

FL--ENM

Monobloc gears pump



FL--ENM external gear pumps are robust, reliable machines which provide a precise, constant flow. This characteristic is very useful in a wide range of applications.

They can be applied in operations such as: dosing of anchovy paste, oils, fats, creams, chocolates and other products.

OPERATING PRINCIPLE

Movement of the product comes from the flow of the liquid between the teeth of two coupled gears. The main gear (driving gear) is moved by the motor shaft and forces the follower gear (free gear) to turn; this volume displacement is proportional to the turning speed and provides the required flow equally in both directions.

This pump is highly recommended for dosing and transferring high viscosity products, along with other products which need to be handled at controlled temperature, thanks to the option of including a heating chamber in the front in order to prevent solidification or crystallization.

CARACTERISTICS

- Reversible
- High performance and capability to work with high temperatures
- Low noise level
- Long life in extreme working conditions
- High versatility and reliability
- Completely watertight
- Monobloc design and compact size
- DIN 11851 connections

MATERIALS

- Teflon follower gear
- Driving gear in SS AISI 316
- Parts in contact with the product are made of SS AISI 316
- Level of finish: Foodstuff

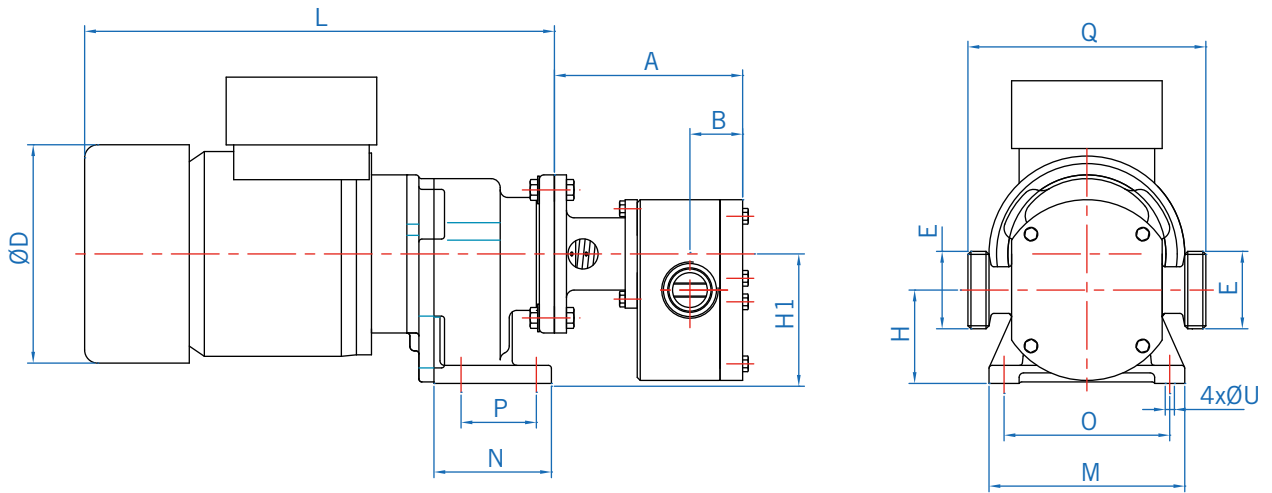
OPTIONS

- Control panel
- Heating chamber through electrical elements, steam or hot water
- Pressure control device with pressure switch
- Temperature control device with temperature probes
- Iron/stainless steel trolley, platform
- CE control panel with start/stop device, inverter, 10 m of wire, electrical connectors
- Other connections: FLANGE, BSP, CLAMP, RJT, etc.

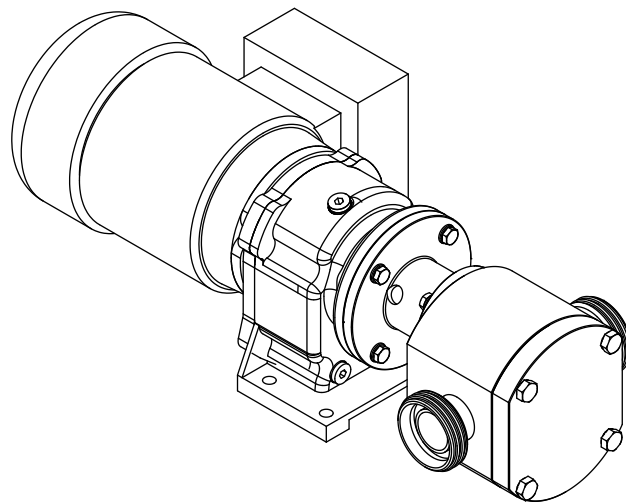
CAPACITY OF FL--ENC PUMPS

MODEL	Min. Flow (L/h)	Max. Flow (L/h)	Max. Pressure (bar)	DIN 11851	BSP	CLAMP
FL40ENM	200	1.000	2	DN25 - DN32	1" - 1¼"	1" - 1¼"
FL60ENM	400	2.000	2	DN25 - DN32	1" - 1¼"	1" - 1¼"

DIMENSIONS OF FL--ENM MODEL



MODEL	A	B	D	E	H	H1	L	M	N	O	P	Q	U
FL40ENM	125	35	130	DN25 - DN32	62	86	290	130	78	110	50	158	8.5
FL60ENM	165	45	145	DN25 - DN32	62	86	312	130	78	110	50	158	8.5



FL--ENC

External gears pump

With their robust design, FL--ENC gear pumps can provide a constant flow and allow working with high pressures. FL--ENC pumps can work with flows up to 25 m³/h.

The gear pump external casting combines high reliability and high-efficiency seal technology. These features together make FL--ENC pumps suitable for use in the chemical and foodstuff industries with products such as oils, fats, molasses, starch, cellulose, creams, chocolate, etc.

OPERATING PRINCIPLE

Movement of the fluid comes from the flow of the liquid between the teeth of two coupled gears produced by the external gear pumps. One of the gears (driving gear) is moved by the motor shaft, whilst the other (free gear) rotates due to the movement of the driving gear, thus allowing the product to flow.

This positive volumetric displacement pump system is very useful in dosing and transferring high viscosity products and in applications with fluids which have to be handled with temperature; FL--ENC pumps are manufactured with heating chambers on the front and rear part of the gears in order to avoid product solidification.

CHARACTERISTICS

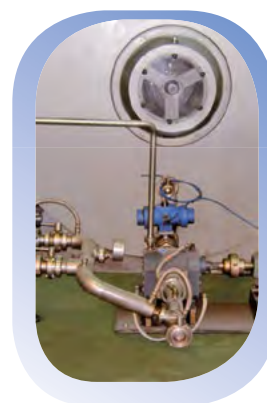
- Reversible
- DIN 2576 connections
- Platform
- High performance and capability to work with high temperatures
- Low noise level
- Long life in extreme working conditions
- High versatility and reliability
- Compact design

MATERIALS

- Pump body in nodular casting
- Gears in F-127 tempered carbon steel
- Shafts in carbon steel F-5
- Shaft covering in SS AISI 304L or 316L
- Iron platform

OPTIONS

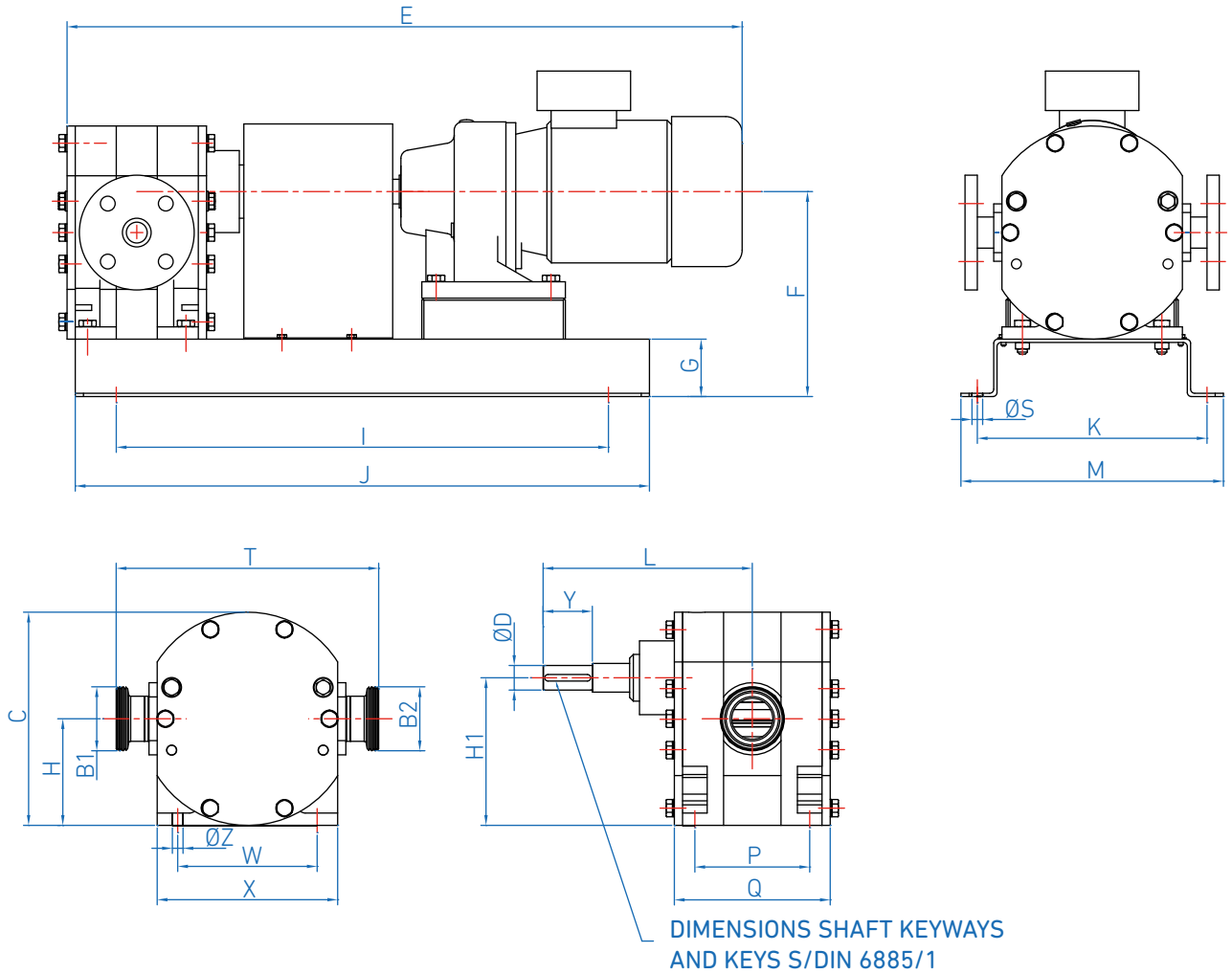
- Heating chamber through electrical elements, steam or hot water
- Pressure control device with pressure switch
- Temperature control device with temperature probes
- Iron/stainless steel trolley,
- CE control panel with start/stop device, inverter, 10 m of wire, electrical connectors
- Other connections: DIN 11851, BSP, CLAMP, RJT, etc.



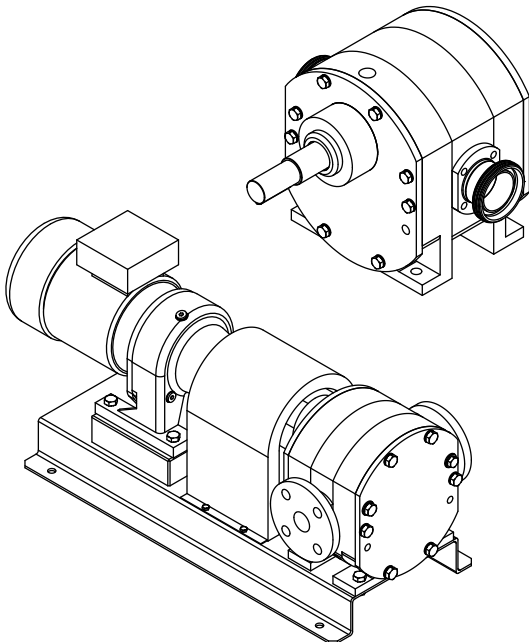
CAPACITY OF FL--ENC PUMPS

MODEL	Min. Flow (L/h)	Max. Flow (L/h)	Max. Pressure (bar)	Ø Free (mm)	DIN 11851	CLAMP	BSP
FL50ENC	500	4.000	18	29	DN25 - DN32	1"	1" - 1¼"
FL70ENC	1.000	7.000	18	50	DN40 - DN50	1 ½" - 2"	1 ½" - 2"
FL100ENC	3.000	10.000	18	67	DN65 - DN80	2" - 2 ½"	2" - 2 ½"
FL140ENC	5.000	15.000	18	80	DN80 - DN100	3" - 4"	3"

DIMENSIONS OF FL--ENC MODEL



MODEL	B1	B2	C	D	E	F	G	H	H1	I	J	K	L	M	P	Q	S	T	W	X	Y	Z
FL50ENC	DN32	DN32	260	30	825	190	60	130	180	500	700	340	245	370	245	170	14	300	170	220	60	13
FL70ENC	DN50	DN50	260	30	843	190	60	130	180	500	700	340	255	370	255	190	14	320	170	220	60	13
FL100ENC	DN80	DN80	260	34	932	190	60	130	180	500	700	340	270	370	270	220	14	340	170	220	60	13
FL140ENC	DN80	DN80	260	34	1086	190	60	130	180	500	700	340	290	370	290	260	14	340	170	220	60	13



MODEL	WEIGHT (kg) Bare shaft pump
FL50ENC	48.5
FL70ENC	54
FL100ENC	63
FL140ENC	73.5

FL--PRL

Lobe Pump

FL--PRL lobe pumps are made from stainless steel and are highly suitable for pumping viscous fluids.

CHARACTERISTICS

Flow rates up to 70 m³/h
Pressures up to 12 bar
Viscosities up to 100.000 cP
Mechanical seal Sic/Sic/EPDM
DIN 11851 connections

TEMPERATURES

Standard up to 90°C
With special rotors up to 165°C

MATERIALS

Parts in contact with the product are manufactured in SS AISI 316
EPDM gaskets

OPTIONS

Safety by-pass
Dual or single mechanical seal Tc/Tc/V
Other connections: CLAMP, Flange, SMS, etc.
Heating chambers
Operation by geared motor drive, variable speed motor or frequency converter.
Cooling system by thermosiphon
Trolley, platform

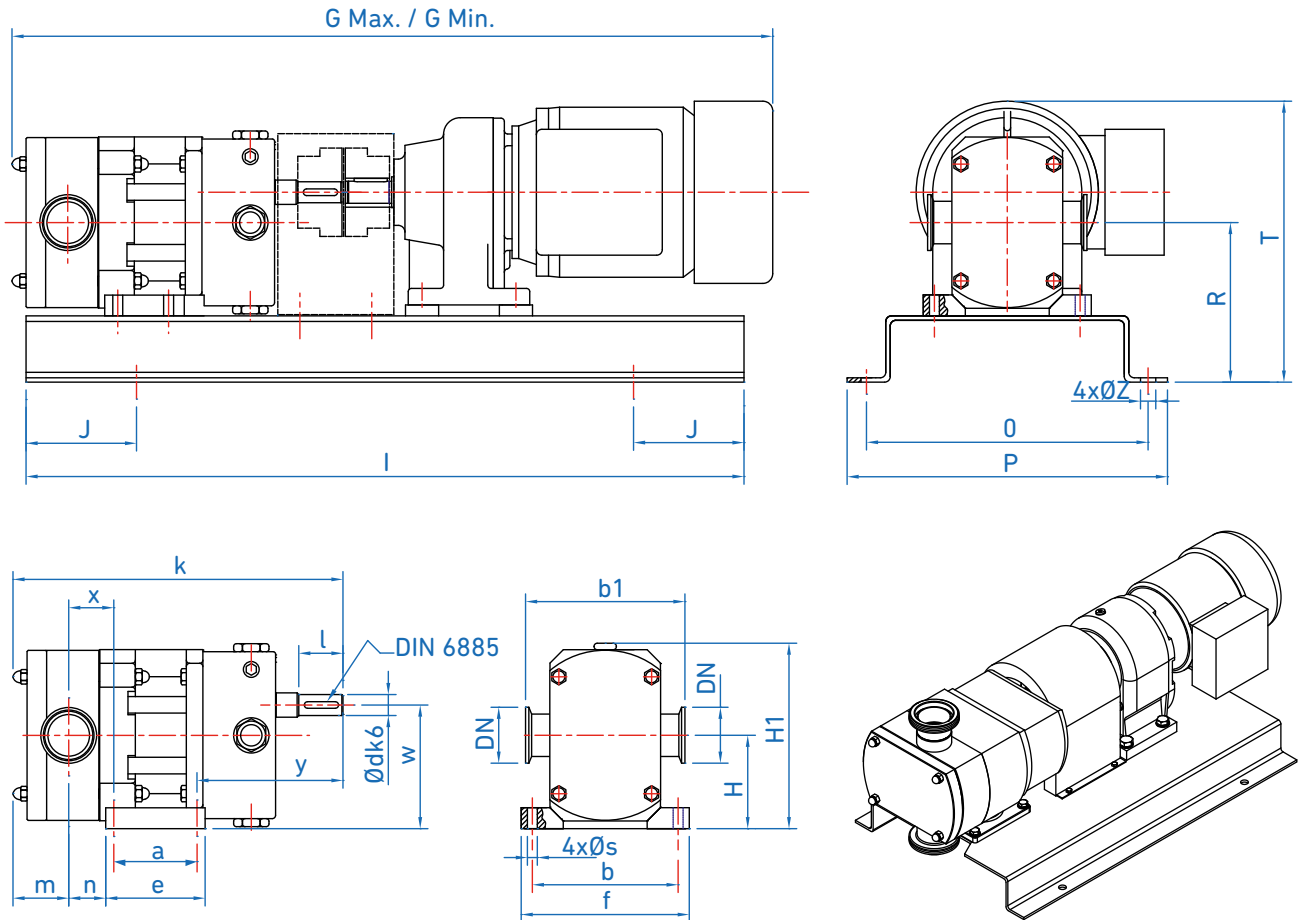
APPLICATIONS

The characteristics of FL--PRL pumps make them suitable for a wide range of products such as:

- Milk cream / Curd / Cheese / Concentrated milk / Condensed milk
- Liquid sugar / Molasses / Glucose / Fructose / Starches / Honey
- Fruit or vegetable concentrates / Pulps / Juices / Syrups
- Animal oils and fats / Vegetable oil and fats
- Mayonnaise / Mustard / Tomato sauce / Condiments / Eggs / Broths
- Concentrated must / Musts / Yeasts / Brewery mashes
- Creams / Gels / Lotions / Extracts / Liquid detergents
- Nutrient solutions / Enzymes / Stock cultures / Cell suspensions
- Glues / Starch solutions / Resins / Photographic emulsions



DIMENSIONS OF FL--PRL MODEL



MODEL	DN	a	b	b1	c	Ød	e	f	G Min.	G Max.	H	H1	I	J	K	l	m	n
FL55SPRL	25	46	126	144	20	19	72	146	641	728	84.5	166	650	100	298	40	52	28
FL55LPRL	40	46	126	144	20	19	72	146	654	741	84.5	166	650	100	311	40	62	30
FL75SPRL	40/50	56	156	174/244	24	28	82	176	726	894	102.5	210	700	100	342	60	64	30
FL75LPRL	50	56	156	180	24	28	82	176	741	909	102.5	210	700	100	357	60	71.5	37.5
FL100SPRL	50/60	66	200	223/285	28	40	98	228	887	1098	140	282	1000	150	432	74	76.5	41.5
FL100LPRL	80	66	200	243	28	40	98	228	917	1128	140	282	1000	150	462	74	88	60
FL130SPRL	80	124	254	294	32	50	164	284	985	1196	185	360	1100	150	530	82	111	55
FL130PRL	100	124	254	294	32	50	164	284	1020	1231	185	360	1100	150	565	82	121	80

MODEL	O	P	R	Øs	T	w	x	y	ØZ
FL55SPRL	255	290	144.5	9	255	112	41	160	9
FL55LPRL	255	290	144.5	9	255	112	43	160	9
FL75SPRL	260	290	162.5	9	285	140	43	179	12
FL75LPRL	260	290	162.5	9	285	140	50.5	179	12
FL100SPRL	320	350	285	10.5	359	190	57.5	232	14
FL100LPRL	320	350	285	10.5	359	190	76	232	14
FL130SPRL	340	370	385	10.5	465	250	75	220	18
FL130PRL	340	370	385	10.5	465	250	100	220	18

MODEL	Connections	Flow (L/rev)	Max Pressure (bar)
FL55SPRL	DN25	0.106	9
FL55LPRL	DN40	0.152	6
FL75SPRL	DN40/50	0.283	12
FL75LPRL	DN50	0.389	8
FL100SPRL	DN50/65	0.690	12
FL100LPRL	DN80	1.070	8
FL130SPRL	DN80	1.80	12
FL130PRL	DN100	2.54	8