

# Omni Grind Turbine Pump

Innovation that lasts

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Disrupting Pressure  
Sewer Technology

- ✓ Zero scheduled maintenance
- ✓ No wearing rotor/stator



## *Driving Innovation*

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*Australasia's first and only residential pressure sewer pump with a 20 year life\* and zero scheduled maintenance.*

Aquatec's Omni Grind Turbine (OGT) Pump replaces continually wearing rotor and stator components found in traditional Progressive Cavity pumps with a 316 stainless steel, abrasion resistant turbine impeller to deliver Australasia's only pressure sewer pump with a 20 year life\* and zero scheduled maintenance.

At the forefront of advancing technologies, the OGT is purpose-built for continual operation across Australasia's coastal, urban and rural terrains, with the versatility to adapt to any pressure sewer network.





20  
Year Life\*



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### 1 Abrasion Resistant Impeller

**F** Proprietary Aerospace infusion coating technology; a stainless steel turbine impeller with multi vane design and steep curve. **B** resists abrasion from sand, grit and hard particles to provide double the life of conventional Progressive Cavity Pumps.

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### 3 Steep Pump Curve

**F** The steep pump curve **B** enables smaller diameter pipework and greater control over system pressure, with the flexibility to set maximum limits at lower pressures providing full network control and protection.

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### 5 Slicerator

**F** A smaller cutter and grinder radius with tighter clearances **B** maximises cutting force for grinding fibrous materials, such as wipes, and all modern textiles to eliminate jamming with 10x cutting force.

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### 2 Dual Channel Volute

**F** Radially balances the hydraulic load which **B** means that the pump can operate anywhere on the curve with no detriment to the pump.

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### 4 Shorter Shaft

**F** A shorter shaft **B** enables a closer tolerance on the cutter with tighter clearances, eliminating side-to-side deflection and jamming (as seen with progressive cavity pumps) while increasing the life of the mechanical seal.

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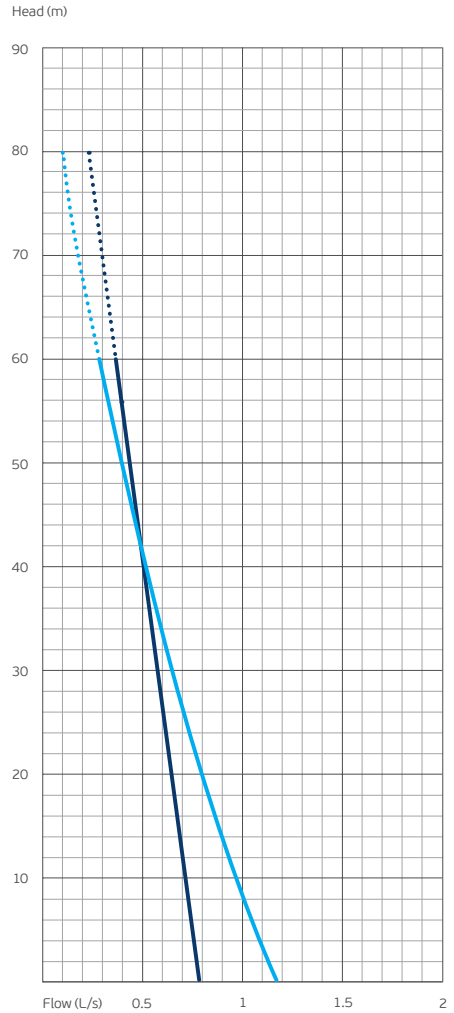
### 6 Silicon Carbide Seal

**F** A Silicon Carbide Mechanical Seal with vented case **B** reduces working pressure to increase seal life. Hydraulic passages and pump-out vanes protect from stringy debris and abrasive media for longer life.

# 20 Year Life\*

## Grinder Pump Performance Comparison

- OGT Regenerative Turbine (Recommended Operating Range)
- Progressing Cavity Recommended Operating Range (for comparison)



## Progressing Cavity Technology

- Contacting rotor and stator continually wear every time the pump operates
- Requires replacing after 5-10 years dependent on abrasives in sewer



## Turbine Technology

- No wearing rotor and stator
- Regenerative turbine impeller
- No contacting parts
- Higher heads up to 80m with higher flows up to 1.2 L/S
- Able to run dry
- 20 year life
- Fully designed to integrate with progressive cavity pumps in existing network



## *Water Innovation Partners*

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\*Tested for the equivalent of 20 years  
usage for domestic sewer applications.