

DEARATORS

A CREATIVE APPROACH AND TEAMWORK DELIVER PRESSURE VESSELS IN RECORD TIME

Background

In 2015, JNE Welding fabricated four vacuum deaerators for an oil sands client in Alberta. The vessels are 21' in diameter by 120' tall, weighing over 300 metric tons; the largest pressure vessels JNE had built at the time.

The project scope included design, fabrication, testing, painting, installation of internals, and insulation of four deaerator pressure vessels.

Project Challenges

The biggest challenge this project presented was schedule. Delays on the front end of the project resulted in fabrication starting in April of 2015 with all four vessels required to ship out by February of 2016. If the vessels were not ready to ship before the spring road bans came into effect, the customer would experience significant costs and schedule delays.

With over 70,000 production hours required to complete the project, JNE was under serious pressure to deliver. To meet this deadline, JNE worked four shifts around the clock; days, nights, and weekends.



JNE
WELDING

Creative Solutions

Creativity in fabrication was crucial. Traditionally, a vessel is fabricated by first welding all shells and heads together, followed by addition of nozzles and miscellaneous connections. The problem with this approach is the small number of work faces created, allowing only a few people to work on the vessel at one time.

To optimize schedule, JNE developed an approach that created several work faces on subassemblies of the vessel. This introduced challenges keeping the fabrication within dimensional tolerances from one piece to the next. This was addressed with careful planning, precise measurement and diligent communication. Once all subassemblies were complete, then fabrication of the overall assembly would commence.

Outcome

Fabrication of the first vessel was completed in 73 days. To meet required delivery timelines, fabrication time had to be reduced to 46 days per vessel for the remaining three. By the time the fourth vessel was completed, the fabrication process had been trimmed down to just 36 days!

This project challenged JNE to optimize fabrication schedules. JNE used velocity scheduling methods that focused on constraints instead of efficiencies. This approach helped JNE to speed up production, delivering a quality product on time and on budget!

COMBINED STRENGTH

DEARATORS

“Coming together as a team on a technically challenging fabrication like this is such an uplifting experience. At the beginning, it seemed like such a daunting task but by the end, everyone was wishing we had another four to build.”

– Adam Logue, CEO



If you have a challenging fabrication timeline, allow JNE Welding the opportunity to be your trusted partner.

Get in touch with us at www.jnewelding.com and let's talk about what we can build for you!