EXECUTIVE SUMMARY

**CUSTOMER NAME:** Alpha SteelFab  
**INDUSTRY:** Fabrication, Erection, & Speciality Projects  
**LOCATION:** Melissa, TX, USA  
**CHALLENGE:** Create a mock up of the world's largest commercial aircraft, the A380 Airbus - 22’ wide, 26’ tall, and 160’ long - 500,000 lbs  
**SOLUTION:** Utilized Peddinghaus machines to get the job done  
**RESULTS:** 60,000 lbs of completed steel that was finished on time - as well as an increase in accuracy and efficiency

**Where Production Takes Flight**

When Airbus describes their latest aviation innovation, the A380 jetliner, they simply make the statement “Love at First Flight”. The world’s largest commercial aircraft, the A380 has the capacity to carry up to 525 passengers on a single flight. It may be hard to imagine the experience as a passenger aboard this flying titan, but even harder to imagine is the experience of an emergency situation aboard such an aircraft.

All airports have what is known as “fire trainers”. These “mocked-up” metal vessels are what firefighters use to practice emergency circumstances aboard grounded airplanes. Since the A380 is such a massive vessel, with multiple decks of passengers and cargo, a life sized model needs to be made to prepare local fire teams if such an emergency ever were to occur. That’s where Alpha SteelFab comes into the picture.

**True Texan Tenacity**

The team at Alpha SteelFab in Melissa, Texas exhibits the true Texan tenacity needed to attack complex fabrication projects. Britt Fletcher, Vice President of Operations, fosters a can-do approach which is evident in all aspects of operations.

“Whether it’s churches, stadiums, petrochemical, or office buildings,
the team at Alpha SteelFab never backs down from a challenge,” states Mitch Reeves, President of Alpha SteelFab. “I was confident that our team was capable of succeeding with this project. Not a lot of people in my place can say that.” With production designed to soar above the competition in any bidding bout, the prospect of engineering and fabricating a mock-up A380 jetliner was an intriguing challenge to say the least. Combining good old fashion know-how with modern technology, the team at Alpha SteelFab truly takes flight.

The A380 Project Lifts Off
22′ wide, 26′ tall, and 160′ long are the dimensions of the mock-up airplane. Literally a 3 story building, the airplane mock-up has simulated seats, overhead bins, and yes – toilets. “Who thinks that a fireman needs to know that there is a third deck?” states Britt Fletcher. “This plane is different than a 737, and firefighters need to be familiar with the obstacles they would encounter in an emergency.”

The 500,000 lb. airplane mock-up is designed for the full fire fighting experience. There are heat sensors, propane piping, and irrigation that all come together to make this project a success.

“The project will ship in 10 sections, the heaviest of which is 60,000 lbs. We had the pleasure to take this project from design to completion and are scheduled to finish on time in April 2012,” states Britt.

Top Class Technology for an Innovative Fabricator
Complex projects such as the A380 mock-up require versatile equipment. The Peddinghaus Advantage drill line provides the strength, speed, and flexibility that Alpha SteelFab demands.

“Originally the only equipment we had was a band saw. All holes were drilled using magnetic drills,” states Britt. “When we got ready to pursue new equipment we looked at Peddinghaus because we knew their reputation for quality machines and service support. When we installed our PCD-1100 drill line we had the chance to move our manual drilling team into other jobs such as assembly, or fitting/welding. Beyond the efficiency we had gained, our accuracy was increased substantially. This is important to us as our reputation is for being on target, and on time. Our clients expect nothing but the best from us. We expect the same from the machines we operate.”

The Advantage drill line in tandem with 1250-510 straight cut saw eliminates the manual layout for hole drilling, increasing accuracy and efficiency. For detail components, an Ocean Clipper angle line has
brought production to a whole new level.

“I remember when we installed the Clipper,” stated Chad Brewer, Plant Manager. “We ran the machine for part of the week, and finished ALL of our angle work! I was worried that this was going to be a problem, but in the end it was exactly what we needed. When the operator wasn’t on the Angle Line he could do other work. We don’t even worry about angle detail anymore because our system is setup so well for it.”
FOR MORE INFORMATION

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