

Diaphragm Metering Pumps



LK Series Metering Pump

The LK Series metering pump is the largest in the high performance line of pumps from Walchem.

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.

KEY 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.

ORDERING INFORMATION

LKN **45** - **A** - **VC**

Pump Capacity/
Series Pressure Motor Liquid End
Materials

PUMP SERIES

LKN = LKN Series motor-driven metering pump with NEMA 42C motor mounting flange

CAPACITY/PRESSURE RATING

See chart on this page

MOTOR CODE (All 42C Face)

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

LIQUID END MATERIALS

Type	VC	VH	VS	TC	S6
Application	Acid	Alkaline	Viscosity & slurries	Strong Acids	Solvents
Pump Head	PVC	PVC	PVC	PVDF	SS316
Valve Ball	CE	HC	HC/SS316*	CE	HC/SS316*
Valve Seat					
Type 32	FKM	EPDM	SS304	FKM	SS316
Type 45 to 57	PVC	PVC	SS304	PVDF	SS316
O-Ring	FKM	EPDM	EPDM	FKM	----
Valve Gasket	PTFE	PTFE	PTFE	PTFE	PTFE
Diaphragm	PTFE + EPDM				

* Note: HC in LKN32 Only

CE	Alumina ceramic	EPDM	Ethylene propylene diene monomer
FKM	Fluoroelastomer	HC	Hastelloy C276
PTFE	Polytetrafluoroethylene	PVC	Polyvinylchloride
PVDF	Polyvinylidene fluoride	SS316	316 stainless steel
		SS304	304 stainless steel

Notes:

- 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.
- Maximum viscosity at rated output is 1000 cps for VS and S6, 500 cps for VH and 300 cps for VC and TC.
- It is recommended that pumps be shielded from direct exposure to the elements.

CAPACITY AND PRESSURE RATING

Model	Capacity*		Max. Pressure PSI		Stroke Speed SPM		Connections	Weight lbs***	
	LPH@ 50 Hz	GPH @ 60 Hz	PVC/ PVDF	SS	50 Hz	60 Hz	NPT	PVC/ PVDF	SS
LKN32	30	9.5	150	225	96	116	1/2"	50	61
LKN45	50	15.9	150	225	48	58	1/2"	55	70
LKN47	100	31.8	120	120	96	116	1/2"***	55	70
LKN55	168	53.4	75	75	48	58	1"	59	81
LKN57	360	114.3	45	45	96	116	1"	59	81

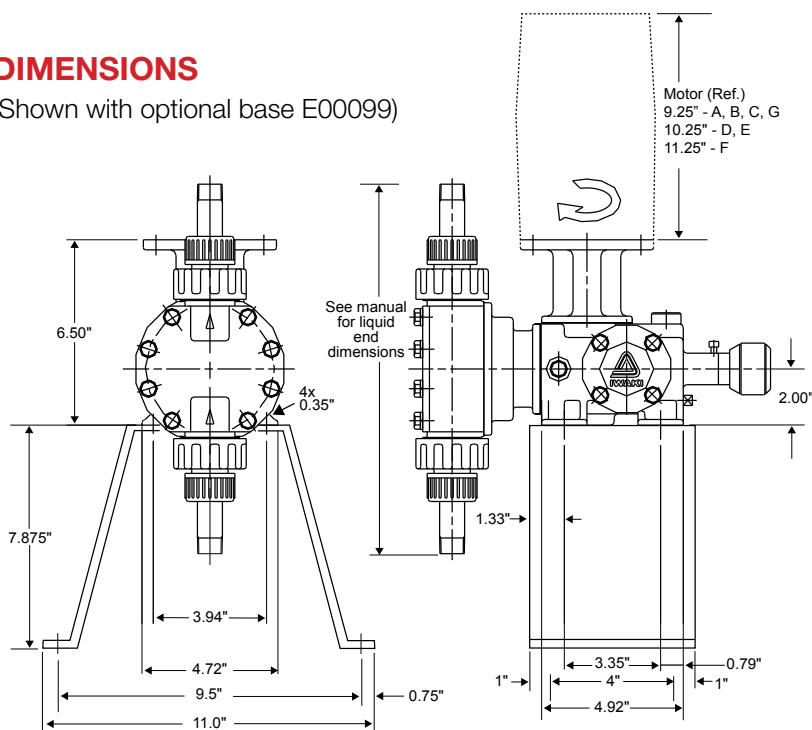
* Capacities listed are at max. pressure

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

*** Weights with standard motor

DIMENSIONS

(Shown with optional base E00099)



ABOUT US

Walchem integrates its advanced sensing, instrumentation, fluid pumping and communications technologies to deliver reliable and innovative solutions to the global water treatment market. Our in-house engineering is driven by quality, technology and innovation. For more information on the entire Walchem product line, visit: walchem.com

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