EXECUTIVE SUMMARY

CUSTOMER NAME: W.F. Welding

INDUSTRY: Structural Steel

LOCATION: Edmonton, Alberta, Canada

CHALLENGE: Moving away from manual processing in order to increase efficiency.

SOLUTION: Installed the FPB-1800 plate line, the BDL-1250/9B drill line with a band saw, the ABCM-1250 coping line, the Advantage-2 drill line, the PeddiWriter layout marking line, the HSFB plate line, an Anglemaster-HD angle line and a double miter band saw.

RESULTS: Instant production increase of at least 30% and projects an additional 30-35%. Processing 15,000-20,000 tons a year.

Since the early 20th century, Canada’s growth in the manufacturing, mining and service sectors has transformed its previously rural economy to an urbanized, industrial force. Canada is currently one of the few developed nations that are net exporters of energy. Alberta is home to large oil and gas resources that result in Canada obtaining a 13% share of global oil reserves – the world’s third-largest share after Venezuela and Saudi Arabia.

Edmonton, Alberta, the “Oil Capital of Canada,” is a major economic center for the oil and gas industry. It operates as a staging point for large-scale oil sands projects along the Northwest Territories. Tucked away in one of the largest industrial parks in Western Canada, W.F. Welding is pushing out production for the oil and heavy industrial markets.

Growing Pains

Founded in 1986, W.F. Welding & Overhead Cranes Ltd. originated with four owners and a focus on crane fabrication. In 1998, W.F. began introducing light structural work. Twenty-nine years later, W.F. has grown into three facilities with approximately 120,000 square feet (11,000 square meters) of fabrication space. Due to market demands, W.F.’s structural steel division has grown to be nearly twice the size of their crane division.
Ryan Schram, Structural Division Manager at W.F. Welding, will be the first to tell you the progressive company growth hasn’t always been simple, yet strategic in remaining competitive. “We were a bottleneck,” Ryan explained. “We couldn’t build cranes and structural in the little shop that we had so we built a new shop for structural. Then as our crane division expanded, they needed their own shop. We were fortunate to find a property between our two existing facilities. Now, we’ve expanded there again with space to continue to grow both divisions as needed.”

Busting Out of the Bottleneck
Before W.F. was able to attain company growth, fitters were ‘wasting time’ manually processing flat bar - drawing chalk lines, cutting plates, drilling and punching holes by hand. W.F. quickly realized the detail area was behind in processing.

“We had 5-plus fitters working in that area trying to keep up with two shops and it wasn’t efficient,” Ryan recalled. “When we looked and saw the capability of the Peddinghaus equipment, it really made us think. It was a large investment at the time but you could see the difference it would make. It was immediate and the payback on the machine was less than a year. Not only could it produce accurate material at incredible rate, it freed up those fitters to move back into production.”

Plate Processor Produces Instant Results
W.F. Welding’s initial investment in Peddinghaus technology began with the FPB-1800 plate machine. Understanding the importance of CNC operator training, Ryan and his team took advantage of onsite training from a certified Peddinghaus technician. Before W.F. acquired the new plate processing system, they continued to manually lay out beams, columns and plates to complete a cold box for an oil sands project measuring 35 feet x 35 feet x 225 feet tall (10m x 10m x 70m) of heavy plate. Following their FPB installation and proper CNC training, Ryan and the W.F. team were amazed when the first batch of plates were completed in one shift. “It was an eye opener for the shop and really was a game changer.”

“The build quality of the machine is quite good,” Rob Kohler, Detail Supervisor, stated. “They are solid machines. The FPB is just a workhorse. It puts out a lot of steel and it’s what’s allowed this company to expand.”
Moving Away from Manual Methods

Experiencing immediate results from their plate processor, W.F. initiated the second investment with their trusted partner, Peddinghaus. An addition of a BDL-1250/9B carbide drill line in tandem with a structural band saw and the ABCM-1250 coper gave W.F. the competitive advantage they were searching for. “We ran our first piece of steel through the beam line and were running heavy columns for a job with 1 ¼” (32 mm) thick flanges,” Ryan stated. “One of our guys would spend 12 hours drilling holes in the columns by hand. We could run a column in that machine in under an hour.”

“When we first got our beam line at the second shop, that was equally a game changer as well,” Ryan recalled. “Without that machine, we wouldn’t be able to keep up and again, it freed up our fitters for production.”

2014 brought along W.F.’s most recent expansion and the acquisition of their third fabrication facility. The addition of an Advantage-2 high speed drill line, a PeddiWriter CNC layout marking machine, an HSFDB plate machine, an Anglemaster-HD and a double miter structural band saw, have made this fab shop a structural force within the Canadian market.

The Production Numbers Don’t Lie

With their newly installed system, W.F. reports an instant production increase of at least 30% and projects an additional 30-35%. Processing 15,000 – 20,000 tons a year is no problem to complete cold boxes for oil sands projects, pedestrian bridges, barge pontoons, steam turbine generator buildings, deep cut gas plant expansions, terminal expansions, separator buildings and platforms for stabilizer towers. “The new machinery has allowed us to bid on larger jobs that otherwise we would not have been able to accommodate,” Rob stated. “With our new shop, production has increased and the new machines have allowed us to put out more steel to bid on larger jobs instead of the smaller portions of big, structural jobs.”

Ryan and the team at W.F. feel confident about their company’s continued growth. With an immense CNC equipment lineup and accompanying CAD/CAM software, accuracy and quality are the main components setting this firm apart from others in the industry. “I really believe without the Peddinghaus equipment, we wouldn’t be competitive enough to produce the numbers that we need to,” Ryan exclaimed. “Alberta has a boom-bust cycle and when you’re in the Valleys, margins get fairly tight. If you didn’t have this equipment, you wouldn’t even be able to come to the table.”
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