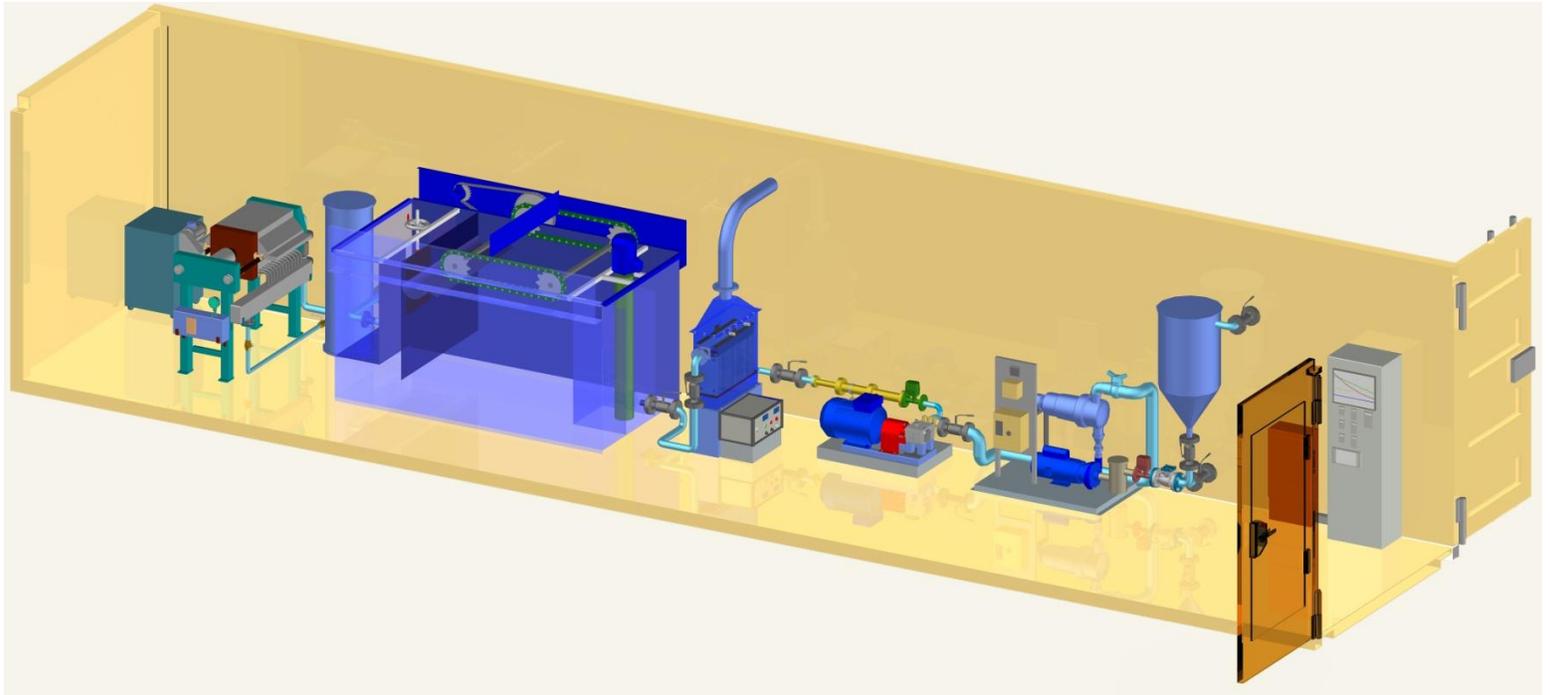
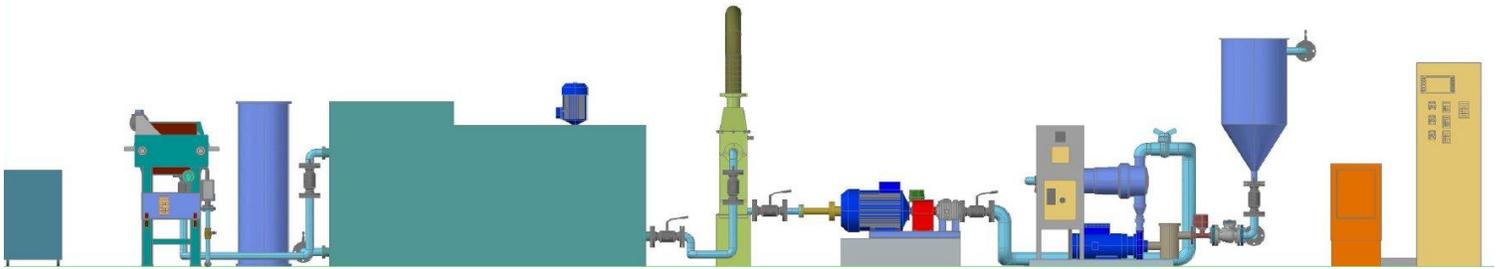


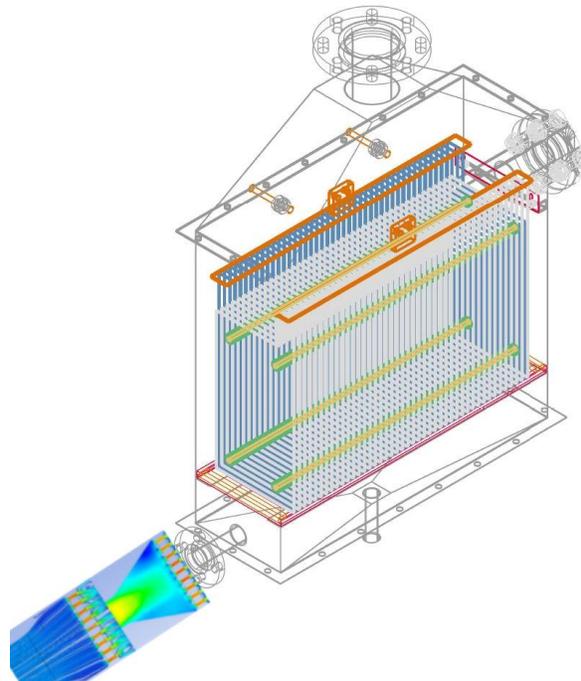


## CAVIGATION WATER TREATMENT TECHNOLOGY



### Description of equipment in 20 ft container 50 -250 GPM

1. Computerized control center.
2. Rectifier, converts alternating current to direct current
3. Receiving tank
4. Pump
5. Self-Cleaning Filter
6. Multistage Cavitation System
7. Electro Coagulation System
8. Cavitation Air Flotation Unit
9. Mineral and resin tank
10. Plate and frame filter press
11. Dry sludge collector





**Table 2.**  
**Technical Characteristics of Cavitation Industrial (Frack) Water Treatment Module**  
 \* 20 foot containerized system processing capacity from 50 GPM to 250 GPM  
 \* 40 foot containerized system 500 GPM.

In the electrocoagulation process, the coagulant is generated *in situ* by electrolytic oxidation of an appropriate anode material. The introduced highly charged polymeric metal hydroxide species neutralize the electrostatic charges on suspended solids and oil droplets to facilitate agglomeration and resultant separation from the aqueous phase. The simultaneous action of advanced hydrodynamic nano cavitation, electrocoagulation and active chemical species formed *in situ* provide a unique synergistic effect resulting in a high-efficiency purification process. The System is capable of removing heavy metals, fats, oil, grease, complex organics, bacteria, viruses and cysts, and suspended and colloidal solids; breaking oil emulsions in water and processing multiple contaminants.

<b>Pilot system 50 GPM</b>		
<b>STAGE 1</b>		
<b>Self-Cleaning Filter</b>		
Automatic self-cleaning individual, modular and skid mounted filtration systems that include integrated controls and valves. The V-Series™ automatic self-cleaning filter skid for "Frac" water (V-Series-FS) has been designed for easy portability.	motor	5HP
<b>STAGE 2</b>		
<b>Multistage Cavitation System</b>		
Capacity	GPM	50
Pump Pressure	PSI	100-400
Motor	motor	30HP
<b>STAGE 3</b>		
<b>Electro Coagulation System</b> Proprietary Nano Water Treatment EC Unit		
Proprietary coating non- sacrificial anode Long Life - minimum 2 to 5 years life span Low maintenance cost <b>Rectifier mode:</b> switching rectifier (Dry type, forced air cooling). 2) Input Power source: AC230V, 1Ph, 60Hz. 3) Output current: 200A (0 - 200A continuously adjustable). 4) Output voltage: DC 30V (0 - 30V continuously adjustable). 5) Control system: constant current mode / constant voltage mode.		
Energy use, no more than 0.5KWH/M <sup>3</sup> or <u>5KWH/ 50 gpm system.</u> Power 24 V, up to 200 Amp.		
Rectifier with PLC, good operation interface, there is RS485 optical fiber communication		

interface, there is colorful touch screen, flexible and good vision, real time record and display various parameters, history curves of rectifier operation and PROFIBUS interface.		
<b>STAGE 4</b> <b>Cavitation Air Flotation Unit (Proprietary design)</b> Cavitation air flotation process. Microbubbles are injected into the wastewater without first having to dissolve the air. Only air passes through the ejection nozzles. Therefore no blockage can occur. No need for air compressors, pumps, air saturation tanks.		
<b>Scraper system with stainless steel blades and chemical dousing unit</b>		
Cavitation Aerator		
Aerator motor 1460RPM	motor	1.5HP
Electric control cabinet, ABB		
PLC controlled Skimmer	motor	3HP
Total Power consumption 30KWH for 50GPM system or \$2.40/hour or 0.0008 cents per gal of water processed.		

Cavitation Technologies, Inc.  
 10019 Canoga Ave., Chatsworth, CA 91311 USA  
 (818) 718-0905  
 (818) 718-1176