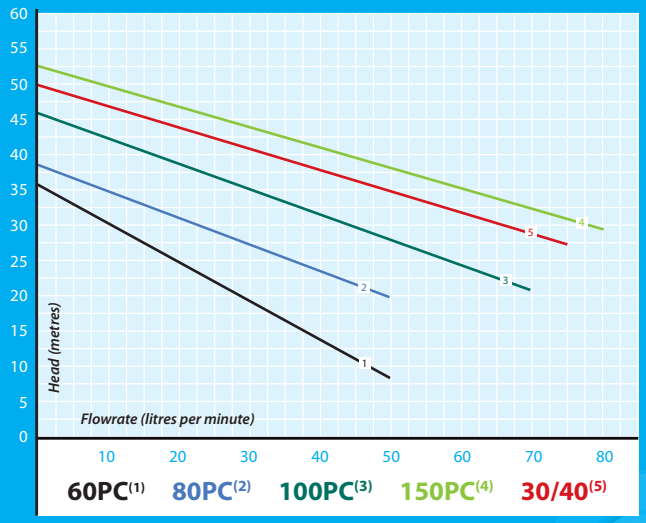
Pump performance



Talk to Orion.

There are important factors to consider when choosing and installing your pump. The team at Orion have the knowledge and expertise to guide you to the right choice. Get it right the first time, talk to us first.

Tips

- Pressure tanks are better for power saving and more effective running. The larger the pressure tank size, the better the pump system will perform.
- Electronic press controls only recommended for flooded suction or suction lift maximum of 3 metres.
- If the pump starts and runs without reason, look for a leak

Before installing the pump, TAKE NOTE

- The suction line must not be smaller in diameter than the suction connection to the pump *(if smaller the warranty will be invalidated)*
- The suction line should be as short as possible with a minimum of fittings
- The suction line should be as straight as possible, avoiding the use of bends and elbows
- All fittings must be completely air tight to avoid cavitation *(the noise caused by air being drawn through the fittings on the suction line)*
- When setting up pressure tanks in a mechanical pressure switch system, the air charge needs to be set at 20kPa or 3psi below the pump switch-on pressure.
- In an electronic system, the air charge should be set at 70% of the maximum pressure.

Orion Distributors (NZ) Ltd
6/36 William Pickering Drive • Albany
PO Box 35553 • Browns Bay • Auckland NZ
P: 09 476 6871 • F: 09 476 6872 • E: sales@oriondistributors.co.nz
www.oriondistributors.co.nz

PRESSURE PUMPS
PRESSURE TANKS

www.oriondistributors.co.nz

The Orion range includes jet and multistage pumps available in stainless steel.

Jet pumps

Generate good pressures and flowrates. They are able to operate well even in difficult applications with aerated water.

- Suitable for use in almost all installations.
- Good with suction lifts and with flooded suction.
- Preferred choice over a multistage pump when the water source is below the pump.

Multistage pumps

These pumps have multiple impellers able to develop high pressures and flowrates, with comparatively low power consumption.

- Best suited to flooded suction applications with a pressure switch and pressure tank as flow rate and performance increase.
- Quieter and more efficient than a jet pump.

Pressure tanks

Save water - save power. Use with your pump if you have a low pressure hot water cylinder or a fire sprinker system.

- Reliable: time-proven system.
- Durable: fewer pump starts lengthens life of the pump.
- Economical: saves power through fewer pump starts.
- Versatile: water available if power shuts down.

What is the best pump for the job?

60PC Inox *(Jet Pump)*	**Small House or Bach**
	Max Head: **36m**
	Max Flow: **50 l/min**
	Max Suction: **8m**
	.37Kw 1/2 HP
	5 Taps
80PC Inox *(Jet Pump)*	**Small to Medium House**
	Max Head: **38m**
	Max Flow: **60 l/min**
	Max Suction: **8m**
	.55Kw 3/4 HP
	6 Taps
100PC Inox *(Jet Pump)*	**Medium House**
	Max Head: **46m**
	Max Flow: **65 l/min**
	Max Suction: **8m**
	.75Kw 1 HP
	7 Taps
150PC Inox *(Jet Pump)*	**Large House**
	Max Head: **52m**
	Max Flow: **80 l/min**
	Max Suction: **8m**
	1Kw 1.2 HP
	8 Taps
30/40 Inox *(Multistage Pump)*	**Medium to Large House**
	Max Head: **50m**
	Max Flow: **73 l/min**
	.75Kw 1 HP
	10 Taps

Electronic Systems

- Run-dry protection.
- Constant running.
- Best suited to flooded suctions or limited suction lifts.
- Pressure tanks are often used in conjuction with electronic pump controls as small leaks can cause an electronic pump to switch on and off when no water is required in your home.

Run-dry protection options

- Electronic press controls – constant running.
- Loss of prime pressure switch.
- Armtrol R digital pressure switch.
- Floatswitch in water tank that interrupts power supply.
- Flow switch.

High flowrates fire sprinkler systems

- Pumps being used to operate large homes and sprinkler systems should use an 80 litre pressure tank or bigger. This will minimise frictional pressure loss at high flowrates.
- Multistage pumps are often the preferred choice for high flowrates and pressure as they are more efficient.