



REFERENCE

INNOVATIONS IN EQUIPMENT & PLANT MANUFACTURING

Production plant for the manufacture of melamine | Heatec | Russia



HEATING SYSTEM with a capacity of 9'500 kW and an operating temperature of 465°C

PROJECT | INITIAL SITUATION

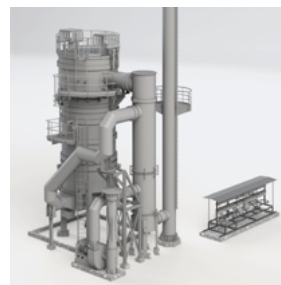
Apaco has been contracted by a well-known global provider of integrated solutions, Casale SA, for the production of fertilizers and chemicals to supply the complete molten salt heating system for a new melamine plant with a capacity of 40'000 MT/year at one of the leading melamine producers in Russia. The contract included the design, specification, and delivery of all necessary plant components with the respective FAT tests at the individual subcontractors, so that the individual components of the plant could be easily installed by a local construction company.

TASK | TARGETS

The heating capacity specified and required by the customer was 9'500 kW at a maximum permissible operating temperature of 465°C. The special requirements were, besides the high operating temperatures, the local conditions with the required environmental regulations. The complete system had to be designed for a minimum temperature of -53°C and, in addition, the NOx emissions were not allowed to exceed 50ppm in the complete capacity range at a required minimum efficiency of 90%.

SOLUTION | MEASURES

The material selection of all components had to be chosen in such a way that a low-temperature resistance at -53°C could be guaranteed. For this purpose, the suitability for each material used had to be proven and documented by



means of an impact test. In addition, the material used also had to be designed for the operating conditions with the quite high process temperatures. To guarantee the compliance of the emissions without additional secondary measures such as DENOX plant or external flue gas recirculation, a specially adapted low-NOx burner was designed and delivered for this application. For a smooth export to Russia and a later operation of the plant in the country of installation, all components as well as the complete plant were specially certified, and the required technical passports and necessary certificates were issued in Russian language together with a partner company.

CONCLUSION | FUTURE

Thanks to a successful, high-quality and at the same time very enjoyable cooperation with our customer, Apaco was able to deliver the specified heating system on time and follow-up projects are therefore already being discussed. Apaco would therefore like to thank you for the confidence you have placed in us and looks forward to further successful cooperation.