

PROTECTOR TREATMENT SYSTEMS



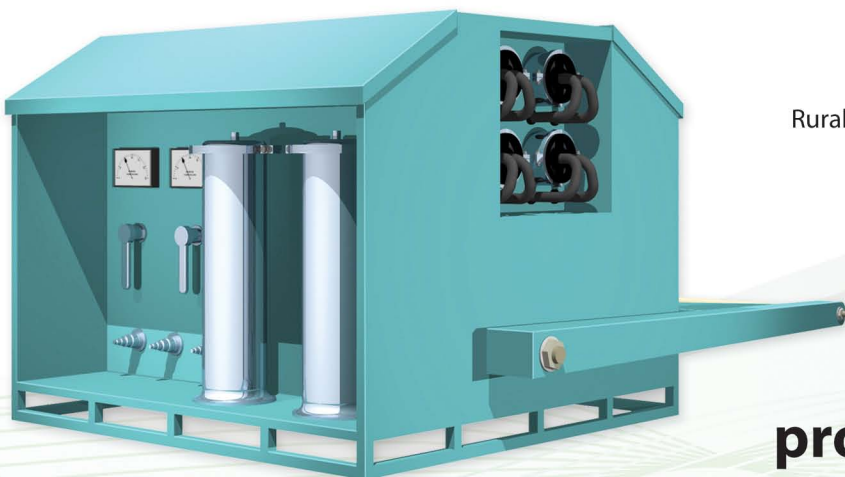
PUMPED REVERSE OSMOSIS

According to the UN, water-related diseases are the leading cause of death in the world, taking the lives of 6,000 people every day. Such diseases are contracted from drinking unsafe, contaminated water in locations where adequate treatment is either unpractical or unaffordable. The total number of people around the globe without sustainable access to safe drinking water currently stands at over 1 billion - a shocking figure which equals one sixth of the world's population.

PROTECTOR water purification systems are able to extract and treat water directly from boreholes, wells, streams, rivers and lakes. The systems use both ceramic and reverse osmosis (RO) filters to remove contaminants such as silt, colloidal particles, bacteria, viruses, protozoa, cysts, metals, fluoride and arsenic. This degree of filtration is also able to reduce salt from brackish water sources, to safe and palatable levels.



- **PROTECTOR** purification systems can provide as many as 2000 people per day with safe, clean drinking water.
- As much as 12,000 litres (3,170 gal) of water can be treated over an 8 hour period.
- The treated water is 100% safe and in compliance with W.H.O. Guidelines.
- Each system is powered by a single person pumping a handle.
- No fuel or electricity is required and there are no emissions.
- The cost of treated water is as little as USD \$0.02 per 20 Litres (5.28 gal) - Enough for the daily requirements of a family of four.
- **PROTECTOR** purification systems remove contaminants associated with numerous water related diseases and conditions including Cholera, Diarrhoea, Fluorosis, Arsenicosis and Guinea Worm Disease (Dracunculiasis).
- The systems are large enough for permanent installation, but small and light enough to be deployed in emergency situations.
- Robust and durable design for prolonged use in the harshest of environments.





APPLICATIONS

- Rural Development (Towns, Villages, Communities)
- Tourism (Camps, Parks, Lodges)
- Farm & Factory Work Force
- Micro Enterprise (Water Kiosks)
- Military (Barracks, Camps)
- Emergency Relief

protectorsystems.com

SPECIFICATIONS

	PROTECTOR 750 	PROTECTOR 1500 
Treated Water Output	408 - 816 litres per hour (108 - 216 gph)	869 - 1,739 litres per hour (230 - 459 gph)
RO Membranes	2 ea. Composite Polyamide (CPA) Spiral-wound BWRO	4 ea. Composite Polyamide (CPA) Spiral-wound BWRO
Vertical Suction Depth	9m (28ft) max	
TDS Rejection Rate	90% - 99.5% (Factory adjustable according to application)	
Permeate Recovery Rate	75%	
Unit Dimensions	1.2m L x 1.2m W x 0.9m H (4ft L x 4ft W x 3ft H)	
Unit Weight	340kg (750lb)	
Drive System	<ul style="list-style-type: none"> • Industrially coated and/or designed to meet 'marine quality' standards • Strong & durable design, minimal maintenance required 	
Pump	<ul style="list-style-type: none"> • Self priming • Not affected by 'vapour lock' or 'dry running' • Approved by Food Standards Agency (FSA) for use with potable water 	
Ceramic Pre-filters	<ul style="list-style-type: none"> • 0.07% Pure Silver (Ag) incorporated throughout the ceramic shell prevents bacteria grow-through and build-up on its surface (bacteriostatic). No need for hot water or steam sterilisation. • >98% efficiency at 0.2 microns. >90% efficiency at 0.05 microns. • Turbidity reduction <0.07 NTU. • High quality 316L stainless steel filter housings with 'band clamp' lid closure. 	
Handle, Housing & Frame	<ul style="list-style-type: none"> • The 1.5m (5ft) handle is constructed of aluminium with a CPVC replaceable grip. • The framework and housing are manufactured from powder coated steel. 	
Physical Water Conditioner	<ul style="list-style-type: none"> • Inline electrolytic scale inhibitor. • Zero maintenance. • No chemicals or electrical input required • 10 year lifespan. 	
Accessories Supplied	<ul style="list-style-type: none"> • Maintenance tools (secured by anti-theft cable). • 15.2m (50ft) of intake hose / 6m (20ft) of treated water hose • Heavy duty 316 Stainless Steel intake screen. • Re-usable / cleanable bag filters for high turbidity applications (pre-filters) • 30.5m (100ft) of waste concentrate hose. 	



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