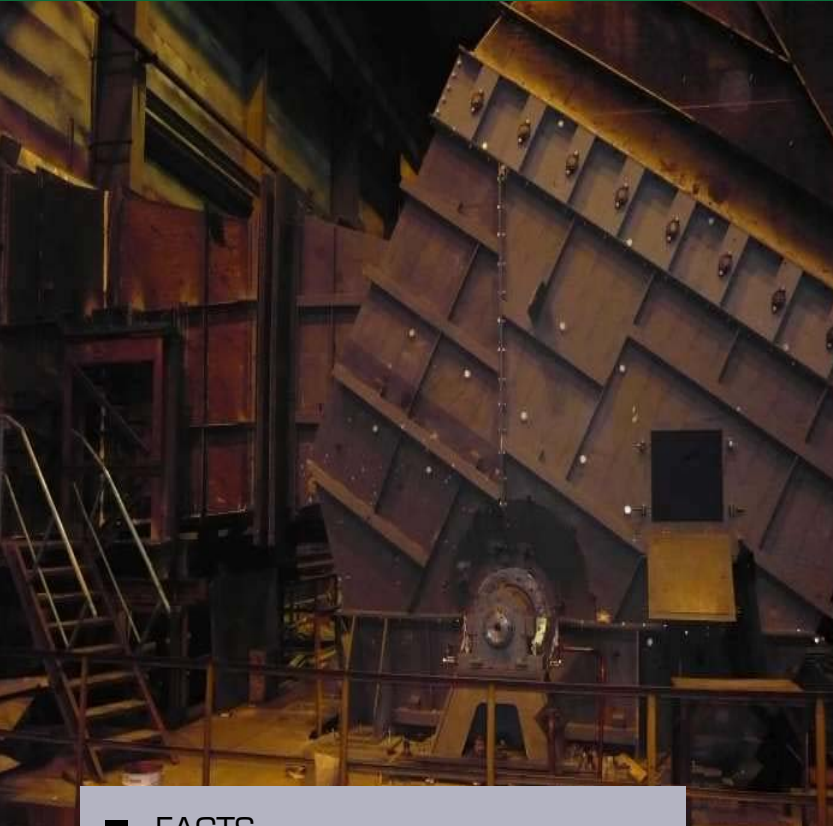


Energy savings helped Russian steel plant to increase production



A leading Russian iron and steel producer asked Fläkt Woods for help to make energy savings at one of its manufacturing works, allowing the factory to increase its production significantly. The pellet factory, which operates three production lines, has an overall capacity of almost 9,000,000 tonnes per year.

■ FACTS

Customer:

A steel plant in Russia.

Need:

Energy efficient heavy-duty fans for dust collection and control.

Solution:

FX TDR 245 3TD8A fans, with impeller sizes of 2,45 metres in diameter, providing 80.2% efficiency.



“Energy savings in excess of 60% have already been recorded.”

A leading Russian iron and steel producer has asked Fläkt Woods for help to make energy savings at one of its manufacturing works, allowing the factory to increase its production significantly. Taconite pellets are the primary raw material supplied to integrated steel mills for the production of steel, and the plant requires heavy-duty fans for dust collection and control.

Partly because of the very high-energy consumption of these fans, power cuts during the winter months have until now been a regular occurrence at the factory. The owners therefore wanted to reduce the energy use, so the factory could remain open throughout the year, helping to increase production by 10% per year.

“Because the fans require so much energy to operate, they were an obvious first choice for us to reduce our energy requirements,” observes the chief engineer of the factory “we therefore asked Fläkt Woods to see if they could assist us”.

Before work could start, it was necessary for Fläkt Woods to conduct an inspection of the existing fans and a power audit. One constraint of the contract was that the existing foundations, ducting and motors, had to be retained. The review determined the least efficient fans (2 per each production line), and these were the first ones to be replaced. The audit found that they were running very inefficiently, and this was compounded by the fact that their power consumption was around 3MW.



Fläkt Woods proposed FX TDR 245 3TD8A fans, with impeller sizes of 2,45 metres in diameter, providing 80.2% efficiency and consuming 1,600 kW of power and pressures of up to 5 700 pa. The fan uses low curvature blades with a high output angle, developed through a process of finite stress analysis and proven to provide higher efficiency and superb reliability, as well as reduced noise levels, keeping operating noise well within the strictest health and safety parameters.

The high strength and low alloy materials used in the construction of the fans offer wide safety margins, and the impellers are exactly balanced both statically and dynamically by Fläkt Woods. Many of the features that make the fans uniquely suitable for the steel industry are the result of decades of experience and innovation.

In parallel, the customer was doing a number of other revamping projects in order to reduce other equipment's energy consumption. The first fan has been installed and started in January and already energy savings in excess of 60% have been recorded. When all the fans are installed, this figure is expected to rise further.

Fans

Fläkt Woods offers the widest range of fans in the market. From small centrifugal and axial flow fans for standard applications up to heavy duty centrifugal and axial flow fans for customized applications designed to order.

Fläkt Woods Group

Fläkt Woods is a global company providing solutions for ventilation and air treatment for buildings as well as fan solutions for Industry and Infrastructure applications.

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