

Würschum GmbH, 73760 Ostfildern, Germany

# New color dosing system for Gulf Flag in Qatar

**In 2018 the company Gulf Flag in Doha Qatar decided to buy a new granular color dosing system of the Würschum Com series to be installed at the new Masa block and paver plant. Mr. Dariush Fooladchang, the owner and managing director, said: "We want to produce the same concrete products as the leading German manufacturers; therefore, we have to buy the best equipment available. We want to establish ourselves as the leading concrete producer in the region."**

With this goal in mind Mr. Dariush Fooladchang needs very high precision, speed and flexibility to achieve the quality in a large range of concrete products. The Würschum dosing system Com 70-3 is equipped with three independent sending vessels, so any type of multi-colour concrete product can be manufactured fast and accurate.

To be able to produce high quality face mix pavers, Masa supplied its block machine with the latest innovations in face mix production: three swivel hoppers for different colored concrete, combined with a collecting belt with speed control and individual positioning. This allows for exact reproduction of the face mix paver according to recipe control. To guarantee

a fast and reliable use of these features, the dosing system can hold each of the three color batches required from the recipe at the same time for immediate discharge. So in this application all three sending vessels available are connected to the face mixer. For a concrete product which also requires the base concrete mix to be colored as well as the face mix, one of the sending vessels is connected to the base mixer.

The accuracy of the system is very high. This is achieved by vibrating pipes which are driven by pneumatic vibrators. They can run at different speeds and also have different intensities.



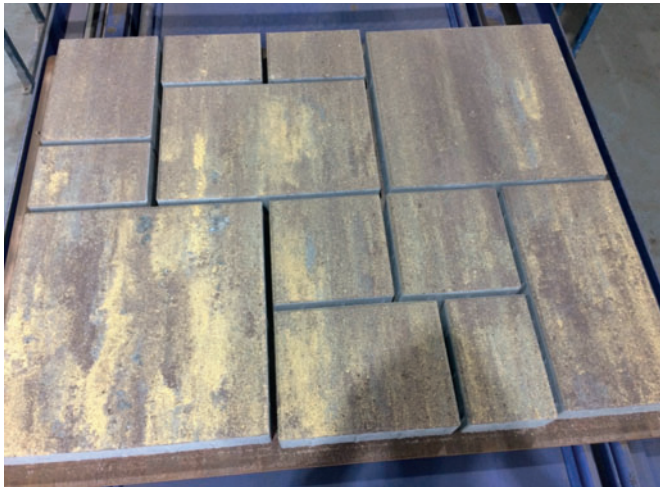
*Multi-colour concrete hoppers for face mix*



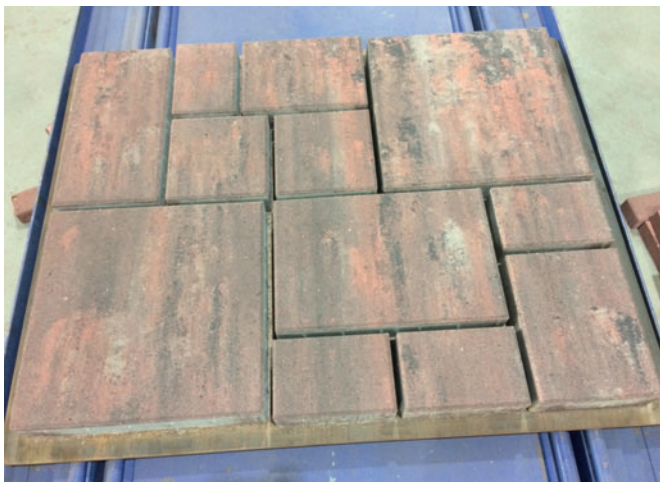
*Com 70-3 - granule dosing system with 3 sending vessels*



*Masa block machine with face mix*



Sample in yellow multi-colour



Sample in red multi-colour

Based on these features the right adjustment can be made for each requirement and for each color separately. For large quantity batches the speed is crucial and for small quantity batches the accuracy in relation to the total quantity is crucial.

The smallest quantity Gulf Flag requires is 100 g (4 oz), which can be metered with an accuracy of 10 g (0.4 oz). This certainly is sufficient for even the most demanding recipes. Nevertheless, the dosing system is prepared for a later addition of the new Mini-Com series, which can do +/- 1 g accuracy for as low as 20 g (1 oz) batch size, if this requirement should occur in the future. The Com 70-3 system is equipped with one weigh hopper which moves sidewise to fill the three sending vessels.

Consequently, the system is very low profile and can easily be loaded with a standard fork lift. Gulf Flag decided to use four base colors of granule, but the control and framework is already prepared for five base colors. Without any extra installation trip, this extension can be added at a later stage.

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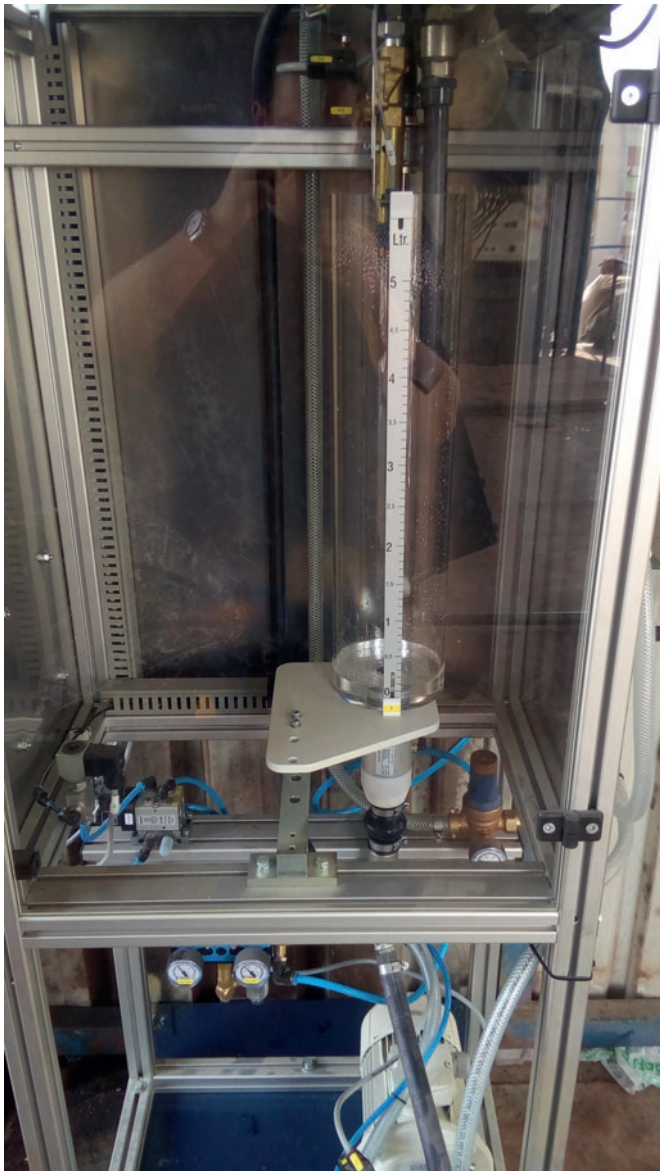


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The decision to go to a granular system was made by Mr. Dariush Fooladchang because he observed that in the European market there is a strong swing back to using granular pigment after a few years when powder systems were widely used. Mr. Dariush valued the advantage of granular pigments and a granule system as being faster, less expensive, more accurate, cleaner and easier to maintain as important to the overall performance of the plant. "If you want the best results, you need to work with the best materials and machines".

"With granular pigments the mixing and coloring effect is faster and more thorough, so in practical use the batch sizes necessary for a certain effect can be reduced, giving the producer a cost saving advantage. A second cost saving aspect is that Gulf Flag can now blend their own colour shades on demand, avoiding purchasing more costly preblended colours".



Admixture system AC 5 with discharge pumps

In the same line of reasoning Mr. Dariush Fooladchang also decided to buy two Wuerschum admixture dosing systems, one for each of the two mixers, which work by weight. The highly precise weighers are fed with Wuerschum gear pumps to allow for a very constant and even flow of admixture, a must for accurate weighing. The admixture scales are installed at ground level with minimum vibration and are equipped with discharge pumps.

Together with special designed Wuerschum spray nozzles these discharge pumps allow for pressure spraying the admixture quantity over the complete content of the mixer, which is especially important for the current small quantities of highly concentrated admixtures. Then the admixture can be mixed into the concrete quicker and more thoroughly, allowing for faster and better performance of the admixture. To get the same result the quantities used can be reduced, allowing for a cost saving as well.

With this new Masa block and paver plant in combination with a state of the art color dosing from Wuerschum the company Gulf Flag is very well equipped to supply high quality products at very competitive prices to the market. Mr. Dariush Fooladchang sums it up: "All our expectations were fully met and we are extremely happy with the quality of our newest innovative concrete products." ■

FURTHER INFORMATION



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