



**Construction**

Self-priming external gear pumps are designed for industrial applications. Positive displacement pumps with a wide range of capacities. Suction- and pressure-connections Whitworth pipe threads - opposite 180° (Series D5xx also available with SAE-flange).

**Applications**

Industrial applications, for example: Lubrication systems, coolant feed in machine tools, heat transfer, test bench and many more.

**Example of liquids suitable for transport**

Pure, non-explosive liquids, not corrosive against pump materials, without any solids. The liquids to deliver, must have lubricating characteristics. Oil, mineral oil, synthetic oil, adhesives, sealants, polymers, diesel, paints, inks and many more

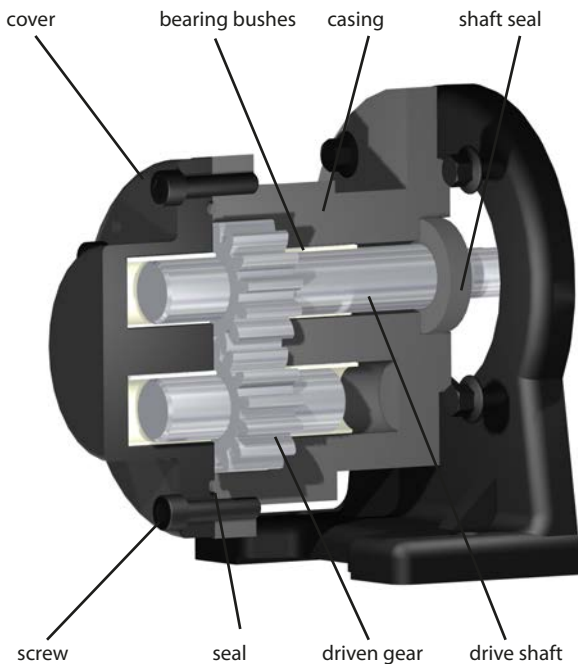
**Operating conditions**

Liquid temperature: -20°C up to +60°C (NBR)  
 Ambient temperature from -20°C up to +40°C  
 Operating pressure max. 100 bar  
 others on request

**Drives**

For example: hydraulic motor, electric motor  
 drives without axial / radial forces on the drive shaft

**sectional drawing**



**Materials**

components	standard	on request
casing & cover	cast iron - EN-GJL-250 - (GG25)	ductile cast iron(GGG40)
shaft	steel	
gears	Steel, hardened and grinded	
bearing bushes	composite bearings	
shaft seal	sealing ring NBR	FPM, PTFE, GLRD, packing gland
mounting bracket	Aluminium	

## External-gear-pumps with mounting bracket series D 1

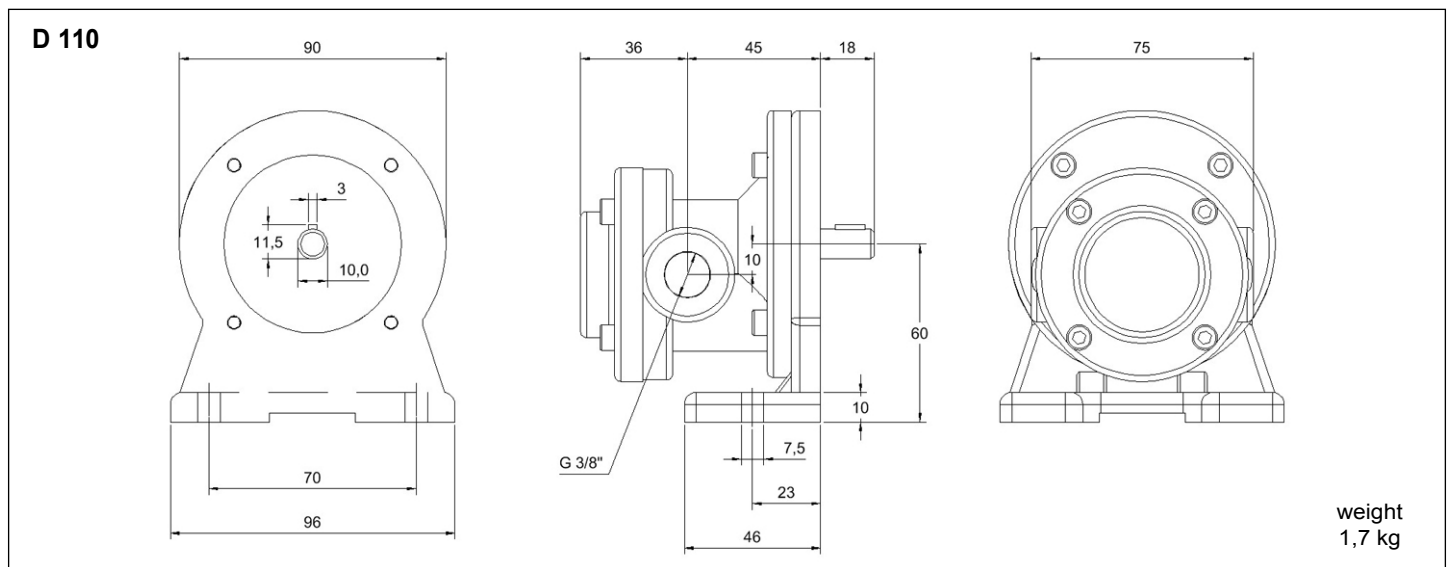
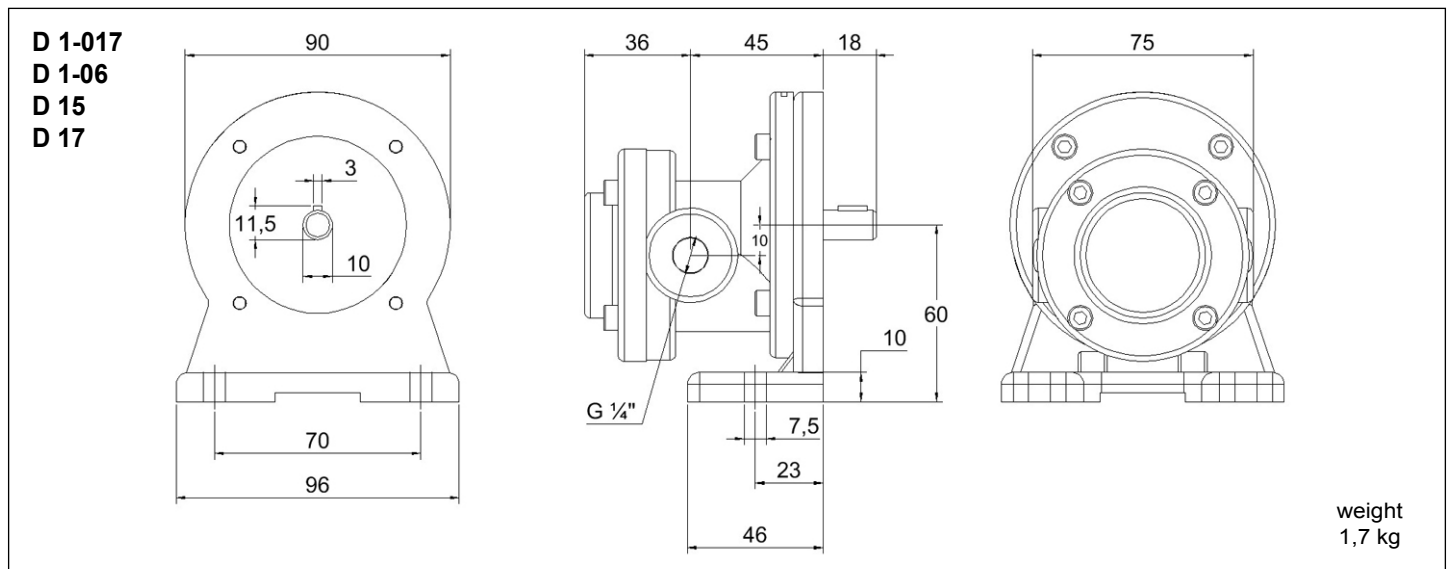
### Performance (n ≈ 1450 1/min)

type	cm <sup>3</sup> /U	pressure (bar)	capacity							
			5	10	15	20	30	40	50	
D 1-017	0,12	l/min	0,17	0,14						
		kW*	0,002	0,004						
D 1-06	0,43	l/min	0,60	0,55						
		kW*	0,007	0,014						
D 15	0,85	l/min	1,15	1,10	1,05	1,00	0,90	0,80	0,60	
		kW*	0,014	0,027	0,041	0,055	0,080	0,11	0,14	
D 17	1,20	l/min	1,60	1,55	1,50	1,40	1,30	1,10	0,90	
		kW*	0,019	0,038	0,057	0,076	0,11	0,15	0,19	
D 110	1,80	l/min	2,30	2,25	2,20	2,10	2,00	1,80	1,60	
		kW*	0,027	0,055	0,082	0,11	0,16	0,22	0,27	

Valid for hydraulic oil with 35 mm<sup>2</sup>/s at 50 °C  
Tolerance of capacity: +/- 3%

Oil-Speed: max. 1,5 m/s suction side, max. 4,5 m/s pressure side  
\* kW = required drive power in kW (without dissipation)

### Dimensions and weight



## External-gear-pumps with mounting bracket series D 2

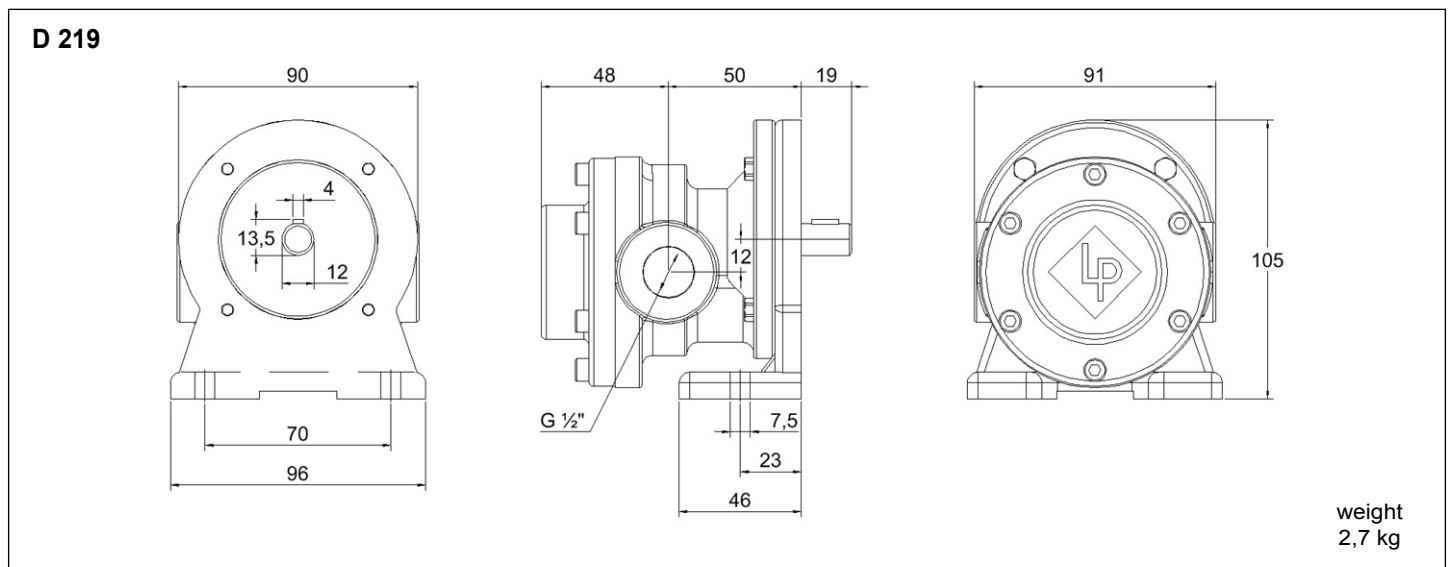
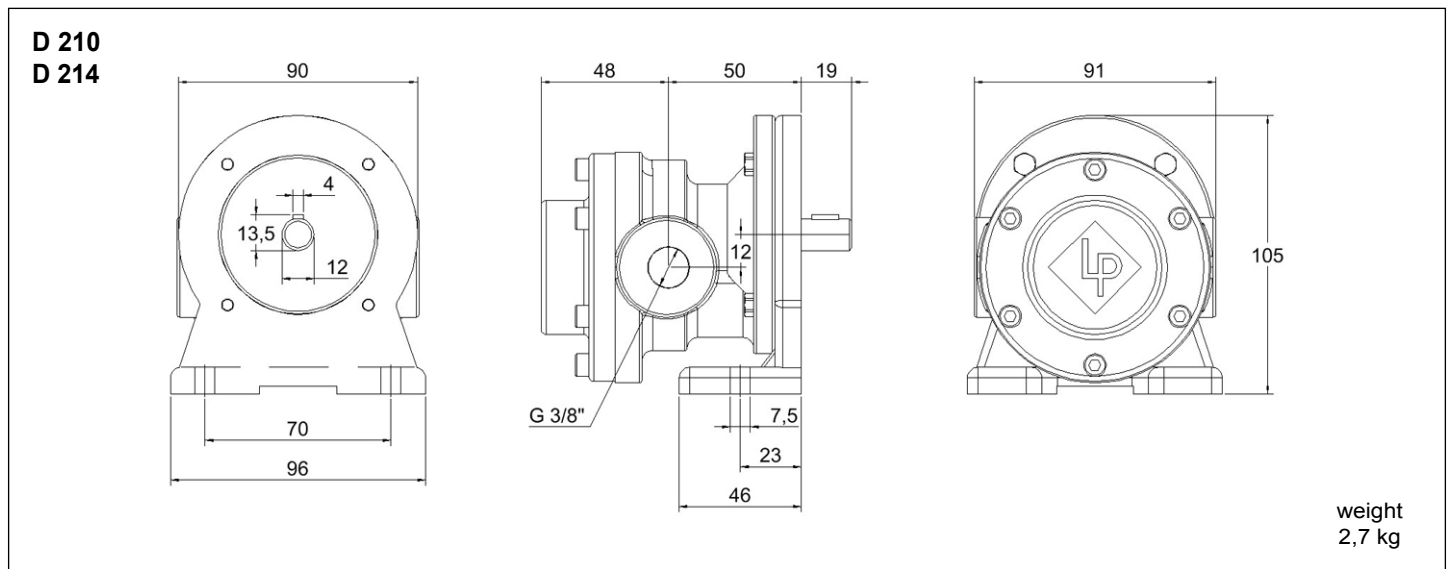
### Performance (n ≈ 1450 1/min)

type	cm <sup>3</sup> /U	pressure (bar)	capacity								
			5	10	15	20	30	40	50	60	70
D 210	2,30	l/min	3,00	2,95	2,90	2,80	2,70	2,60	2,40	2,20	2,00
		kW*	0,036	0,072	0,11	0,14	0,21	0,29	0,36	0,43	0,50
D 214	3,20	l/min	4,50	4,45	4,40	4,30	4,20	4,10	3,90	3,70	3,50
		kW*	0,054	0,11	0,16	0,21	0,32	0,43	0,54	0,64	0,75
D 219	4,30	l/min	6,00	5,95	5,90	5,85	5,80	5,70	5,50	5,30	5,10
		kW*	0,072	0,15	0,22	0,29	0,44	0,58	0,73	0,87	1,02

Valid for hydraulic oil with 35 mm<sup>2</sup>/s at 50 °C  
Tolerance of capacity: +/- 3%

Oil-Speed: max. 1,5 m/s suction side, max. 4,5 m/s pressure side  
\* kW = required drive power in kW (without dissipation)

### Dimensions and weight



## External-gear-pumps with mounting bracket series D 3

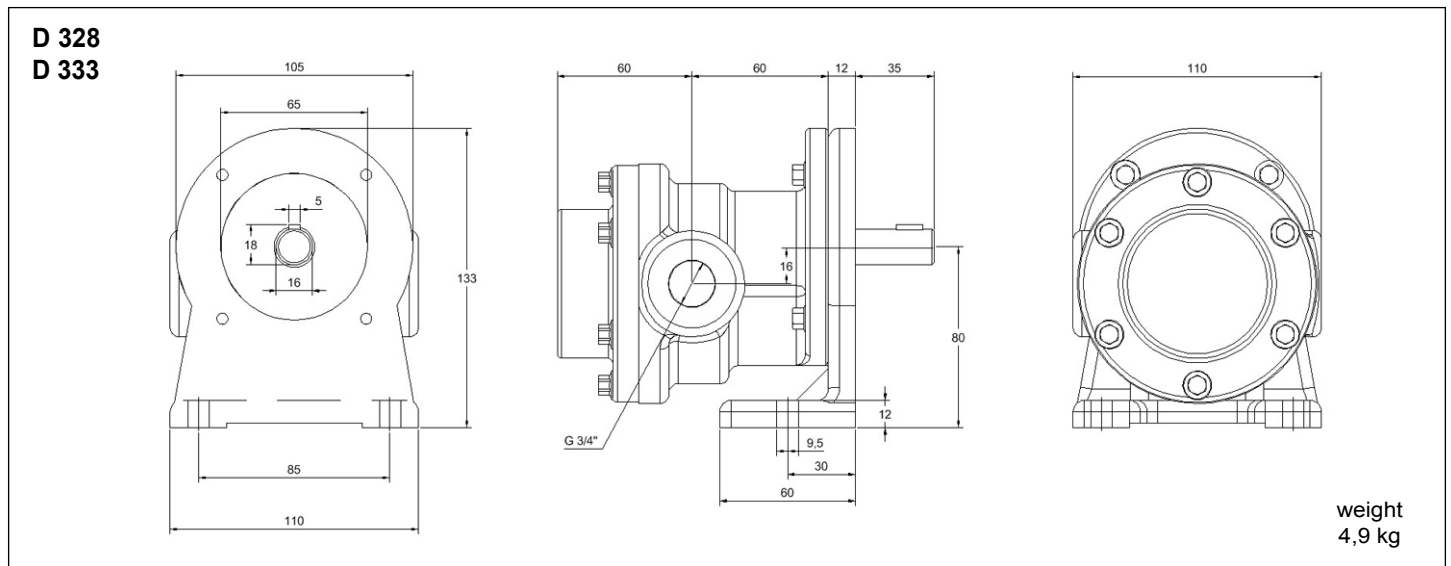
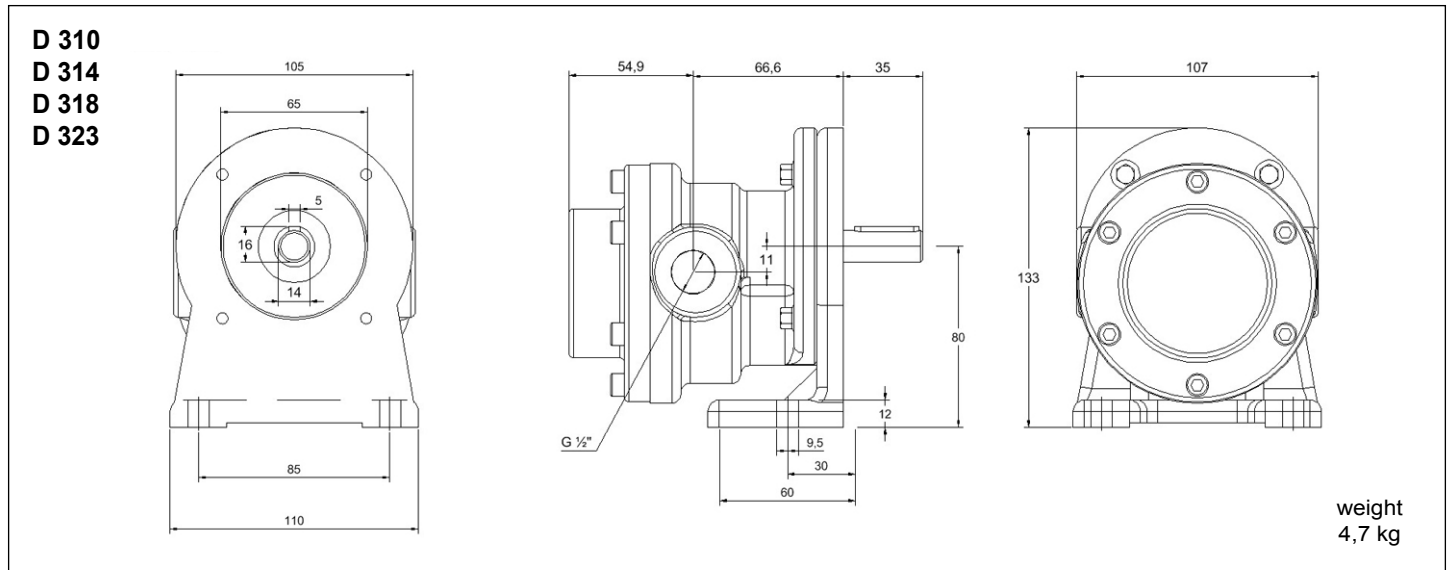
Performance (n ≈ 1450 1/min)

type	cm <sup>3</sup> /U	pressure (bar)	capacity											
			5	10	15	20	30	40	50	60	70	80	90	100
D 310	5,10	l/min	7,40	7,35	7,30	7,25	7,20	7,10	7,00	6,90	6,80	6,70	6,60	6,50
		kW*	0,09	0,18	0,26	0,35	0,53	0,71	0,88	1,06	1,24	1,41	1,59	1,77
D 314	7,10	l/min	10,20	10,15	10,10	10,00	9,90	9,70	9,40	9,10	8,80	8,50	8,00	7,40
		kW*	0,12	0,24	0,37	0,49	0,73	0,97	1,22	1,46	1,70	1,95	2,19	2,43
D 318	9,10	l/min	13,20	13,10	13,00	12,80	12,60	12,40	12,10	11,80	11,50	11,20	10,80	10,40
		kW*	0,16	0,31	0,47	0,63	0,94	1,26	1,57	1,89	2,20	2,52	2,83	3,15
D 323	11,70	l/min	16,70	16,60	16,50	16,40	16,20	16,00	15,60	15,20	14,80	14,40	14,00	13,60
		kW*	0,20	0,40	0,60	0,80	1,20	1,59	1,99	2,39	2,79	3,19	3,59	3,98
D 328	14,10	l/min	20,30	20,20	20,10	20,00	19,80	19,60	19,40	19,00	18,60	18,20	17,70	17,20
		kW*	0,24	0,48	0,72	0,96	1,45	1,93	2,41	2,89	3,37	3,86	4,34	4,82
D 333	16,70	l/min	24,10	24,00	23,90	23,80	23,60	23,40	23,20	22,90	22,50	22,10	21,60	21,10
		kW*	0,28	0,57	0,85	1,14	1,70	2,27	2,84	3,41	3,97	4,54	5,11	5,68

Valid for hydraulic oil with 35 mm<sup>2</sup>/s at 50 °C  
Tolerance of capacity: +/- 3%

Oil-Speed: max. 1,5 m/s suction side, max. 4,5 m/s pressure side  
\* kW = required drive power in kW (without dissipation)

## Dimensions and weight



## External-gear-pumps with mounting bracket series D 4

### Performance (n ≈ 1450 1/min)

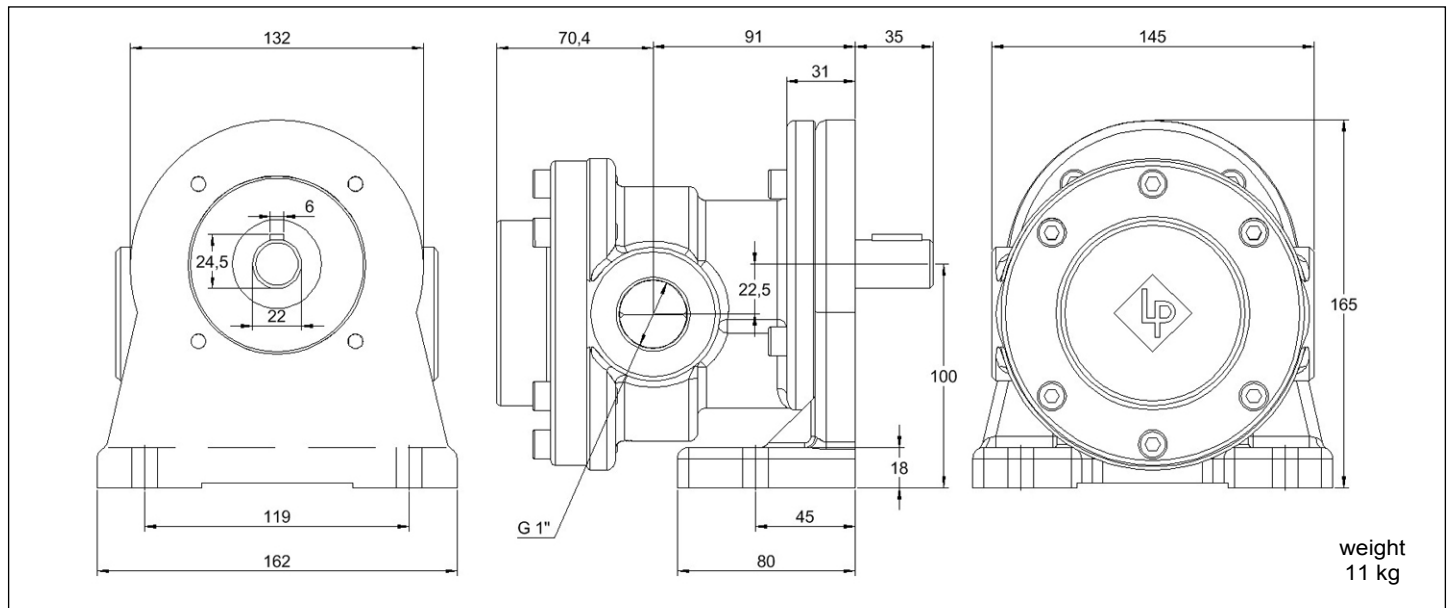
type	cm <sup>3</sup> /U	pressure (bar)	capacity						
			5	10	15	20	30	40	50
D 422	21,20	l/min	30,5	30,3	30,1	29,8	29,4	29,0	28,5
		kW*	0,35	0,69	1,04	1,38	2,08	2,77	3,46
D 426	25,00	l/min	36,2	36,0	35,8	35,5	35,1	34,7	34,2
		kW*	0,42	0,83	1,25	1,66	2,49	3,32	4,15
D 430	28,90	l/min	41,6	41,4	41,2	40,9	40,5	40,1	39,6
		kW*	0,48	0,97	1,45	1,94	2,91	3,87	4,84
D 434	32,80	l/min	47,3	47,1	46,9	46,6	46,2	45,8	45,3
		kW*	0,55	1,11	1,66	2,21	3,32	4,43	5,53
D 438	36,70	l/min	53,0	52,8	52,6	52,3	51,9	51,5	51,0
		kW*	0,62	1,25	1,87	2,49	3,74	4,98	6,23

Valid for hydraulic oil with 35 mm<sup>2</sup>/s at 50 °C  
Tolerance of capacity: +/- 3%

Oil-Speed: max. 1,5 m/s suction side, max. 4,5 m/s pressure side  
\* kW = required drive power in kW (without dissipation)

### Dimensions and weight

#### D 422 / D 438



## External-gear-pumps with mounting bracket series D 5

### Performance (n ≈ 1450 1/min)

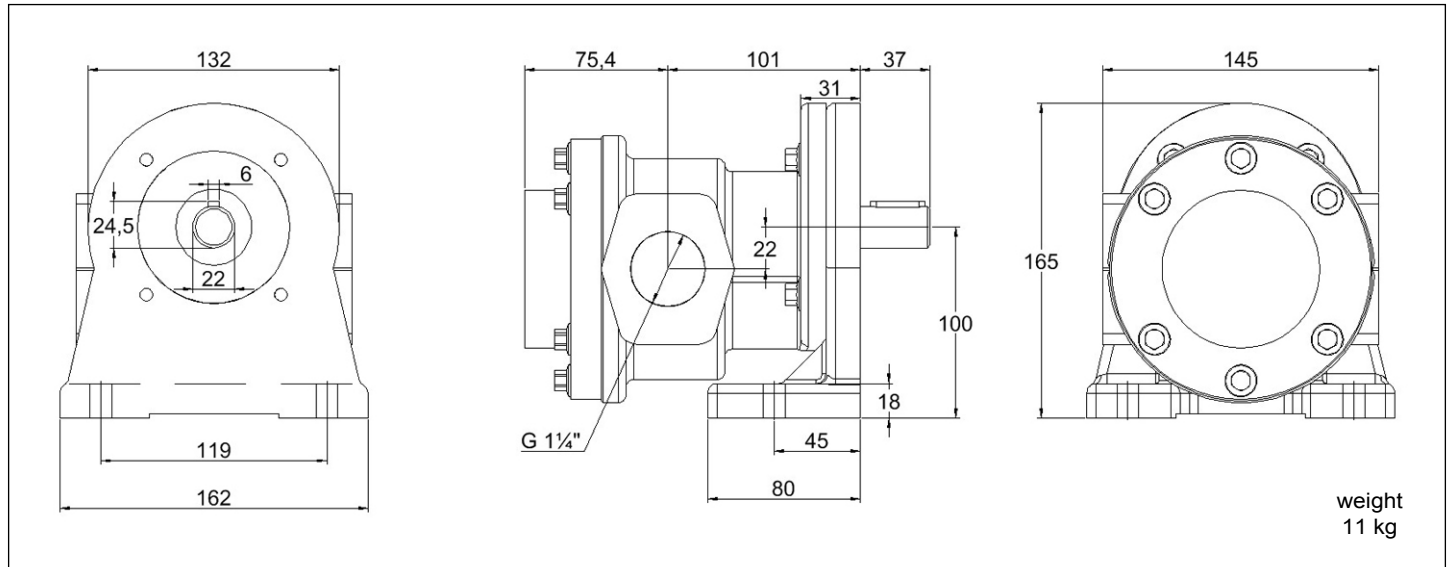
type	cm <sup>3</sup> /U	pressure (bar)	capacity						
			5	10	15	20	30	40	50
D 545	43,4	l/min	62,7	62,5	62,3	61,8	61,3	60,8	60,3
		kW*	0,74	1,49	2,23	2,97	4,46	5,95	7,43
D 556	54,0	l/min	78,1	77,9	77,7	77,2	76,7	76,2	75,7
		kW*	0,90	1,80	2,70	3,60	5,40	7,20	9,00
D 570	67,5	l/min	97,7	97,5	97,2	96,7	96,2	95,7	95,2
		kW*	1,14	2,28	3,42	4,57	6,85	9,13	11,4
D 590	86,8	l/min	124,0	123,8	123,6	123,1	122,6	122,1	121,6
		kW*	1,49	2,97	4,46	5,95	8,92	11,9	14,9

Valid for hydraulic oil with 35 mm<sup>2</sup>/s at 50 °C  
Tolerance of capacity: +/- 3%

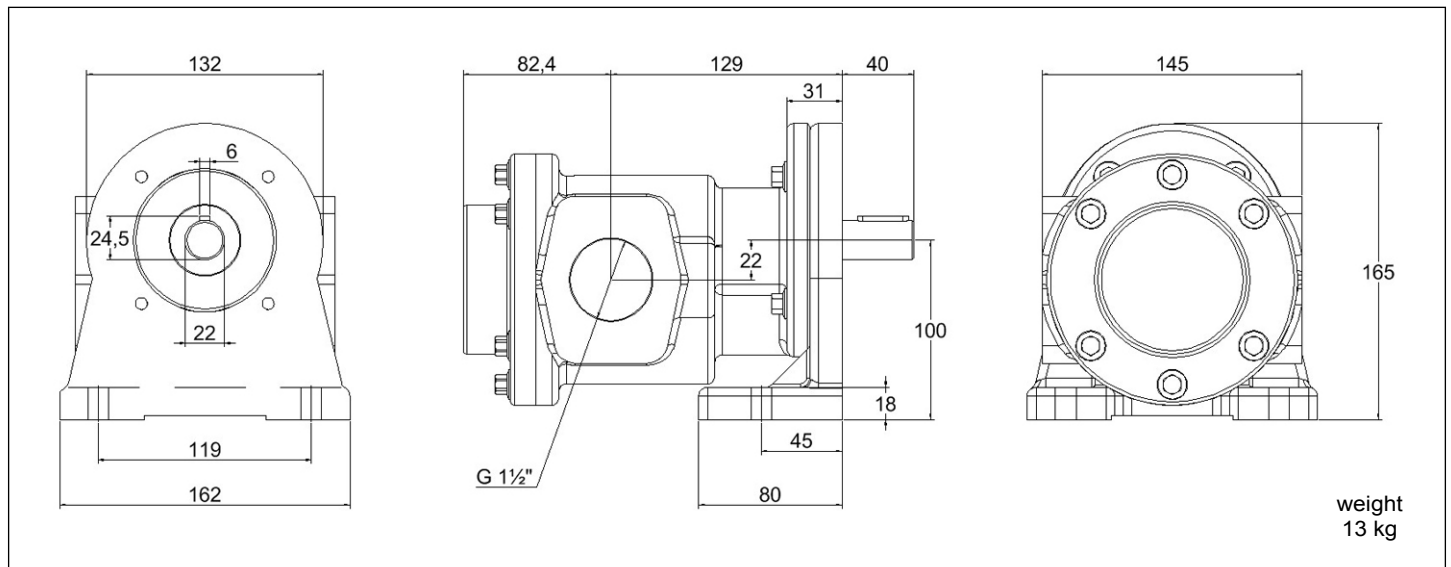
Oil-Speed: max. 1,5 m/s suction side, max. 4,5 m/s pressure side  
\* kW = required drive power in kW (without dissipation)

### Dimensions and weight

#### D 545 / D 556



#### D 570 / D 590



Performance (n ≈ 1450 1/min)

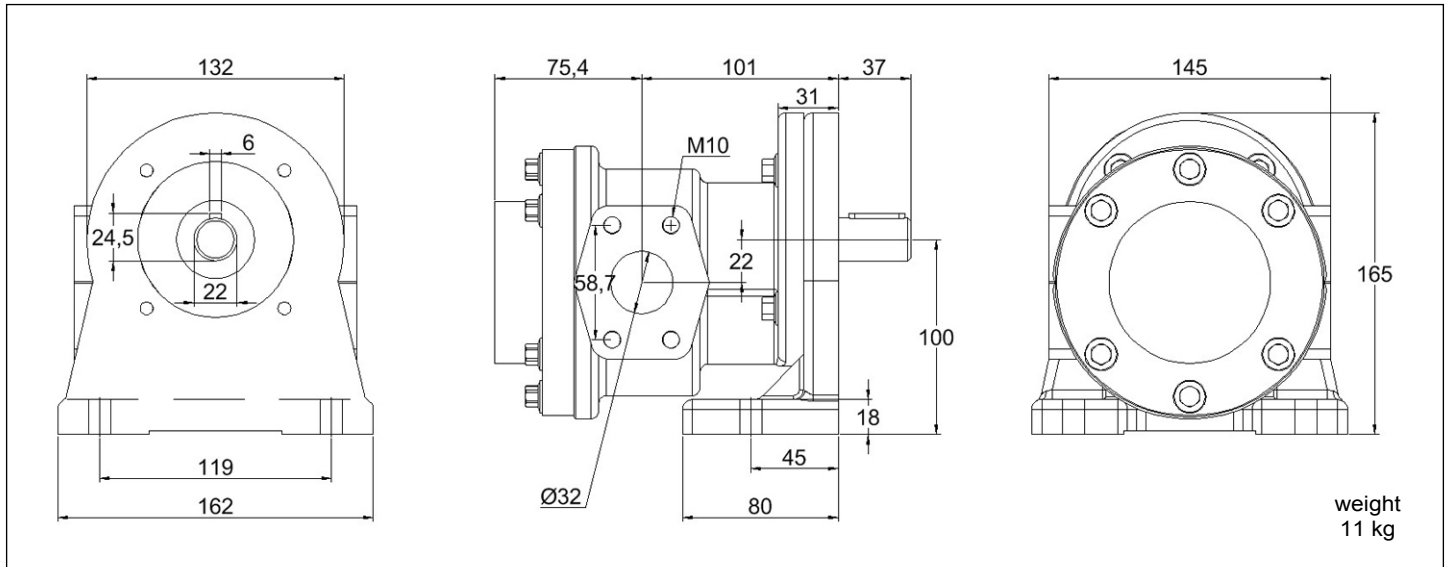
type	cm <sup>3</sup> /U	pressure (bar)	capacity						
			5	10	15	20	30	40	50
D 545	43,4	l/min	62,7	62,5	62,3	61,8	61,3	60,8	60,3
		kW*	0,74	1,49	2,23	2,97	4,46	5,95	7,43
D 556	54,0	l/min	78,1	77,9	77,7	77,2	76,7	76,2	75,7
		kW*	0,90	1,80	2,70	3,60	5,40	7,20	9,00
D 570	67,5	l/min	97,7	97,5	97,2	96,7	96,2	95,7	95,2
		kW*	1,14	2,28	3,42	4,57	6,85	9,13	11,4
D 590	86,8	l/min	124,0	123,8	123,6	123,1	122,6	122,1	121,6
		kW*	1,49	2,97	4,46	5,95	8,92	11,9	14,9

Valid for hydraulic oil with 35 mm<sup>2</sup>/s at 50 °C  
Tolerance of capacity: +/- 3%

Oil-Speed: max. 1,5 m/s suction side, max. 4,5 m/s pressure side  
\* kW = required drive power in kW (without dissipation)

Dimensions and weight

D 545 / D 556 (SAE)



D 570 / D 590 (SAE)

