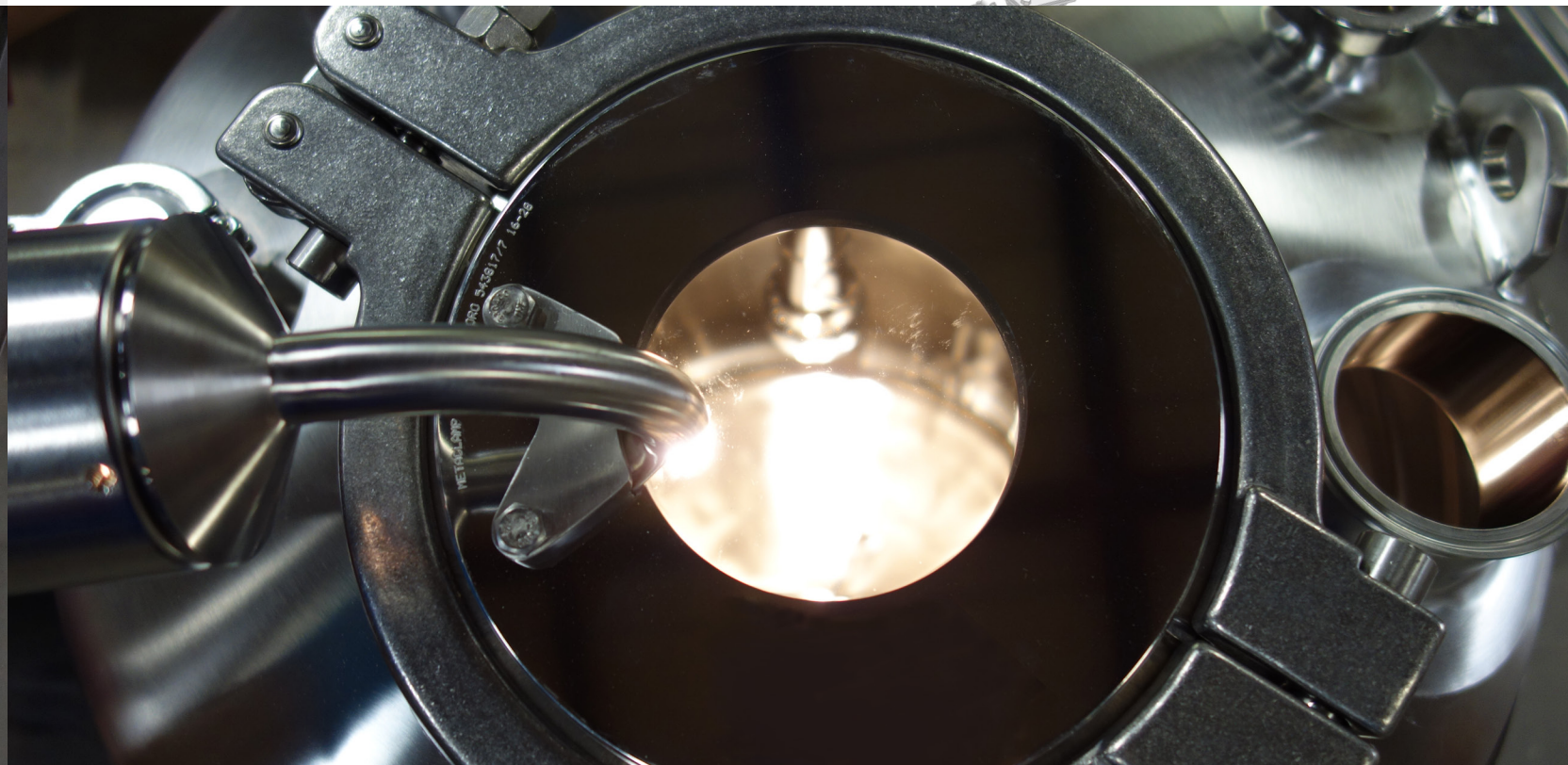
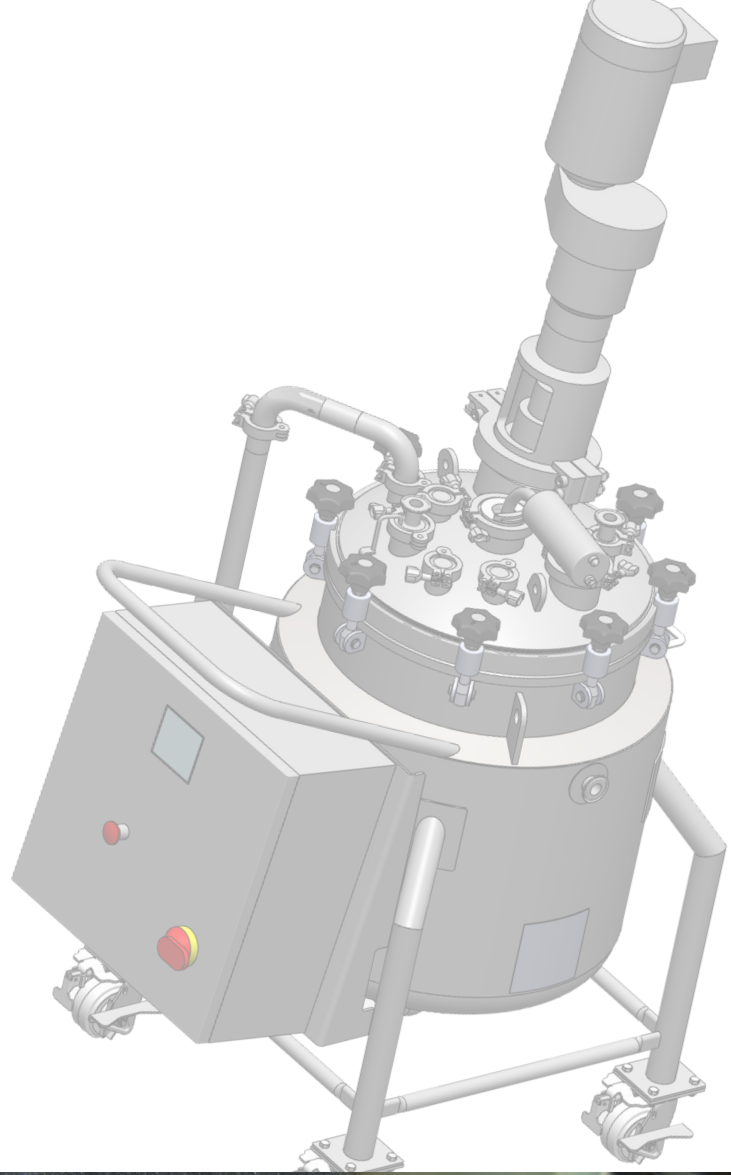




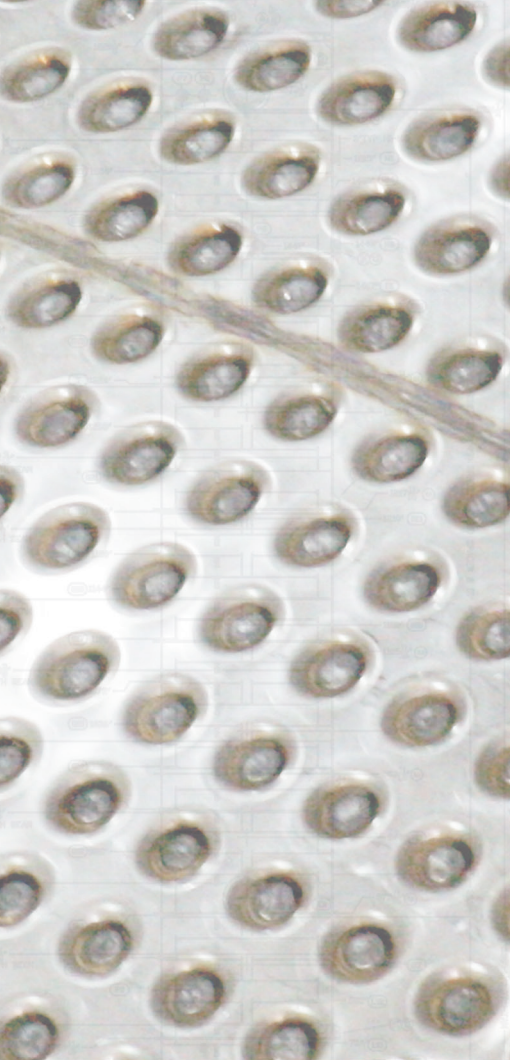
# APACHE

## STAINLESS EQUIPMENT CORPORATION

An Employee Owned Company



**Custom Vessels for Industries Requiring Extreme Compliance**



## Apache Stainless Portable Vessels

Apache's small vessel customers are regulated and held to extreme standards, which we incorporate into every vessel we fabricate.

From precise control to documentation requirements, we are committed to help pharmaceutical processors with their research, testing or production goals.

### CORE COMPETENCIES

#### Engineering

Apache's engineering services provide the experience of over 40 years of ASME tank and vessel manufacturing. Our staff provides technical support for your project, with 3D modeling capabilities to fabricate the highest performing tanks and vessels.

#### Fabrication

Our ASME certified welders and inspectors ensure that every product meets rigid quality standards. Our fully equipped facilities allow us to fabricate all our products in-house, giving us control to deliver on time. This investment allows us to shear, laser, form, weld, roll and fabricate virtually any tank, large or small.

ASME Vessels

API-650 Vessels

Custom Mix Tanks

Storage Tanks

Jacketed Vessels

Heat Exchange Surfaces

Extraction Equipment



Tank with agitation and controls



Tank with heat transfer and controls

Columns

Evaporators

Vats

Totes

Bins



Tank with sight glass

Materials:

Stainless

Nickel Alloy

Duplex

AL6XN

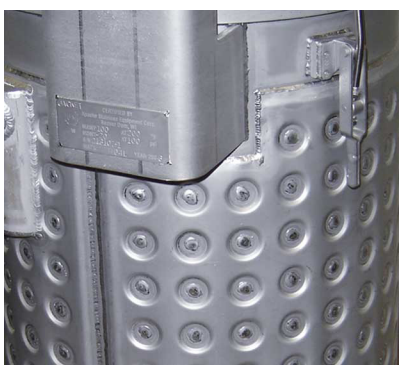
Hastelloys



Tank with pneumatic Cover Lift

# CUSTOM CAPABILITIES MEET SPECIALIZED VESSELS

It is the control over our processes and the dedication of skilled craftspersons that allows Apache to offer these highly specialized vessels.



# CONTROL OVER EVERY PROCESS

## Heat Exchange Surfaces

We will work with you to determine the amount of heat exchange coverage needed to successfully process your products. We can fabricate conventional jacket, standard dimple, 1/2 pipe, 1/3 pipe, inflated dimple and internal coils. All external heat exchange surfaces can be insulated and clad to your exact specifications. To prevent stress corrosion caused by moisture, we offer ThurmaloX coating as a protective barrier for the stainless surface.

## Agitation

Our engineers work with you to design the best sanitary agitation equipment for your application. We provide a wide range of agitation technologies including scraped surface, high shear, counter rotating, full sweep and turbine as well as both top and bottom mount magnetic mixers.

## Sprayball and Riboflavin Tests

Our team will work closely with your project managers to set the appropriate testing parameters for your finished tank or vessel. Comprehensive sprayball and riboflavin testing is performed completely in-house, before your vessel ever leaves our facility. We currently work all industry leading labs for sprayball testing.





## SERVICES

### Passivation

Passivation is recommended as a final cleaning finish after all fabrication operations such as forming, welding, machine and mechanical polishing have been completed. Passivation is often required in sanitary design vessels.

ASTM A380 & A967

### Electropolishing

Electropolishing is also specified as a finish in many pharmaceutical, health and biotechnology industry vessels. Surface contamination is dissolved in the process, creating a mirror-like finish.

ASTM B912



### Engineering

Apache's provides engineering and 3D modeling to the customer's design conditions and ASME requirements for each vessel project. Apache also offers services to re-rate field vessels to ASME code.

### Controls

Apache Stainless Equipment offers flexible control options for SVG units. From basic Start/Stop/Speed control with temperature/pressure readouts, to having a HMI touchscreen with customizable setpoints/runtimes/monitoring and recipe storage.

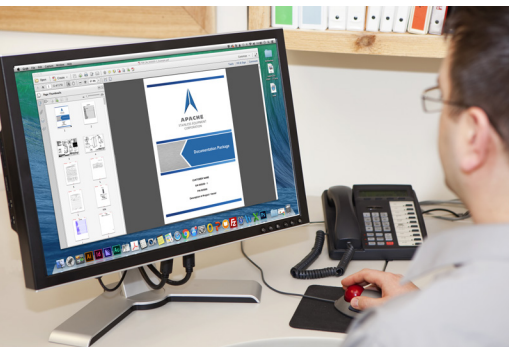


### Robotic and Mechanical Polishing

Apache can finish the vessel interior and exterior to required RA values.

### FAT (Factory Acceptance Testing)

FAT testing is available for required processes and verification of components including controls, mixing and agitation.



### TOP (Turn Over Packets) Documentation

Apache's quality assurance team provides full electronic TOP Documentation for your vessel project. Engineering services are also available to provide guidance for the proper ASME requirements.

### Field Service

The Field Service team is ASME certified and can provide interior and exterior surface repairs, stain removal, extropolishing, retrofits of manways, nozzels, jackets and vessel condition audits. Our service technicians are ASME R-stamp compliant.



# QUALITY & COMPLIANCE

Apache has a dedicated quality assurance department that focuses on full verification, testing and documentation of compliance requirements. Apache has been ASME certified since 1975. Our welders and inspectors are ASME certified.

## Testing

Pneumatic, Hydrostatic  
Saline  
Base Metal Thickness  
Ferrite Levels  
UT Weld Testing

Liquid Penetrant  
CIP (Clean-in-Place) Coverage  
Ferroxyl Positive Material identification (PMI)  
Radiography

## Processes

Material Trace  
Pickling  
Electropolishing

Welder Trace  
Passivation

## Certifications

ASME U Certification of Authorization  
ASME UM Certification of Authorization  
CE Marking Permission Certificate  
National Board of Boiler & Pressure Vessel Inspectors Certificate  
UN DOT (United Nations, Dept. of Transportation)  
CRN available for all Canadian Provinces



# ASME Small/Portable Vessel Standard Line

Apache also offers a line of standard small vessels, including:

- Large mouth
- Small mouth
- DOT style openings
- Easy open
- Pressurized, vacuum or low pressure options
- 304/304L or 316/316L stainless steel
- Up to 190 psi maximum working pressure
- Rubber bottoms or stainless skirt



Industries:

Biofuel

Biotechnology

Chemical

Health & Beauty

Petroleum

Pharmaceutical / H.P.

Hygienic

Semi-Conductor

Power Generation

Pulp & Paper

Transportation



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