

PRF-RO Reverse Osmosis Units

Applications Include:

- Potable water
- Window washers
- Steamers
- Coffee makers
- Photography processing
- Water coolers
- Business offices
- Restaurants
- Humidifiers
- Aquariums
- Misters
- Plus many other applications

The PRF-RO uses two high-flow

membrane elements in series to produce an average of 1.9 litres/minute of purified water. The two membranes operate in series, with the concentrate from one element being channelled through the second so that the waste water is reduced compared with conventional systems,

The unit operates on mains pressure (2.8 bar minimum) and in many applications it may not require upstream pressure boosting although at lower pressures the throughput is reduced.

It is a modular system and multiple units can be fitted in parallel to provide increased throughput.

Operating conditions:					
	Minimum	Maximum			
Inlet pressure	2.76 bar	5.52bar			
Inlet temperature	4.5°C	37°C			
Inlet TDS	50mg/l	2000mg/l			
Inlet hardness	-	171mg/l			
Inlet chlorine	-	1.0mg/l			
Inlet iron	-	100µg/l			
Inlet manganese	-	50µ/l			

Performance:					
(Based on 750mg/I TDS Inlet Water)					
Pressure		Flowrate			
psi	bar	litres/min	litres/day		
40	2.8	0.8	1152		
50	3.45	1.2	1728		
60	4.14	1.5	2160		
70	4.83	1.7	2448		
80	5.52	2.0	2880		

Please note - the system is designed for potable water use only

Filter & Membrane Elements					
	Diameter	Length	Average Life		
Carbon pre-filter	7.4cm	43.0cm	6-12 months		
RO element	8cm	47.6cm	2-4 years		
Carbon post-filter	5.1cm	25.4cm	6-12 months		



Penstar Ltd, Rhoshill Cardigan SA43 2TX

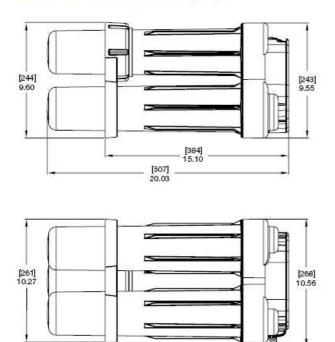
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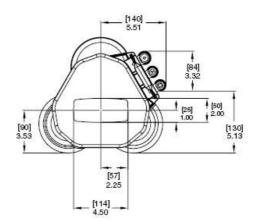
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Outline Dimensions in Inches (cm)





Inlet Pressure

If the inlet pressure is less than 2.8bar or if a higher throughput is required, Penstar can supply an in-line booster pump.



System Discharge

The unit can be used to directly supply a single drinking water tap or a machine with low water flow requirements, without any intermediate storage and it can be supplied with a single-use tap and connection hoses.

If the peak demand is higher than the throughput of the unit it will need to be connected to buffer storage to hold the treated water until it is required-

A pressure vessel can be used where the peak demand is only slightly higher than the throughput.

To obtain the best performance from the PDF-RO we recommend that the treated water is fed into a storage tank with a booster pump to transfer to the distribution system as required. Penstar offer a range of tank-sets with booster pump for pressurised water supply.



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