

PRESS RELEASE

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Continuous Homogenizing Plant successfully commissioned at Hindalco

For the production of extrusion billets at its newly built plant in Madhya Pradesh, Hindalco Industries decided in favour of heat treatment in a continuous homogenizing furnace. The continuous homogenising and sawing plant for billets (diameter range 178 to 229 mm) has a capacity of 64,000 tonnes per year and is the fourth such unit supplied by Hertwich to India.



Continuous Homogenizing Furnace with log entry store magazine(foreground) and the homogenising furnace (Background)

Hindalco Industries Ltd., which belongs to the Aditya Birla Group in India, employs around 20,000 people and has a turnover of almost 15 billion US \$ per year, making it one of India's largest companies in the raw materials sector. To extend its pre-material basis Hindalco has supplemented the Renukoot smelter in Uttar Pradesh with a newly built Mahan plant in Bargawan, Madhya Pradesh. The new plant, which also produces pre-material for the company's own extrusion plants, began operating in 2013.

When setting up the billet production facility the management decided against the batch furnaces used exclusively until then and gave preference to a continuous homogenising concept by Hertwich. The unit has been commissioned in March 2015.

The cast billets pass along a visual inspection line which is presently upgraded by an ultrasonic testing unit to detect centre cracks inside the logs. Then the head and butt ends are cropped off, again as part of the automated process.

The cropped billets are transferred to the homogenising furnace via a buffer storage magazine. First they are heated to the specified homogenizing temperature in the heating zone. In the subsequent holding area of the furnace the material is kept at that temperature for 2 to 6 hours depending on alloy. Cooling takes place in the associated air cooling station. The cooling rate can be adjusted within a wide range (350 to around 550°C/hour), sufficient to cover all the homogenizing recipes that may be called for during operation. Thereby heat treatment parameters are determined and documented for each individual log.

Hertwich Engineering, a company of the SMS group is renowned for its future-oriented, energy saving technologies and outstanding service in aluminium casthouse. The company is active worldwide with design, supply, construction and commissioning of special machinery and equipment for the Aluminium industry. Hertwich is competent for supplying complete Al-casthouse on a turnkey basis (one-stop-shopping). The product range comprises melting equipment for aluminium scrap, conti and batch homogenizing plants, sawing plants, horizontal and vertical casting machines and quality inspection stations, etc. To stay ahead Hertwich relies on its own R&D and proprietary know-how. For 50 years, the advanced technology has revolutionized the industry and the company maintains its worldwide lead.