

High-performance partnership with JSC Farmak

JSC Farmak (Ukraine), a complete high-performance filling line for vials was successfully put into operation in January 2007. On the line, supplied by Bosch "Filling and Capping" in Viersen, vials are filled with Corvalol, the cardiac medication, at a rate of 320 per minute.



A long tradition and continuous modernization

 JSC Farmak is a leading pharmaceutical company in the Ukraine. The company has circumvented many obstacles during its history of over 80 years and successfully negotiated a difficult privatization phase at the beginning of the 1990s. Now, a joint-stock company with ISO 9001 certification, JSC Farmak is continuously modernizing its production lines.

The relationship between Bosch and JSC Farmak has a long tradition. In the Soviet era, the Strunck Company, taken over by Bosch Packaging in 1973, supplied equipment to JSC Farmak and this partnership continues to the present day.

Corvalol: A company showpiece

Corvalol is a non-prescription barbiturate-based cardiac medication in an alcohol solution, which is very popular in the CIS countries of the former Soviet Union. It was introduced to the market by JSC Farmak in 1960 and still serves as a showpiece for the company. Filling of the preparation was previously performed on an old Bosch-Strunck line,

which was no longer able to meet today's requirements.

Bosch was again selected as a partner, in order to implement a new line that was to process 320 vials per minute.

Through the line at high speed

In the new line, the following process steps are executed at high speed:

- ▶ Vial feeding
- ▶ Blowing out the vials
- ▶ Filling
- ▶ Pressing in a dropper
- ▶ Screw-capping
- ▶ Labeling
- ▶ Cartoning
- ▶ Multi-unit packaging

Filling machine *FRK 5180* infeed and outfeed of bottles



Filling machine **FRK 5180** filling cam

An additional design challenge for “Filling and Capping” in Viersen was that, due to the high alcohol content, filling of the preparation could only be carried out with EEx protection.

In order to meet this requirement, the number of electrical components was first reduced. The proven mechanics of rotary valve, slide piston pumps were used for the 18-head filler designed with an EEx protection class (see pictures 1 and 2). The entire control system was moved to a switch cabinet outside of the EEx zone. Structural separation of the closing station and the filler with EEx protection was achieved by lengthening the transfer scroll.

At the high-speed of 320 vials per minute, the reaction times for functions such as “no vial – no filling”, “no dropper – no cap” and “out-sluicing specific vials” are extremely fast. In addition, the handling of unfavorable packaging material characteristics is a significant challenge. However, here too the line has proven its reliability.

The best partnership is one that has already proved itself

The relationship between supplier and operator is of course frequently put to the test during such a complex project. Not only all of the challenges in the ongoing but also in a parallel project with JSC Farmak, which was underway at the same time, were ultimately overcome, leading to an additional project currently underway for a second filling line.

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- 1 Filling machine **FRK 5180** front side
- 2 Filling machine **FRK 5180** back side
- 3 Double capping machine **VRM 6080 D** front side