



# Distil™ for Desalination

High energy costs and low water recovery are some of the challenges of desalination technologies for decentralised applications. To negate these issues, the R&D team at EWTCOI has developed a highly-efficient membrane distillation technology called **Distil™**. This patented technology uses a multi-layered membrane which exhibits both hydrophobic and hydrophilic characteristics and is able to achieve fluxes which are 40-60% higher than that achieved by conventional hydrophobic membrane distillation membranes.

**Distil™** can be developed into a portable and decentralised solution with the option of tapping on solar energy or low-grade waste heat. It can recover 60-80% of the source feed and can be completely powered by the sun – at the same time, consistently ensuring high-quality water with more than 99.9% salt rejection. Long-term performance issues such as pore wetting of membranes are also significantly reduced – thus increasing membrane life.

EWTCOI can help you optimise your desalination needs for a sustainable future today.

## Key Features & Benefits

- Fully operable by solar energy or low-grade waste heat of 60-80°C
- High membrane flux up to 71 L/m<sup>2</sup>.h
- Significantly reduced pore-wetting
- High rejection of non-volatile solutes
- High purity product water (2-4 mg/L)
- Low energy consumption (<1.5kWh/m<sup>3</sup>)
- High thermal efficiency (GOR 2-10)
- No need for chemical treatment (only physical pre-treatment required)

## Applications

- Desalination of water for remote or rural locations
- Desalination of water on board ships or offshore platforms
- Recovery of water from reverse osmosis brine
- Recovery of water from high total dissolved solids and wastewater

### Solar Operated Plant



Pilot Rooftop System (@NP)

**Thermal Power:** 100-250kW/m<sup>3</sup>

**Electric Power:** Less than 1.5kW/m<sup>3</sup>

**Plant Capacity:** 100-1000L/day

### Solar Operated Plant



Demo Plant (Previously @Marina Barrage)

**Thermal Power:** 100-250kW/m<sup>3</sup>

**Electric Power:** Less than 1.5kW/m<sup>3</sup>

**Plant Capacity:** 100-1000L/day

### Portable Unit



### Compact Membrane Distillation Modules

