

Elevated heat exchanger cools 600-degree calcium oxide

Celsius, Drunen, the Netherlands, has custom-designed and manufactured a high-temperature, screw-type cooler for a chemical plant in the Middle East producing calcium oxide. The 16.5t unit, measuring 10m long and 2m wide, has been installed at a height of 40m where product is fed to it from the multiple hearth furnace via an elevator. Calcium oxide is cooled from 600° to 90°C at a rate of 4000kg/h. Temperature of the cooling water is reduced by means of a cooling tower but because of the desert climate it often does not drop below 50°C. Water is passed under pressure through the trough, screw shafts and blades of the heat exchanger. Because of the abrasive nature of the product a wear-resistant lining material was welded on to the screw flights. www.celsius.nl



The 10m long heat exchanger being despatched from the Celsius plant