

LIGHTWEIGHT FORMWORK FOR BUTTRESSED WALL CONSTRUCTION

Bethune, Saskatchewan

2 Minute Read Time

CONCRETE WALL CONSTRUCTION FOR K+S POTASH

The Province of Saskatchewan is known as the "Potash Capital of the World" due to the vast reserves of potash extracted by mines yearly. Potash is a key ingredient in fertilizers, particularly those designed for potassium-intensive crops like corn, soybeans, and potatoes. The Bethune Potash Mine, operated by K+S Potash Canada, produces over 2 million metric tons (2.2 million tons) of potash annually. As the demand has increased, so has the need for storage.

PLATE GIRDER FOR CAST-IN-PLACE BUTTRESSES

Graham Industrial Services, LP, took on the role of the primary contractor responsible for overseeing the construction of an additional storage facility for K+S Potash. To complete the construction, Graham Industrial Services enlisted the expertise of EFCO to construct the cast-in-place buttressed walls using **EFCO LITE®** and **PLATE GIRDER®** formwork systems. The **PLATE GIRDER** system, used with sloping contractor-built wood bulkheads, created the sloping buttresses that support the concurrently poured concrete walls.

LIGHTWEIGHT FORMWORK PANELS

Using the **EFCO LITE®** system for the walls enabled Graham Industrial Services to handle the lightweight panels in large gangs ranging from 12'-20' (3.6 m-6.1 m) wide with heights ranging from 8'-16' (2.4 m-4.9 m) tall. This approach minimized the need for extensive disassembly and reassembly of the formwork, helping to meet the ambitious concrete pouring schedule. The reduced weight of the **EFCO LITE** system also played a pivotal role in reducing the crane size necessary to position the formwork around the facility's conveyor systems. ▶



EFCO products, including the EFCO LITE® and PLATE GIRDER® systems, share a common hole pattern that enable them to be bolted together with different configurations, delivering versatility and quick cycling times.

**SUPER STUD WALER
INCREASES TIE SPACINGS**

EFCO's **SUPER STUD**® served double duty on the EFCO LITE formwork by increasing the tie spacings to up to 6' (1.8 m) vertically and 4' (1.2 m) horizontally while serving as a stiffback waler, ensuring formwork alignment without requiring extra components. An all-steel facesheet delivered an architectural finish and minimized the need for extensive concrete patching or cleaning due to the single-line joint in the formwork.

**COMBINATION BIAS CORNERS
FOR PRECISE ALIGNMENT**

At the junction of the buttresses and wall, EFCO's Combination Bias Corners (CBC) delivered 90-degree inside corners. Our CBC's streamline the formwork assembly process and ensure precise and accurate alignment of panels. They also offer a superior concrete finish, thanks to their all-steel facesheets. Combination Bias Corners (CBC) are a standard EFCO product, ranging in widths from 8"-24" (200 mm-600 mm), reducing the need for wood fillers.

**WHY GRAHAM INDUSTRIAL
SERVICES CHOSE EFCO**

Graham Industrial Services' decision to select EFCO as their formwork provider speaks volumes about their trust and confidence in EFCO's expertise. The Innovative EFCO LITE and **PLATE GIRDER**® systems used along with the Combination Bias Corners (CBC) streamlined assembly, improved accuracy, and offered time-saving features that helped meet the aggressive project schedule. Graham realized the lowest in-place concrete cost due to EFCO's Quality products and Super Service tailored to meet the project's needs.

EFCO EQUIPMENT
PLATE GIRDER, EFCO LITE, SUPER STUD

**GRAHAM INDUSTRIAL
SERVICES TEAM**

Garth Printz..... Project Manager
Codi Davis..... Superintendent
Maverick Allison..... Superintendent
Cory Sawchuk..... Project Coordinator

**EFCO FORMWORK
SPECIALISTS-AIRDRIE**

Dave Miller..... Territory Manager
Robert Cottam.....Field Supervisor
Christopher Manson..... Engineer

**CONTACT OUR AIRDRIE
OFFICE TODAY**

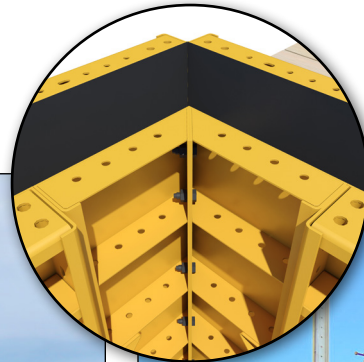
527 East Lake Boulevard NE
Airdrie, Alberta T4A 2G3
Phone: (403) 948-5426

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COMBINATION
BIAS CORNER



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