



North Star Process Plant SMP Installation

PROJECT DETAILS

North Star – Process Plant SMP package consisted of supply, manufacture, installation, construction testing and pre-commissioning of a magnetite processing plant. This was inclusive of crushing, grinding, classification separation right through to production of concentrate and tailings.

Structural Steel

Fabrication, transport and delivery of approximately 3,000T of structural steel and heavy plate work. This included steel utilised for the construction of both wet and dry processing plant together material handling plant such as conveyors. All the conveyors trusses were pre-dressed with idler frames, handrail, grating and mesh in Perth and transported in modularised form.

In addition to the conveyors Centrals also prefabricated and modularised Process Tanks to allow for more efficient installation. This consisted of 3 tanks the largest 2 tanks being 10m diameter x 10m high.

Mechanical Installation

Centrals were also contracted to install all mechanical equipment for the entire plant from Crushing through to concentrate production. The processing plant included High Pressure Grinding Roller (HPGR), Air Classification equipment, Dry and Wet Magnetic Separation units, Concentrate and Tailings Thickeners, Process and Raw Tanks, Material handling equipment, conveyors, Derrick Screens, High Pressure Positive Placement Pump and miscellaneous motors, pumps and various mechanical items.

The work also involved the construction and installation of a separate Concentrate Handling Facility.

Piping Installation

In addition to the structural and mechanical work Centrals procured, fabricated and installed all piping for the plant inclusive Raw water, Fire water, Slurry, Hydraulic, Tailings, Air and instrument piping.

Pipe work covered a range of sizes and materials from specialised hydraulic lines, hydraulic gates, grease lines, high pressure carbon steel piping, rubber lined carbon steel piping, galvanised steel and HDPE pipework.

Line sizes varied from 400NB high pressure piping, 450NB HDPE down 25NB and smaller for air and instrument piping.

Client: Fortescue Metals Group

Location: 120kms South of Port Hedland, WA

Duration: 32 weeks

Completion: February 2015

Value: \$75M



PROJECT HIGHLIGHTS

Personnel on Site: 180

Manhours: 400,000

Structural Steel: 2,200T

Piping: 20kms