

# CASE OF SUCCESS

## CONTINUOUS GALVANIZING FURNACE LINE FOR PRESTIGIOUS NEW STEEL MILL IN MEXICO



**Nutec Bickley FIS** was extremely proud to be chosen for the fabrication of 25 modular sections of the continuous galvanizing line at the brand new \$270 million (€220 million) Nucor-JFE auto steel plant in Silao City, Guanajuato State, Mexico.

The ground was broken on this greenfield project in June 2017 and the scope of supply for Nutec Bickley was comprised of steel works, advanced insulation material, mechanical assembly of radiant tubes for the furnace and all casing accessories. The steel casing weighed in at 186 metric tons, including ASTM A36 and high temperature resistance stainless steel components.

The radiant tube furnace will operate on a 24/7 basis at temperatures up to 1300°C/2370°F and the hot-dip galvanizing line will produce 400,000 tons of steel strips per year, most notably deep-drawing grades and high-strength steels for the automotive industry, including modern dual-phase steels. The strips will have a thickness of 0.4mm to 2.6mm (0.016in–0.1in) and widths ranging from 800mm to 1880mm (31in–74in). In the process section the strip will be coated with zinc at a process speed of up to 180m/min (590ft/min), whereas in the entry and exit sections speeds of up to 280m/min (920ft/min) can be reached. Additionally, this factory is designed to process both cold strip and also hot strip material. The Silao facility is scheduled to come on-stream in the second half of 2019.

“This represented a \$2 million order for us,” said FIS manager, Alfonso Lugo. “We were contracted by SMS Group (via furnace designer Drever International) as a result of our depth of experience in the field of fabrication and installation. We began our contribution to the project in May 2017 and completed on schedule in February 2018. This was a highly significant contract, given Nucor-JFE’s reputation in the steel industry and the important role played by Mexico in the automotive sector.”

The FIS team elected to use Nutec’s HPS MaxWool insulation in this project. MaxWool ceramic fiber blanket is composed of long, flexible, interwoven fibers manufactured by the spun process, yielding a strong, lightweight, durable product. MaxWool blankets have high tensile strength for longer life and durability and contain no binders and are completely inorganic. MaxWool HPS is made from a blend of alumina and silica and is suitable for continuous use up to 1177°C (2150°F).

The considerable investment by Nucor-JFE Steel México will result in 300 new high-quality and well-paid jobs. Producing quality steel for the automotive industry is a crucial requirement at the moment. Nucor-JFE pointed out that Mexico ranks as the largest automobile producer in Latin America and the seventh largest globally, with 7% of production. It is also the fourth largest exporter of automobiles in the world. It is estimated that 40% of all new vehicle launches will be in Mexico by 2020.



*Do you have a planned project that could benefit from Nutec Bickley’s fabrication and installation expertise?*

*Contact us today to discuss how we can efficiently and cost effectively bring everything to fruition for you:*

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