POSITIVE DISPLACEMENT PUMPS

Zeilfelder pumps work by using two rotating elements, unmeshing at the suction side of the pump, to create a vacuum that fills the spaces created between the elements and the suction casing. These spaces then transport the fluid along the outer casing to the discharge side where the gears re-mesh and discharge the fluid.

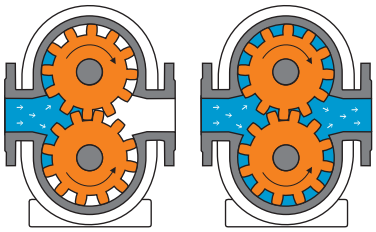
Positive displacement pumps are designed to handle large changes in pressure, viscosity and flow rate and are often used for highly viscous liquids with large percentages of solids.

EXTERNAL GEAR PUMPS

are self-priming, non-pulsating and reversible pumps that work best on clean, lubricating fluids with a viscosity thicker than water. Two gear teeth, one idler and one driver, mesh together to transfer the liquid.

Because of the balanced construction and bearings on both sides of the shafts, the pumps are capable of non-pulsating flow and high pressures.

SERIES
ZK BLUE
ZH/ZV BLUE
PQ GREEN



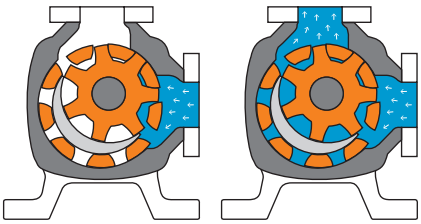
OVERVIEW
- For standard to high end applications
- ZK and ZH/ZV Blue available in all materials
- PQ Green available in cast iron and stainless steel

INNER GEAR PUMPS

are self-priming, non-pulsating and reversible pumps that work best on clean, lubricating fluids with a viscosity thicker than water. Two gear teeth, one idler and one driver, mesh together around a crescent divider to transfer the liquid.

Because of the simple one shaft construction, inner gear pumps are less expensive than comparable pumps and are very easy to maintain.

SERIES
ZI GREEN



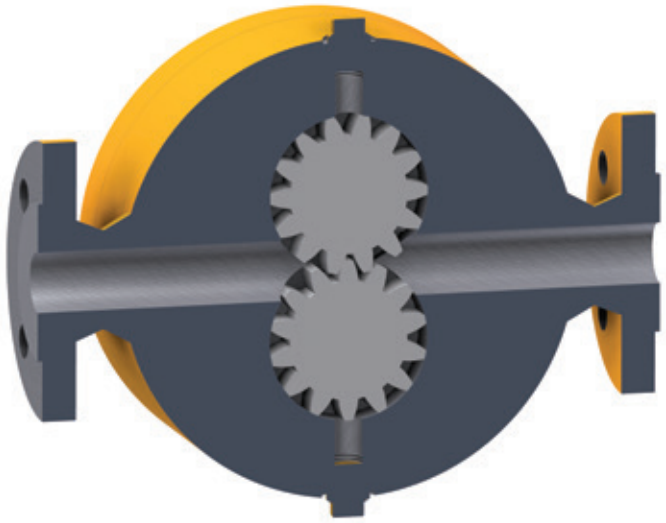
OVERVIEW
- For standard applications
- Available in cast iron and stainless steel

ZK BLUE SERIES
GEAR PUMP

FEATURES

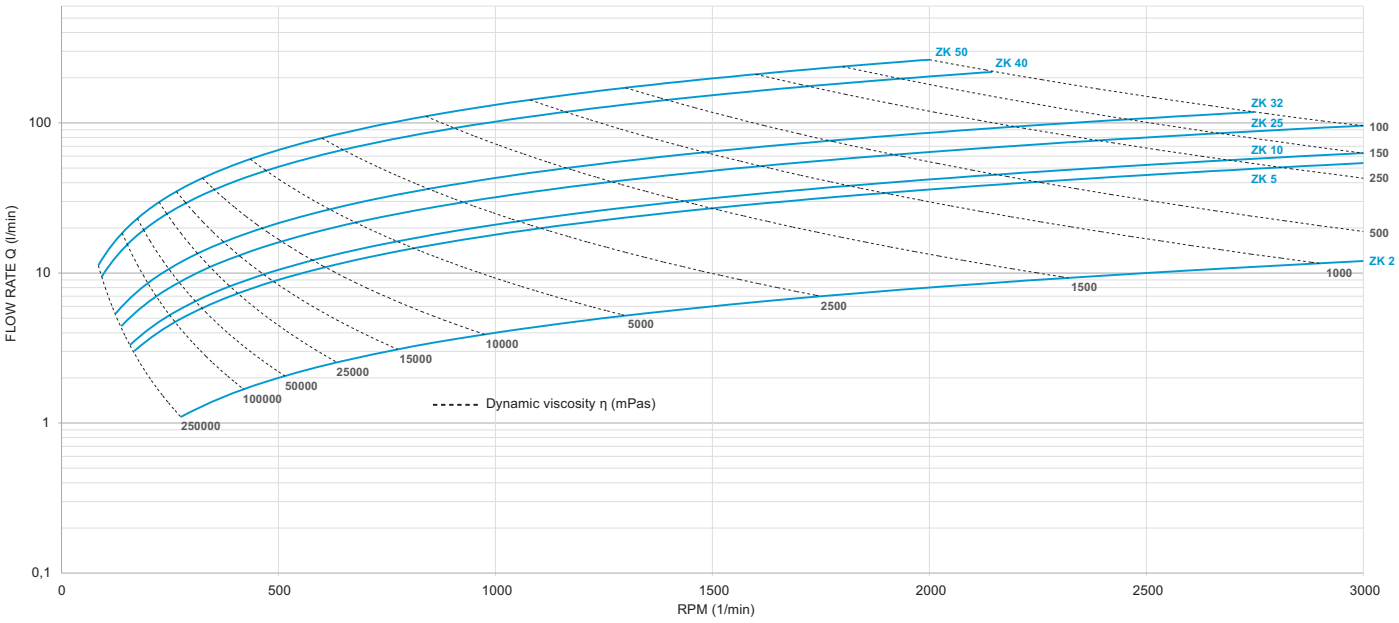
- **Pressure**: 120 bar
- **Suction lift**: 6 m
- **Flow rate**: 0.4 to 300 l/min (0.025 to 18 m³/h)
- **RPM**: 3,000 RPM
- **Efficiency**: 60 to 92%
- **Viscosity**: 0.5 to 25,000 mPas*
- **Temperature**: -60 to 450°C

*Higher values upon request



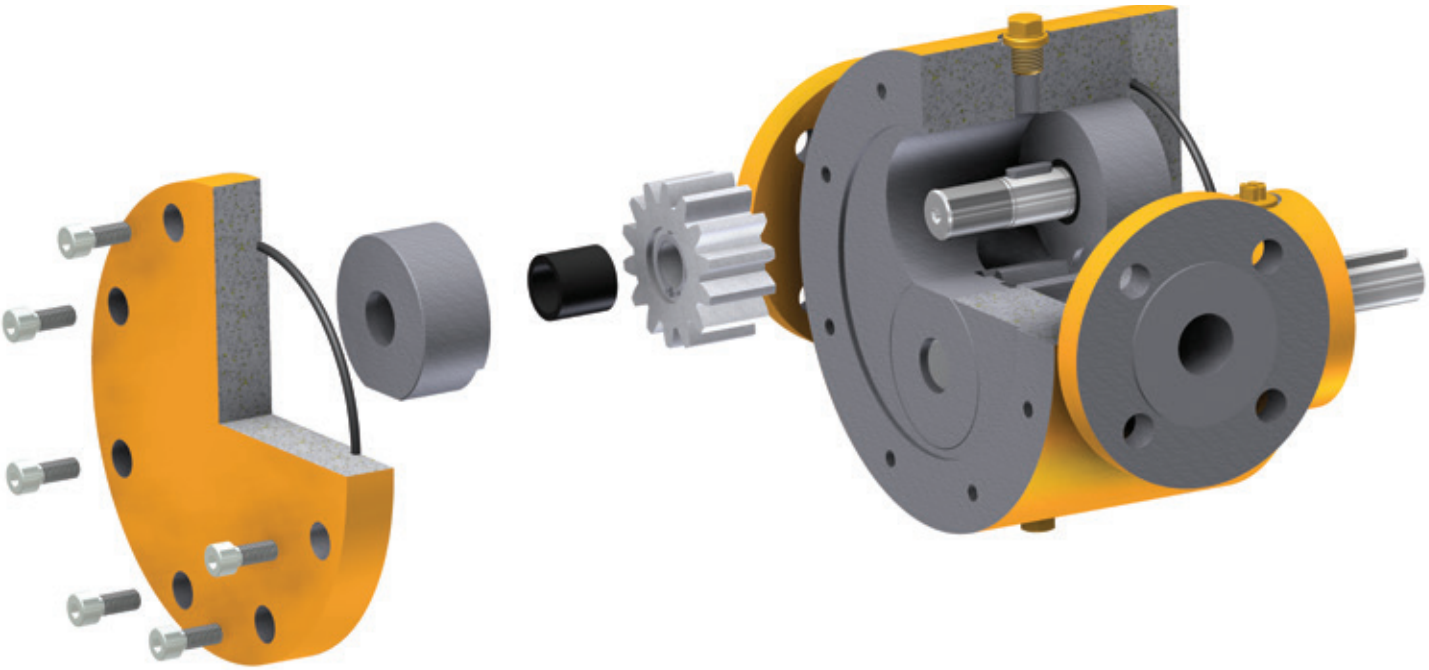
SIZES AND FLOW RATES

Q-n-η-flow rate / viscosity

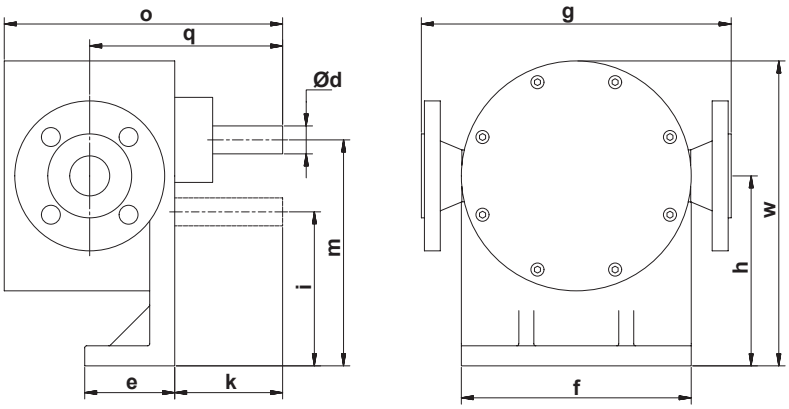


Pump size	Volume	Flow rates*																	
		n=100 RPM		n=200 RPM		n=300 RPM		n=500 RPM		n=750 RPM		n=1000 RPM		n=1500 RPM		n=2000 RPM		n=3000 RPM	
	l/rev	*l/min*	*m³/h*	*l/min*	*m³/h*	*l/min*	*m³/h*	*l/min*	*m³/h*	*l/min*	*m³/h*	*l/min*	*m³/h*	*l/min*	*m³/h*	*l/min*	*m³/h*	*l/min*	*m³/h*
2	0.004	0.4	0.03	0.8	0.05	1.3	0.1	2.1	0.13	3.2	0.2	4.2	0.25	6.3	0.4	8.4	0.5	12.6	0.8
5	0.02	1.8	0.1	3.5	0.2	5.3	0.3	9	0.5	13.2	0.8	18	1.1	26.5	1.6	35	2.1	53	3.2
10	0.02	2.1	0.1	4.2	0.3	6.3	0.4	11	0.6	16	1	21	1.3	32	1.9	42	2.5	63	3.8
25	0.03	3.2	0.2	6.4	0.4	10	0.6	16	1	24	1.4	32	1.9	48	2.9	64	3.8	96	5.7
32	0.04	4.3	0.3	8.6	0.5	13	0.8	21	1.3	32	1.9	43	2.6	64	4	86	5		
40	0.10	10	0.6	20	1.2	30	1.8	51	3	76	4.6	102	6	152	9	203	12		
50	0.13	13	0.8	26	1.6	40	2.4	66	4	99	6	132	8	198	12	264	15.8		
65	0.17	17	1	33	2	50	3	83	5	125	7	166	10	249	15				

*The exact flow rate depends on the rotation speed (RPM), liquid viscosity, working pressure, pressure head and characteristics of the working liquid.



DIMENSIONS



Pump size	2	5	10	25	32	40	50	65
Ød	8	14	14	18	18	28	28	28
e	60	80	80	90	90	90	90	90
f	99	125	125	190	190	230	230	230
k	90	87	87	87	87	108	108	108
h	87.5	110	110	166	166	190	190	190
m	100	128	128	196	196	226	226	226
i	75	92	92	136	136	154	154	154
w	137	173	173	261	261	305	305	305
o	178	217	227	217	227	278	293	310
q	135	152	157	152	157	193	201	209
g	170	200	200	280	280	350	350	350
DN	15	20	25	25	32	40	50	65

in mm, subject to modifications