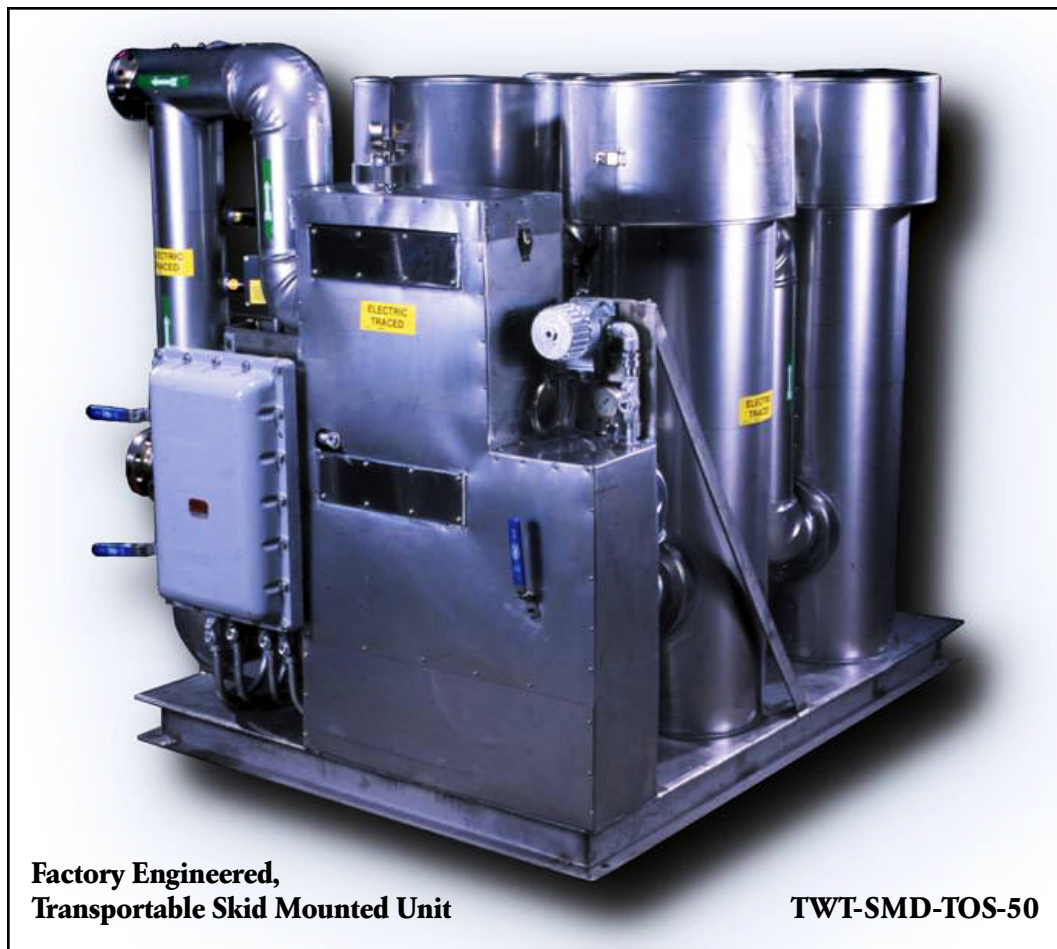


INTEGRATED SYSTEM FOR ENHANCED RESULTS

Triangular Wave Technologies, Inc. (TWT®)
All-In-One Fluid Management System
The Ultimate in "Water"
Treatment & Conditioning

Project: Off-Shore Water Purification System



Multi-Process Conditioning, Disinfection & Purification

All-In-One



Package-Unit

Chemical-Free



Project: Off-Shore Water Purification Technical Overview

Commentary

The project required a customized solution for the on-site generation of potable drinking water.

The specification called for a water purification system that would stand up to extreme environmental conditions, with explosion-proofing, insulation and heat-tracing ability.

The unit was specified to process fresh water of unknown quality into clear, clean, pathogen-free drinking and wash-up water.

System is designed to treat water up to 50 GPM

Technical Brief:

Approx. Unit Size and Weight:

Size: 54" X 68" X 65"H • Weight: 1990 lbs.

Certifications

CSA (Canadian Standards Association) Class1–Division 2 – Group D
Temperature Code T4A; Type 4, Special Acceptance Label A453831
Hydrostatic / Pneumatic Pressure Tested to 380 psi
Weld Specifications ASME SA312-316/316L

Pressure Vessels (Filtration)

4 pressure vessels per skid system
Each Pressure vessels holds 6 filtration elements Series A (v 1 & 2) – 6X5M 30" sediment plus 6X10M carbon block
Series B (v3 & 4) – 6X5M 30" sediment plus 6X10M carbon block
Pressure vessels 10.75 X 40 – internal pressure 180 psi
Hydrostatic test pressure 236 psi
Max design vessel temp – 200 degrees F
Min design vessel temp – 20 degrees F
Primary material – SA-312, TP316L
Allowable Stress 16,700 lbs.
Specification Code ASMEV111 – Edition 1998

UV Purification Unit

Triple-Pass-Through design for maximum UV exposure
3.5" O.D. 316L stainless steel construction
2" Flanged connections In-Out (3" optional)
UV Lamp – RL84/893T5 – power rating 65W
UV Wavelength – 254 nm UVC germicidal Flow rate 50 GPM

Electrical System

Specifications 120 VAC, 15 Amp, 60Hz; heat traced unit
Rated – 120 – 240 – VAC, 15 Amp. 2 phase, 60 Hz
Certified Control Enclosure – Class 1, Group BCD Type 4X
CSA Standard C22-2
30 – M1986 Explosion-Proof for use in Class 1 hazardous Location
142 – M1987 Process control equipment
213 – M1987 Non-Incendive electrical equipment for use in Class 1, Division 2 Hazardous Locations

Heat Tracing – Insulation – Piping

Heat Tracing – Certified Raychem Type 5BTV1-CT (5-6W/ft)
For Class 1, Division 2, Groups BC and D, Temp Code T6; Type 4X
Valve Actuator: Certified BETTIS 300 series model 300F-30-C7-004
Thermostat: Certified Raychem Model E5075-2LS

Insulation

2" foam glass insulation – R value 6.26

Piping

2" OD pipe / Test Temp 55 degrees F – Pressure Tested 380 psi

TWT Inc. recommends that an initial supply of replacement products e.g., replacement UV lamps, filters etc. be stored at owners facility at all times, to insure uninterrupted service and treatment.

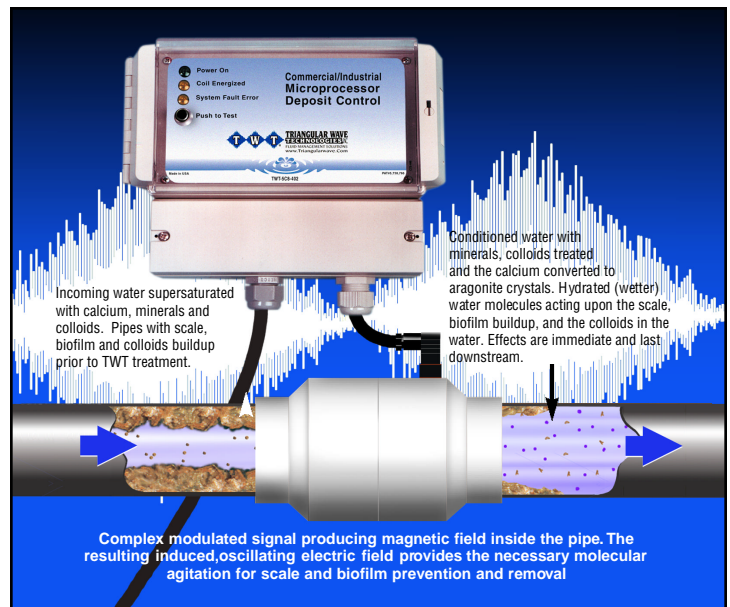
All TWT systems are properly packed, skidded and/or crated to ensure safe delivery.

All TWT systems are shipped with easy to follow application, installation and operational manuals.

Pumps, piping, fittings and other related equipment to and from system owners/customers responsibility.

Optional

(POE) Point-of Entry, Hard Water Treatment and Conditioning System
Triangular Wave Patented Chemical-Free Deposit Control Technology
TWT-5C8-402 Industrial Deposit Controller
TWT-ISRC-02 Industrial Stainless Steel Reaction Chamber



TWT-SMD-TOS-50 system component assembly, sizing can be re-engineered according to customers industry specific capacity, GPM and treatment requirements

System engineering, design, weight, size and system component assembly may vary based on TWT engineering review, application, installation and water quality analysis.

In order to ensure the greatest level of performance and satisfaction in your work with the TWT products and/or systems, we recommend that you contact our engineering staff, who will be pleased to work closely with you to determine the optimal application and installation for your facility and/or industry specific needs.

Let TWT custom design a system to meet your specific application, system integration, and/or retro-fit needs.

For additional information contact us at address listed below. Thank you.