

LQ3A Rotary Lobe Pump

RANGE OF PERFORMANCE

Size: 25 - 100 mm

Flow: 320 - 63000 L/H

Pressure: 0.3 - 1.6 MPA

Power: 0.75 - 37 kW



APPLICATIONS

LQ3A rotary lobe pumps can handle solids (e.g., cherries and olives), slurries, pastes, and a variety of liquids. A gentle pumping action minimizes product degradation. They also offer continuous and intermittent reversible flows and can operate dry for brief periods of time. Flow is relatively independent of changes in process pressure, so output is relatively constant and continuous.

They are popular in these diverse industries because they offer superb sanitary qualities, high efficiency, reliability, corrosion resistance and good clean-in-place and steam-in-place (CIP/SIP) characteristics.

- Chemical industry
- Pulp and paper
- Food industry
- Petrochemical industry
- Beverage industry
- Biotechnology

FEATURES

Rotary lobe pump is a type of positive displacement pump. It is similar to a gear pump except the lobes are designed to almost meet, rather than touch and turn each other. Lobe contact is prevented by external timing gears located in the gearbox. Pump shaft support bearings are located in the gearbox, and since the bearings are out of the pumped liquid, pressure is limited by bearing location and shaft deflection which reduces the noise levels of this pump.



BTS
ENGINEERING

<https://prom-nasos.pro>
<https://bts.net.ua>
<https://prom-nasos.com.ua>
+38 095 656-37-57,
+38 067 360-71-01,
+38 063 362-12-31,
info@prom-nasos.pro

LQ3A Rotary Lobe Pump

PERFORMANCE TABLE

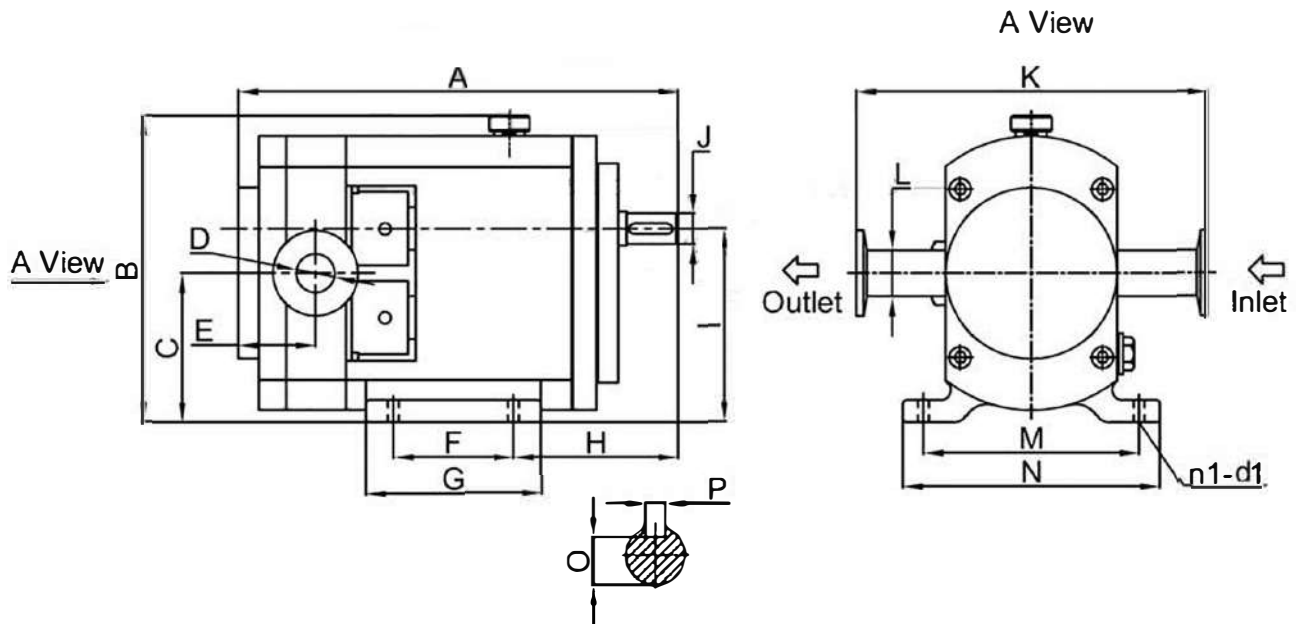
Pump size	Displacement	Recommended Speed	Rated Flow	Diameter		Power	TVSM	GBM	VFM
	L/rev	RPM	L/H	mm	Type	kW			
LQ3A3	0.03	100-600	320-1650	25	Clamp Flange Thread SMS Barb Square port	0.75	●	◎	◎
LQ3A6	0.06	100-600	650-1600	25		0.75	●	◎	◎
LQ3A8	0.08	100-600	850-2160	25		1.5	●	◎	◎
LQ3A12	0.12	100-500	1300-3200	32		2.2	●	◎	◎
LQ3A20	0.2	100-500	2100-5400	40		3	●	◎	◎
LQ3A30	0.3	100-500	3200-6400	40		4	●	◎	◎
LQ3A36	0.36	100-500	3800-7600	50		5.5	●	◎	◎
LQ3A52	0.52	100-500	5600-11000	50		5.5	●	◎	◎
LQ3A66	0.66	100-500	7100-14000	65		7.5	●	◎	◎
LQ3A78	0.78	100-500	9000-18000	80		7.5	●	◎	◎
LQ3A100	1	100-500	11000-22000	80		11		●	◎
LQ3A135	1.35	100-500	15000-30000	80		15		●	◎
LQ3A160	1.6	100-500	17000-34000	80		18.5		●	◎
LQ3A200	2	100-500	21600-43000	80		22		●	◎
LQ3A300	3	100-500	31600-63000	100		37		●	◎

Explanation:

TVSM means transmission variable speed motor; GM means fixed speed gearbox motor; VFM means variable frequency motor.

“●” means standard configuration from YONJOU. “◎” means available options.

BARE PUMP DIMENSION



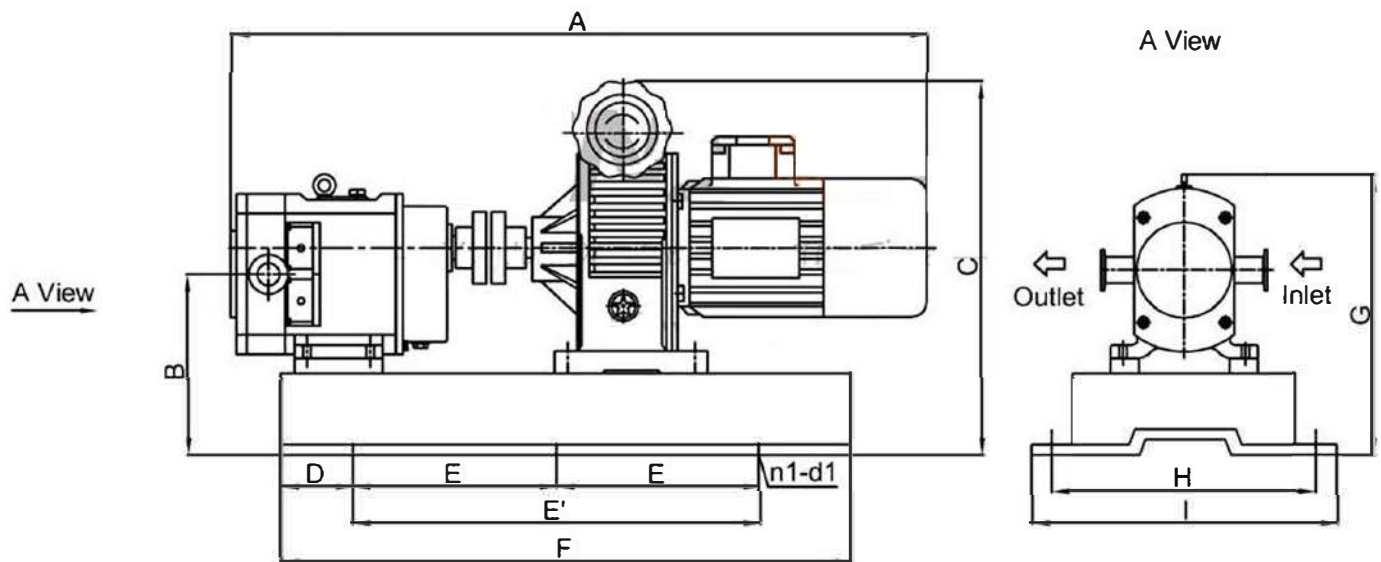
Model	A	B	C	D	E	F	G	H	I	J	K	L	M	N	n1-d1	O	P
LQ3A6	257	179	87	φ23	45	70	102	96	113	φ18	204	φ27	126	150	4-φ10	14.5	6
LQ3A8	267	179	87	φ23	45	70	102	96	113	φ18	204	φ27	126	150	4-φ10	14.5	6
LQ3A12	329	200	98	φ30	44	80	110	147	128	φ19	214	φ38	146	176	4-φ12	15.5	6
LQ3A20	350	237	120	φ34	45	90	125	155	156	φ25	240	φ38	166	200	4-φ14	21	8
LQ3A30	360	237	120	φ38	48.8	90	125	155	156	φ25	240	φ42	166	200	4-φ14	21	8
LQ3A36	408	293	134	φ36	60	100	140	186	176	φ32	265	φ42	195	235	4-φ14	27	10
LQ3A52	421	293	134	φ46	60	100	140	186	176	φ32	275	φ52	195	235	4-φ14	27	10
LQ3A66	433	293	134	φ59	66	100	140	186	176	φ32	275	φ63	195	235	4-φ14	27	10
LQ3A78	476	351	163	φ72	71	120	160	202	215	φ42	370	φ76	240	270	4-φ16	37	12
LQ3A100	494	351	163	φ72	79.7	120	160	202	215	φ42	370	φ76	240	270	4-φ16	37	12



LQ3A Rotary Lobe Pump

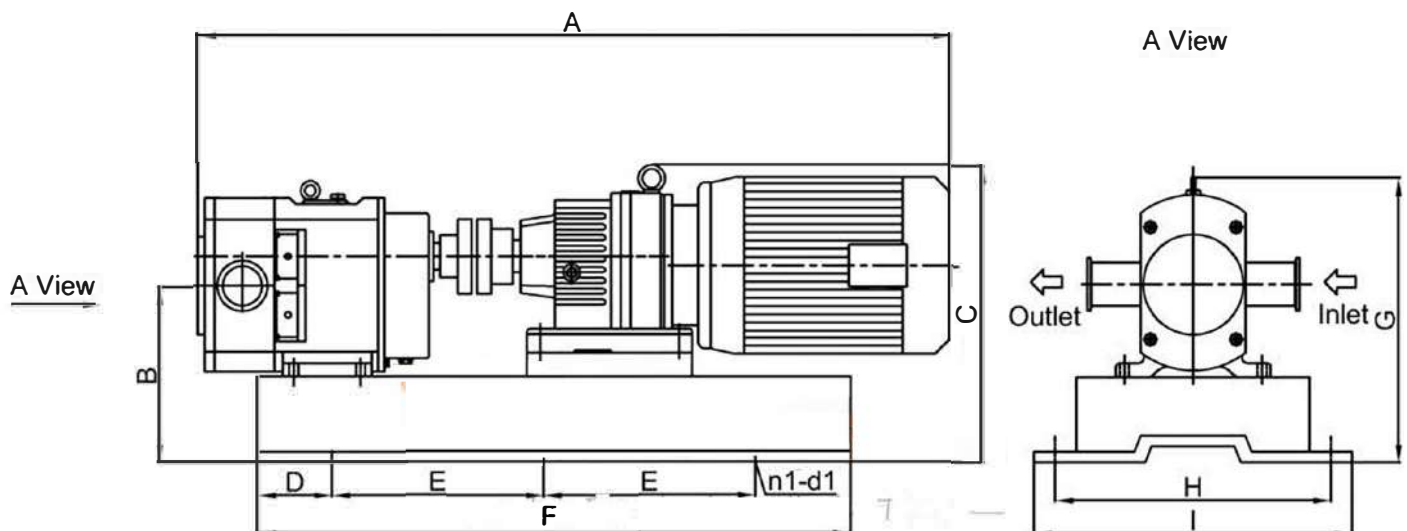
COMPLETE WITH MOTOR DIMENSION

Transmission variable speed motor (TVSM):



Model	A	B	C	D	E	E'	F	n1-d1	G	H	I
LQ3A6	689	167	357	70	/	400	560	4-φ16	259	260	300
LQ3A8	780	179	381	70	/	400	660	4-φ16	271	290	330
LQ3A12	922	200	435	75	/	470	740	4-φ18	302	360	400
LQ3A20	963	200	441	80	/	500	740	4-φ18	317	370	410
LQ3A30	973	200	441	80	290	/	780	6-φ18	317	370	410
LQ3A36	1127	238	527	90	350	/	850	6-φ18	397	425	465
LQ3A52	1140	238	527	90	/	580	890	4-φ20	397	450	515
LQ3A66	1192	238	527	90	370	/	890	6-φ20	397	450	515
LQ3A78	1235	243	542	100	400	/	1000	6-φ20	431	460	525

Fixed speed gearbox motor (GM):



Model	A	B	C	D	E	E'	F	n1-d1	G	H	I
LQ3A100	1409	243	467	100	420		1100	6-φ20	431	385	450



LQ3A Rotary Lobe Pump

CONSTRUCTION

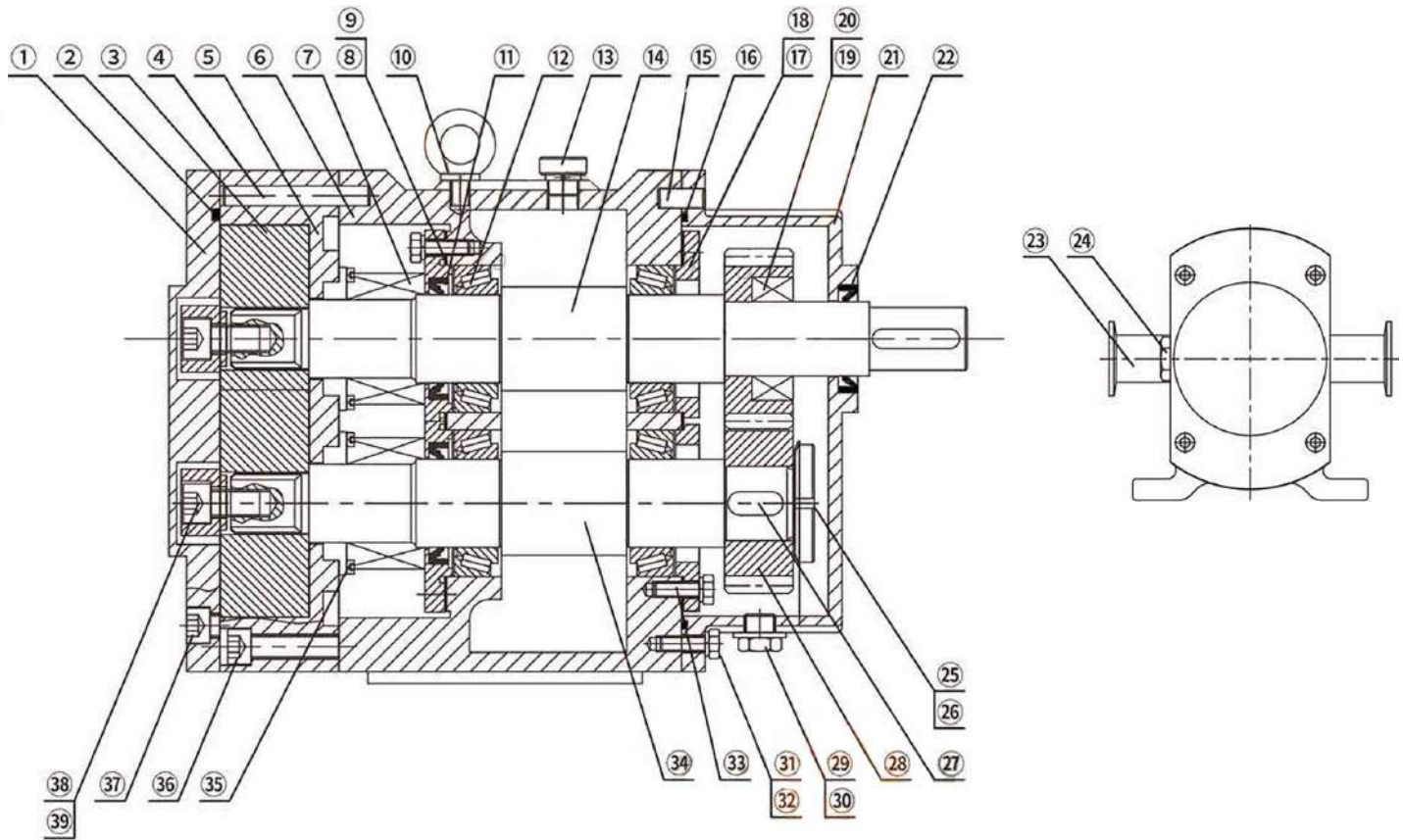


Fig. 1. Construction of the LQ3A Rotary Lobe Pump

Item	Description	Item	Description	Item	Description
①	Pump Cover	⑭	Driving Shaft	⑳	Key
②	O Ring	⑮	Pin	㉑	Right Gear
③	Rotor	⑯	O Ring	㉒	Plug
④	Locating Pin	⑰	Bearing Cover	㉓	Gasket
⑤	Pump Casing	⑱	Gasket	㉔	Bolt
⑥	Gear Box Casing	㉒	Luck Sleeve	㉕	Washer
⑦	Mechanical Seal	㉓	Left Gear	㉖	Bolt
⑧	Bearing Cover	㉔	Gear Box Cover	㉗	Driven Shaft
⑨	Gasket	㉕	Oil Seal	㉘	Bolt
⑩	Lug	㉖	Inlet / Outlet	㉙	Bolt
⑪	Oil Seal	㉗	Sight Glass	㉚	Bolt
⑫	Bearing	㉘	Luck Nut	㉛	Bolt
⑬	Vent Cap	㉙	Washer	㉜	Bolt Cap