

PL Slimline Design Features

(PL 7020 - 7040)

1. Cable Entry

Cable entry consists of two compressible rubber bushings to seal off motor area and relieve strain on the cable. Two sealing bushings means high reliability in difficult applications.

2. Junction Box

The junction box is sealed from the motor via a protective cap and stator lead through grommet. Terminal board for power and monitoring cables is designed for easy servicing and minimizes the risk of voltage interference.

3. Bearings

Bearings are rated for a minimum L_{10} bearing life of 100,000 hours. The lower bearing consists of one or two, single-row angular contact ball bearings (depending on hydraulic end). A platinum RTD (resistive temperature detector) monitors the temperature of the lower bearing outer race during operation. The upper guide bearing is a double row angular contact ball bearing. The bearings are sealed and lubricated with grease.

4. Shaft

Motor shaft and rotor are a single integral unit. The short overhang of the shaft virtually eliminates shaft deflection, resulting in increased seal and bearing life, low vibration levels and quiet operation. Shaft is completely isolated and cannot come in contact with the pumped media.

5. Motor

The high performance submersible induction motor is designed and manufactured by Flygt to be used specifically with Flygt pumps. Stator is Class H insulated rated to 356°F. Stator is shrink fitted into the stator housing, providing superior cooling by the pumped liquid which passes directly outside the stator housing. The stator incorporates three thermal switches connected in series (one in each phase). A float switch in the lower part of the stator housing reacts if liquid enters this area.

Sensors

In addition to the standard thermal switches in the stator windings and the sensor in the leakage chamber, the motor can be equipped with analog sensors (PT 100) to measure the temperature in the bearings and/or in the stator housing. Vibration and leakage sensors can also be placed in the junction box. All sensors can be monitored using the Flygt MAS or MiniCas control units.

6. Shaft Seals

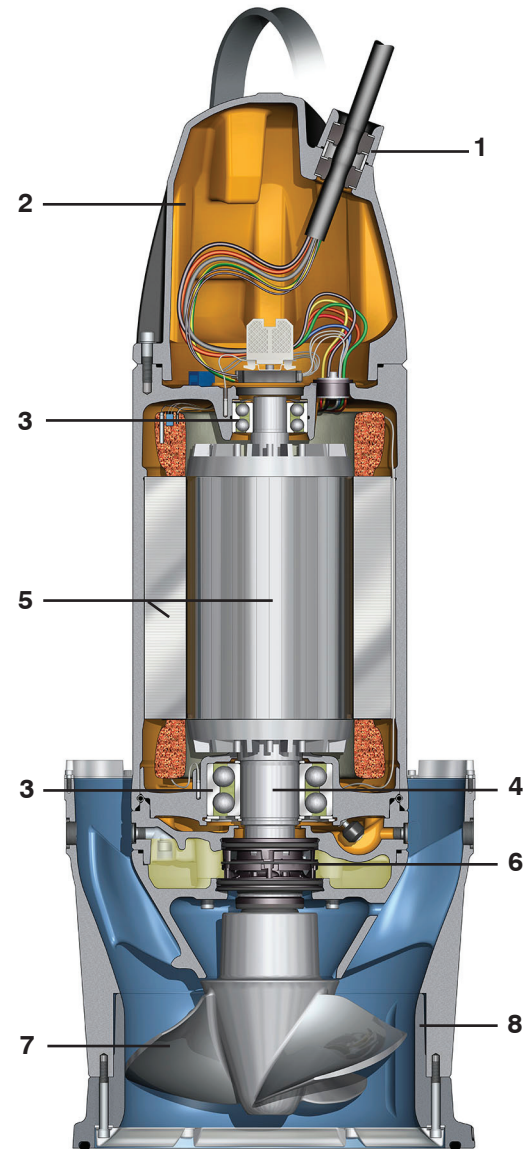
The Flygt Plug-in™ seal with the Active Seal™ system offers increased sealing reliability, reducing the risk of bearing and stator failure.

7. Propeller

N-technology, stainless steel (AISI 316) propeller enables excellent selfcleaning, corrosion and wear resistance.

8. Wear Ring

N-technology, hard iron bell mouth with integrated wear ring function and relief groove, increases the liquid velocity with minimum losses.



PL Pump Design Features

(PL 7061 - 7125)

1. Cable Entry

Cable entry consists of two compressible rubber bushings to seal off motor area and relieve strain on the cable. Two sealing bushings means high reliability in difficult applications.

2. Junction Box

The junction box is sealed from the motor via terminal board and an O-ring. Separate terminal boards for power and monitoring cables provide for ease of servicing and minimize the risk of voltage interference. A float switch in the junction box reacts if liquid enters this area.

3. Bearings

Bearings are rated for a minimum L_{10} bearing life of 100,000 hours. The lower bearing consists of one or two, single-row angular contact ball bearings (depending on hydraulic end) and one roller guide bearing. A platinum RTD (resistive temperature detector) monitors the temperature of the lower bearing outer race during operation. The upper guide bearing is a roller bearing. The bearings are sealed and lubricated with grease.

4. Shaft

Motor shaft and rotor are a single integral unit. The short overhang of the shaft virtually eliminates shaft deflection, resulting in increased seal and bearing life, low vibration levels and quiet operation. Shaft is completely isolated and cannot come in contact with the pumped media.

5. Motor

The high performance submersible induction motor is designed and manufactured by Flygt to be used specifically with Flygt pumps. Stator is Class H insulated rated to 356°F. Stator is shrink fitted into the stator housing, providing superior cooling by the pumped liquid which passes directly outside the stator housing. The stator incorporates three thermal switches connected in series (one in each phase). A float switch in the lower part of the stator housing reacts if liquid enters this area.

Sensors

In addition to the standard thermal switches in the stator windings and the sensor in the leakage chamber, the motor can be equipped with analog sensors (PT 100) to measure the temperature in the bearings and/or in the stator housing. Vibration and leakage sensors can also be placed in the junction box. All sensors can be monitored using the Flygt MAS or MiniCas control units.

6. Shaft Seals

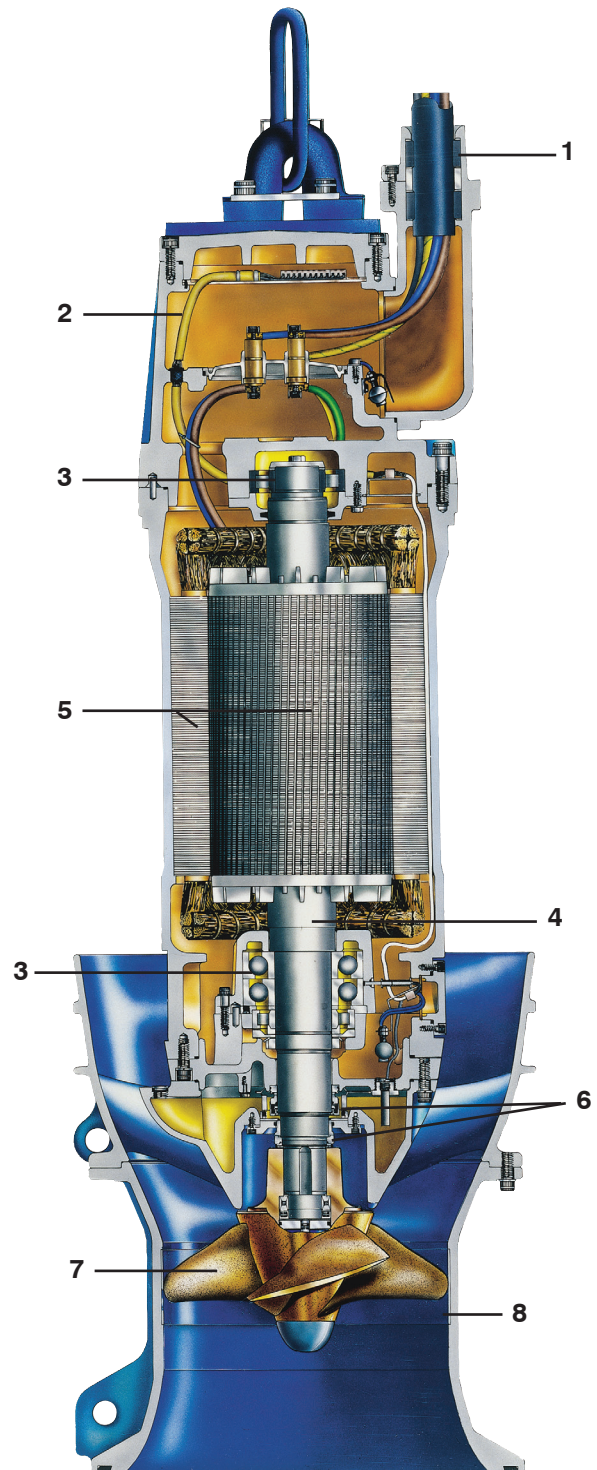
Two sets of mechanical seals having corrosion resistant tungsten carbide faces operate independently of each other within a common seal lubricant bath. This design provides superior reliability and sealing of the motor from pumped liquid.

7. Propeller

The one-piece bronze or stainless steel propeller is of three or four-blade configuration, Factory balanced and having swept-back design for superior clogging resistance, and includes a conical hub for high efficiency.

8. Wear Ring

A replaceable stainless steel wear ring helps maintain high pumping efficiency.

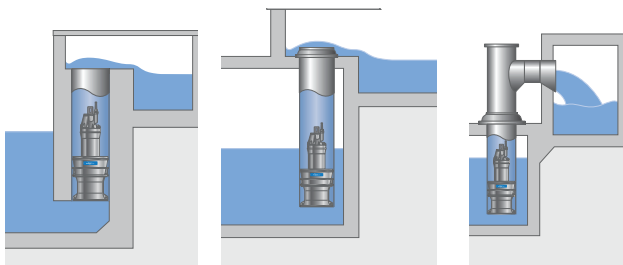


PL 7000 capacities and sizes

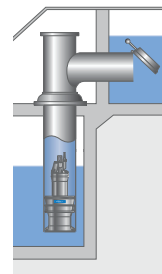
Model	max. Capacity (at 60 Hz)	Head range	Motor (60Hz) hp / rpm	Discharge tube Ø /inch	Diffuser material	Propeller material
PL 7020	5,070 gpm	3-15 ft.	27 hp / 1155	16"	Hard-Iron™	Stainless Steel
PL 7020	7,150 gpm	10-30 ft	40 hp / 1750	16"	Hard-Iron™	Stainless Steel
PL 7030	7,950 gpm	5-16 ft.	26 hp / 1165	500 / 20"	Hard-Iron™	Stainless Steel
PL 7030	9,500 gpm	5-18 ft.	38 hp / 1165	500 / 20"	Hard-Iron™	Stainless Steel
PL 7030	11,400 gpm	5-20 ft.	50 hp / 1165	500 / 20"	Hard-Iron™	Stainless Steel
PL 7035	12,700 gpm	10-39 ft.	90 hp / 1750	550 / 22"	Hard-Iron™	Stainless Steel
PL 7035	12,700 gpm	10-46 ft.	115 hp / 1750	550 / 22"	Hard-Iron™	Stainless Steel
PL 7035	12,700 gpm	10-53 ft.	150 hp / 1750	550 / 22"	Hard-Iron™	Stainless Steel
PL 7040	12,700 gpm	5-12 ft.	40 hp / 880	600 / 24"	Hard-Iron™	Stainless Steel
PL 7040	14,600 gpm	5-16 ft.	75 hp / 880	600 / 24"	Hard-Iron™	Stainless Steel
PL 7040	17,500 gpm	7-23 ft.	80 hp / 1190	600 / 24"	Hard-Iron™	Stainless Steel
PL 7040	17,500 gpm	7-26 ft.	100 hp / 1190	600 / 24"	Hard-Iron™	Stainless Steel
PL 7040	19,800 gpm	7-26 ft.	125 hp / 1190	600 / 24"	Hard-Iron™	Stainless Steel
PL 7040	19,800 gpm	7-30 ft.	145 hp / 1190	600 / 24"	Hard-Iron™	Stainless Steel
PL 7061	19,800 gpm	7-21 ft.	85 hp / 880	800 / 32"	Cast iron	Bronze or SS
PL 7061	22,200 gpm	10-39 ft.	170 hp / 1185	800 / 32"	Cast iron	Bronze or SS
PL 7061	26,200 gpm	10-39 ft.	240 hp / 1185	800 / 32"	Cast iron	Bronze or SS
PL 7065	17,500 gpm	3-12 ft.	60 hp / 590	800 / 32"	Cast iron	Bronze or SS
PL 7065	21,400 gpm	3-18 ft.	110 hp / 705	800 / 32"	Cast iron	Bronze or SS
PL 7065	27,000 gpm	5-28 ft.	215 hp / 885	800 / 32"	Cast iron	Bronze or SS
PL 7076	17,500 gpm	3-12 ft.	65 hp / 590	1000 / 40"	Cast iron	Bronze or SS
PL 7081	25,400 gpm	7-20 ft.	150 hp / 705	1000 / 40"	Cast iron	Bronze or SS
PL 7081	31,700 gpm	10-30 ft.	250 hp / 880	1000 / 40"	Cast iron	Bronze or SS
PL 7101	42,800 gpm	7-17 ft.	185 hp / 500	1200 / 48"	Cast iron	Bronze or SS
PL 7101	49,100 gpm	10-25 ft.	335 hp / 590	1200 / 48"	Cast iron	Bronze or SS
PL 7101	57,100 gpm	13-33 ft.	480 hp / 710	1200 / 48"	Cast iron	Bronze or SS
PL 7105	63,400 gpm	8-20 ft.	230 hp / 505	1200 / 48"	Cast iron	Bronze or SS
PL 7105	76,100 gpm	8-26 ft.	480 hp / 590	1200 / 48"	Cast iron	Bronze or SS
PL 7121	83,200 gpm	10-28 ft.	600 hp / 505	1400 / 56"	Cast iron	Bronze or SS
PL 7121	98,300 gpm	10-39 ft.	775 hp / 590	1400 / 56"	Cast iron	Bronze or SS
PL 7125	119,000 gpm	8-33 ft.	600 hp / 505	1400 / 56"	Cast iron	Bronze or SS

* For individual performance curves and dimensional drawings, go to www.xylect.com and the "Xylem design recommendations" booklet.

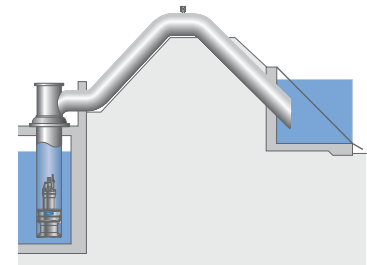
INSTALLATION EXAMPLES



Installation is steel, plastic or concrete column lifting to an open channel. No check valve is required.



With submerged outlet and flap valve.



With a siphon.