



**WF STEEL
& CRANE**





About Us

Our history has shaped who we are as a company. WF Steel & Crane strives to be the leading crane manufacturer and structural steel supplier in Western Canada. We value community involvement and building long-lasting relationships with customers and suppliers.

Our workforce of highly qualified and dedicated employees bring numerous years of experience to the design and fabrication of structural steel and overhead cranes.

WF prides itself on the high level of quality manufacturing we provide to our customers. Quality is the focus from quote to customer delivery and our quality & safety programs are always evolving and improving to better serve our customers.



Facilities

WF operates 3 manufacturing facilities in Nisku, Alberta. All of our plants are equipped with overhead cranes and CNC material processing equipment.

Shown here is our Structural Steel Processing, Fabrication, and Crane Manufacturing Facility (Plant 4). Built on 8 acres, this 65,000 sq ft facility is designed for 100 fabricators, electricians, and office support staff.

State of the art CNC steel processing equipment and crane girder manufacturing equipment were added in 2016 to increase productivity and optimize quality assurance.





Facilities

Structural Steel Fabrication Facility - Plant 1

Plant 1 is designed for steel processing and fabrication of miscellaneous steel such as handrails, ladders and platforms.

Heavy Structural Steel and Module Assembly Fabrication Facility - Plant 2

Plant 2 is constructed on a 5 acre plot designed for heavy structural steel processing and fabrication. This 27,000 sq ft plant is fit with heavy overhead cranes ideal for indoor steel module assembly. In addition, Plant 2 has a covered crane way and 2 acre gravel yard for raw and finished material storage.

(Bottom left & bottom right)





Technology

WF utilizes modern CNC equipment to automate the fabrication process, increasing both efficiency and precision.

WF's investment in technology is found in both the office and the shop. WF uses the latest in 3D modeling and engineering software which integrates with the software on the shop floor that is used to control our CNC equipment. This means no more manual transferring of information - it's all automatic.





Technology - Engineering & Drafting

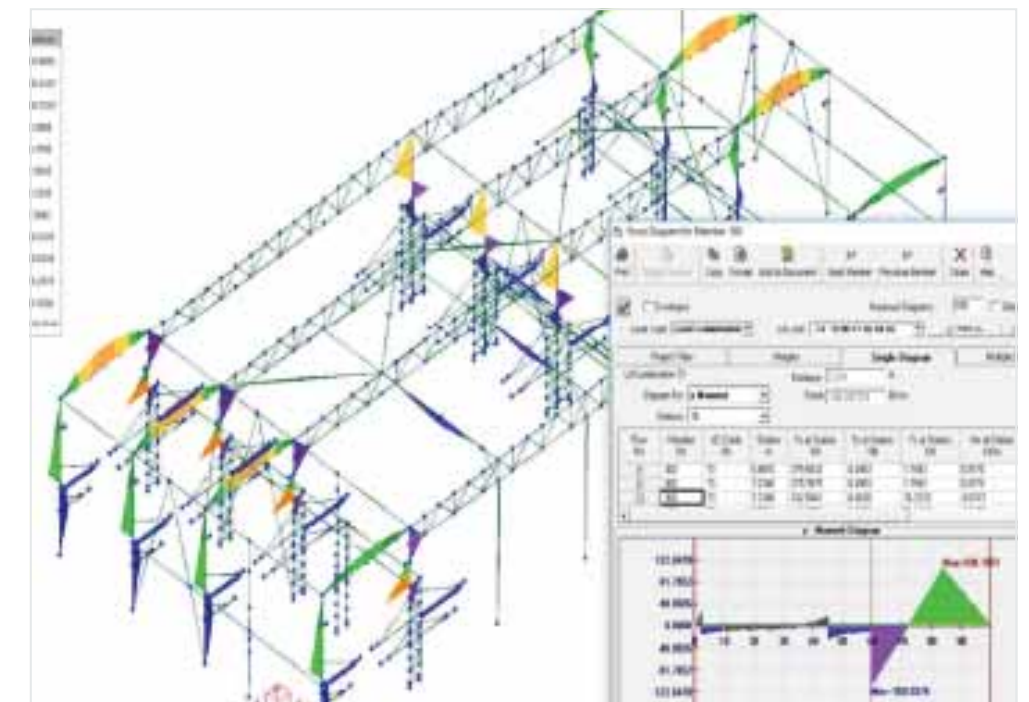
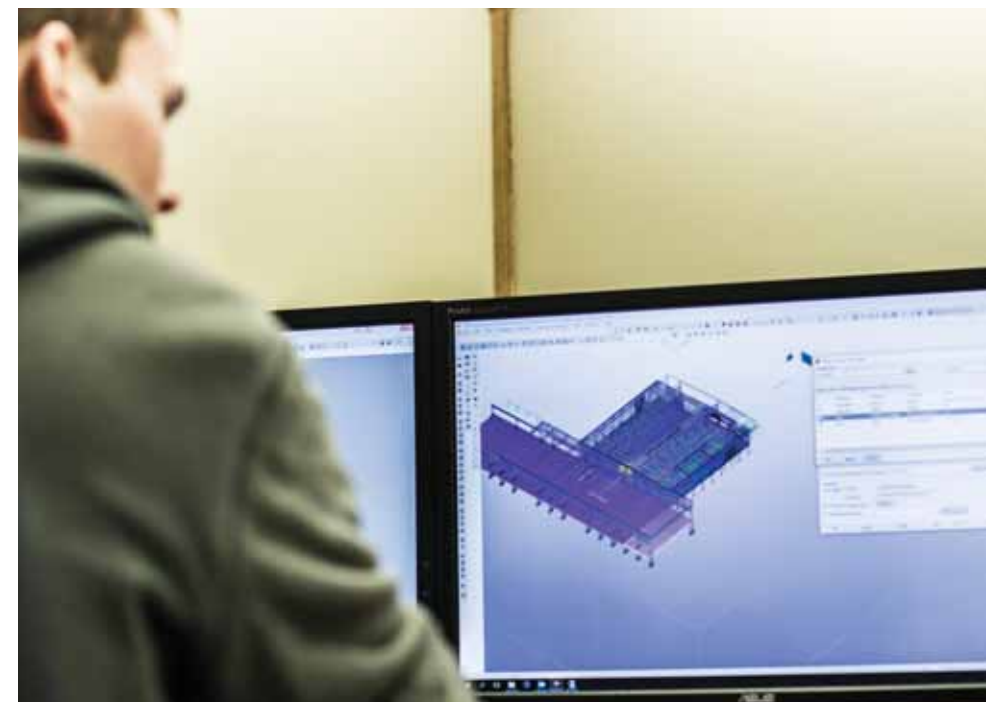
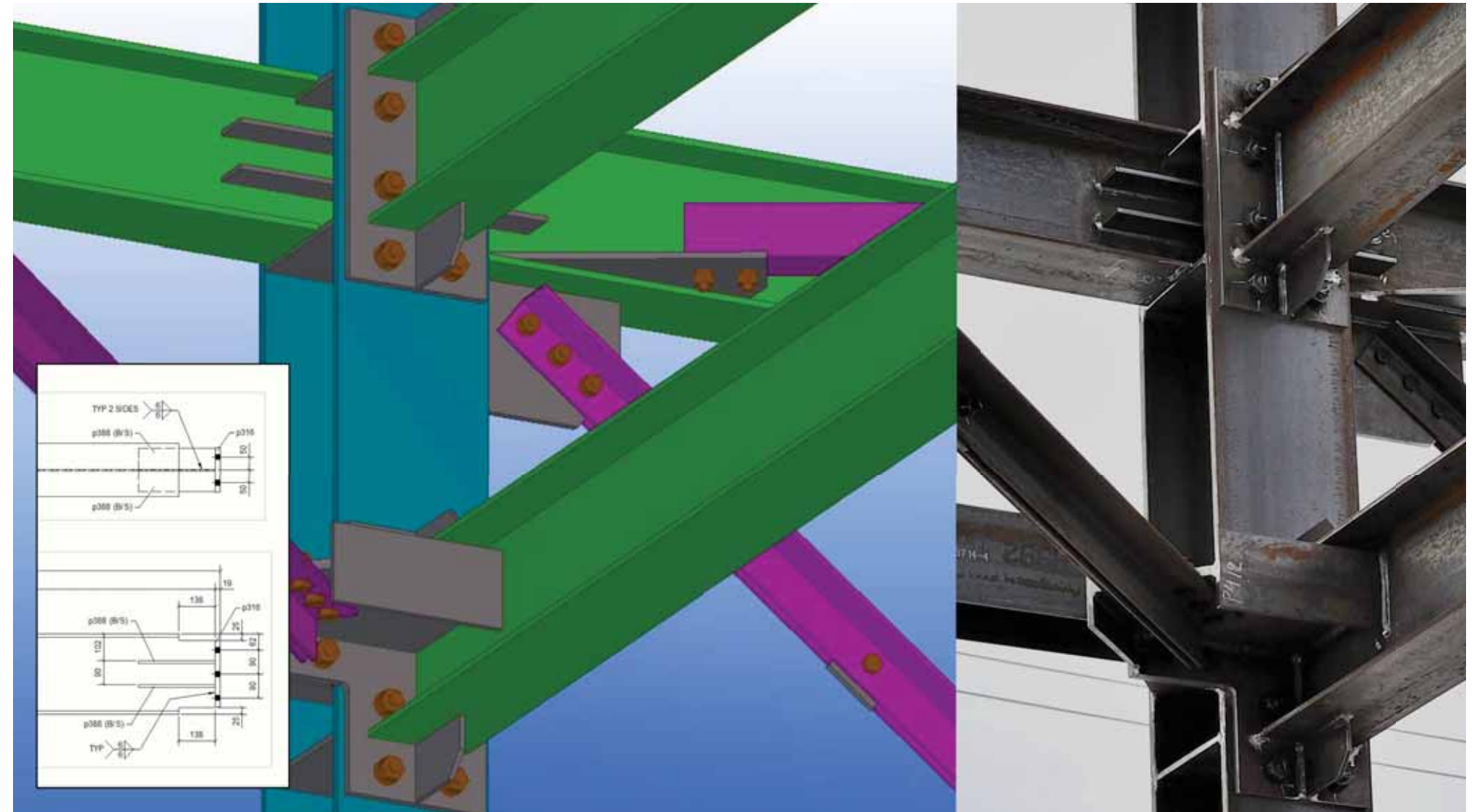
In House Team

WF has a team of professionals consisting of Structural Engineers, Drafters, Purchasers, and Project Managers, who provide our clients with a complete 'turnkey' structural and crane package.

Software Features

WF uses the latest in engineering and drafting software, which includes Tekla Structures for all of our structural drafting. Tekla is specially designed for steel detailing so it's many features allow us to produce shop drawings quickly and accurately. Additionally, Tekla interfaces directly with our CNC software so there is no manual data transfer.

Tekla has long been a pioneer in Building Information Modeling (BIM) and has built that into the software. This allows us to import customer models, from nearly any environment, into our own to provide additional interference checks for our customers.





Technology - Fabrication

CNC Equipment

In all of our plants, WF has invested in multiple types of CNC equipment from beamlines, to plate processing machines, to layout machines. All of which have increased production and quality. WF also recently added custom designed welding and fitting equipment to further automate the crane manufacturing process.

Material Management Software

WF uses material management software that directly integrates with our modeling and CNC controls. This gives us full material traceability from modeling to final production.





Standard Electric Overhead Cranes

WF designs and manufactures all types of Standard Electric Overhead Traveling Cranes including: Top Running Single Girder Cranes up to 25 tonnes, Top Running Double Girder Cranes up to 100 tonnes, and Under Running Single or Double Girder Cranes up to 30 tonnes.

Shown here is a Top Running Single Girder Crane with low head room and service platform to maximize available space.

WL 10 TONNE

C5718-16



Standard Electric Overhead Cranes

Under Running Crane

30 Ton Under Running Double Girder Crane for Potash Underground Mining Construction.

(Immediate right)

Top Running Double Girder Crane

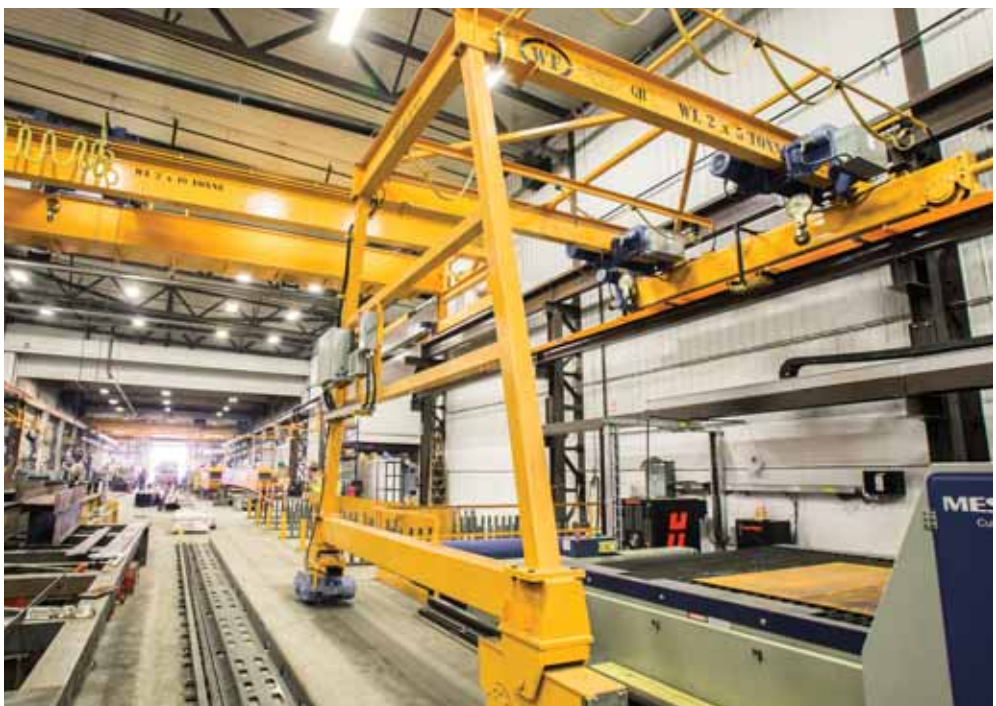
20 Ton Double Girder Crane for the Oil Service Industry. Wireless remote operated.

(Bottom left)

Top Running Semi-Gantry Crane

10 ton Semi Gantry Crane fit with (2) 5 tonne trolleys. The lower end truck is fit with polyurethane wheels designed to ride on a concrete floor. The crane is guided by the upper end truck so no lower rail in floor is required. These cranes are ideal for fabrication plants with many different activities.

(Bottom right)





Special Overhead Cranes

WF designs and manufactures all types of Special Cranes with capacities up to 500 tonnes for use in hazardous locations or Class F Severe Duty. WF will design and build to meet the customer's needs. Shown here is a 25 tonne electric crane for Class 1 Hazardous locations to serve the oil and gas industry.

WF can design and build special overhead cranes if the need requires high capacity, extreme height, or mill (severe) duty. Open winch hoists with capacities up to 500 tonnes are available upon request.



Special Overhead Cranes

WF Magnet Crane

25 tonne CMAA Class D Top Running Double Girder Crane fit with [2] 12.5 tonne trolleys and electro magnets. Crane and magnets controlled wirelessly. This magnet system comes complete with variable voltage plate sorting feature, allowing the operator to lift one or multiple plates at a time. The system is fit with automatic battery back up system to hold the load in the case of power loss.

(Immediate right)

56 Tonne Penthouse Crane

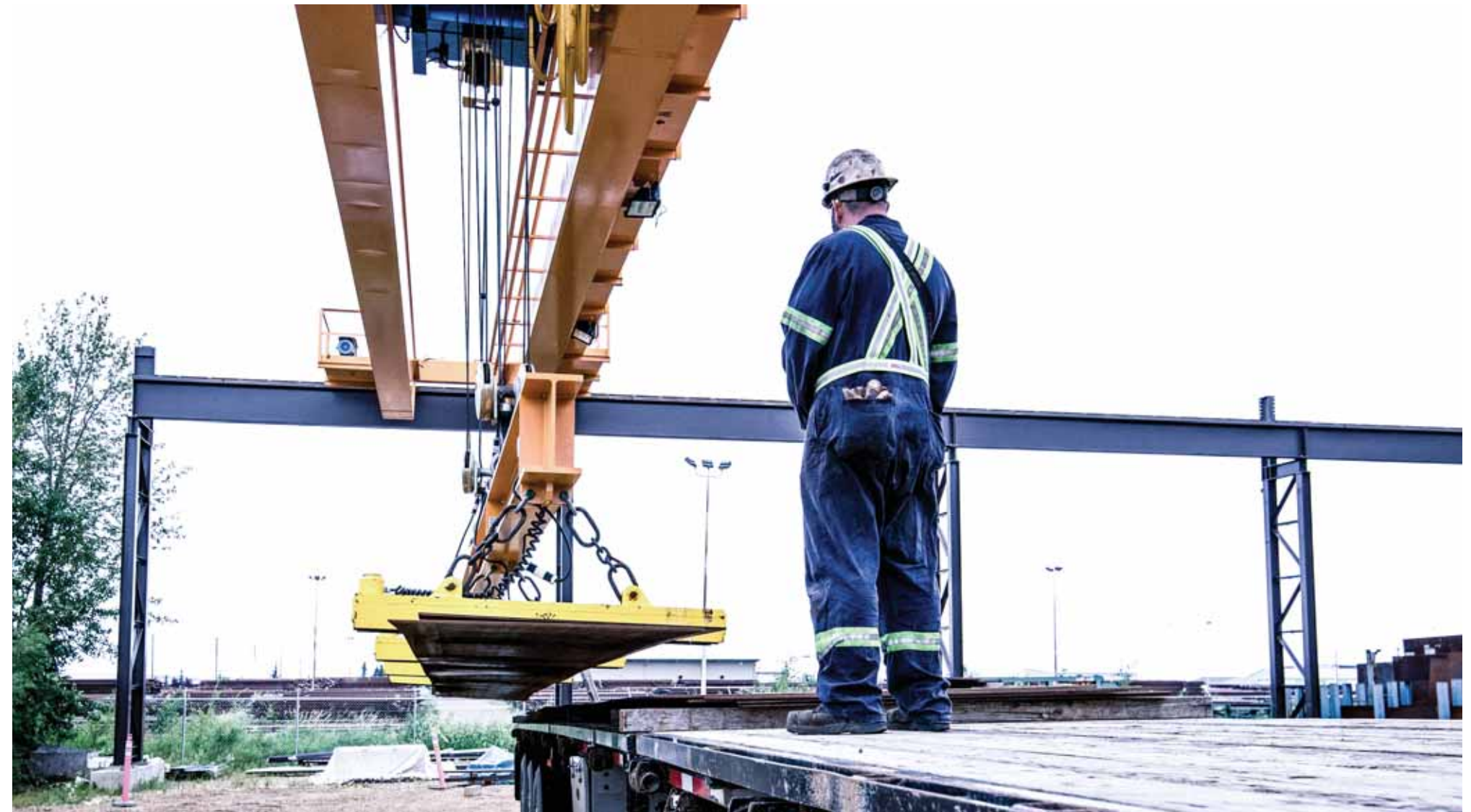
Crane is designed for mining industry construction. It has the capacity to lift 56 tonnes 320 feet in the air continuously at a speed of 30 fpm. No motor cool down required.

(Bottom left)

CMAA 20 tonne Class E Top Running Double Girder Crane

CMAA 20 tonne Class E Top Running Double Girder Crane fit with (2) custom 10 tonne trolleys for steel handling. All functions controlled by wireless remote.

(Bottom right)





Crane Door Systems

WF provides design and build services for crane door systems. We can supply everything from system components to complete supply and install turnkey systems for new or existing buildings.

S.W.L. 20 TONNE

S.W.L. 20 TONNE



Crane Door Systems

Lower Track Door System

This is a custom lower track door system for a concrete precast manufacturer. No upper track beams are required so this is ideal for cranes with two hoists. The lower door sections are powered by electric motors.

(Immediate right)

T-Door Systems

Standard typical T-Door systems come with sliding door electric powered motors and a crane/door anti-collision system.

(Bottom left & bottom right)





Service & Parts



Service & Parts

WF has qualified technicians to meet all of your crane inspection and repair needs

Typical types of service include:

- Annual inspections as per CSA B167 (legislative requirement)
- Service and repair of all makes and models of Electric hoists
- Crane modernizations
- Testing and certification
- Structural repair by CWB approved welder under the supervision of our professional engineers

Crane Components

- GH Crane products including electric wire rope hoists and end trucks (CSA approved)
- JD Neuhaus pneumatic or hydraulic crane components and chain hoists
- Electric and manual chain hoists
- WF is an official Magnetek component distributor
- Anything you can find on an overhead crane we will typically have in stock. If we don't have it, our crane professionals will source to meet our customer's needs.

[GH-04-High-Capacity Hoists](#)

[GH-05-New-Hoists-Generation-2016](#)

[GH-13-Open-Winch-2016](#)





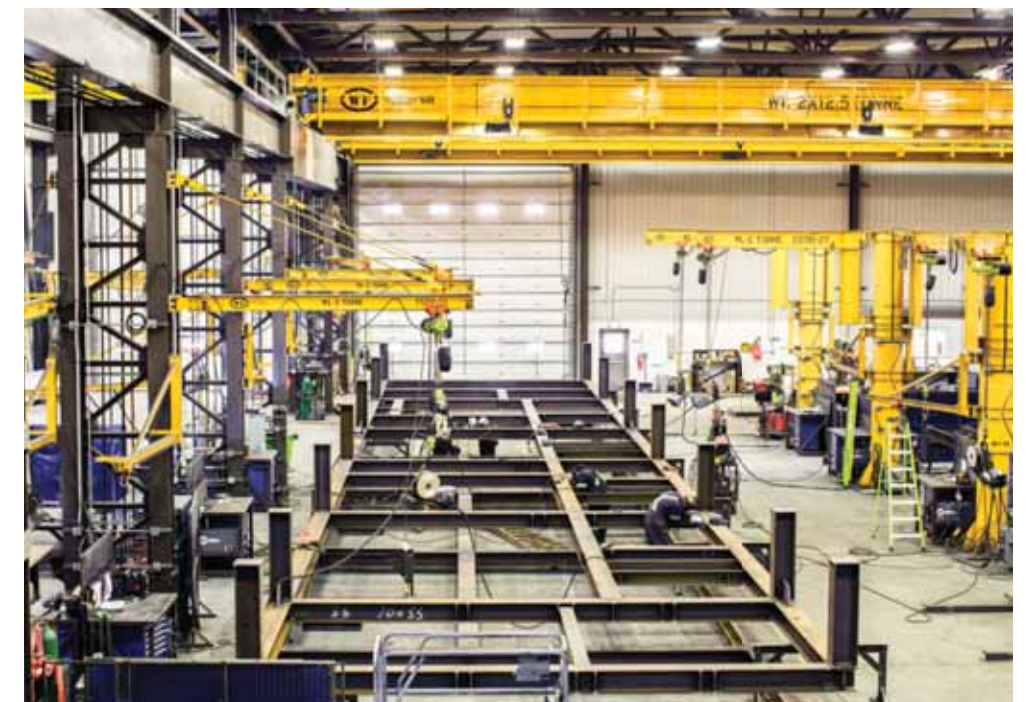
Modular / Skid Fabrication

Modular Fabrication

While some jobs are stick steel fabrication for assembly on site, some clients prefer that their steel is fully assembled by WF. With the advantages of an indoor environment and numerous overhead cranes, WF can offer assembly at a fraction of the cost of the traditional module yard assembly approach.

Two of WF's plants feature high capacity overhead cranes with clearance to allow us to handle modules weighing up to 75 tonnes. For modules that are heavier, WF has the space to block a module and then use self-loading trailers.

In addition to crane capacity, WF's shops are equipped to handle loaded modules that are up to 30 feet tall, 30 feet wide, and 150 feet in length.





Stick Steel Fabrication

Stick Steel Fabrication

Stick steel is the most common delivered structural product. It is used in nearly every type of construction.

WF's experienced labour force, coupled with state of the art CNC equipment, can produce over 300 tonnes of stick steel per week.

WF has a fleet of tractors and trailers to deliver finished product to sites all over Western Canada at very competitive rates compared to standard carriers.

(Immediate right)

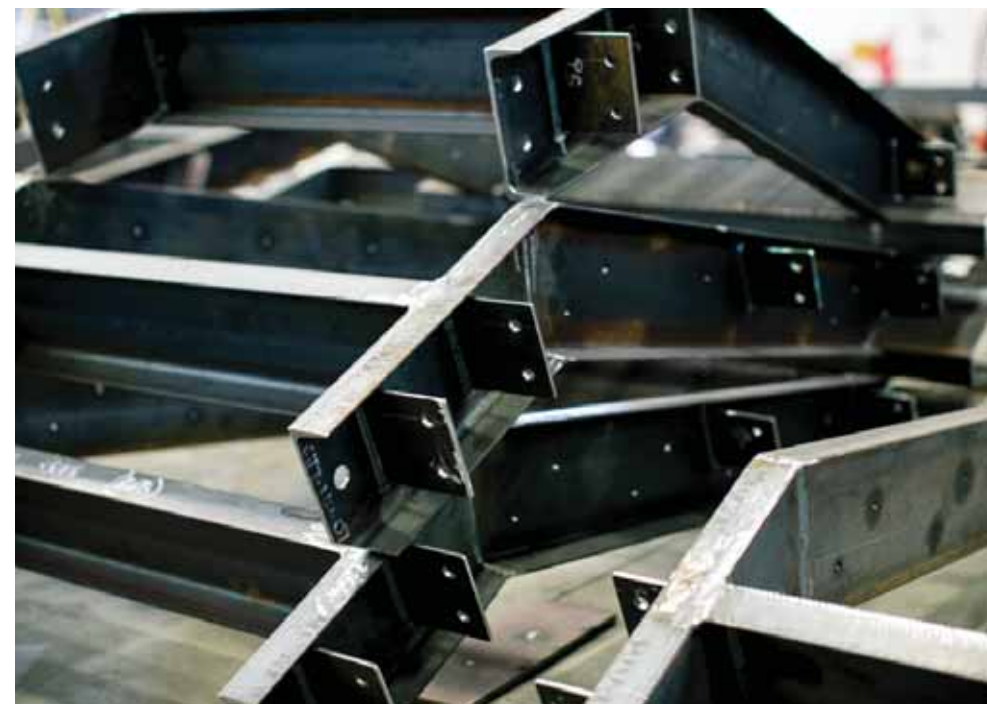
Miscellaneous Steel Fabrication

WF fabricates all types of miscellaneous structural steel including stairs, handrails, ladders, pile caps, and grating.

(Bottom left)

As featured in the photo, WF can also design and fabricate circular vessel platforms. WF designed and fabricated platforms for over 30 vessels on this project.

(Bottom right)





Case Study

Pembina - Resthaven Site



Resthaven Deep Cut Gas Plant Extension - Case Study

History of Project

WF was sourced by TAHK Projects to complete the structural fabrication of this project. TAHK was responsible for delivering completed modules to site, including all mechanical and electrical work. The schedule was very tight at the beginning with many modules required to be delivered up front to allow the field crews to start work. WF was able to meet these deadlines and work with TAHK to optimize the construction methods to keep ahead of schedule.

Why WF Was Chosen?

WF was able to generate shop drawings and fabricate the steel to meet the tight deadlines. Due to our performance on this project, WF has become a preferred vendor of TAHK, and we have completed many projects together since. WF has also been selected to complete subsequent additions to this plant.





Resthaven Deep Cut Gas Plant Extension - Case Study

Project Challenges Countered With WF Solutions

- **Constructability**

The original plan was for the modules to be sent to a module yard and assembled, and then shipped to site completed to be set into place. In collaboration with TAHK, each module was partially assembled in WF's shop and then shipped to site directly for final assembly. This approach reduced the steel erection time on site while having a minimal impact on transport costs and saved the cost of the module yard.

Testimonial

"WF Steel has maintained their customer service through this economic downturn. I have worked with them on two previous projects and have a lot of faith in their ability to provide an accurate, cost effective, quality project in a tight time frame. I highly recommend WF Steel & Crane. By involving the WF team earlier in the design cycle, we were able to leverage their expertise on connection design and steel fabrication. They offer significant cost savings by ensuring the design is efficient for the application."

Dave Collin - Pembina Construction Team Lead





Case Study

Russel Metals Plate Processing Facility Nisku





Russel Metals - Case Study

History of Project

Russel Metals approached WF in early 2014 to assist with preliminary design and budgets for a project involving heavy steel warehouse cranes. The cranes were tendered in spring and WF was awarded the contract the following summer. Cranes were delivered and installed in 2015.

Why WF Was Chosen?

As an informed buyer, Russel’s crane requirements were very specific and required proper delivery, without mistake. WF provided superior value and excellent service.

Project Challenges Countered With WF Solutions

- **Budget Constraints**
Russel’s requirement was for CMAA Class E Continuous duty cranes, but their budget only allotted for Class D. WF, drawing upon its experience and expertise, worked with the client to use oversized standard components to improve the duty cycle while staying on budget.

(Continued on Next Page)





Russel Metals - Case Study

• Design Issues

The crane design requirements changed after construction of the building structure began. The owner required more height under the crane than originally estimated. Altering the building design wasn't feasible, so they came to WF in need of a solution. WF designed custom space saver trolleys, saving two feet of height without impacting performance or schedule. Upgrade costs were insignificant compared to altering the original building design.

(Immediate right)

• From Old to New

Russel's new Nisku facility was constructed to relocate their plate process operation. The cranes at the previous facility had different manufacturers and motor control systems. Russel's operators were familiar and comfortable with these systems. WF provided the latest crane technology – premium Magnetek Impulse VFD motor control systems – but like most new equipment, there is a learning curve. At no additional cost, WF sent its lead technician to work with Russel's operators, familiarizing them with the new technology and safety features. Magnetek's customization allowed for fine-tuning of functions to satisfy the technicians' needs, ensuring satisfaction with the product.

(Bottom left & bottom right)





Russel Metals - Case Study

Testimonial

WF Steel & Crane has exceeded our expectations on partnering with Russel Metals on the development of our greenfield site by supplying us with seven Class D overhead bridge cranes and two smaller floor mounted gantry cranes and a crane way system.

WF has been the most price competitive crane company. Our previous WF cranes built with GH components have performed well over the last 10 years, which left us with the confidence to continue on with the partnership. WF's in house engineering team has proven to be very flexible and understanding throughout the process, which added to our confidence. It is also a nice addition when the crane manufacturer has an in house service department. WF Steel & Crane has a team of service technicians who are very knowledgeable and professional when it comes to their work and their safety. When the technicians leave the site there is no mess, which can't always be said for other overhead crane service companies.

I would highly recommend WF Steel & Crane to anyone has a need for their services.

Robert (R.J) Weisner - Branch Manager, Russel Metals Edmonton





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