Primetals Technologies supplies new dedusting system to Buderus Edelstahl in Germany

- Cleaning capacity is 2.4 million working cubic meters per hour
- One of the world's largest combined primary and secondary dedusting systems
- Off-gas dust content reduced to less than one milligram per standard cubic meter

The new combined primary and secondary dedusting system from Primetals Technologies has been in full operation at Buderus Edelstahl GmbH in Wetzlar, Germany since February 2015. Following the original acceptance test in the fall of 2014, the system is now also cleaning the off-gases from two new ingot casting plants. With a cleaning capacity of 2.4 million working cubic meters per hour, the dedusting system is among the largest of its kind in the world. It collects and filters the off-gases from all units in the melting and casting sections of the electric steel plant, as well as the exhaust air from the hall. The clean gas dust content is less than one milligram per standard cubic meter, which is considerably less than the legally specified limiting values.

Buderus Edelstahl GmbH specializes in the production of high-quality stainless steels. At its Wetzlar location, it produces tool steel, special engineering steel, open die-forgings, drop forged components, hot strip, cold strip and rolled semi-finished products. Buderus Edelstahl belongs to the Austrian voestalpine group and employs around 1,560 people. The electric steel plant has a 100 metric ton electric arc furnace with a production capacity of up to 400,000 metric tons per annum, a ladle furnace, a vacuum degassing plant, a conditioning stand and two new ingot casting plants.

The dedusting system was ordered from Primetals Technologies in March 2013 to further increase the capture rate and dust separation in the electric steel plant. It is designed as a combined primary and secondary dedusting system, with canopy extraction and a total of 35 extraction points. Extraction is powered by four induced-draught, speed-controlled fans, each with a rating of 1,500 kilowatts. This enables extraction capacity to be adjusted flexibly to match changing operational conditions. A maximum of about 2.4 million working cubic meters of off-gas can be processed every hour at temperatures of...
around 100 °C. The dust is collected in a bag filter with a total filtration surface area of 28,200 square meters. The system achieves a clean gas dust content of less than one milligram per standard cubic meter. The filters are equipped with a compressed-air cleaning facility designed by Primetals Technologies, allowing the bags to be cleaned gently but effectively while also using the compressed air economically. The collected dust is stored temporarily in two silos, each with a capacity of 80 cubic meters. The entire dedusting unit is enclosed to minimize noise immissions. The scope of supply also includes the mechanical and electrical equipment, the instrumentation and control equipment, and the visualization system. Primetals Technologies was also responsible for engineering, installation and commissioning of the plant.

Outdoor dedusting facilities from Primetals Technologies on the Wetzlar site of Buderus Edelstahl GmbH in Germany. With a cleaning capacity of 2.4 million working cubic meters per hour, it is one of the largest systems of its kind in the world. It achieves a clean gas dust content of less than one milligram per standard cubic meter.

This press release and a press photo are available at www.primetals.com/press/
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