

## PRESS RELEASE

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Ghlin, Belgium, September 13, 2018

# Hertwich to supply Multi-Chamber Melting Furnace to Hydro Extrusion Lichtervelde NV

Hertwich Engineering, a subsidiary of the SMS group, received an order from Hydro Extrusion Lichtervelde NV for the supply of a multi-chamber melting furnace Ecomelt-PS200 including skimming machine. The plant with a melting capacity of 60,000 tons per year will be installed in the casthouse in Ghlin, Belgium. Commissioning is scheduled for the first half of 2019.

By the acquisition of Sapa, the scope, presence and innovative competitive advantage of Hydro's extrusion division have considerably expanded. As a globally leading extrusion plant, Hydro currently supplies more than 30,000 local and global customers in more than 40 countries around the world. In Belgium the company has around 850 employees in their extrusion facilities in Raeren and Lichtervelde and in the aluminum casthouse in Ghlin.

Hydro will increase the recycling capacity in Ghlin by 60,000 tons per year by adding a new Ecomelt-PS200 multi-chamber melting furnace from Hertwich Engineering. With this investment Hydro takes into account, that the recycling of manufacturing and turnaround scrap gets more and more important within the extrusion industry. Since the intensive use of aluminum in construction, transportation, industrial

applications and other fields of application five decades ago, the turnaround scrap is correspondingly increasing. The aluminum industry profits from this since the energy demand for using recycled aluminum is reduced by approx. 95 percent. In the meantime Hertwich Engineering, who has reached a worldwide leading position with their Ecomelt melting technology, can even significantly reduce this value with suitable scrap.

The Ecomelt PS furnace to be installed in Ghlin is especially designed for medium to heavily contaminated scrap. The casthouse requires a broad spectrum of different types of scrap: vehicle license plates, wires, machining chips, cables, lithographic sheet, profiles, UBC, spray cans and others - partially loose in bulk, partially shredded, partially briquetted or packetized. The degree of contamination ranges from "clean" all the way up to heavily contaminated with paint and lacquers, rubber and plastic parts, oils, greases, etc. Furthermore, even solid scrap, such as sows, T-bars or ingot stacks are charged.

With this type of furnace the scrap flows through a vertically arranged preheat shaft, which is filled from above. The hot gases flow through the charged material in the shaft from bottom to top while the organic compounds are completely removed. The resulting pyrolysis gases are fed into the main chamber to support the gas heating. At the bottom end of the preheating shaft the decoated and preheated material is immersed in the flowing bath and is immediately melted. The melt flow between the furnace chambers is generated by electro-magnetic liquid metal pumps.

The resulting pyrolysis gas volume when melting heavily contaminated scrap naturally reduces the demand for heating gas more than when melting relatively clean scrap. The energy consumption of this furnace type is between 300 and 550 kWh/ton, depending on the condition of the scrap. The remaining slag (dross) from the melting process is concentrated on the bath surface and must be removed. For this, Hertwich supplies a rail-guided skimming machine for safe, careful and fast cleaning of the furnace.

Due to this furnace concept, the energy content of the organic contamination is used efficiently, whereby operating costs are reduced markedly. Furthermore, the minimum emissions (NO<sub>x</sub>, VOC, CO, dioxins, no salt addition) contribute to a safe and environmentally friendly furnace operation – an aspect that has a high priority within the entire Hydro group.

*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.*