

# LEWA ecoflow®

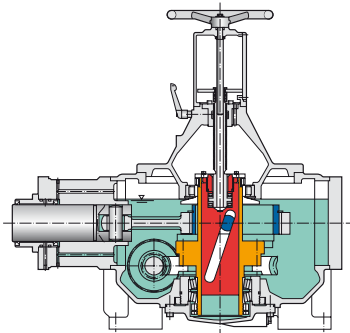
## Variable eccentric pump drive

### Type LDH and LDHB

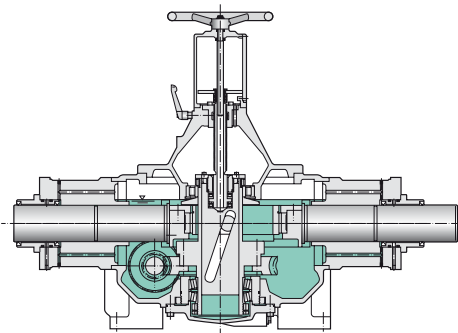
- Drive units
- Process pumps

#### Performance

<b>Pressure</b>	up to 1200 bar
<b>Flow rate</b>	up to 16 m <sup>3</sup> /h
<b>Temperature</b>	up to 200° C



Drive LDH



Drive LDHB

#### Features and benefits

- **Rod thrust:** LDH 60 kN  
LDHB 50 kN
- **Stroke length:** 0–120 mm continuous, linear adjustment
- **Proven variable eccentric drive principle**, which means the stroke length is adjusted where it arises: at the eccentric. Direct transmission of torque from the drive shaft to the eccentric
- **Multiplex pumps:** up to 6 pumps can be horizontally combined also with other types of the LEWA programme
- **Pump elements** of multiplex pumps are connected oil tight and torsion stiff
- **Base plates:** up to three drive units no base plate is required
- **Stroke adjustment** manual, electrical or pneumatic
- **Pump heads types:** plunger and diaphragm pump heads can be mounted
- **Drive:** AC and DC motors, variable frequency control is possible
- **Attachable instruments:** contact initiator, speed transmitter
- **Plug-in coolers** can be installed later without problems (optional)
- **Harmonic plunger motion** also at partial stroke

- **API 675 specification** is met
- **Different stroke frequencies** of the drive units allow adaptation to fluid and operating conditions
- **Long service life** due to safe design and selection of materials, oil bath lubrication, weather- and splash protection
- **Simple operation, easy maintenance**
- **Integrated lubricating system**

#### Method of operation

The one piece drive shaft directly turns the eccentric via the worm gear and the hollow shaft which is connected to the worm wheel. The transformation of the rotary motion of the variable eccentric into an reciprocating movement of the plunger rod is created via a straight crank gear at the LDH and via a cross crank gear at the LDHB. The axial movement of the sliding shaft with its skew-slotted groove is converted into a radial movement of the variable eccentric via the adjusting spindle and so the stroke length of the displacer can be adjusted continuously.



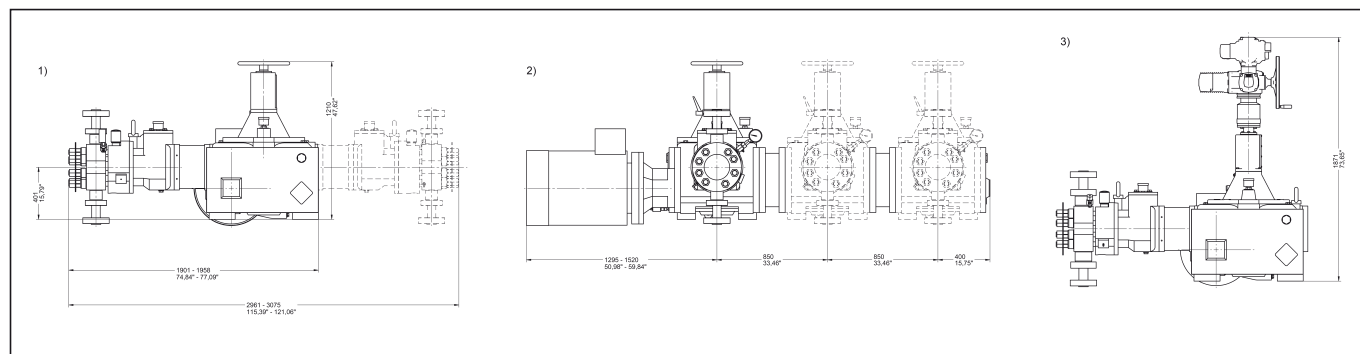
## Performance data

Stand. plunger ø [mm]	Q <sub>theor.</sub> [l/h] <sup>1)</sup> Flow rate per pump head at max. stroke length and stroke frequency n [min <sup>-1</sup> ] <sup>2)</sup>					Permissible operating pressure of standard pump heads [barg]					
						Diaphragm pump heads					
	Type					M 200/M 400		M 500		M 800	
						Model <sup>3)4)</sup>					LDH
	77	116	145	152	186						
20	174,2	262,4	328,0	343,8	420,7	1200	1200	---	---	---	---
25	272,1	410,0	512,5	537,2	657,4	1200	1000	---	---	---	---
30	391,9	590,4	738,0	773,6	946,6	849	707	350	350	745	707
36	564,3	850	1063	1114	1363	589	491	350	350	589	491
44	843,0	1270	1587	1664	2036	---	---	350	329	---	---
52	1177	1774	2217	2324	2844	---	---	283	235	---	---
60	1568	2361	2952	3094	3786	---	---	212	177	---	---
70	2134	3214	4018	4212	5154	---	---	156	130	---	---
85	3146	4739	5924	6210	7599	---	---	106	88,1	---	---
100	4354	6560	8200	8595	10518	---	---	76,4	63,7	---	---
120	6270	9446	11807	---	---	---	---	53,1	44,2	---	---
140	8534	12857	16071	---	---	---	---	39,0	32,5	---	---

1) Q<sub>theor.</sub> from stroke volume x stroke frequency  
 Q<sub>eff.</sub> (= Q<sub>theor.</sub> x η<sub>p</sub>) is stated in technical data sheet.  
 For multiplex pumps, determine total metered flow by multiplying by the number of pump heads.

2) Special stroke frequencies on request  
 3) Standard pump head connections: internal thread to DIN or NPT.  
 To special order: flanges to DIN, IG, ANSI or BS etc.  
 4) Plunger pump heads on request

## Dimensions



- 1) Simplex drive unit with manual stroke adjustment/motor mounted horizontally
- 2) Multiplex drive unit with manual stroke adjustment/motor mounted horizontally
- 3) Simplex drive unit with electric stroke adjustment/motor mounted horizontally

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