

Press Release

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Additional module “Steady flow” substantially improves product quality in PVC processing

Pulsation-free passage through the PVC die

At this year's K in Düsseldorf, battenfeld-cincinnati will provide information about Steady flow, an additional module to minimize pulsation in PVC extrusion, thus ensuring continuous, even output performance and consequently reliable high quality in semi-finished products. The patent pending new software module is already in use by several customers and achieves excellent results. Steady flow is one of the modules from battenfeld-cincinnati which optimizes production equipment in the era of Industry 4.0, and facilitates its operation and handling.

In PVC processing with counter-rotating twin screw extruders, pulsations of the material flow are unavoidable. These fluctuations are caused by the C-shaped chamber profiles formed by the pair of screws. Especially when producing small throughput, for example in the production of small technical profiles, the fluctuations are more significant. This is why the extrusion specialist battenfeld-cincinnati has now developed the module Steady flow, which harmonizes these fluctuations and thus ensures a constant material discharge. For this purpose the melt pressure in front of the extrusion die is measured continuously, and the screw speed during each screw rotation is constantly re-adjusted on the basis of the measured pressure fluctuations. The software includes a learning function, which automatically calculates optimal parameters for the compensation of pulsation during the first production run with any new products or new materials. The screw speed correction parameters identified are saved in the product recipe and thus remain available for every new production start-up. Pressure fluctuations are substantially reduced with the result of a low-pulsation melt flow passing into the forming die. The final results are better semi-finished product quality with fewer dimensional fluctuations and consequently optimal utilization of the material.

Steady flow can optionally be integrated into the BCtouch UX control system of every new PVC extrusion line. But it can also be retrofitted without any problems in existing lines with a modern control system from the UX series.

About battenfeld-cincinnati

battenfeld-cincinnati has production facilities in Bad Oeynhausen and Kempen (Germany), Vienna (Austria), Shunde (China) and McPherson, KS (USA) and is a leading manufacturer of energy-efficient, high-performance extruders and complete extrusion lines according to customers' specifications. Our customers' end products can be found in infrastructure and construction (pipe, profile, sheet), packaging (thermoforming sheet), pelletizing, as well as calendering and lamination equipment. battenfeld-cincinnati's customers benefit from an extensive global sales and service network.