

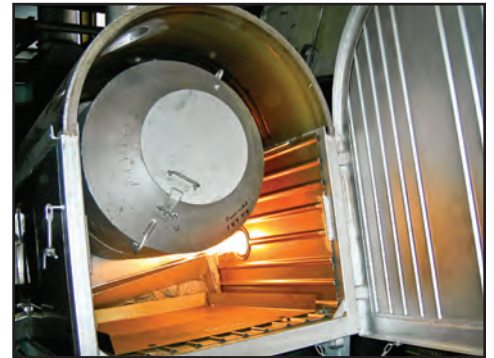
MZR UNIT DELIVERS SUCCESS FOR HOT-DIP GALVANIZER



PYROTEK METALLICS ZINC RECOVERY TECHNOLOGY PROVEN IN TURKEY

Hot dip galvanizing company Gulmelet in Turkey has been in business for over 50 years. It operates both spin and batch processes, producing 2500–3000 t of coated steel per month.

Gulmelet first contacted Pyrotek's Metallurgy division during the 2009 Intergalva event staged in Madrid where discussions centred on improving the performance and productivity of Gulmelet's zinc related operations. Subsequently, with the support of the Pyrotek MCR team (Melt, Circulation and Recovery Systems Group), a team from Pyrotek-Turkey visited Gulmelet's plant where personnel explained their current dross management regime and possible routes toward an improved solution. In close consultation with the customer, Pyrotek MCR made recommendations centred on the MZR—Metallurgy Zincoff Recovery system. The proposal from the MCR team was accepted and an MZR unit was installed, now operating since March 2010.



Quality is a cornerstone of Gulmelet operations. The company was founded on principles of innovation, collaboration, effective internal and external communication and continuous improvement and overall development. The investment in the MZR and the performance benefits it delivers fit closely their customer's goals.

Gulmelet recycles its dross twice daily, with a 3-hour cycle time at 540°C (1000°F) achieving recovery rates averaging 74% and 80–85% on spin galvanizing dross/ash. The company remelts its recovered zinc ingots in their own galvanizing process with great satisfaction in the quality of the recovered zinc.

The residue by-product from the recovery process of the MZR is sold at 33% of LME price to a local oxide producer.

The 400 t capacity hot-dip galvanizing kettle measures 12.3 x 1.6 wide x 3 m deep (40.4 x 5.2 x 9.8 ft) but a current investment plan at another plant 100 km (60 miles) from Istanbul will see a second new kettle installed measuring 16.6 x 1.8 wide x 3.5 m deep (54.5 x 6 x 11.5 ft). Pyrotek will be involved in supplying a 3 m (9.8 ft) long transfer pump and a second MZR unit when market conditions dictate.

PROCESS BENEFITS

Gulmelet reports to be very pleased with the Pyrotek Metallurgy MZR. The performance and productivity benefits have already realized a payback period on the investment after just a few months.

The use of the MZR has brought further benefits for Gulmelet in terms of environmental improvement. Dross transport is avoided and effective production is achieved on a smaller scale compared with conveying dross to bigger dedicated recycling and remelt plants.

Considering its plant investments at the time, the customer had two acquisition options, a new spectrometer and the MZR unit—they decided on the latter. After proving the success of the metal recovery system, they claim it was a very good choice!

Gulmelet says it will certainly buy another MZR "without thinking." In fact, the customer is so happy with the recovery system that it would recommend the system to all galvanizing companies.