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FABRICATED PROCESS EQUIPMENT – FREQUENTLY ASKED QUESTIONS

To what codes can you fabricate and/or what certifications do your welders have?

- AWS D1.1 Structural Welding Code Steel (carbon)
- AWS D1.6 Structural Welding Code Stainless Steel
- ASME BPVC Section IX
- API 650: Welded Steel Tanks for Oil Storage

What CAD software do you use and/or in what file formats can drawings be submitted? We use Solidworks parametric feature-based solid modeling CAD software, but can accept drawings in a variety of popular file formats including:

| 3D XML | IFC |
|---|------------------------------|
| 3DS | IGES |
| 3MF | JPG |
| ACIS | ОВЈ |
| Adobe [®] Illustrator [®] | Parasolid [®] |
| AMF | ProEngineer [®] |
| PRC | Adobe Photoshop [®] |
| PDF | PSD (Adobe Photoshop) |
| Autodesk Inventor [®] | Rhino |
| Autodesk Mechanical Desktop® | SAT (ACIS [®]) |
| CADKEY [®] | Solid Edge [®] |
| CATIA [®] Graphics | STEP |
| CGR (CATIA graphics) | STL |
| DWG™ | TIFF |
| DXF™ | Unigraphics® |
| HCG (CATIA highly compressed graphics) | VDA-FS |
| HSF (Hoops) | VRML |
| IDF | |

What materials can you fabricate from?

- Steel and Steel Alloys:
 - Carbon Steel per ASTM A36
 - High Strength Low Alloy (HSLA) per ASTM A572
 - o 300 Series Stainless Steel (including AISI 304/304L and 316/316L)
 - Duplex Stainless Steels (including 2205 and 2507)
 - o Canadian Steel Plate and Structural shapes per CSA G40.21
- Thermoplastics
 - Copolymer Polypropylene (CPP)
 - Polyethylene (HDPE, LDPE, UHMW)
 - PVC, CPVC
- Fiberglass Reinforced Plastic (FRP)
 - Vinyl Ester Resins
 - Polyester Resins

Can you take care of any metal repair/welding?

Abtrex has welders available to handle most steel repairs.

Are your people confined space trained?

All Abtrex shop and field employees are trained in OSHA requirements for confined space entry as well as a yearly refresher course.

Is there a cost savings having the work done in your shop versus the field?

In most cases, there would be a cost saving for work done in our shop; however other factors may influence that decision, such as can tank actually be moved and cost of freight.

What are the pros and cons of using one large tank as opposed to multiple smaller tanks?

- One large tank can often be more cost effective than multiple smaller tanks.
- When the tank needs maintenance and/or repairs, the entire system that tank serves would also be down. Whereas one tank in a properly configured, multi-tank system can usually be taken out of service without affecting the rest of the system.
- One large tank will require a larger footprint, which may not be feasible for all circumstances.

What is the life expectancy for a typical steel tank?

While many engineering firms will say seven years, Abtrex, experts in tank design, can offer 20 to 30 years of maintenance-free tank life for many applications. Abtrex recommends that tanks be inspected annually.

When or why is it important to install a lower man-way in a tank?

Safety is the main factor when selecting the number and location for tank man-ways. Tanks with limited, top-only access can create safety hazards when personnel have to enter the tank.

Why would I need to use anything but carbon steel for my custom fabrication?

Stainless steels, alloy metals and even thermal plastics and fiberglass offer different corrosion and

abrasion resistance features. The range of materials is extensive and a lot will depend on the environment, service conditions and even from a cost benefit stand point...

What if I don't have a completed design yet but I know what I am looking for. Is this a problem if I don't have things finalized?

Abtrex has helpful staff that can help take your incomplete design or project and bring it to life. Utilizing our years of experience, Finite Element Analysis capabilities and our 3D modeling capacity, Abtrex can take your concepts and make them into a reality.

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