



## Pressure Vessels

Design, fabrication and quality assurance are combined with over 115 years experience make us the informed choice.

## Our Commitment

Taylor Forge's commitment to high quality solutions can be summed up in three attributes: integrity, collaboration and creativity. Taylor Forge shows integrity by not cutting corners or compromising practices, we collaborate with our customers by taking a consultative approach, and we apply creative solutions to our customers' needs and challenges. This combination has made us a leader in the manufacturing of vortex separation systems. We strive to understand the unique needs of each project in order to deliver the best solution.

## Our Pressure Vessel Facilities

For over 115 years, Taylor Forge Engineered Systems has been manufacturing pressure vessels at our plants in Paola and Greeley, Kansas and delivering them world-wide. We strive to understand the unique needs of each project in order to deliver the best solution.

### Paola, Kansas

Our Paola facility, with strengths in heavy wall and special design vessels, is qualified to design and fabricate vessels under ASME Code Section I and Section VIII Divisions 1 and 2. ASME stamps include S, U, U2, and R.

### Greeley, Kansas

Our Greeley plant is more suited to lighter wall vessels and pipe type vessels. Greeley stamps include S, U, and U2.

*Technical information and design guidelines for pressure vessels may be requested. Contact your Sales Representative at 913-294-5331 or email us at [engineered@tfes.com](mailto:engineered@tfes.com).*

## Our Capabilities

- Complete design and analysis capabilities include Div. 2 design and stress reports, fatigue analysis, pipe stress analysis and finite element analysis for vessels large and small.
- Complete process and mechanical design capabilities available for scrubbers, filters and separators.
- Extensive heat treating facilities allow special metallurgies to be quenched and tempered. The large stress relief oven gives in-house post weld heat treatment capabilities up to a 15 ft. diameter.
- One or two-pass weld overlays can be completed for any internal or external connections. Long seams, girth seams and nozzle welds are done by any one of the following procedures: SAW, SMAW, GTAW, GMAW or FCAW. Taylor Forge welders are ASME Code Section IX qualified.
- An in-house laboratory is available for destructive testing procedures. The laboratory is equipped with Tinius-Olsen tensile machine for tensile tests and weld bends, as well as a Tinius-Olsen Charpy impact machine, a Rockwell hardness machine and a Brinell hardness machine.
- Full CAD design capabilities are available from our degreed engineering staff.
- In-house level III inspections are performed including x-ray, magnetic particle, ultra-sonic, dye-penetrative examinations and positive material identification.

## High Pressure Gas Storage Vessels

We also specialize in high pressure gas storage vessels for the Aerospace Industry. We have the resources to provide large storage volumes in a relatively small diameter with a heavy wall configuration, saving space and maintenance.





## Production Specifics

Five pyramid and pinch plate rollers can roll plate hot or cold up to 7" thick and various lengths up to 16'.

Initial crimping enhances the roundness and efficiency of plate rolling; crimping sets the correct radius on plate ends and eliminates waste.

Various welding procedures are used for long seams on cylinders, girth seams and nozzle welds to complete fabrication of the vessel.

The strip overlay process is a submerged arc weld resulting in a high integrity bond; it is used on heavy wall vessels requiring alloy internal surfaces.

Quality of pressure vessels is verified by in-house level III inspectors as well as a resident Authorized Inspection Agency.

## Samples of Our Work



*Hydrotreater Reactor Vessel – 347 S.S. clad lining and internals*



*High Pressure Gas Storage Vessels for the Aerospace Industry*



*Sec. 1 Steel Drum – 65" ID x 3.5" w x 43'-7" s/s, 140,000 lbs with 103 4" rider tube connections*



*Pulsation bottles – Extruded per ANSI B31.8 (as shown) or fabricated and stamped to Sec. VIII*



*Supercritical CO2 Reactor – 114" ID x 3" w x 31' s/s, weight 148,000 lbs, overlaid with 316 S.S*



*Suction Scrubber – 69" ID x 5.25" w x 22' s/s, weight 92,000 lbs, 2,500 psi design, for offshore platform in Malaysia*

# **T/F** TAYLOR FORGE

ENGINEERED SYSTEMS

## Engineered Products Line



*Slug Catchers*



*Scraper Traps*



*Pressure Vessels*



*Shell & Tube  
Heat Exchangers*



*Cooler Header*



*Vortex Technology  
Separation*



*High Pressure Gas  
Storage Vessels  
for the Aerospace Industry*



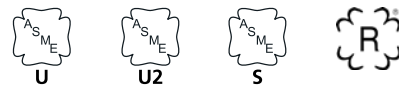
*Extruded Outlets  
& Headers*

## About Taylor Forge

Taylor Forge is a global pressure equipment fabricator, headquartered in Eastern Kansas, providing high quality engineered products to a variety of industries including oil and gas, chemical, power, nuclear, aerospace and defense. In business for over 115 years, Taylor Forge takes pride in its specialized process design, thorough mechanical design and unique fabrication capabilities.

## Certifications

ASME U, U2, S and National Board R



## Commitment to Quality

In addition to our ASME & National Board Certifications, Taylor Forge – Paola, KS is ISO 9001 Certified.

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