

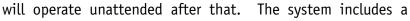
## EUWP.GEN2 SPECIFICATIONS

## **Expeditionary Unit Water Purifier - Gen2**

he EUWP Generation 2 is a full-scale prototype of an advanced water purification unit. This prototype will be used for developmental testing to validate the design concept for use as a possible retrofit system for the CVN-68 Nimitz class nuclear aircraft carriers. It is derived from the EUWP Generation 1, which is a mobile water purification unit designed for ground deployment to remote locations for support of military operations, nation-building, humanitarian aid, and disaster relief. The Gen 2 unit incorporates enhanced technology to reduce energy consumption, size, weight, and maintenance burden compared with present naval desalination plants.

The Gen 2 is capable of producing 322,000 gpd of first pass RO permeate that meets BUMED ship-board potable water quality requirements, 259,000 gpd of 2nd pass water with 5 ppm quality, and 256,000 gpd of 18-megaohm deionized water. The Gen 2 system consists of a Microfiltration (MF) skid and a Reverse Osmosis (RO) skid. The MF skid provides a constant flow of filtered water to the RO skid. The MF skid uses advanced design features to eliminate the need for filter replacement. The RO skid uses advanced technology to provide much higher water production rates than previous naval RO units. The system is also capable of operation at half capacity.

The Gen 2 uses an advanced PLC-based control system to provide quick and easy system start-up, full monitoring of operating parameters, and automatic operation of the system once it is started. Start-up is easily performed by a single operator in less than 5 minutes using a touch-screen monitor, and

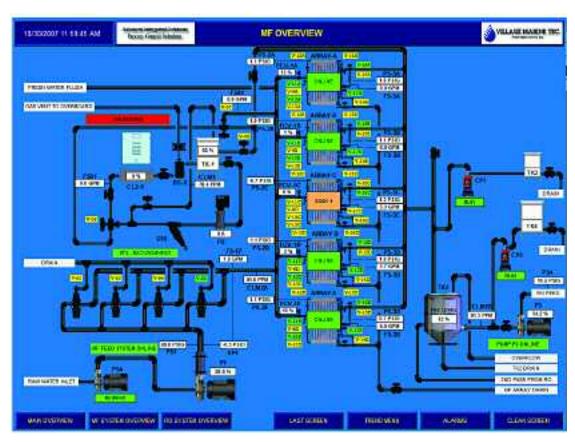


data-logging capability that permits the downloading of relevant operational data to Excel spreadsheets for trend analysis. A full suite of sensors provides data for automatic operation, as well as automatic shutdown and

alarms in the event normal operating parameters are exceeded. The PLC programming allows adjustment of MF filter backwash parameters to permit finetuning of the backwash sequence, and also allows adjustment of shutdown and alarm setpoints. A manual override capability is provided to permit operator adjustment of valve opening/closing, and pump operating speeds.



For more info, please contact 1(800) 421-4503 1(310) 516-9911 Ext. 600



Operator Touch Screen Display

Operational Concept: Manual Startup, Automatic Operation

Performance Water Quality Standards: BUMED Water Production Gallons Per Day, Seawater Feed:

322,000 gpd 1st pass; 259,000 gpd 2nd pass; 256,000 gpd EDI

Maximum Power Consumption: 325 kW

Water Source: seawater, 40,000 max ppm TDS

Chemical Injection: chlorination, anti-scalant, de-chlorination

Dimensions and Weights: MF - 21.5' L x 9.3' W x 9.2' H, 20,000 lbs dry

RO - 19.4' L x 9.3' W x 9.2' H, 36,000 lbs dry

Operational Footprint: Land - 60' x 30'

Ship - 40' x 25'

Transportability: Commercial Flat-Bed

## §Village Marine Tec.™

## Corporate Sales Office & Manufacturing Facility

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