

CONCRETE EXPRESS

BLEND PLANTS IS IDEAL FOR THE RAILWORKS SECTOR. MULTI-FUNCTIONALITY, COMPACTNESS AND GUARANTEED RESULTS APPEAL TO THE RAIL WORLD.

Multi-functional plants/machinery by Blend Plants are perfect for the rail sector, both on building and maintenance sites

It would not be surprising on an Orient Express journey to find some station or maintenance depot with a convoy of special wagons by Blend Plants. The Italian manufacturer has built an excellent reputation in the sector bringing its machinery "Made in Brescia" to the most important rail construction sites. Not only the construction phase but also, and even more importantly, during subsequent maintenance and especially works that greatly differ from one another, from the Monte Ceneri Tunnel to the London Underground, from routine network maintenance to high speed networks around the world. Rail infrastructures that have loads, travelling speeds and construction technologies that often greatly differ, yet Blend Plants is bridging the gap.



1. Concrete casting in the Monte Ceneri tunnel for GCF Spa for the Milan-Zurich high speed connection.

FLEXIBILITY AND EFFICIENCY

Flexibility and efficiency are two fundamental characteristics essential to the success of this machinery. The definition of plants is, in fact, restrictive. The operating situations found on rail building sites, in fact, vary greatly and range from aggregate laying for profiling and layout of the embankments to mixing the concrete with specific R_{ck} , to intermediate situations where cement admixtures, special mortar and cold bituminous conglomerates are the order of the day. Blend Plants machinery can go from one job to the next with utmost flexibility and, above all, the efficiency required for such specific use. In fact, when we discuss maintenance, we should remember the times set by organisation of rail traffic; instead, when discussing construction of new manufactured parts, we must take into consideration specific operating needs. The intrinsic flexibility of Blend Plants machinery solves both situations, thanks to the manufacturer's ability to design specific adaptations, capable of dealing with highly particular situations, and because the basic set-up of these plants allows very different works to be brought to a close. A guarantee that is greatly appreciated on building sites by performing very different tasks just a few minutes apart.

BEYOND THE PLANT

Installation of Blend Plants machinery on rail infrastructures takes place in a very simple manner. In fact, the self-supporting structural concept comes from the need for utmost autonomy of the plant with installations on chassis, removable or detachable fittings to ensure functionality is nonetheless guaranteed regardless of the transport vehicle. This determined a basic set-up whose motor, any accessories such as pressure washers, water



2. The London Underground chose Blend Plants to maintain its lines thanks to its multi-functionality, saving considerable time.

3. The trains used on the London Underground have proven extremely productive and efficient and led the company to increase its Blend Plants machinery park.

tanks, plants for additives or generator sets are installed on the basis of individual user requests. Blend Plants layout was designed in virtue of this consolidated application flexibility. The shape of the hoppers and the position of the unloading belts allow excellent positioning and protection of the functional components. The water tanks, in thermoformed plastic material, do not take up side spaces and optimise load balancing. The binders silos is shaped to optimise space and homogeneous distribution of the mixer. The external geometric shape is compact and regular. A setting that remains unchanged for any plant model allowing installation on vastly different transport vehicles in terms of characteristics and dimensions and a feature of vital importance for the rail sector where shape limitations are essential to the operational efficiency of the open line and in tunnels.

AD HOC SOLUTIONS

The organisation of Blend Plants production enables merging of the construction quality at industrial level with perfect adaptability to operating needs in a wide range of application sectors. For rail works, having many options is fundamental in terms of unloading aggregates and conglomerates.

Material is unloaded, from the continuous mixer, on the rear belt.



4. Aggregates are quickly loaded both with rail loaders and using other belt or hopper systems, demonstrating ample adaptation to any operating situation.



5. On the Monte Ceneri building site, Blend Plants mixers have proven resolute both in terms of efficiency and a consolidated solution to significant operating issues.



6. Aggregates are loaded problem-free, also with an adequately sized wheel loader for the dimensions of the hopper, further highlighting operational flexibility.

This is where a real and proper world of opportunities opens up: from simple conveying on the two sides, inverting the rotation direction of the hydraulic motor, to directional telescopic belts bringing the mix to the desired position, and the many ad hoc solutions, such as those designed for the Monte Ceneri base tunnel building site. In this case, Blend Plants transformed the plants into mixers for ready mix concrete casting and the customised unloading solution made a real difference in terms of productivity and the efficiency of work progression.

The possibility of varying machine configuration over its operating life is a further benefit that rail sector companies know all too well. The various types of mixers can be installed on all models, varying productivity regardless of the machine dimensions. Optional equipment on board such as generator sets or other useful devices for the production cycle transform Blend Plants into real and proper power control units that become the fulcrum of building site operating life. We can therefore pass from a simple plant to a multi-functional machine capable of speeding up and making different works more efficient which normally cannot be carried out with similar machinery whose basic set-up is however completely different, both in layout and mixing technique.



7. Blend Plants' design skills enable adaptation of machinery to any client request thanks to a modular, flexible and structurally efficient concept.



8. The name Blend Plants is now renowned in all rail building sites thanks to the multi-functionality of the design solutions by a manufacturer that knows how to play.



9. On the building site of the Monte Ceneri base tunnel for GCF, Blend Plants brilliantly and quickly resolved casting issues thanks to its mixers.



10. The combination of plants assembled on rolling stock and horizontal silos further increases working efficiency and speeds up operations and improves autonomy.

FROM THE BUILDING SITE, FOR BUILDING SITES

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

This is where the operational multi-functionality of these machines came about, whose development led to huge benefits also in rail applications.

Not just plants for conglomerate mixing, but also horizontal silos and mixers to build real and proper cement mixing trains that range from mixing of aggregates to concrete laid 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 33,800 km connecting 46 American states servicing a total 500 interconnected destinations. This client is an important one, taking machinery "Made in Brescia" by Blend Plants on the railroads of a great country. ■



11. The unloading terminal specifically for the Monte Ceneri base tunnel proved highly efficient, allowing casts without having to protect the tracks.