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.

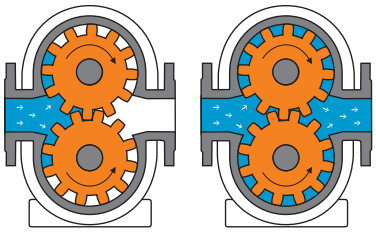
Positive displacement pumps are designed to handle large changes in pressure, viscosity and flow rate and are often used for highly viscous liquids with large percentages of solids.

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



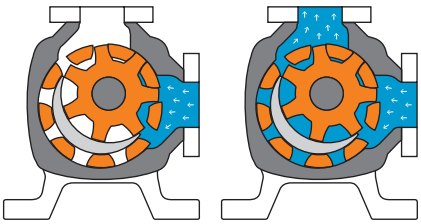
OVERVIEW
- For standard to high end applications
- ZK and ZH/ZV Blue available in all materials
- PQ Green available in cast iron and stainless steel

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



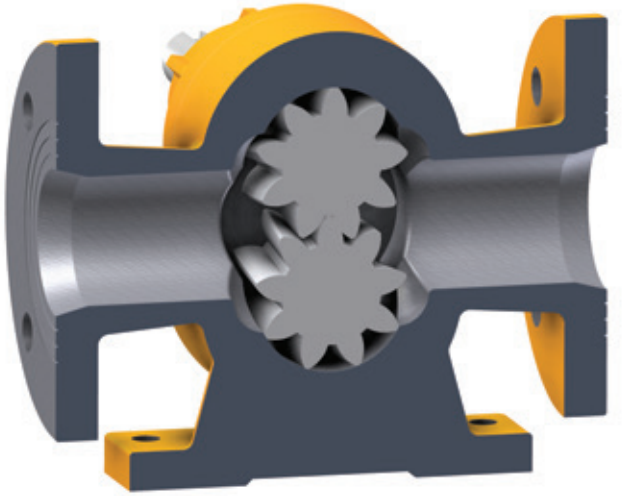
OVERVIEW
- For standard applications
- Available in cast iron and stainless steel

PQ GREEN SERIES
GEAR PUMP

FEATURES

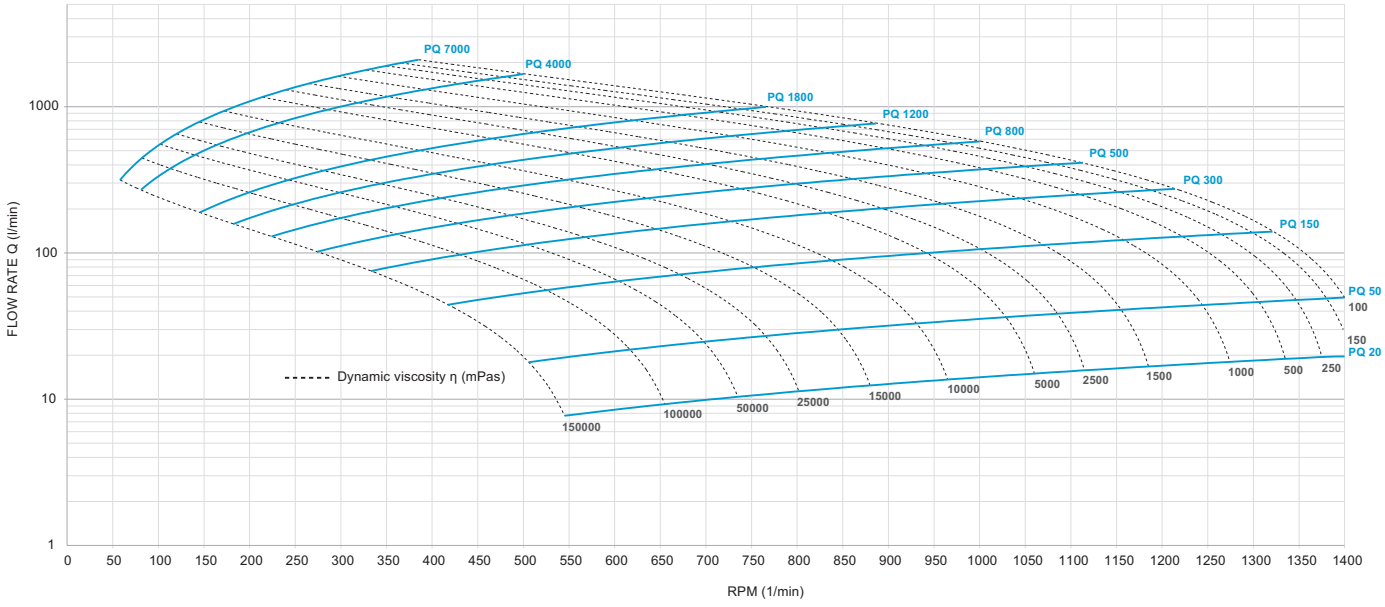
- **Pressure**: up to 20 bar
- **Suction lift**: 4 m
- **Flow rate**: 0.14 to 2283 l/min (0.008 to 137 m³/h)
- **RPM**: 1,500 RPM*
- **Efficiency**: 60 to 74%
- **Viscosity**: 5 to 140,000 mPas
- **Temperature**: -60 to 450°C

*Higher values upon request



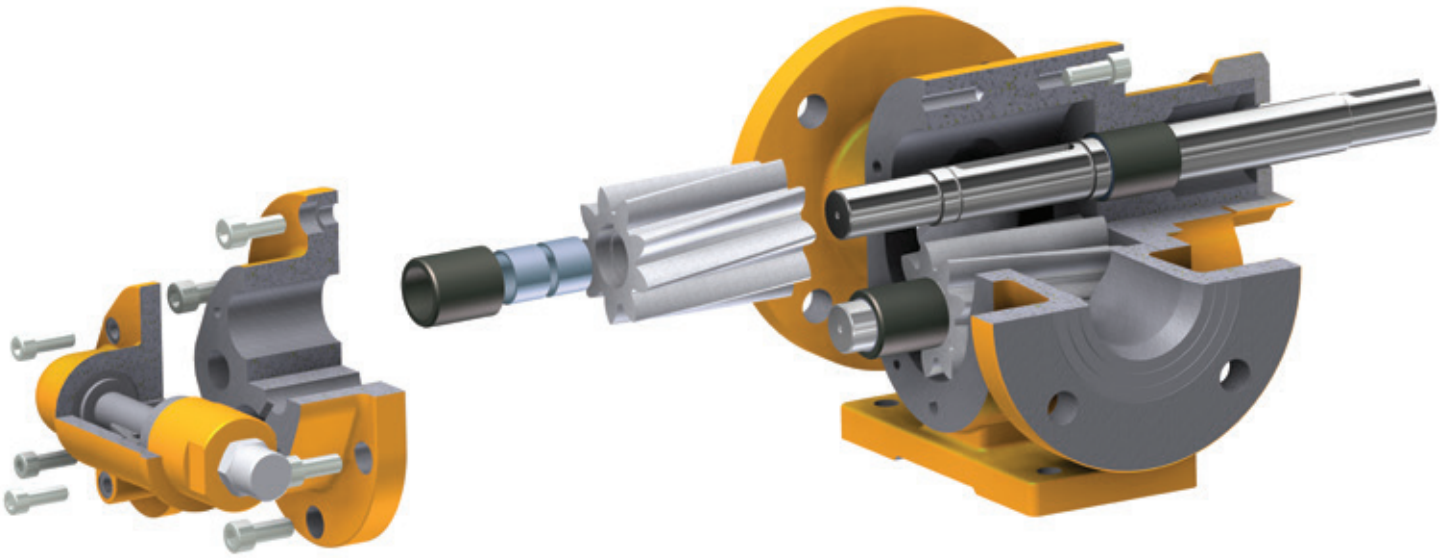
SIZES AND FLOW RATES

Q-n-η-flow rate / viscosity

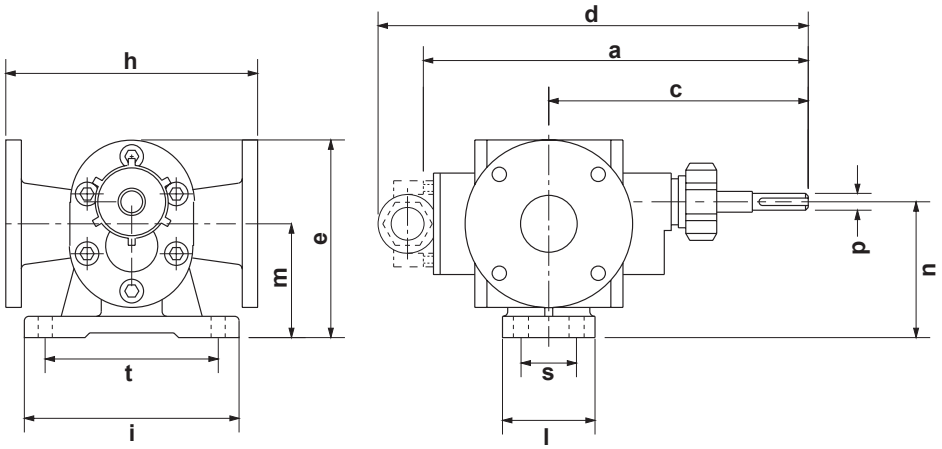


Pump size	Volume	Flow rates*															
		n=100 RPM		n=200 RPM		n=300 RPM		n=450 RPM		n=700 RPM		n=950 RPM		n=1200 RPM		n=1400 RPM	
	l/rev	*l/min*	*m³/h*	*l/min*	*m³/h*	*l/min*	*m³/h*	*l/min*	*m³/h*	*l/min*	*m³/h*	*l/min*	*m³/h*	*l/min*	*m³/h*	*l/min*	*m³/h*
20	0.014	1.4	0.1	2.8	0.2	4.2	0.3	6.4	0.4	10	0.6	13.4	0.8	17	1	19.8	1.2
50	0.035	3.5	0.2	7.1	0.4	10.6	0.6	15.9	1	24.8	1.5	33.6	2	42.5	2.5	49.5	3
150	0.11	10.6	0.6	21.2	1.3	31.8	1.9	47.7	2.9	74	4.5	101	6	127	7.6		
300	0.23	22.6	1.4	45.2	2.7	67.8	4.1	101.7	6.1	158.2	9.5	214.7	12.9	271	16.3		
500	0.37	37.2	2.2	74.4	4.5	111.6	6.7	167.4	10	260.4	15.6	353.4	21.2				
800	0.58	58	3.5	115.6	6.9	173.4	10.4	260.1	15.6	404.6	24.3	549.1	32.9				
1200	0.87	86.6	5.2	173.2	10.4	259.8	15.6	389.7	23.4	606.2	36.4						
1800	1.3	130	7.8	260	15.6	390	23.4	585	35.1	910	54.6						
4000	3.34	334	20	668	40	1001	60	1502	90								
7000	5.44	544	33	1087	65	1631	98										

*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	cc/r	Flange	h	a	c	d	e	i	l	m	n	p	s	t
5	4.23	1/2”	96	146	99	167	107	112	42	56	70	12	-	80
20	14.13	3/4”	112	176	118	202	107	112	50	56	70	12	-	80
50	35.39	1”	114	240	159	284	145	160	58	84	100	15	-	130
150	106	1 1/2”	155	307	195	362	175	180	74	100	122	18	-	130
300	226	DN 65	260	365	245	420	209	190	100	117	147	28	60	159
500	372	DN 80	295	417	279	458	249	220	80	130	171.5	35	50	180
800	578	DN 80	295	467	304	508	249	220	100	130	171.5	35	60	180
1200	866	DN 100	386	491	339	562	350	300	110	190	248	40	70	250
1800	1300	DN 100	386	551	369	622	350	300	110	190	248	40	70	250
4000	3338	DN 125	450	770	522	843	465	320	195	230	313	70	140	270
7000	5435	DN 125	390/450	855	565	928	465	320	200	230	315	70	140	270

in mm, subject to modifications