

Flowrox™ pumps

Dosing LPP-D hose pumps

Flowrox™ LPP-D pumps are designed for heavy industrial duties and are ideal for dosing and flow control of abrasive, corrosive, viscous or crystallizing media. They provide accurate dosing in all process conditions as the pump discharge flow does not depend on the pipeline pressure. There is no variation due to the discharge pressure condition, output remains the same on every cycle. Flowrox hose pumps provide exact flow per revolution. They also incorporate an advanced rolling design, which eliminates friction, maximizes hose life and lowers energy consumption. Lifetime of Flowrox pumps' hoses is 3-5 times longer than conventional hose pumps.



Benefits

- Accurate dosing
- Capability to pump 24/7
- Energy efficiency
- Long service intervals
- Low operating costs

Features

- Accurate dosing enabled by positive displacement pumping which also minimizes back flow.
- No overheating at high continuous flow rates due to the advanced roller design that minimizes friction and heat.
- Wear resistant hose and hose inserts are the only parts in contact with the medium
- Ideal for pumping diverse slurries and dosing a wide range of abrasive, corrosive, viscous or crystallizing media.

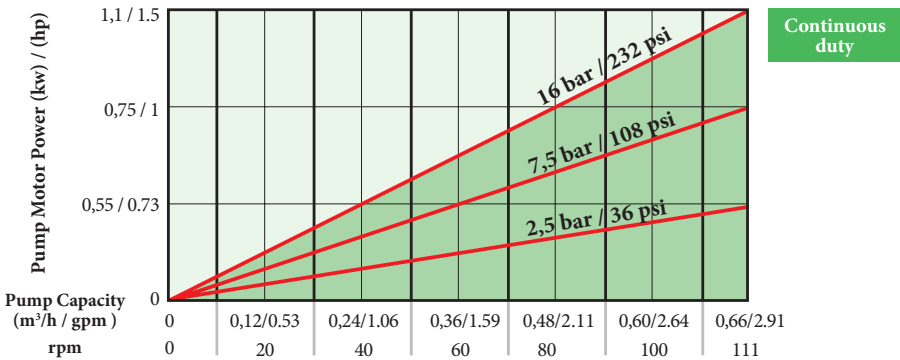
Ideal applications:

- Chemical dosing (e.g. lime milk, Flocculants)
- Flotation
- Process analyser sample transfer

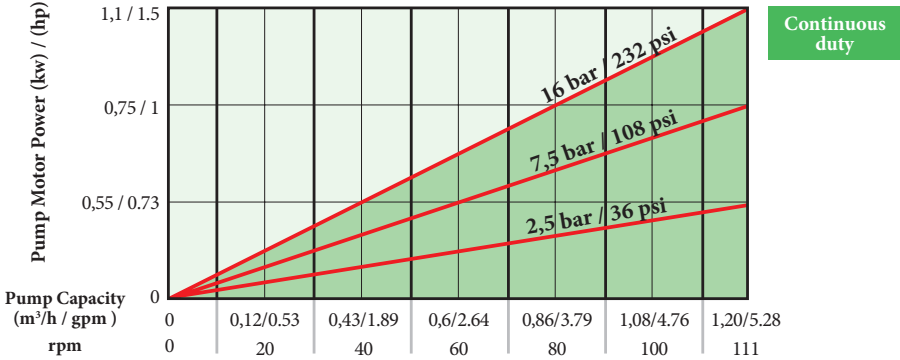
Technical data	LPP-D15 / LPP-D½	LPP-D20 / LPP-D¾	LPP-D25 / LPP-D1
Weight	47 kg / 104 lb	47 kg / 104 lb	60 kg / 132 lb
Flow/revolution	0,1 l / 0.026 gal	0,18 l / 0.047 gal	0,3 l / 0.079 gal
Maximum flow	0.66 m³/h / 2.91 gpm	1,2 m³/h / 5.28 gpm	2,0 m³/h / 8.8 gpm
Maximum pressure (standard)	7.5 bar / 108 psi	7.5 bar / 108 psi	7.5 bar / 108 psi
Maximum pressure (high pressure)	16 bar / 232 psi	16 bar / 232 psi	16 bar / 232 psi
Maximum fluid temperature	95 °C / 203 °F (NR-hose: 75 °C / 167 °F)		
Lubricant volume (standard)	0.4 l / 0.1 gal	0.4 l / 0.1 gal	0.4 l / 0.1 gal
Lubricant volume (high pressure)	1 l / 0.26 gal	1 l / 0.26 gal	1 l / 0.26 gal
Hose bore	15 mm / ½"	20 mm / ¾"	25 mm / 1"
Motor power	0,55-1,1 kW / 0.75-1.5 hp	0,55-1,1 kW / 0.75-1.5 hp	0,75-1,5 kW / 0.75-2.0 hp

Pump curves

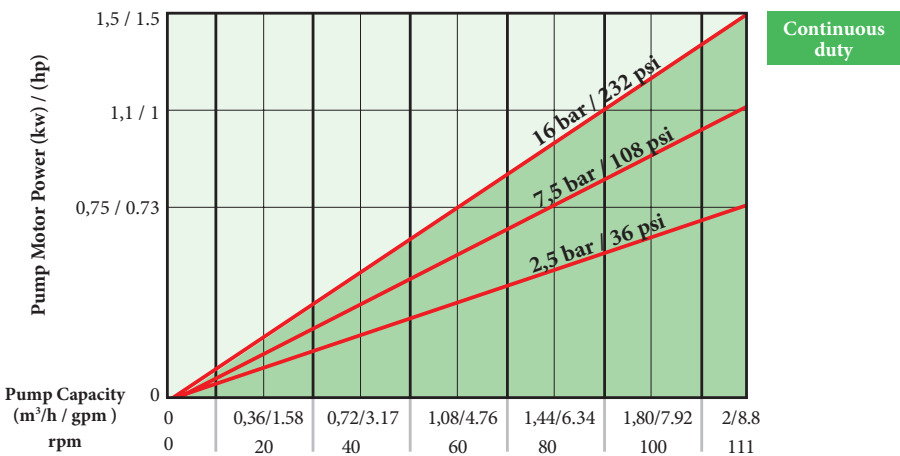
LPP-D15 CAPACITY CHART, CONTINUOUS DUTY, UP TO 95°C / 203°F
(24 h/day/7 days per week)



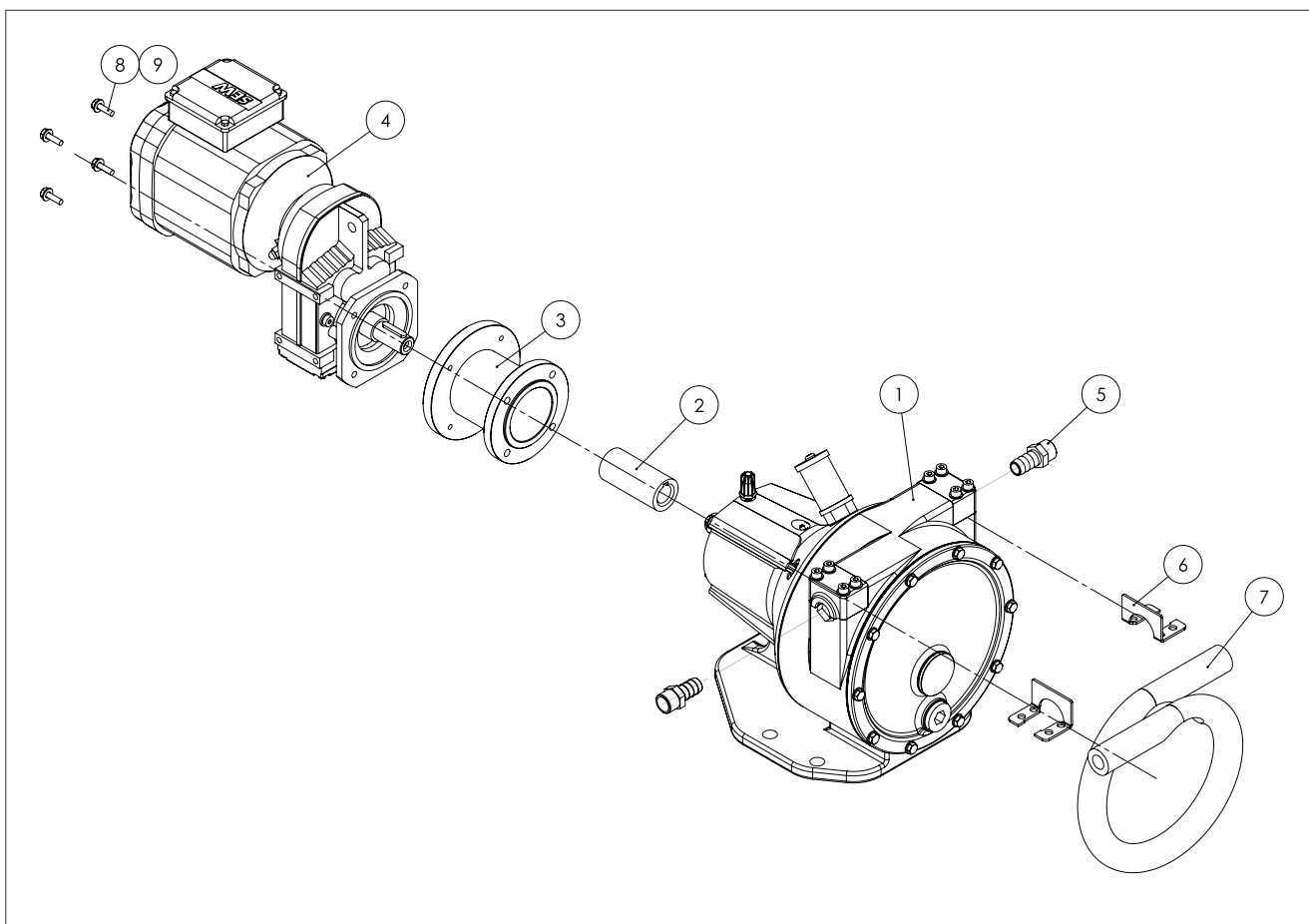
LPP-D20 CAPACITY CHART, CONTINUOUS DUTY, UP TO 95°C / 203°F
(24 h/day/7 days per week)



LPP-D25 CAPACITY CHART, CONTINUOUS DUTY, UP TO 95°C / 203°F
(24 h/day/7 days per week)



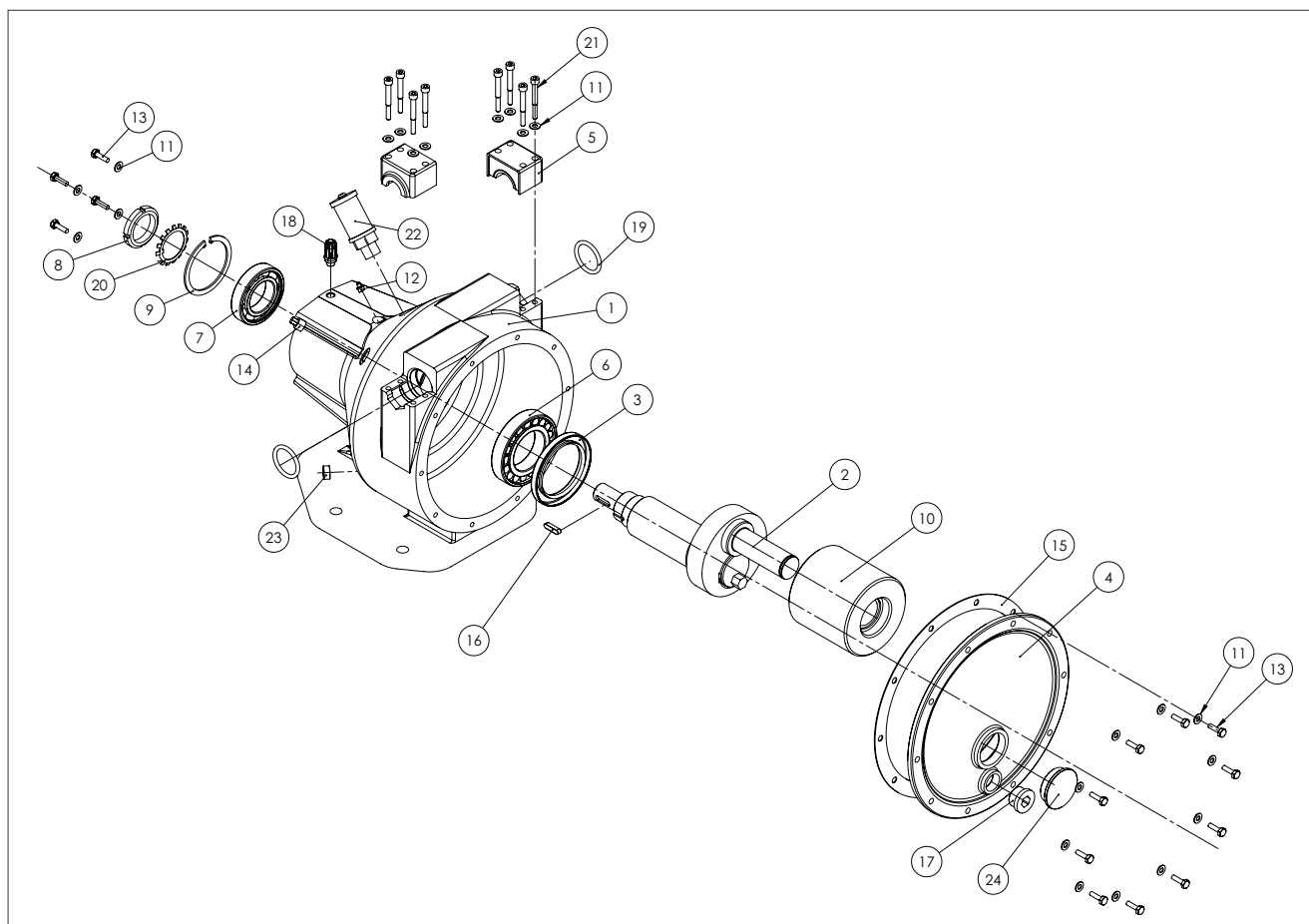
Exploded view of complete LPP-D pump



ITEM NO.	DESCRIPTION	QTY.
1	PUMP HEAD	1
2	COUPLING	1
3	ADAPTER FLANGE	1
4	GEAR MOTOR	1
5	HOSE INSERT	2
6	STICKER SEAL	1
7	HOSE	2
8	SCREW	4
9	WASHER	4

All exploded parts are modular and order specific. Adapter parts vary depending on the selected gear motor.

Exploded view of LPP-D pump head



ITEM NO.	DESCRIPTION	QTY
1	BODY	1
2	CRANKSHAFT	1
3	RADIAL SHAFT SEAL	1
4	FRONT COVER	1
5	HOSE BRACKET	2
6	ROLLER BEARING	1
7	BALL BEARING	1
8	SHAFT NUT	1
9	RETAINING RING	1
10	ROTOR ASSEMBLY	1
11	WASHER	22
12	GREASE NIPPLE	1
13	HEX SCREW	14
14	PLUG	1
15	FRONT COVER SEAL	1
16	PARALLEL KEY	1
17	PLUG	1
18	SILENCER	1
19	O-RING	2
20	LOCK PLATE	1
21	HEX SOCKET SCREW	8
22	BREATHER	1
23	HEX SOCKET PLUG	1
24	OIL EYE	1

Standard construction. In high pressure pumps support rollers are used in addition with rotor assembly:

LPP-D15/20: 3 support rollers

LPP-D25: 2 support rollers

Technical specifications

Sizes:

DN 15, 20, 25 / ½", ¾", 1"

Connections:

- G½" male threads (LPP-D15 / LPP-D½)
- G¾" male threads (LPP-D20 / LPP-D¾)
- G1" male threads (LPP-D25 / LPP-D1)

Temperature range:

Maximum fluid temperature:

95 °C / 203 °F (NR-hose: 75 °C / 167 °F)

Minimum & maximum ambient operating temperature:

0 to 46 °C / 0 to 115 °F

Construction materials:

Body: Cast aluminium

Rotor: Carbon steel / polyurethane

Hose inserts: AISI 316 stainless steel / polypropylene / nylon

Hose material:

- EPDM = Ethylene propylene
- NR = Natural rubber
- NBR = Nitrile
- NBRF = Nitrile (FDA)

Drive unit

- Gear motor
- Gear unit
- Bare shaft

Auxiliaries

- Hose leak detector
- Revolution detector
- Forced cooling fan
- Pressure transmitter
- Frequency inverter

Comparison of Flowrox Technology

Flowrox rolling technology is capable of operating in continuous duty with its maximum pressure and maximum flow in the same point. This is where the conventional pump compromises either on pressure or flow.

Compared to Flowrox pumps, conventional hose pumps can only reach less than half of the flow in continuous duty.

What is more, Flowrox pumps can perform even with high temperature media up to 95°C / 203 °F.

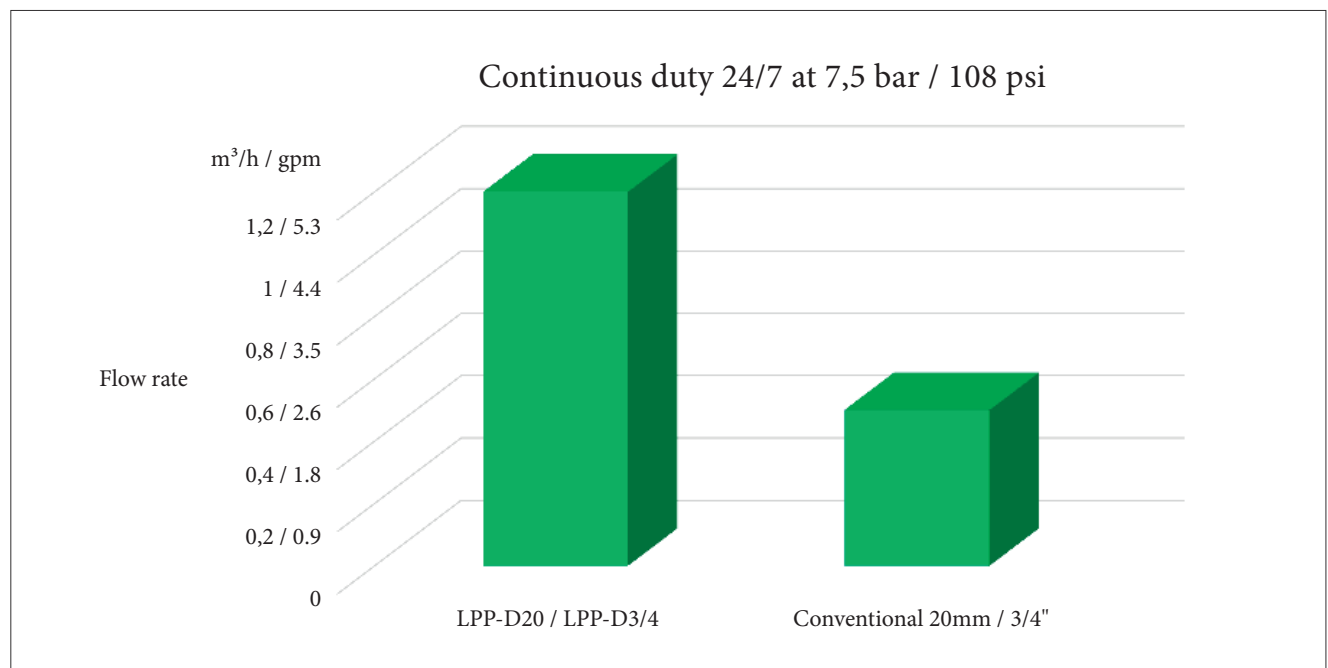
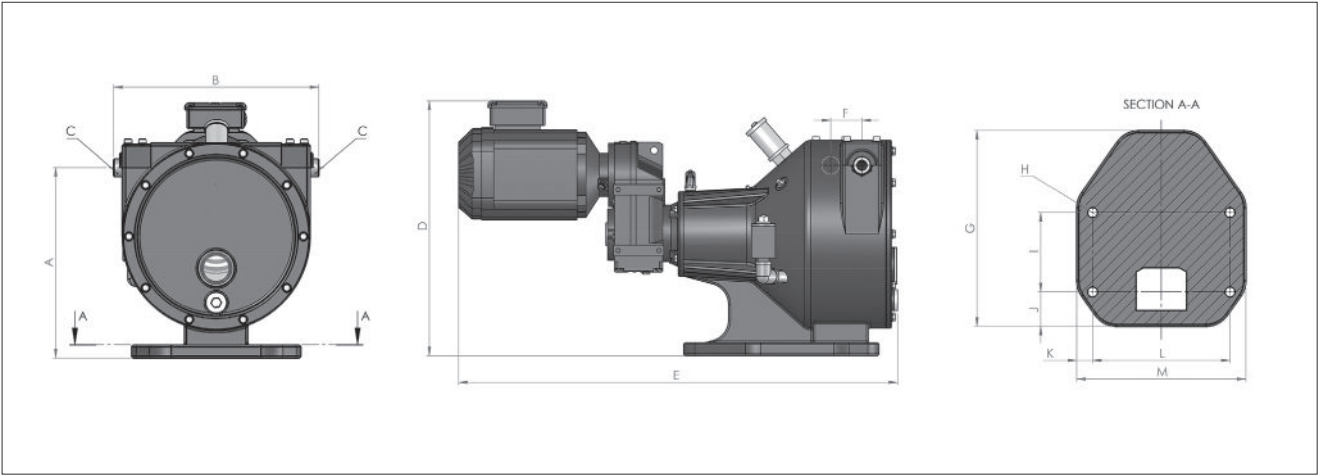


Image: Flowrox hose pump technology vs. conventional technology.

Dimensions, LPP-D pumps



PUMP MODEL	A	B	C	D	E	F	G	H	I	J	K	L	M
LPP-D25 / LPP-D1 (GM: SEW FAF37, 1.5kW)	360 / 14.17"	388 / 15.28"	G1"	482 / 18.98"	831 / 32.7"	59 / 2.32"	370 (14.57")	4 X 19 (0.75")	150 (5.91")	65 (2.56")	30 (1.18")	260 (10.24")	320 (12.6")
LPP-D20 / LPP-D3/4 (GM: SEW FF27, 1.1kW)	285 / 11.22"	325 / 12.8"	G3/4"	414 / 16.31"	853 / 33.58"	50 / 1.97"	320 / 12.58"	4 X 19 (0.75")	85 / 3.35"	65 / 2.56"	26 / 1"	240 / 9.45"	291 / 11.46"
LPP-D15 / LPP-D½ (GM: SEW FF27, 1.1kW)	285 / 11.22"	325 / 12.8"	G1/2"	414 / 16.31"	853 / 33.58"	50 / 1.97"	320 / 12.58"	4 X 19 (0.75")	85 / 3.35"	65 / 2.56"	26 / 1"	240 / 9.45"	291 / 11.46"

Dimensions with the largest availabe motor size

Pump Model Selection Guide

Dosing Pumps LPP-D

1.	2.	3.	4.	5.	6.	7
LPP-D	020	B016	B	I0	C	A

1. sign	PUMP SERIES
LPP-D	Hose pump, dosing

2. sign	BODY SIZE
015	DN15
020	DN20
025	DN25

3. sign	PRESSURE RATING
B075	7,5 BAR
B016	16 BAR

4. sign	HOSE INSERTS
A	G1/2"
B	G3/4"
C	G1"
D	1/2" NPT
E	3/4" NPT
F	1" NPT

5. sign	HOSE INSERT MATERIAL
I0	EN 1.4401 (AISI 316)
YY	Other

6. sign	HOSE MATERIAL
B	EPDM Ethylene Propylene
C	NR Natural Rubber
D	NBR Nitrile Rubber
J	NBRF Nitrile Rubber (FDA)

7. sign	AUXILIARIES
A	Hose leak detector
B	Revolution detector
C	Pressure transmitter with display
D	Pressure flange
E	Hose leak detector CSA
Y	Other

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www.valmet.com/flowcontrol

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