

Railway-News

M A G A Z I N E



Hydrogen Is a Distraction ... p.15

&

**Speeches and panel discussions
from Digital InnoTrans:**

The VDB Digital Dialog Forum ... p.22

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CONCRETE EXPRESS

by Costantino Radis

Blend Plants: Ideal for the rail works sector – delivering multi-functionality, compactness and guaranteed results.

It would not be surprising, when travelling on the Orient Express, to come across a station or maintenance depot with a convoy of special wagons manufactured by Blend Plants. The Italian company has built an excellent reputation in the sector, delivering its machinery 'Made in Brescia' to major rail infrastructure projects. And Blend Plants isn't just involved during the construction phase, it is there for the subsequent maintenance works, which can be extremely varied in nature. Blend Plants has been involved in the Ceneri Base Tunnel and with the London Underground, performing routine maintenance to delivering high-speed networks around the world.



Blend Plants bridges the gap for all rail infrastructure projects designed for different network speeds and featuring a plethora of construction technologies.

Flexibility and Efficiency

Flexibility and efficiency are two fundamental characteristics that are essential to the success of Blend's machinery. The definition of 'plants' is actually quite restrictive. The operating conditions found on rail construction sites vary greatly and range from laying aggregate for profiling and creating the layout of embankments to mixing concrete using specific RCK, to

intermediate situations requiring cement admixtures, special mortar and cold bituminous conglomerates. The machinery produced by Blend Plants can go from one job to the next with great flexibility and, importantly, with the efficiency needed for such specific uses. When discussing maintenance we should bear in mind the times available given the rail timetable.

When discussing new construction, meanwhile, we must take into account the specific operating needs. The intrinsic flexibility of Blend Plants machinery addresses both situations, thanks to our ability to design specific adaptations that can deal with highly particular

situations. Furthermore, the basic setup of these plants allows very different works to be completed. This is a guarantee that is greatly appreciated on building sites. Blend Plants machinery can perform very different tasks just a few minutes apart.

Beyond the Plant

Installing Blend Plants machinery on rail infrastructure is very simple. The self-supporting structural concept has resulted from the need for the plant to be completely autonomous with installations on chassis, and removable or detachable fittings to ensure functionality is guaranteed regardless of the transport vehicle. This has determined a basic setup where the motor, any accessories, such as pressure washers, water tanks, plants for additives or generator sets, are installed based on individual user requests.

The Blend Plants layout has been designed to deliver this consolidated application flexibility. The shape of the hoppers and the position of the unloading belts allow the positions of the functional components to be perfectly positioned, while also keeping them protected. The water tanks, in thermoformed plastic material, do not take up space at the sides and thus optimise load balancing. The silos are shaped to optimise space and the homogeneous distribution of the mixer. The external geometric shape is compact and regular. This is the case for all our plant

models, allowing them to be installed on a vast array of different transport vehicles in terms of their characteristics and dimensions. This feature is of vital importance for the rail sector where shape limitations are essential to the operational efficiency of the open line and tunnels.

Ad Hoc Solutions

The way production is organised at Blend Plants enables us to combine construction quality at an industrial level with the perfect adaptability to operating needs in a wide range of applications. For rail works it is vital to have many options in terms of unloading aggregates and conglomerates. Material is unloaded from the continuous mixer on the rear belt.

This is where a real and proper world of opportunities opens up: from simple conveying on both sides, inverting the direction the hydraulic motor rotates, to directional telescopic belts bringing the mix to the desired position. The possibility of varying a machine's configurations over its operating life is a further benefit that rail sector companies are well aware of. The various types of mixers can be installed on all models, altering productivity regardless of the machine's dimensions. Optional equipment on board, such as generator sets or other useful devices for the production cycle, transform Blend Plants into fully-fledged

power control units that become the fulcrum of operations on construction sites. We can therefore pass from a simple plant to a multi-functional machine capable of speeding up and making different works more efficient that normally cannot be carried out with similar machinery whose basic setup is, however, completely different, both with regards to layout and mixing technique.

From the Building Site, for Building Sites

Blend Plants was developed on building sites for building sites. One of its partners, Fabrizio Tetoldini, spent years working in the concrete production business and only afterwards decided to dedicate himself fully to this business, alongside the Biglieri family. This allowed the Brescia-based manufacturer to clearly understand the needs of those dealing with real building site issues on a daily basis.

This is how the operational multi-functionality of these machines was born; their development has led to huge benefits in rail applications as well.

Not just plants for conglomerate mixing, but also horizontal silos and mixers to build full cement mixing trains whose tasks range from mixing aggregates to laying concrete on site. Prompt, functional responses have ensured Blend Plants were chosen by Amtrak, the National Railroad Passenger Corporation owned by the Federal Government of the USA. Amtrak manages the long-distance transport rail system with a network of 33,800km connecting 46 American states servicing a total 500 inter-connected destinations. This client is an important one, taking machinery "Made in Brescia" by Blend Plants on the railroads of a great country.

