Pharmaceutical Tanks
8 OVERLOOKED DESIGN CONSIDERATIONS
Buying a tank without a manway or handhole.

This means no accessibility for craftsmen to work on your tank. It also means no way inside the tank for cleaning or inspection.
Buying a tank without lugs or specifying unnecessary lug requirements.

Without lugs on both sides the tank cannot be moved with a crane. Remember, lugs are intended to work together when lifting. Specifying that lugs work individually in the lifting process can cause a lot of extra engineering time, increasing costs.
Buying a tank without casters.

This means the tank cannot be moved on the ground (or there will be a lot of scraping).
Buying a tank without a handle.

This means the tank cannot be easily lifted or moved.
Buying a tank with overcrowded nozzles.

This can cause problems with cleaning and sterilizing your tank. Plus, if they are too close together, uses for those fittings could be negatively impacted.
Don’t ask for unnecessary non-standard fittings.

If you request Ingold fittings when NA Connect or Tri-Clamp ferrules will work just as well, you could be tacking on extra expense and lead time.
Insulating when it is not required.

Insulation is a cost driver and results in longer lead times. Verify if your tank needs insulation before specifying. For example: If your materials are at the bottom of the tank, insulation might not be needed on the top head.
Variances in multiple tanks.

To save money on multiple processing tanks, some rationalize they should leave certain fittings off or change the size of various tanks. In reality, tanks are manufactured more efficiently if they are cohesive. This reduces engineering and manufacturing labor.
Do you need electropolishing?

Depending on the releasability need, an electropolish finish on the inside might make sense. Electropolishing is the highest cost finish because of its smoothness. If your tank is just going to hold regular water, it is probably not necessary.
If your product needs to stay at a certain temperature, you need heat transfer on your vessel. At Paul Mueller Company, we use dimple plate heat transfer in pharmaceutical tanks because of its high flow capacity. Our experienced process engineers can help you decide what kind of temperature coverage you need as well as the correct flow rates to keep your process running optimally.
The type of mixer you select depends on your product. Bottom-mounted mixers have magnets on both the outside and the inside so they are non-penetrating and do not break the sterile barrier. Typically, bottom-mounted mixers are ideal for storage and mild blending. If your process requires heavy-duty mixing, a top-mounted mixer is the way to go. Your budget and lead time required can also play a role in what type of mixer you need; top-mounted mixers are often more expensive.
Other Options to Consider

• **ASME Code:** does your tank need to be pressure rated? This process meets a higher standard of manufacturing, testing, and production. It costs more, too.

• **Transportation:** how are your tanks getting to your facility? At Paul Mueller Company we have a transportation arm that can take your tank from our floor to your door.

There are a myriad of options to consider when buying a pharmaceutical tank. Our Pharma Tank RFQ Data Sheet can help you prepare more in-depth for the bidding process. For your initial research, these are some good design guidelines to keep in mind as you consider what kind of tank you will ultimately need.
Get In Touch

When you are in charge of a new pharmaceutical facility build or expansion, your to-do list is extensive. Let your tank manufacturing partner think about the design details to give you the best pharmaceutical processing solution possible.

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