

# ZeeWeed\* mobile water treatment system

## applications

- Reverse osmosis pre-treatment
- Industrial process water
- Production of potable water
- Treatment of secondary effluent

## unit capacity

Up to 0.78 MGD (123 m<sup>3</sup>/hr) at up to 10 psi (69 kPa)

## key benefits

- Easily transportable
- Proven, reliable barrier technology
- Fully tested and ready for installation
- Fully automated for ease of operation
- Minimal installation time required
- Membranes shipped installed
- Insulated, heated, and air-conditioned container
- Handles large variations in raw water quality
- Strongest purewater ultrafiltration membrane on the market
- Includes chemical cleaning and neutralization system
- Integrated PLC/MCC control room

## mobilization/demobilization services

### Mobilization includes:

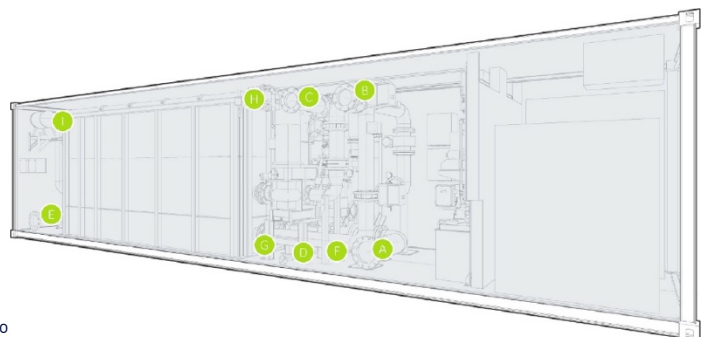
- Preparation of equipment at SUEZ
- Full drawing package to detail system layout
- System startup and operator training
- System performance checks



### Demobilization includes:

- Complete mechanical checkout of equipment
- Coordination of Customer supplied mechanical and electrical contractors
- Supervision of membrane preparation for return shipment (cleaning, removal, preservation, bagging and crating)

| Termination Points |      |             |                                     |
|--------------------|------|-------------|-------------------------------------|
| Tag                | Size | Connection  | Function                            |
| A                  | 10"  | 150# FLG RF | UF Feed                             |
| B                  | 8"   | 150# FLG RF | Permeate                            |
| C                  | 8"   | 150# FLG RF | Reject                              |
| D                  | 1.5" | 150# FLG FF | Waste                               |
| E                  | 10"  | 150# FLG RF | Overflow                            |
| F                  | 0.5" | 150# FLG RF | Potable water                       |
| G                  | 1"   | ODT Tube    | Instrumentation drain               |
| H                  | 2"   | 150# FLG FF | Cleaning Supplemental potable water |
| I                  | 2"   | 150# FLG FF | Potable water to BP tank            |



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**Standard Features:**

|                        |                                  |   |
|------------------------|----------------------------------|---|
| Membrane               | Membrane Module                  | ZeeWeed 500 (NSF Certified)   |
|                        | Membrane Type                    | Reinforced, low pressure, immersed hollow fiber                               |
|                        | Permeate Flow Path               | Outside-in  |
|                        | Nominal Pore size                | 0.04 microns  |
|                        | Membrane material                | PVDF  |
| System                 | Configuration                    | 1 train with 4 cassettes, 26 modules per cassette                             |
|                        | Dimensions                       | 40'L x 8.0'W x 9.5'H (40'(12m) HC ISO Container)<br>12.2m L x 2.5m W x 2.9m H |
|                        | Membrane tank                    | 316 Stainless Steel   |
|                        | Process piping                   | 316 Stainless Steel   |
|                        | MIT (membrane integrity test)    | Yes   |
|                        | Automatic backpulse cleaning     | Yes   |
|                        | LT2 compliance                   | Yes   |
|                        | Process tank volume              | 4,800 gal; 18,168 L   |
|                        | Clean in Place (CIP) tank volume | 1,184 gal; 4,481 L  |
|                        | Weight, shipping/operating       | 55,000 / 130,000 lbs (24,950 / 58,970 kg)                                     |
|                        | Aeration scour                   | Blower self-contained   |
|                        | Control - Interface              | Allen Bradley PLC with Transduction PC (HMI)                                  |
|                        | Instrumentation                  | Feed and permeate turbidimeters and permeate particle counter                 |
| Data Collection System | ZenoTrac™                        |   |
| Technical support 24/7 | Yes                              |   |
| Requirements           | Overhead clearance               | 12 ft (3.66 m) minimum  |
|                        | Surrounding access               | 5 ft (1.5 m) minimum  |
|                        | Electrical                       | 460V/3ph/60Hz/236 amps  |
|                        | Raw water pressure               | 5 psig (34.5 kPa) minimum<br>20 psig (138 kPa) maximum                        |
|                        | Raw water screening              | < 1 mm  |

**Average Feed Water Characteristics**

| Source                        | Parameters  | Permeate           |
|-------------------------------|---|--------------------|
| Direct Filtration             | <100 NTU turbidity<br><5 mg/L TOC                                 | <0.3 NTU turbidity |
| Enhanced Coagulation          | <100 NTU turbidity<br>>5 mg/L TOC*                                | <0.3 NTU turbidity |
| Settled Water                 | <5 NTU turbidity  | <0.3 NTU turbidity |
| Oxidation (Fe & Mn)           | <10 NTU turbidity<br><5 mg/L TOC<br>>1 mg/L Fe,*<br>>0.3 mg/L Mn* | <0.3 NTU turbidity |
| Secondary / Tertiary Effluent | <100 mg/L TSS   | <0.3 NTU turbidity |

\* Operating parameters to be confirmed with SUEZ membrane solutions under these conditions

**process flow diagram**

