

# LEWA ecoflow®

## Variable eccentric pump drive

### Type LDC

- Drive units
- Metering pumps

#### Performance

<b>Pressure</b>	up to 500 bar
<b>Flow rate</b>	up to 1100 l/h per pump head
<b>Temperature</b>	up to 400° C



#### Customer advantages

- **Rod thrust:** 5 kN
- **Stroke length:** 15 mm
- **Stroke adjustment:** available with fixed stroke length or with stroke length adjustment. Setting of stroke length is carried out manually electrically or pneumatically
- **Linear stroke adjustment** in steps of 0,05 mm via hand wheel while pump is stopped or in operation. Proven variable eccentric drive principle, that means stroke length is adjusted where it arises: at the eccentric
- **Multiplex drive units** also in different frame sizes with motor mounted horizontally. Common oil bath without radial shaft seal ring between the drive units (thus less wear parts)
- **Harmonic plunger motion** also at partial stroke
- **API 675 specification** is met
- **Differing stroke rates** make it possible to meet requirements for different fluids and process conditions
- **Long life** due to solid construction, best materials, oil bath lubrication, weather- and splash protection

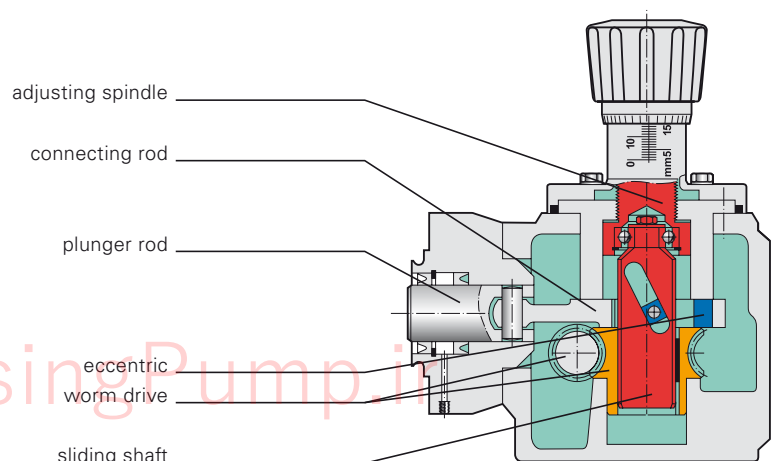
#### ■ Simple operation, easy maintenance

- **Pump head types:** plunger- and diaphragm pump heads can be mounted
- **Drive:** AC and DC motors, frequency inverter possible
- **Attachable instruments:** contactor

#### Method of operation

The drive shaft directly turns the **eccentric** via the **worm gear** and the **sliding shaft**. The **connecting rod** converts the rotary motion of the eccentric into a reciprocating motion of the **plunger rod**. The stroke length for the displacer movement is set (with the pump stopped or in operation) through radial shifting of the **eccentric**.

For this the **sliding shaft** is axially shifted via the **adjusting spindle**. The axial movement of the sliding shaft is converted into a radial movement of the **eccentric** via the skew-slotted groove in the **sliding shaft**.



Dosing Pump

## Performance data

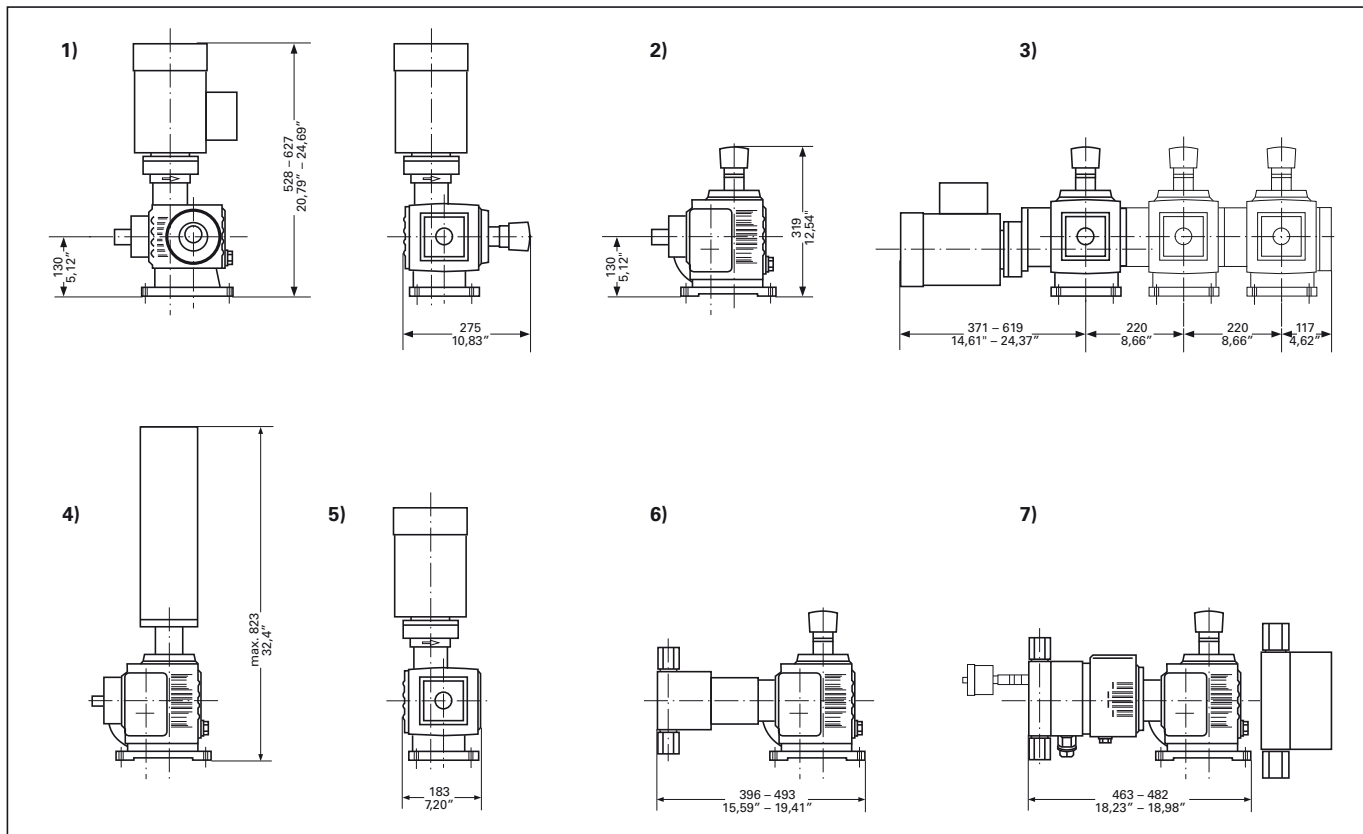
Standard plunger ø [mm]	Q <sub>theor.</sub> [l/h] <sup>1)</sup> Calc. flow rate per pump head at max. stroke length and stroke frequency n [min <sup>-1</sup> ]						Permissible operating pressure of standard pump heads [barg]					
	72	80	110	140	170	225	Type	Diaphragm pump heads		Plunger pump heads		
							Model <sup>3)</sup>	M 900	M 200	K		
							Material <sup>2)</sup>	3	2, 3		2, 3	
8	3,257	3,619	4,976	6,333	7,691	10,18	---	400		500		
10	5,089	5,655	7,775	9,896	12,02	15,90	400	500		500		
12	7,329	8,143	11,20	14,25	17,30	22,90	400	442		442		
14	9,975	11,08	15,24	19,40	23,55	31,17	322	---		---		
16	13,03	14,48	19,91	25,33	30,76	40,72	---	249		249		
17	14,71	16,34	22,47	28,60	34,73	45,96	218	---		---		
20	20,36	22,62	31,10	39,58	48,07	63,62	---	159		159		
21	22,44	24,94	34,29	43,64	52,99	70,14	142	---		---		
25	31,81	35,34	48,60	61,85	75,10	99,40	99,4	102		102		
30	45,80	50,89	69,98	89,06	108,1	143,1	68,2	70,7		70,7		
34	58,83	65,37	89,88	114,4	138,9	183,9	52,6	---		---		
36	65,96	73,29	100,8	128,3	155,7	206,1	---	49,1		49,1		
38	73,49	81,66	112,3	142,9	173,5	229,7	41,6	---		---		
42	89,78	99,75	137,2	174,6	212,0	280,6	33,6	---		---		
44	98,53	109,5	150,5	191,6	232,6	307,9	---	32,9		32,9		
46	107,7	119,7	164,5	209,4	254,3	336,5	27,6	---		---		
52	137,6	152,9	210,2	267,6	324,9	430,1	21,0	---		23,5		
58	171,2	190,2	261,6	332,9	404,2	535,0	16,4	---		---		
60	183,2	203,6	279,9	356,3	432,6	572,6	---	---		17,7		
66	221,7	246,3	338,7	431,1	523,4	692,8	12,1	---		---		
70	249,4	277,1	381,0	484,9	588,8	779,3	---	---		13,0		
74	278,7	309,7	425,8	541,9	658,0	870,9	9,1	---		---		
82	342,2	380,2	522,8	665,4	808,0	1069	7,0	---		---		

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) 2 = 13 % Cr steel; 3 = stainless steel CrNiMo 18/10/2; other materials, e.g. Hastelloy to special order

3) Standard pump head connections depending on pump head size: internal thread to DIN or NPT resp. flanges to DIN or ANSI

## Dimensions



### Drive units

- 1) Simplex drive unit with manual stroke adjustment/motor mounted vertically
- 2) Simplex drive unit with manual stroke adjustment/motor mounted horizontally
- 3) Multiplex drive unit with manual stroke adjustment/motor mounted horizontally
- 4) Simplex drive unit with electric or pneumatic stroke adjustment/motor mounted horizontally
- 5) Simplex drive unit without stroke adjustment/motor mounted vertically

### Pumps

- 6) Plunger pump
- 7) Diaphragm pump

A MEMBER OF **NIKKISO**  
**LEWA**  
pumps+systems

Creating Fluid Solutions

Germany / Headquarters

LEWA GmbH

Ulmer Str. 10  
71229 Leonberg  
Phone +49 7152 14-0  
Fax +49 7152 14-1303  
lewa@lewa.de  
www.lewa.de

DosingPump.ir