EUWP.GEN2
SPECIFICATIONS

Expeditionary Unit Water Purifier - Gen2

The 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 shipboard 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 will operate unattended after that. The system includes a 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 fine-tuning 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

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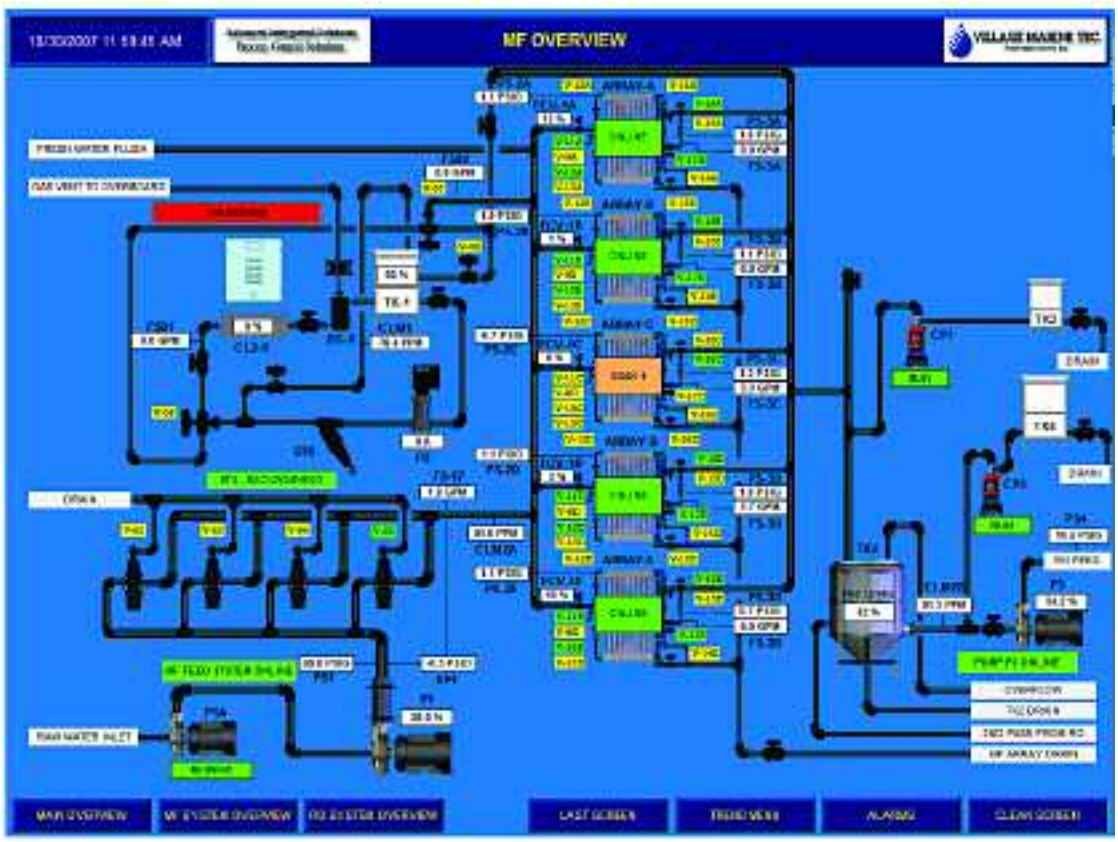

Operator Touch Screen Display

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.™

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