

# Benninghoven brings bitumen storage plants to a new level

11 February 2015 by Benninghoven (WIRTGEN Group)

Quality asphalt can be produced only by using quality materials. One of these materials is bitumen.

During the past few years, as a consequence of the lasting economic crisis which is still haunting many parts of the world, the production and transport infrastructure for bitumen used in road construction has modified and developed such as to meet the increasing efficiency demands of the industry. Many refineries have stopped production altogether and others have increased their capacities leading to the development of a new logistic structure with new focal points in places like Bulgaria, Greece and Romania where the Polish company Orlen, together with their local partner Terminal Group, have chosen to build their newest railway bitumen terminal. Benninghoven was chosen to bring this project to completion using the newest and most energy efficient technologies available.

The projects consisted of transforming the existing tanks with a total storage capacity of 5,000 m<sup>3</sup> into a state of the art storage facility that can receive bitumen transported by railway and tankers, store it, reheat it to a suitable temperature and deliver it by means of tankers to customers in Romania and other countries in Eastern Europe.

The plant features a 6 point railway discharge ramp fitted with a high efficiency steam generator. The piping employs an electrical heat tracing system for heating the pipes and protection of the steam lines against frost, thus keeping the energy consumption to a minimum. In order to meet the heating demands for the tanks and temperature boosters Benninghoven used three of its well proven TR100 hot oil heaters. All the major components have been designed with redundancy in mind, as the plant is able to function at 100% capacity with any one of the hot oil heaters or discharge pumps totally out of service.

One very important part of the project was the installation of the insulation on the existing storage tanks. Here Benninghoven Sibiu has designed a special purpose insulation system that features a heat bridge free lateral 200 mm high density rock wool layer that guarantees exceptionally low heat loss and therefore exceptionally high energy efficiency.

The whole system is controlled by a Benninghoven control system which was designed specially this purpose but based on the BLS platform.

The entire project is a testimony of the outstanding cooperation between Terminal Group and Orlen on one side and Benninghoven on the other. The terminal has been called “an important milestone” for the Orlen Group by the CEO of Orlen Asphalt, Mr. Krzysztof Suszek, who also stated that the project represents “if not the most beautiful, one of the most beautiful terminals in Europe”.

It has been an honor to work with Orlen and Terminal Group on this project and we would like to express our confidence that the cooperation between Orlen and Benninghoven is only just beginning.

Source: BENNINGHOVEN GmbH & Co. KG