



## Wilco Increases Throughput 50 Percent With 3400 XP Production Speed and Quality

In the heartland of the U.S., Marlow, OK, there are 27 acres with over 90,000 sq.ft. of manufacturing facilities known as Wilco Machine & Fab., Inc. A good location for shipping world-wide.

Turnkey products produced within the plant walls require machined and fabricated metal parts for a broad range of products primarily used in the oil and gas service and cattle working industries. On any day, items shipped may include small or large ASME pressure vessels, bulk cement tanks and conveying equipment, bulk trailers, cattle loading and working chutes. And then there are the less frequent but important products such as pumping units and road boring equipment.

Offering manufacturing services for over 25 years, Wilco has experienced a rapid level of growth since 2000. The company has added acreage, buildings, employees and machines to satisfy customer demands. As needs arise, Kris Boles, President, doesn't hesitate to do what it takes to get the job done.

### Want It Now

When the production of cut and punched parts started falling behind in 2005, Boles researched equipment via the internet. A Whitney 3400 XP caught his eye. From the first email inquiry to Whitney's website to shipping the machine, only 16 days elapsed.



Wilco's Bertsch Plate Roll forms a cone from 5/8" steel going from a 96" down to an 18" diameter



Wilco President Kris Boles stands by one of the pressure vessels built with parts processed on the 3400 XP and the cone rolled on the Bertsch plate roll.

Within that time, Wilco erected a new building to house the punch/plasma combination. From building trusses to finished building was just under three weeks.

"We moved in a hurry," says Boles. "That's how we usually do it. When we decide to do something, we're going to do our best to make it happen."

According to Boles, the company philosophy mirrors the requirements of their customer base, "A lot of the time we don't know until a customer calls and says, 'We've got to have this in 60 days.' If we don't have a place to accomplish the job or we have to do something different, we've got to move.

"The oil industry is getting back to a point where people want it and want it now. We have to react to that." That meant more part production.



Following training on the 3400 XP, Operator Ryan Nickels trained the 2nd shift operator. Programming and working with nesting software has been easy. "It's very user friendly."

The addition of the Whitney was based on the need for a machine to rapidly produce parts in a great variety of configurations, from a range of material thicknesses, while holding good tolerances.

### Speed and Quality

Plate going across the Whitney ranges from 14 ga. to 1/2". Many of the higher volume products are run in kits creating the consistent set of parts.

But the variety of products manufactured at Wilco and the flexibility the company offers its customers, demand production flexibility. Two staff engineers and two programmers provide engineering support for Wilco customers to help assure quality construction and efficient flow through the facility.

One individual is assigned the task of creating the nesting programs. Using the nesting software, the 3400 XP provides the part production flexibility needed for quick reaction to orders. An added benefit is an average of 90 percent plate utilization.

"We run just countless different parts," Boles explains. "For example, in the cattle-working lines there are probably 120,000 different parts between the tubing and the plate.

Then there might be parts for a boat trailer or a tank. We build flanges by the thousands. The equipment going out of here is different every time."

It's not just the flexibility that saves Wilco time. It is also the speed and quality of the finished parts.

The 3400 XP combines the Whitney RAMPAGE!™ Plasma Cut-



Type, size and configuration of parts from a plate very greatly. Production continues while most parts are automatically removed via the 3400 XP drop door and parts conveyor.

ting System, with a cutting speed of 120 inches/minute in 1/2 " steel, with the speed of hydraulic punching to complete parts in one operation. Parts are in tolerance and ready to go to the next operation with no clean-up.

"Edge quality is real good. And we've been able to hold good enough tolerances with the Whitney that we've eliminated two processes. We used to cut parts out, machine them, then drill them. Before the Whitney we tried to punch but couldn't hold the hole sizes close enough."

Boles adds, "Probably the one thing that's been as satisfying to us as anything is the tolerances we've been able to hold. We're able to cut the I.D. and O.D. and punch before we machine the parts. It has saved us a tremendous amount of time."

On the 3400 XP finished dimensions of punched holes are held within 0.001" accuracy. Wilco has been using Whitney's patented TuffSkin™ tooling to increase the number of holes per punch (nearly tripled from standard punches).

Boles estimates a nearly 50 percent increase in throughput of parts since the installation of the 3400 XP.

### Related equipment

When installed at Wilco, the 3400 XP joined other equipment from MegaFab companies Bertsch and Piranha.

Wilco's Bertsch 4R Model 62-10 Plate Roll has been serving



Terry Coast uses the Piranha SEP-120.



**Primary industries for Wilco turnkey products are the oil and cattle-working industries.**

the company since 1997. Used everyday, the Bertsch is a key piece of equipment rolling not only cylinders but all of the cones used in building pressure vessels, surge tanks and other products.

The digital readout is particularly helpful in rolling the cones which is still considered an art. "You have to set the rolls at different angles but once you get your numbers established it's pretty easy to repeat. But it's definitely an art," Boles says.

Cones rolled on Wilco's four roll Bertsch typically range from 60° to 80°. Plate up to 10' long and 5/8" thick can be rolled to a 15-5/8" diameter.

The Piranha SEP-120 has been punching holes for Wilco also since 1997. Although the majority of parts requiring holes are now produced on the 3400 XP with punching and cutting in one operation, the 120 ton Single End Punch is a good secondary source for holes up to 1-1/2" diameter in 1" material or up to 5" diameter in 1/4" materials.

Boles anticipates the continuation of the current business level. "We bought the current place in 2000 and we've been growing pretty steady ever since. The last two years the market just exploded. Two years ago we had 40 people working for us; now about 160.

"We've got a pretty good market and it looks like it's going to stay for a while." ♦