

TOP 7000 Cast dosing system: Precision and stability for casting processes



As a production solution for changing materials, small batch sizes, and high quality requirements, the new TOP 7000 Cast sets a clear standard for efficient, stable, and reproducible dosing processes in the casting environment. © Elmet

Offering/Austria, January 2026 – Elmet has developed the new "Cast" variant of its TOP 7000 precision dosing system specifically for the decisive requirements of casting, coating, and manual molding applications. It is suitable for processing from 20- or 200-liter drums (55- or 5-gallon drums) and is characterized by its particularly high precision and process stability. Elmet is thus expanding its range of dosing systems with a standalone solution for applications outside of classic LSR injection molding, for which the TOP 700, TOP 3100, TOP 5100, and flagship TOP 7000 Pro systems are designed. Elmet is presenting the new TOP 7000 Cast dosing system to the public for the first time at MD&M West in Anaheim, California/USA.

Constant volume flow, stable mixing ratio, reproducible results

The system, which was developed specifically for casting applications, is based on Elmet's high-performance TOP 7000 Pro model and combines a constant volume flow with a stable mixing ratio. This enables reproducible component quality, even with materials that have highly variable viscosity and fillers. Up to five freely configurable ramp profiles ensure precise and reliable filling processes. Freely selectable shutdown criteria, such as time, volume, filling pressure, or an external start/stop signal, enable flexible adaptation to different casting processes. Optionally,

stored recipes can be called up within seconds via QR code recipe management. This saves time and prevents incorrect settings. In addition, up to six additives can be mixed into the optimally mixed base material with an accuracy of +/- 0.01%.

Drum changes can be carried out from three sides and are fully automatic from the drum edge. It takes less than five minutes for a pair of 200-liter drums, enabling a quick restart. Fully automatic venting ensures consistent process conditions with every change. The intuitive software and self-learning control system, which automatically adapts to the conveying behavior of the material, reduce operating costs and increase process reliability. Conveying capacities of more than five liters per minute, depending on viscosity, enable short cycle times. In combination with material utilization of up to 99.8% per container, low power consumption of only 150 to 400 Wh during operation, and low maintenance costs, this results in high cost-effectiveness over the entire service life of often twenty years or more.

The TOP 7000 Cast meets the requirements of EN ISO 13849-1 and is CE, RoHS, and UL compliant. It is designed for all standard materials, flame-retardant materials, HVI materials, oil-resistant compounds, medical materials, and other special materials. The processable viscosity range extends from 0.001 Pa to 3,000 Pa. For highly filled and abrasive materials, a wear-resistant version is available as an option, which is designed for continuous operation without increased maintenance intervals.

For a wide range of industrial applications

Typical applications for TOP 7000 Cast, which place high demands on precision, material homogeneity, and reproducible filling processes, include direct filling (casting) of products for high- and medium-voltage applications such as insulators (HVI) and composite hollow core insulators, as well as cable joints. Other applications include manual molding of medical products such as manifolds (distributors for liquids and gases), prosthetic liners, and medical cushions (orthopedic cushions), with or without a dispensing gun. In the areas of fabric and paper release coating as well as cable sheathing, where uniform, controlled material application is required, the TOP 7000 Cast scores with its continuous, stable volume flow, even with significant viscosity differences.

About ELMET

ELMET Smart Silicone Solutions has been an international provider of precise and innovative solutions for liquid silicone rubber (LSR) processing since 1996. The company is headquartered in Austria and has branches in China, Japan, and the USA. Its portfolio includes LSR dosing systems, single and multi-component molds, turnkey solutions, and services ranging from development to series production. With over 30 years of experience, ELMET offers integrated and reliable solutions for demanding applications in industries such as mobility, life sciences, industrial, and household.

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