



ASAHI/AMERICA FABRICATION DIVISION

Pre-Fabrication and Off-Site Manufacturing Solutions
for Thermoplastic Piping Systems

ASAHI-AMERICA.COM

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YOUR EXPERTS IN FABRICATION



Asahi/America's fabrication facility in Lawrence, MA

FROM CONCEPT TO COMPLETION

From concept to completion, Asahi/America is dedicated to supporting all of your project needs. We understand that one size does not fit all, which is why we have custom solutions available to suit your needs. With an experienced team of fabricators, backed by a dynamic technical services team, Asahi/America is your ideal partner for pre-fabrication solutions.

Headquartered in **Lawrence, Massachusetts**, Asahi/America's 200,000-square-foot facility is complete with a 24,000-square-foot fabrication shop and class 1000 cleanroom.

From initial consultation to post-installation support, Asahi/America prioritizes open communication and collaboration, working closely with clients to understand their unique requirements and deliver tailored solutions that align with their goals and objectives from **concept through completion**.

CAPACITY TO SUPPORT

To support increased capacity, we also have a newly-built, climate-controlled 60,000-square-foot fabrication division based in **Paulina, Louisiana**, which specializes in large-quantity and large-scale custom single and double wall piping fabrication.

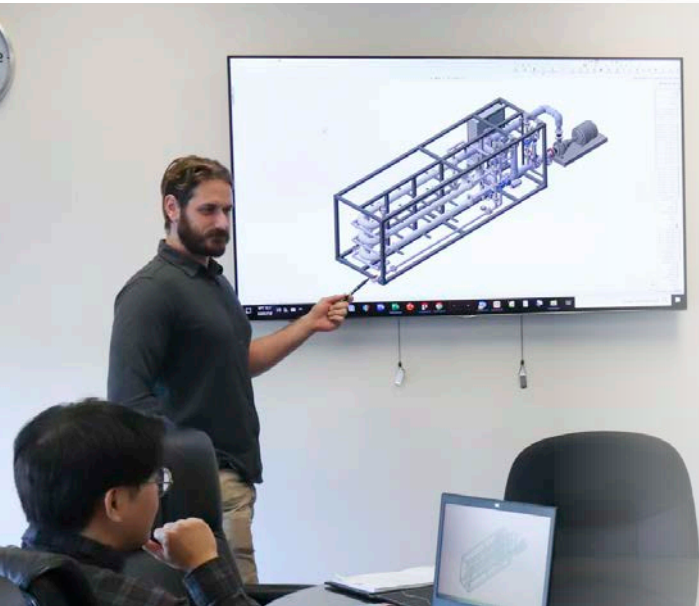
Leveraging advanced technologies and a team of skilled professionals, Asahi/America's fabrication department pushes the boundaries of what's possible, offering customized solutions that meet and exceed client expectations. From precision machining to intricate welding processes, Asahi/America's fabrication capabilities encompass a wide array of techniques, ensuring the production of high-quality components and systems.



Asahi/America's fabrication facility in Paulina, LA

ADVANTAGES OF THERMOPLASTICS

- Lightweight and easy to install
- Excellent material characteristics that offer a wide range of uses
- Corrosion resistant
- Low cost of ownership compared to metallics in which costs tend to vary based on market factors



SOLUTIONS & SUPPORT

- BIM/CAD product library
- Custom crating & shipping options
- Custom product testing
- Design review and assistance
- Engineering support
- Extended cleanroom capabilities (class 1000)
- Extensive US & international distribution network
- In-house CAD team
- Onsite field support & service
- Quality control, standards, and codes
- Research & development facility
- Welding equipment rental services & training

BENEFITS OF PRE-FABRICATION



Controlled workshop environment & cleanroom capabilities



Elimination of costly field fabrication errors & risk



Improved quality with QC protocols



Design assistance



Reduction in project duration & on-site labor needs



Improved productivity



Stress analysis



Piping support & water hammer avoidance



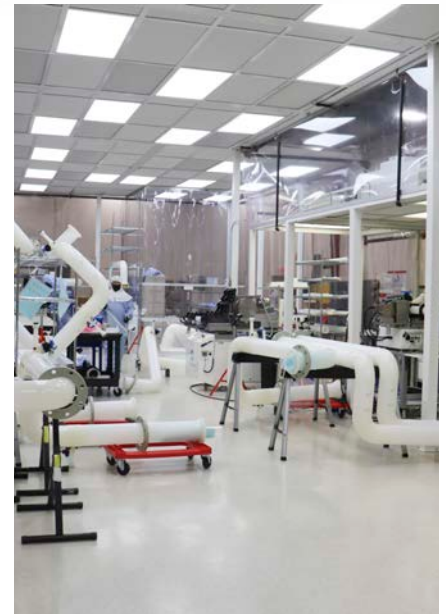
Thermal expansion & contraction

HIGH PURITY PIPING CUSTOM SOLUTIONS



OFFSITE MANUFACTURING

- Climate-controlled 1,900 square-foot class 1000 cleanroom (ISO 6)
- Engineering design and support
- Large-scale cleanroom spool fabrication
- Scalable capacity able to support concurrent fab projects



Asahi/America's ultra high purity piping spools fabricated in our class 1000 cleanroom



Asahi/America's class 1000 cleanroom with increased square footage for capacity

HIGH PURITY WELDING

- Full range of automated infrared and beadless welding equipment in cleanroom covers sizes through 12" (315mm) diameter
- Certified welder cleanroom fabrication. Specific certification standards can be completed on a per project basis
- Cleanroom maintenance practices documented under ISO standards
 - Cleaning protocols
 - Written quality procedures for all cleanroom activities



CUSTOM COMPONENTS

- Custom machined fittings
- Sanitary adapters (molded or machined)
- Custom multiport valve
- Custom actuation capabilities



LOGISTICS SUPPORT

- Cleaned and bagged high purity components inside cleanroom as standard practice
- Capped and bagged ends for protection to project site upon request
- Custom crate solutions and shipping options for 3D spools (expansion loops, spools and manifolds)
- Available part numbering system for OEM projects and components, spool mapping and weld tracking



ORIGINAL EQUIPMENT MANUFACTURER (OEM) CUSTOM SOLUTIONS



OEM SKID & SPOOL BUILDING

- Full skid design & assembly
- Skid and spool fabrication and welding
- SOLIDWORKS® design review and customer collaboration
- Pneumatic leak testing up to 7.5psi on full assemblies
- American Welding Society (AWS) & German Welding Society (DVS) Standards
- Quality controlled and tested to the customer's specifications



Installation of piping system in a life sciences application



Example of a ultrafiltration skid that will be installed in a trailer

MANIFOLDS & HEADERS

- Custom manifold and header options with different tool options: automated manifold machine and manual McElroy SideWinder® up to 16" iron pipe size (IPS)
- Saddle weld outlets (standard and varying height options)
- Concentric & eccentric welds
- Stainless steel adapters available
- Branches with Victaulic® grooves, threaded end connectors, spigot ends, and other options
- Side wall accessories, such as Asahi/America ball valve options



Scan to learn more about our manifold capabilities!

LARGE DIAMETER SINGLE & DOUBLE WALL PIPE FAB



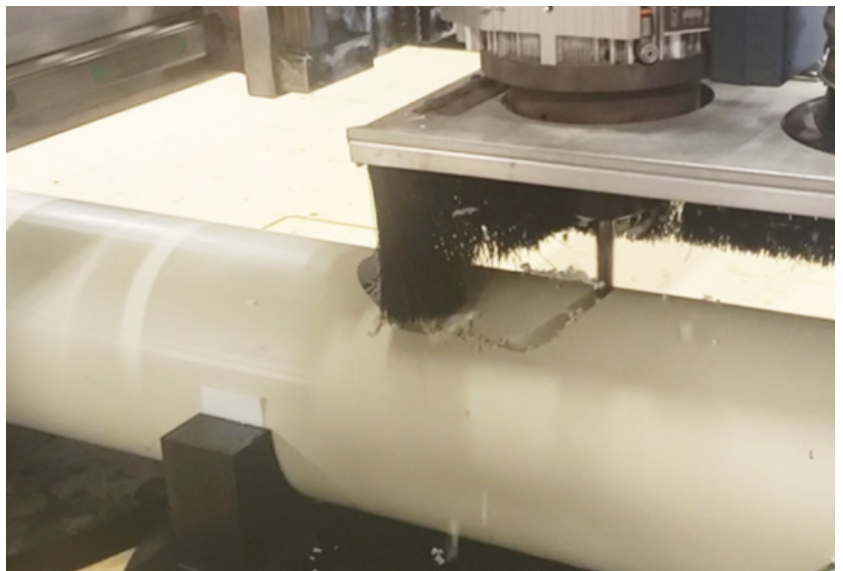
TURNKEY SOLUTIONS

- Pre-fabricated single and double wall piping spools, manifolds, and assemblies up to 24" in diameter
- Large-scale industrial wastewater and chemical waste and drain system specialization
- Pipe butt fusion from 1/2" - 24" in IPS and metric outer diameter (OD) materials
- Single wall and double wall mitered fusion fittings 4" - 24" IPS and metric OD
- Contact butt fusion, extrusion welders, injection welders, and hot air welders
- Sheet butt fusion welder with capabilities up through 20mm thickness, and 78" weld length
- Electrofusion through 24" IPS



CUSTOM MACHINED COMPONENTS

- CNC router table with a 10-position automatic tool changer and work envelope of 6' X 12' X 12" thick
- Includes automatic tool changer and 4th axis aggregate head
- Manual and CNC turning/machining up to 20" diameter swing



Frames sourced, painted, and assembled by Asahi/America

Asahi/America HDPE welded and fabricated according to ASTM PE4710 standards

Customer-supplied electrical cabinets, instrumentation, pumps, filter housings, some valves; installed by Asahi/America

Asahi/America supplied and assembled valve components

Completion

CUSTOM SKID ASSEMBLY

- Custom-designed skids and frames (including all necessary mounting hardware and brackets), fabricated spools, and integration of customer-supplied parts/equipment
- **Example Customer 1 (shown above):**
 - *Customer supplied frames, electrical cabinets, stainless valves, instrumentation*
 - *Asahi/America fabricated all spools and assembled Asahi/America-fabricated parts on customer-supplied frames with customer-supplied parts*
- **Example Customer 2 (shown right):**
 - *Asahi/America fabricated two frame drawings at a local frame shop*
 - *Customer supplied membrane filter housings, metal butterfly valves, actuated valves, instrumentation, flow meters, electrical cabinet, pumps, and filter housing*
 - *Asahi/America fabricated all HDPE spools and performed complete assembly of two skidded systems, combining Asahi/America-fabricated parts with customer-supplied parts*
 - *Asahi/America performed interconnected electrical wiring between customer-supplied control panel and customer-supplied instrumentation (with customer-supplied electrical wiring diagram)*

CUSTOM SOLUTIONS

Have an 'out-of-the-box' custom requirement? No problem! Our technical experts are here to help. Reach out to pipe@asahi-america.com to get started. The photos below are examples of Asahi/America's custom work.



1. 36" HDPE artificial wave chamber, complete with PVC top blind & 12" PVC inlet fittings fitting
2. 4 x 6 Poly-Flo® double contained valve tees
3. Pre-fabricated Pro-Vent® PRO45 duct system, complete with blast gates
4. Valve box enclosure
5. Pro-Lock® double contained valve tees with actuator assembly
6. 16" PRO150 piping system with fully pressure-rated machined and reducing tees
7. 36" HDPE secondary containment basin for a 4" single union ball check valve, complete with 4 x 8 HDPE Fluid-Lok® piping penetrations
8. Polypropylene reactor cover for a chemical reaction and mixing tank, complete with flanged nozzles and polycarbonate inspection hatch





Another Corrosion Problem Solved.™

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