



Benchmark of a Generation:

QFM – the „Queen of all Foaming Machines“

Among experts all over the world, the QFM from Hennecke GmbH has long since been the Queen of all Foaming Machines, that is to say the queen of all continuous slabstock lines. Even if the abbreviation QFM will also stand for the QUADROFOAMAT in the future: The flagship from the world market leader in systems engineering for the production of slabstock foams has deservedly earned a royal title over the past twenty-five years. Again and again, there have been minor adjustments and optimizations to the plant. Now it's time to present the latest generation of the high-tech product.



QUADROFOAMAT - the extremely versatile top class in the continuous manufacture of slabstock foams

The QFM has retained its almost legendary strengths: Developed for high-performance applications, the QFM has an annual output of more than 25,000 tons of high-quality foam in the heavy-duty sector – of any desired length, a width of up to 2,500 mm and a height of up to 1,500 mm. The configuration of the plant is based solely on the requirements of the individual customer. For QFM machines come "tailor-made" as standard: Thanks to their modular design and the numerous features geared to meet the individual requirements, the systems are tailor-made for a long production life. Various configuration levels allow exacting customer requirements to be met not only during the planning phase, but even a long time after the production has started.

Supreme discipline: Metering under high pressure

There is no queen without a crown, no royal palace without a portal: The impressive heart of each QFM plant is its foaming portal. Its centre is dominated by the mixer unit which ensures homogeneous mixing of all necessary components under high pressure. When it comes to the number of components used, there is virtually no upper limit. The configuration is solely determined by the customer's requirements. High-precision metering of all reactive components and additives is one of the prerequisites for focused cell control of high-quality slabstock foams. For this purpose, the QFM uses hydraulically and pneumatically controlled multifunctional injectors. They continue to operate flawlessly even when the production or formulations are changed. Avoidable and unpleasant production downtimes are thus reduced to a technically feasible and reasonable minimum. At the latest, however, when the mixture is finally poured, the QFM demonstrates its royal elegance. For even in heavy-duty production environments, style and grace count when the highly mobile multi-axis portal seems to be dancing over the bottom sheet in accordance with the formulation, ensuring a very precise and uniform liquid laydown (Liquid Laydown process). The result is perfect foam quality that is almost free from pinholes.

Interaction of the components

The extremely high-precision metering of all components in combination with a focused control of the mixing chamber pressure and the stirrer speed accounts for the versatile and reliable use of the QFM and is the basis of its

reputation. It is in fact this congenial interaction of the technical components that enables the QFM to operate almost independently from varying external influences such as high temperature changes or humidity fluctuations. And what starts in the metering system, is carried on in the fall-plate section. For the fall-plate system can also be adjusted individually and with high precision, and this without any effort because the relevant parameters with the corresponding formulations are already stored in the central control unit. As a result, the QFM is also capable of producing sophisticated Ester foams as demanded by the automotive industry, for instance.

Avoiding waste

It is the many details that turn the QFM into a premium product. One of them is the variable passage length which, in the true sense of the word, allows the plant to be adjusted to local production conditions. Another detail is to be found in the curing section, for the flat top system considerably contributes to the reduction of raw material losses by preventing the formation of a dome and the development of a so-called top crust. Moreover, the conveyORIZED side walls can be precisely tilted what may be useful for foam products with high density in the bottom zone. This means that buckling is compensated in such cases, waste is avoided and the raw material is efficiently used.

Control at the touch of a button

In spite of its complexity: Thanks to its high degree of automation, the QFM can be controlled conveniently - no matter whether the aim is to change the complete formulation or just to control the brakes of the paper guiding system, for instance. Due to its integration into the network, the central process control system is not only designed for intuitive operation, but also for remote access and maintenance from the Hennecke service desk. The QFM can rightly be referred to as a queen – but it is definitely no diva. It does what it is supposed to do, reliably and solidly. For 25 years, the machine has ennobled the high-quality slabstock foams of exacting customers all over the world.

Further information and public relations

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