



Dianzhan facility to triple output



State-of-the-art technologies from Norican’s DISA and Wheelabrator brands have come together in a complete green sand solution for Dianzhan (Jiujiang) Metal Materials Co., Ltd.

Constructed in only six months, the new Norican production line exactly fits Dianzhan’s requirement for a compact, fully automated and energy-efficient facility that will triple the company’s annual iron output.

Established in September 2005 and starting production in May 2006, Dianzhan produces around 12,000 tons annually at its original foundry site. In 2018, the company decided to more than triple its overall capacity by building a completely new, additional Jiujiang facility in Jiangxi province, China, with a projected annual casting output of 26,000 tons. Construction began in August 2018, with the first production castings appearing only six months later in February 2019.

Occupying minimum factory floor space, while delivering rapid, flexible and low-cost production, the new foundry specialises in the casting and processing of compressor parts and automotive parts, such as cylinders, bearings and other components. The technology delivered by Norican is already hitting its targets for productivity and scrap elimination.

DISA and Wheelabrator worked together to select exactly the right equipment to match Dianzhan’s specifications, with every workflow planned for maximum, automated efficiency. The entire production line runs automatically and continuously, from sand preparation and iron melting through to moulding, pouring, shake-out and blasting. Every work area and piece of equipment is seamlessly and automatically coordinated with its neighbouring process and the moulding line.

This neatly-packaged, integrated complete green sand solution for the foundry has a compact layout, minimising the distance between all the different foundry process stages. This translates into reduced manpower requirements, shorter distances for materials to move – and no need for forklifts in the plant area. The space saved also leaves room for other equipment to be installed in future. The sand plant employs DISA’s classic double cooling drum design combined with a high-efficiency control module. With consistent sand quality and the minimal distance between sand production and the moulding line, moulding sand can be prepared and used only when needed by the moulding line.

ChienChuan Lin, Production Manager at Dianzhan, commented that when we started to plan this project with DISA, we had four main targets. We wanted to improve the utilization of the workshop, minimize the logistical distances involved and build a fully-automated line that was also very energy-efficient. After running at full operating status for the last few months, we can confirm that all four of these targets have been achieved at our Jiujiang plant. ■

The sand reclamation at the heart of the new £129m state-of-the-art greensand foundry being built by Scania in Sweden is to be supplied by Omega Sinto Foundry Machinery Ltd.

At full capacity the new foundry will triple current foundry production whilst using the same labour and with only 50 per cent of the energy consumption. It will operate by using 100 per cent renewable energy and heat from the moulding area which will be re-used throughout the

Scania to build new foundry

facility. Sustainability is also a major consideration and with a finite resource like sand, the ability to re-use is imperative to future proof the foundry as new sand and waste removal costs continue to increase.

UK-based Omega Sinto Foundry Machinery secured the multi million pound contract after a rigorous selection process. The Omega Sinto secondary attrition equipment will be capable of producing 16 tons of

waste sand per hour and convey it quickly and easily to Scania’s cold box core facility for re-use. Scania aims to have a melted capacity of 90,000 tons per annum, predominately for its cylinder head and block castings used in the company’s global truck and bus vehicles. The facility will be at the cutting edge for technology, efficiency and sustainability, with a minimal environmental footprint. ■