Creating Fluid Solutions

A MEMBER OF NIKKISO pumps+systems

LEWA ecoflow[®] Variable eccentric pump drive Type LDH and LDHB

Performance

Pressure up to 1200 bar Flow rate Temperature up to 200° C

up to 16 m³/h



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 torgue 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

Drive units Process pumps

- **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.	Q _{theor} [I / h] ¹) Flow rate per pump head at max. stroke length and stroke frequency n [min-1]2)					Permissible operating pressure of standard pump heads [barg]						
plunger						Туре	Diaphragm pump heads					
						Model 3)4)	M 200/M 400		M 500		M 800	
	77	116	145	152	186	Туре	LDH	LDHB	LDH	LDHB	LDH	LDHB
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_{theor} from stroke volume x stroke frequency

 $\begin{array}{l} Q_{_{eff.}} (= Q_{_{theor.}} x \; \eta_{_F}) \; is \; stated \; in \; technical \; data \; sheet. \\ For \; multiplex \; pumps, \; determine \; total \; metered \; flow \; by \\ multiplying \; by \; the \; number \; of \; pump \; heads. \end{array}$

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



Simplex drive unit with manual stroke adjustment/motor mounted horizontally
Multiplex drive unit with manual stroke adjustment/motor mounted horizontally
Simplex drive unit with electric stroke adjustment/motor mounted horizontally



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