

## REFERENCE CUSTOM FABRICATION TPS/i

Safety Technologies

# ANDERSON DAHLEN

Anderson Dahlen, Inc. was founded in the 1940's, for the first 25 years, commercial and residential heating and air conditioning work was the primary focus of the company. Over the years the company has broadened their range of services and built a reputation as one of the premier stainless steel and specialty alloy fabricators in the country.



"I couldn't believe how consistent and precise the arc was, in getting to know the machine, one of the first welds I made was on a large frame with open root welds. For this application, we would typically roll the frame to weld in position. With the Fronius we were able to weld all the seams without moving the frame. That was pretty much the beginning for me and it's just spiraled from there."

Troy Stokes  
Welding Supervisor

## REQUIREMENT

Originally focused on stainless steel, they've incorporated many specialty alloys into their work. One of the applications required small stainless steel welds with minimal rework, since the welds would have to be ground down and blended to an aesthetic finish.

One recent challenge included vacuum chambers with varying wall thicknesses of 1-2 inches made of aluminum. Due to the large size of the chambers, all welds were done in position. For this application, the ability to switch between previously saved job programs right on the torch helped to increase production times. It also reduced the need for repairs because each job was tested prior to saving. This meant their weld professionals could work at a higher efficiency overall.

## SOLUTION

“That's one of the nice things about Fronius, you can store all the programs in the machine. It's real easy to go from one job to the next just by changing your program. You do a little leg work up front and some testing to make sure the welds are good, and then you can just let the welder go. It's phenomenal. And you can access all of it right from the gun too.”

Troy Stokes  
Welding Supervisor

Fronius TPS/i. The GMAW machine boasted a consistent, precise arc, which seemed to fit the needs of the project. That first machine outperformed their expectations on more than the original challenge, traditionally a GTAW operation, they now use TIG far less, and mostly for specialty projects. In some cases, by using the Fronius GMAW processes they've been able to increase their production speeds by three times their previous output, especially with automated welding. One such automated application required vacuum chambers fabricated of 304 stainless steel. Each vessel, chamber, and chamber door were welded on the turntable with the TPS/i. The project was completed faster than usual due to a lack of repair work and a decrease in down-time. “I couldn't believe how many quality welds we could make at a time, and without going through as many consumables,” said Stokes. “That's really the root of what we fell in love with, that consistency.”

Their plans for increasing their automated welding include purchasing more TPS/i welders, and modifying some of their current equipment to work with the Fronius machines.

“We're getting ready to run seven gauge stainless tanks on our manipulator with the Fronius torches. Previously, with competitor machines, it took at least two passes at low travel speeds to do these tanks, one on the inside and one on the outside. We're hoping to complete this application in one pass and triple the travel speed. That will go a long way for the bottom line.”



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### THREE BUSINESS UNITS, ONE GOAL: TO SET THE STANDARD THROUGH TECHNOLOGICAL ADVANCEMENT.

What began in 1945 as a one-man operation now sets technological standards in the fields of welding technology, photovoltaics and battery charging. Today, the company has around 3,800 employees worldwide and 1,242 patents for product development show the innovative spirit within the company. Sustainable development means for us to implement environmentally relevant and social aspects equally with economic factors. Our goal has remained constant throughout: to be the innovation leader.

Further information about all Fronius products and our global sales partners and representatives can be found at [www.fronius.com](http://www.fronius.com)

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