



Press Release

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New: PRIAMUS Fill – Sequential Molding

The PRIAMUS Fill system controls the melt flow in one or multi cavity hotrunner molds in a closed loop. The system measures and analyzes cavity temperatures in order to adjust the according set values of a hotrunner controller automatically.

It is the goal to compensate for viscosity changes which always happen during production in order to achieve uniform fill conditions.

The PRIAMUS Fill system was now extended especially for sequential molding applications.

Large molded parts are very often injected sequentially. This means that the hotrunner nozzles are not opened at the same time but one after the other.

Especially in case of very long flow distances however different viscosities have a very strong effect which often leads to shifting of the weld lines as well as to different fill behaviour in general.

Different closed loop control systems now make sure that also large molded parts can be manufactured with consistent quality. Precondition is the positioning of one cavity temperature sensor before each gate in the cavity and one sensor near the end of fill.

As soon as the melt reaches the according sensor before the gate the system detects the temperature rise and opens the respective nozzle automatically. In contrast to a time or position dependent method the nozzles always open under defined conditions.

In a second step the temperature signals are compared to each other and controlled by the set values of the hotrunner system. So it is ensured that the fill times between the nozzles do not change and for instance cause undesirable surface effects. This method of which a patent is pending especially considers the fact that the fill time differences from the first gate up to the end of fill usually add up.

A cavity temperature sensor near the end of fill finally detects when the molded part is completely filled and automatically switches from fill to holding pressure.

The result is a completely controlled fill and switchover process of large molded parts which are manufactured by sequential molding control.

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