

# ALUMINIUM INSIGHT

Improving Performance in Production

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## PYROTEK'S EMP TECHNOLOGY FEATURED AT ALUNORF RECYCLING CENTRE



New furnace capacity and ancillaries at the new recycling centre at Alunorf, in Neuss, Germany, benefit from Pyrotek EMP™ circulation, charging and transfer equipment.

Alunorf is a 50/50 joint venture with Hydro and Novelis' rolling group. The latest investment adds increased recycling capacity to the portfolio of remelt activities, which focus on sheet ingot casting for subsequent hot and cold rolling.

Rolled aluminium products, mostly fabricated further at the German partner plants (Hydro in Grevenbroich, and Novelis in Göttingen and Nachterstedt) mainly serve applications in packaging, building, automotive and transport, printing and general engineering.

The benefits of furnace circulation, particularly those provided by Pyrotek's EMP pump system—for circulation, charging and transfer of metal from melting furnaces—are well known. As Pyrotek's EMP Technologies System Sales Director, Richard Starczewski explains, "With an increased tendency for installing larger furnaces, of 90 mt capacity and above, has come the requirement for pumping systems with increased mass flow capability, and even the application of two EMP systems on the furnace." A new twin-chamber furnace with an output capacity of 50,000 mt/yr was installed in 2009 as the first part of the new recycling centre at Alunorf, for the time being operated solely by Hydro. This furnace was supplied by LOI Thermpress GmbH and equipped with two 6 inch EMP pump systems each with a LOTUSS™ Vortex chargewell.



EMP system with automated metal transfer facility

Alunorf applied to local authorities for permission to build and operate the new facility alongside the existing complex for aluminium rolling and remelting, the world's largest of its kind. Hydro supplies the facility with process scrap, both from customers and its own fabrication facilities, and also some used product returns.

The first metal was produced in November 2009. The EMP systems have operated continuously since installation to provide the all important circulation and charging of light gauge scrap and a metal transfer facility from the furnace to transport crucibles. Orders were subsequently placed at the end of 2010 for a second identical furnace now dedicated for Novelis, again incorporating two Pyrotek 6 inch EMP pump systems each with a LOTUSS vortex chargewell. This furnace will be in operation in late 2011, and the concept envisages a capacity increase to 100,000 mt/yr, jointly operated by Hydro and Novelis. The total investment by the joint-venture partners will be some EUR €28 million to realise a project clearly based on world-class environmental technology.



LOI 50,000 mt/yr twin-chamber furnace installed in 2009 as part of Hydro/Novelis' new recycling centre at Alunorf, Neuss, Germany