment**

  Accurate and reliable stroke setting is accomplished with a micrometer dial of the springback stroke adjustment mechanism. This lockable mechanism is adjustable from 10 to 100%.

- **Drive**

  The LK utilizes a dual-cam system drive with a built-in worm gear type speed reducer. The aluminum bronze worm gear and the tapered roller bearing provide efficient transmission of motor power to the pump. This compact and rigid mechanism provides maximum wear resistance in continuous operation over long periods of time.

- **Motors**

  All of the standard models employ totally enclosed fan-cooled motors which are vertically mounted to save space. A variety of motor options are available, including explosion-proof and DC variable speed motors for external control by a 4-20 mA input signal.

WALCHEM



Specifications

Ordering Information

LK	N	45	A	-	VC
1	2	3	4		5

1 LK Series motor driven metering pump

2 N - NEMA 42C motor mounting flange

3 Capacity/Pressure Rating

Model	Capacity *		Max. Pressure PSI		Stroke Speed spm		Connection	Net Weight lbs	
	LPH@50Hz	GPH@60Hz	PVC/PVDF	SS	50 Hz	60 Hz	NPT	PVC/PVDF	SS
LKN32	30	9.5	150	225	96	116	1/2”	26	37
LKN45	50	15.9	150	225	48	58	1/2”	31	46
LKN47	100	31.8	120	120	96	116	1/2”**	31	46
LKN55	168	53.4	75	75	48	58	1”	35	57
LKN57	360	114.3	45	45	96	116	1”	35	57

* Capacities listed are at max. pressure

** LKN47 with VS liquid end has 1” NPT connections

4 Motor Code

A = 115/230V, 60Hz, 1 ph, 1/3 HP, 1725 RPM, TEFC Frame 42C
B = 230/460V, 60Hz, 3 ph, 1/3 HP, 1725 RPM, TEFC Frame 42C
C = 190/380/230/460V, 50/60Hz, 3 ph, 1/3 HP, 1450/1725 RPM, TEFC Frame 42C
D = 90VDC, 1 ph, 1/3 HP, 1750 RPM, TENV Frame 42C Variable Speed Motor, 115V Control
E = 180VDC, 1 ph, 1/3 HP, 1750 RPM, TENV Frame 42C Variable Speed Motor, 230V Control
F = 230/460V, 60Hz, 3 ph, 1/3 HP, 1725 RPM, Explosion Proof Motor, Class 1, Div.1, Group C & D
N = No motor option / used with special motor requirements

5 Liquid End Code

Type	VC	VH	VS	TC	S6
Application	Acids	Alkalines	Viscosity & Slurry	Strong acids	Solvents
1. Pump head	PVC			PVDF	SS316
2. Valve ball	CE	HC	HC/SS304	Alumina ceramic	HC
3. Valve seat Type 32	FKM	EPDM	SS304	FKM	SS316
Type 45 to 57	PVC		SS304	PVDF	SS316
4. O-ring	FKM	EPDM		FKM	-----
5. Valve gasket	PTFE				
6. Diaphragm	PTFE + EPDM				

Material symbols

PVDF: Polyvinylidenefluoride
CE: Ceramic
FKM: Fluoroelastomer
EPDM: Ethylene propylene diene monomer
HC: Hastelloy C276

Notes:

1. Walchem recommends the installation of a pressure relief valve and a pulsation dampener in the discharge line of the LK Series pumps. Contact your Walchem distributor for these and other control and accessory products from Walchem.

2. Maximum viscosity at rated output is 1000 cps for VS and S6, 500 cps for VH and 300 cps for VC and TC.

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