

ARTISAN INDUSTRIES INC.

Capabilities & Product Offerings



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www.artisanind.com

www.jetvactechnologies.com

Artisan Industries

Process Technologies

Thermal Separation Solutions

Rototherm® Thin Film Evaporators



Solvent Recovery
Distillation
Concentration
Purification
Stripping
Waste Reduction
Drying
Free Flowing Powder

Engineering and Manufacturing

Engineering is the core of Artisan's business

Our team of Chemical and Mechanical Engineers are experts at:

- **Distillation**
- **Evaporation**
- **Drying**
- **Purification**
- **Mass Transfer**
- **Extraction**
- **Process Design**
- **Systems Engineering**

Plant Tour







Artisan Industries – Product Offerings

Thermal Separation Solutions

Rototherm® Thin Film Evaporators



Solvent Recovery
Distillation
Concentration
Purification
Stripping
Waste Reduction
Drying
Free Flowing Powder

Product Offerings

Thermal Separation Solutions

Evaporator / Stripper



18" Dia. X 39' Tall

Product Offerings

Thermal Separation Solutions

Rototherm® Thin Film Evaporators



200 sq/ft



1/4 sq/ft

Product Offerings

Thermal Separation Solutions

Evaporator / Stripper



Internal Trays



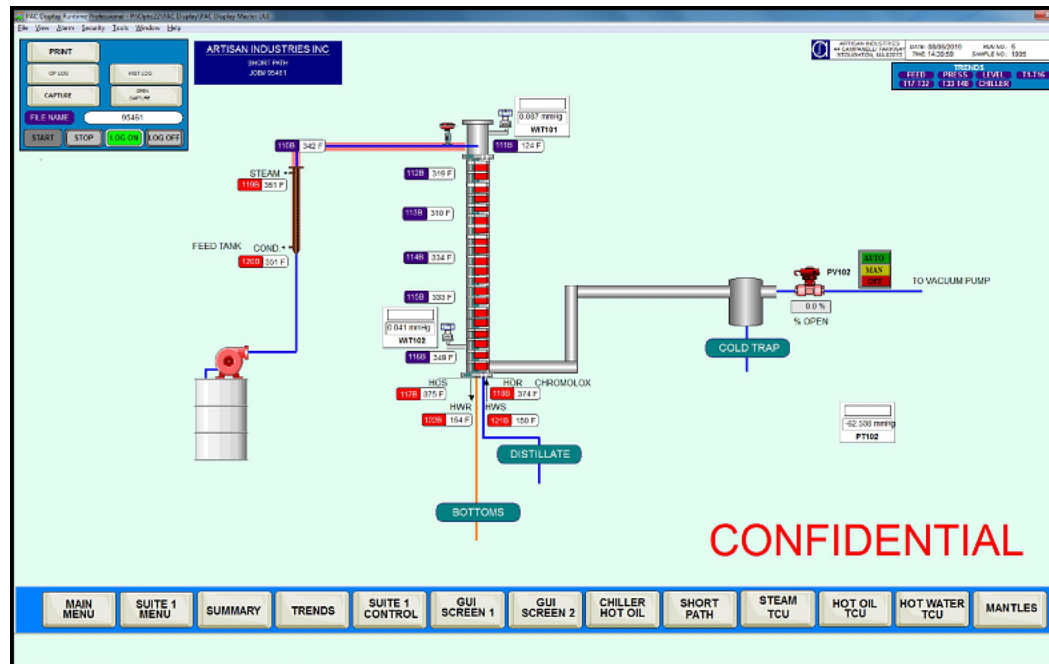
Aroma Recovery
Dehydrating
Deodorizing
Desolventizing
Distillation
Purifying
Solvent Recovery
Stripping

Product Offerings

Thermal Separation Solutions

Short Path Stripper – Removal of GE's & MCPD's

- Alternative to Short Path Evaporation
- Deodorization and Decontamination
- Edible Oils and Chemicals
- **Free Testing Available – contact us**



Product Offerings

Thermal Separation Solutions

Twin Screw Extruder

Continuously remove viscous,
product (up to 2 million Centipoise)



Product Offerings

Thermal Separation Solutions



(4) 200 sq/ft Rototherms®
Soluble Coffee Plant

Product Offerings

Thermal Separation Solutions



(4) 200 sq/ft Rototherms®
Biodiesel Plant

Product Offerings

Thermal Separation Solutions



(4) 200 sq/ft Rototherms®
Biodiesel Plant

Product Offerings

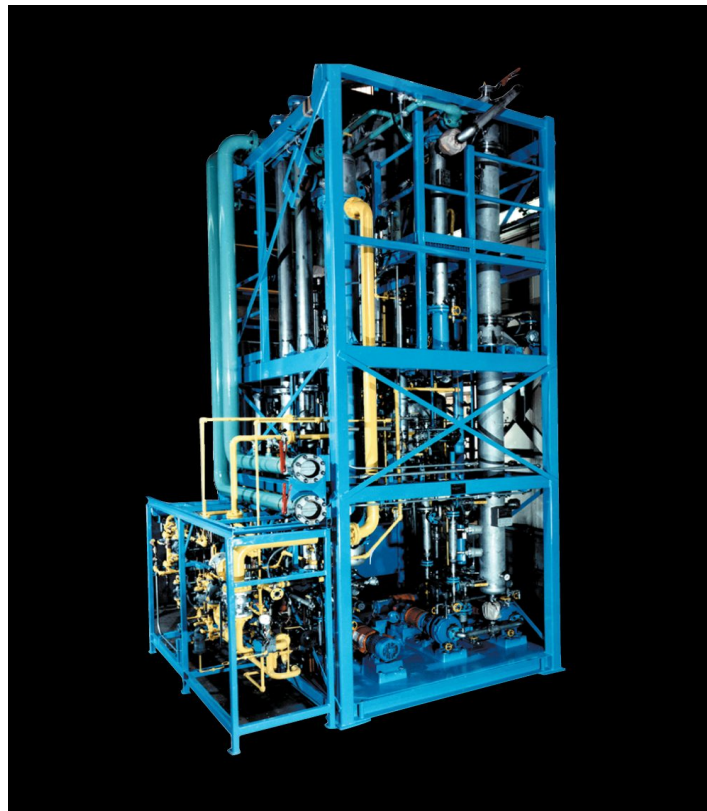
Thermal Separation Solutions



(4) 200 sq/ft Rototherms®
Biodiesel Plant

Product Offerings

Thermal Separation Solutions



Multi-Stage Evaporator / Stripper
TCE Removal

Product Offerings

JET-VAC® Technologies

Steam Jet Vacuum Solutions



18" X 16" Single Stage Ejector

Single and Multi-Stage Systems

- Large Process Loads
- No Moving Parts / Lubricants
- Low CapEx and OpEx
- Micron Level Vacuum**

Hybrid Steam Jet Vacuum Systems

- Evacuating
- Condenser Air Removal
- Degassing
- Evaporating
- Drying

Product Offerings

JET-VAC® Technologies

Steam Jet Vacuum Solutions

Multi-Stage Systems

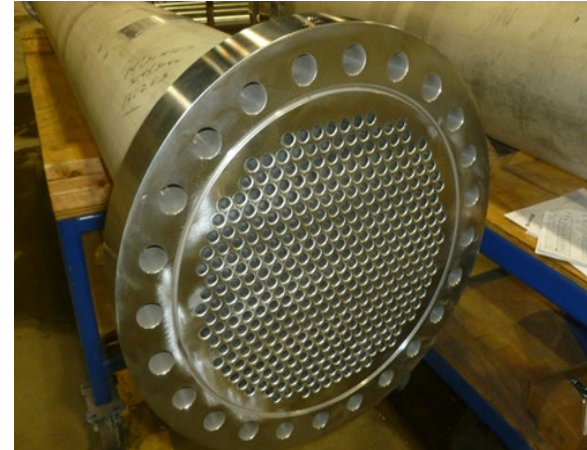


3-Stage System

Product Offerings

JET-VAC® Technologies

Heat Exchangers / Vacuum Condensers
Shell and Tube (Surface Type)



Fixed Tubesheet



U-Tube Bundle



Shell Side Assembly

Product Offerings

Industries

- Oil & Gas
- Petrochemical
- Pharmaceutical
- Biotechnical
- Nutraceutical
- Food & Beverage
- Chemicals and Fine Chemicals
- Power Generation
- Edible Oils
- Coatings
- Flavors and Fragrances
- Healthcare
- Polymers
- Refining



Appendix

Global Certifications

Mechanical Engineering Capabilities

Finite Element Analysis

Piping Stress Analysis

Strain Gage and Burst Testing Qualification
to ASME Code

Quality

Machining

WELDING / FABRICATION



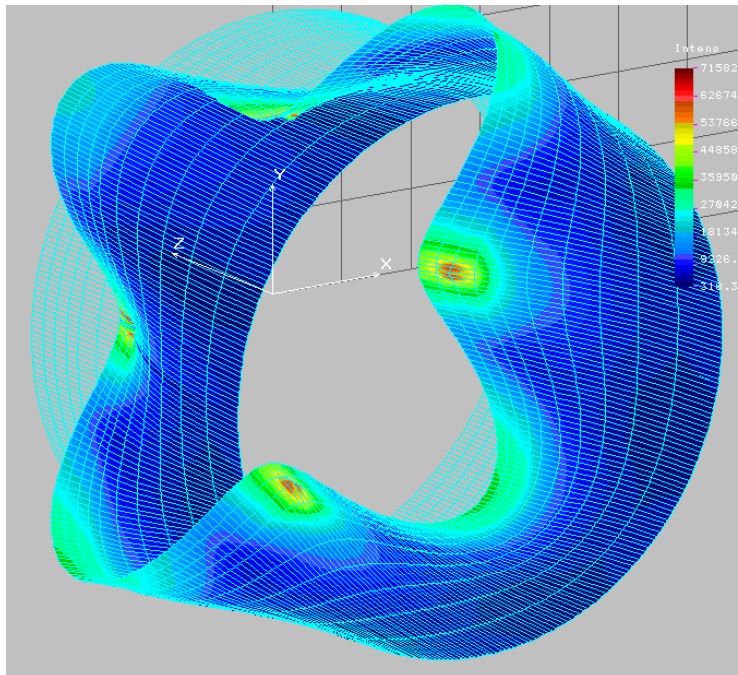
Global Certifications

- Artisan is the holder of five certificates issued by ASME and National Board of Boiler and Pressure Vessel Inspectors
 - N & NPT- Class 1,2 & 3
 - U & U2 - Pressure Vessel Div 1 & 2
 - R - Repair
 - For People's Republic of China
 - Manufacturing License of Special Equipment
 - Pressure Vessels A2 (Rotary Valves)
License #TS2200819-2013
- For South Korea
 - Korean Gas Safety Corporation
 - License Certificate #ES-261

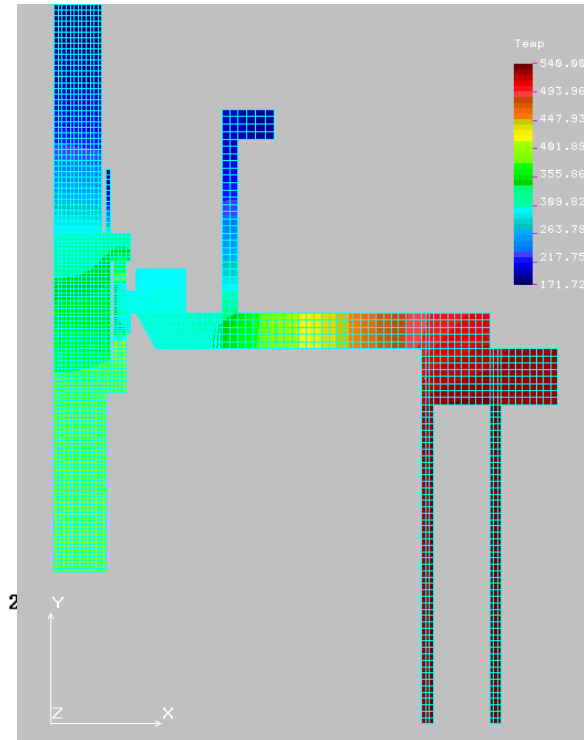
Mechanical Engineering Capabilities

- International experience in 35+ countries (CSA B51, China, JIS-MOL, KGS, DOSH)
- European PED / CE qualification & fabrication services
- Fatigue design qualification to ASME Division 2
- Experience in specialty machining and weld fixtures
- Field Service and On-site Engineering Evaluations
- Petrochemical, specialty chemical, food, pharmaceutical, and hydraulic equipment design
- Seismic, Wind, Piping and Structural Analysis

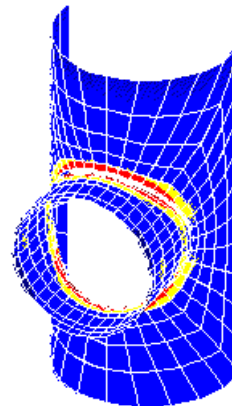
Finite Element Analysis



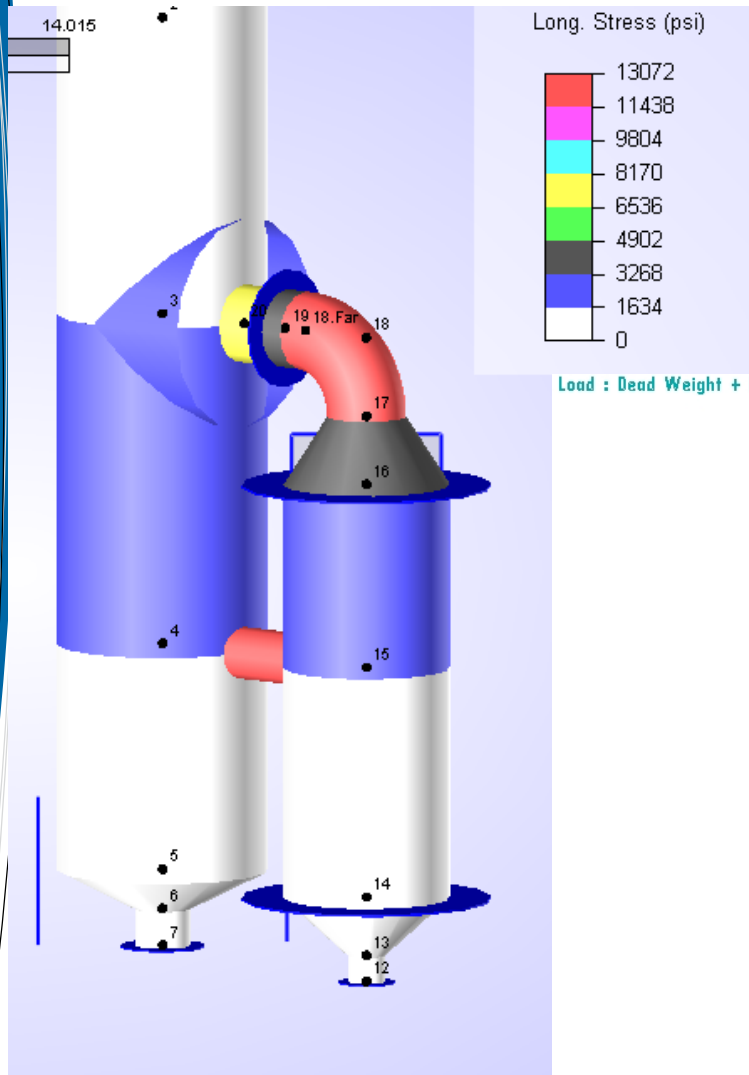
Stress/Strain



THERMAL

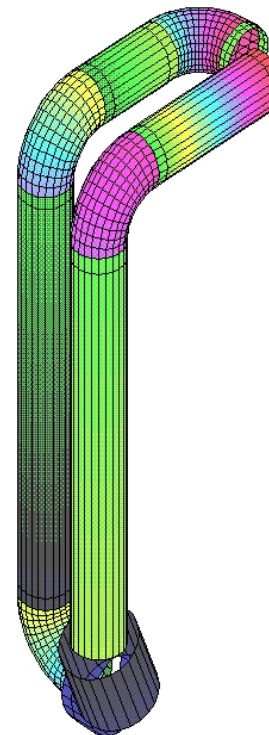


Piping Stress Analysis

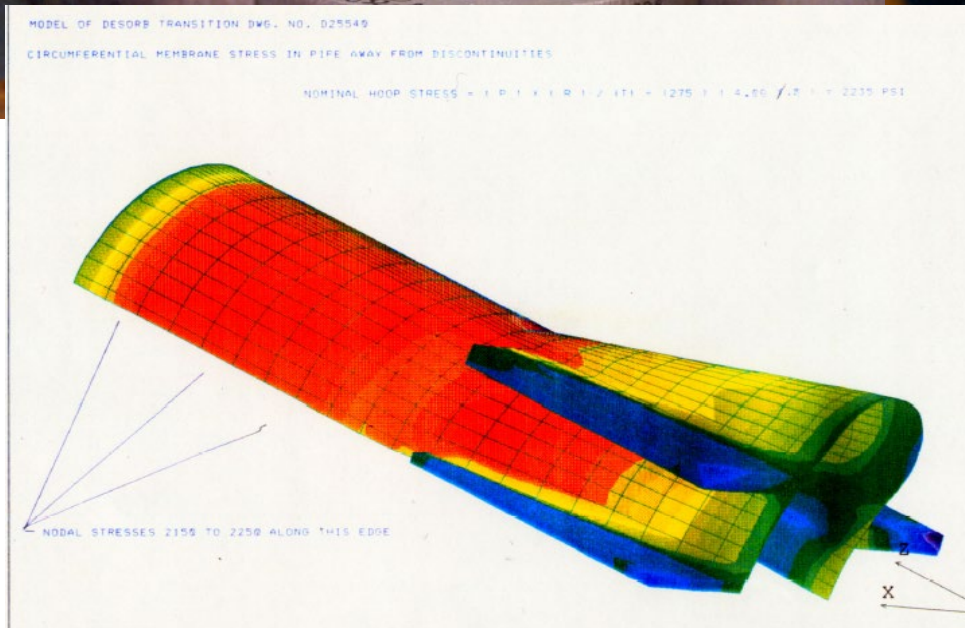
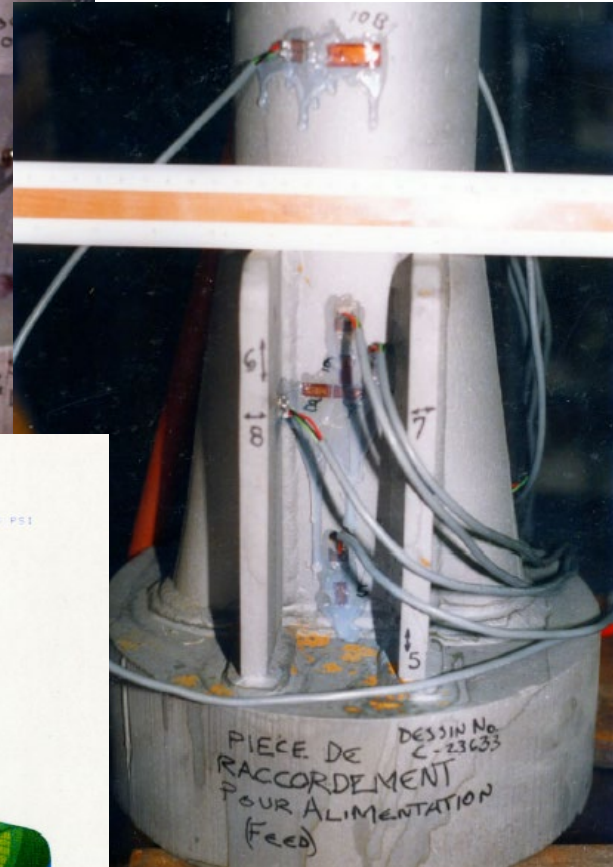


Column & Reboiler

Stress, design, support and flexibility per B31.3 or B31.1



Fuel Cell
Piping



Quality

- American Society of Non-Destructive Testing certified level III inspector on staff for liquid penetrant and magnetic particle inspection
- Four American Welding Society certified welding inspectors on staff
- On staff inspectors allow Artisan to assure quality and maintain schedules
- Portable 300 KV x-ray machine
- Portable coordinate measuring machine:
 - Romer Model 5030

Machining

- Team of seasoned journeyman machinists
- Machine parts
 - From numerous materials and varying hardness
 - Weighing from less than a pound to over 40 tons
 - To exacting tolerances and fine finishes

WELDING / FABRICATION

- Over 22 Talented, versatile, x-ray quality welders and fabricators
- Qualified to use several processes including:
 - TIG, Stick, MIG, Flux Core, Submerged Arc
- Qualified to weld numerous metals including:
 - Steel, Stainless steels, Nickel alloys, Aluminum, Titanium and Chrome Moly
- Special know-how to fabricate custom equipment