

PRESS RELEASE

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Hertwich supplies Aluminium Multi Chamber Melting Furnace and Continuous Homogenization to Exlabesa

In close partnership with Hertwich Engineering (a part of the SMS Group), Exlabesa put into operation a Hertwich Continuous Homogenizing plant at its Padron based facility in the latter part of 2018. Following from this investment Exlabesa have now ordered the Multi Chamber PR130 Melting Furnace (complete with charging unit) which will increase its capacity to 60,000 tons from its Padron casthouse.



Hertwich Multi-Chamber Melting Furnace with preheat ramp (Ecomelt PR), similar plant

The new furnace with a capacity of 130 tons per day is designed for a relatively wide range of scrap: production scrap, clean profiles with a length of up to 7 metres, sawing chips, clean and lacquered scrap (shredded or in pieces), ingots and market scrap are processed. To remelt this loose and moderately contaminated scrap the Ecomelt-PR furnace with preheat ramp, melting chamber and main chamber is suitable. This furnace concept has been developed about 20 years ago. Since then it has already proved itself in many casthouses.

The scrap to be melted is transferred onto a ramp in the preheat chamber by an automatic charging unit. The environment is protected from the furnace atmosphere during the charging process.

In the preheat/melting chamber material is heated to approx. 500 °C, whereby adhering organic compounds are combusted. Based on an extensive operational experience this chamber has been designed to optimize heat transfer and reduce preheat time. For a furnace with a daily melting capacity of 130 tons, Hertwich specifies two charging cycles per hour (each with 3 tons of scrap).

The preheated and decoated material is pushed from the ramp into the melt bath. An electromagnetic liquid metal pump provides the melt transfer between both

furnace chambers. Furthermore it ensures the availability of the required energy for melting in the melting chamber. The melt level in the melting chamber and the melting rate can be adjusted by the metal pump. During melting scrap remains submerged at all time in order to avoid oxidation losses.

The temperature level in the main chamber from which the melt is tapped for casting is about 1.000 °C. Hot enough to burn all pyrolysis gases generated during preheating of the scrap. The heating system uses the energy content of the flue gases for heating the combustion air. In this way, energy consumption values of 450 to 500 kWh/ton are achieved when melting moderately contaminated scrap.

The installation of the new melting furnace will not interfere the ongoing casting operation. Commissioning is scheduled for mid of 2020. Once this investment is completed, Exlabesa owns melting, homogenizing and extrusion equipment as per the latest state-of-the-art technology.

Exlabesa is a global company that covers the complete aluminium production cycle including extrusion, coating, anodizing, machining, bending and recycling for a wide range of industrial sectors and fields of application. With a total of 22 extrusion lines (press capacity from 13 MN to 65 MN) across seven global locations with factories located in USA, UK, Spain, Germany (Weseralu GmbH & Co), Poland and Morocco, Exlabesa now has the capacity to produce up to 176,000 tons of profile per year.

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 AI-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.