

SNIF SHEER DEGASSER SUPPORTS QUALITY AND PERFORMANCE DRIVE AT ALEXIN'S NEW BILLET PLANT



In the USA, Alexin, LLC opened its new state-of-the-art casthouse in Bluffton, Indiana back in November last year, and the billet production facility now ensures high quality metal for the company's aluminium extruder customers. Currently rated as the cleanest and most efficient aluminium casthouse in North America, the start-up company's highly automated plant is a shining example of American ingenuity. "This facility will produce cost-effective, environmentally-friendly aluminium ingot," says Todd Johnson, Alexin's VP Technical Services. "Eighty percent or more of Alexin's final aluminium product will consist of recycled scrap, and our natural gas furnaces are the most efficient in the industry."



The SNIF SHEER® P-180UiT is a triple rotor degassing system capable of treating high volumes of molten aluminium. Immersion heaters are used to maintain metal temperature during casting and the SHEER nozzles provide highly efficient hydrogen removal from molten aluminium, resulting in improved metal quality. Lower hydrogen levels mean lower porosity in the finished billet.

To support Alexin's drive for optimum plant productivity and quality output, a tilting SNIF SHEER® P-180UiT degassing system from Pyrotek was installed in the new plant. The company's key objective was to provide high quality billet products for its customers, both cost-effectively and on time to order. The SNIF SHEER® P-180UiT was selected by Alexin primarily since the company's management had prior experience with SNIF product technologies. They were aware that SNIF equipment provides efficient hydrogen and inclusion removal that yields high quality extrusion billet products. They also recognised that SNIF equipment is dependable and economical in operation. Another reason for selecting this system was that it would allow Alexin to reduce costs associated with changing alloys. At the end of a cast, the SNIF unit can be tilted and drained and this facility reduces plant downtime when a change of alloys is made or extensive cleaning is required.

Alexin's V.P. Operations, Jeff Stringer, and the V.P. Technical Services, Todd Johnson were pleased with Pyrotek's process technical solution and have made favorable comments regarding the operation and performance of the SNIF equipment following installation and start-up.

PROCESS BENEFITS

Pyrotek's SNIF Division offers a range of SNIF® aluminium refining systems based on its innovative, proprietary Spinning Nozzle Inert Flotation technology.

The SNIF SHEER® system installed at Alexin is a triple nozzle system, which consists of a refining furnace, and process and furnace heating controls, and provides a nominal continuous refining rate of 180,000 lb (81,600 kg) per hour.

The specialised equipment provides a range of process benefits: For example, an internal baffling system ensures efficient refining of the molten aluminium by controlling the metal flow through the refining furnace.

The standard furnace is equipped with a front motorised access hatch for dross removal from all three refining chambers and an integral tap-out drain is incorporated to empty the furnace for making alloy changes or extensive cleaning.

SNIF® in-line degassing systems are currently in operation throughout the world.

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