



Open pump head allows easy replacement of hoses

Single-Use Dosing Systems Are the Trend

GlaxoSmithKline Relies on Bosch Peristaltic Pumps

GlaxoSmithKline (GSK) is a global leader in research-oriented healthcare, committed to the development of innovative medicinal drugs. The company's objective is to improve people's quality of life by enabling them to lead more active, longer and healthier lives. The GSK production facility in Barnard Castle, UK, employs

around 1,000 workers and plays a key role in introducing new GSK products to the market. It manufactures a variety of drugs, including liquid pharmaceuticals in vials and syringes, as well as antibiotics and topically administered products such as Zovirax. The Barnard Castle site also plays a key role in the launch of new products

for GSK. In late 2008, GSK was looking for a filling solution for a new product. The main concern was to avoid any cross-contamination between various products and it found an intelligent solution in the shape of Bosch's single-use dosing system.

Ideal for Biotech Products

Single-use dosing systems have distinct advantages, especially for biopharma products and in processing highly active substances: absolutely no cleaning requirements for product-contact parts, minimal risk of cross-contamination, lower investment costs and shorter development periods. To further advance this area, Bosch developed the PreVAS concept (PreValidated, PreAssembled, PreSterilized) for single-use dosing systems, in which all product-contact parts (hoses, product bags, filling needles) are delivered pre-assembled and sterilized. Integral parts of this system are Bosch peristaltic pumps.

More Flexibility

GSK decided on the Bosch single-use dosing system with peristaltic pumps, as

a customized, mobile unit. The peristaltic pumps are mounted on a movable trolley and are positioned next to the filling line when required. At the end of production, the product-contact parts are disposed of. Normally, single-use dosing systems use molded plastic needles. However, GSK uses stainless steel filling needles with a plastic coating. These special needles, produced by Bosch, ensure a much higher reproducibility of filling volumes than plastic needles.

The performance range of the existing filling machine is also considerably extended by retrofitting peristaltic pumps. GSK can now choose between the installed time-pressure dosing system and the peristaltic pumps on the movable trolley. This way, new products can be prepared for production more quickly and with considerably less effort.

A Proven Partnership

GSK and Bosch have maintained a close partnership over many years. This was also a decisive factor in the successful outcome of this project. GSK project manager Graeme Wilson said: „The level of dosing accuracy of the peristaltic pumps is quite impressive. We were able to prove this over various production batches and I was highly satisfied with the handling by Bosch. Trolley design, as well as commissioning and qualification on site, were completed within a very short time.“

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1 Replacement of a pre-assembled single-use filling needle

2 Pump trolley FDM 1060

3 Stainless steel single-use filling needle

