

RIMDOMAT + FiberFlex = PUre Flexibility

Hennecke's RIMDOMAT is frequently used by automobile manufacturers for producing any number of a great range of different moulded parts based on RRIM technology in an economically efficient way. And now Hennecke GmbH has extended this machine by FiberFlex technology. This is a module, which allows filler contents to be varied from one shot to the next.



RIMDOMATs are piston metering machines designed for processing PU systems that are either filler-free, high-filler or abrasive, and even for components with high viscosities.

The range of applications of this machine type extends from glass or mineral-fibre reinforced, thin-walled components for vehicle body parts, seats with melamine contents and insulating elements for car interiors through to processing recycled powder material.

RIMDOMATs are particularly suitable for dispensing shot weights within only a few tenths of a second (high-speed systems) which means that a readjustment of the dispensed quantity is not feasible due to the high shot speed.

Most piston metering machines available on the market today tend to have hydraulic servo-drives with valve control and a control circuit. RIMDOMATs on the other hand offer the advantage that both metering pistons have their own dedicated linear booster drive. This means that any re-measuring or adjustment of the piston speeds by the machine control, which hydraulic servo-drives always require, is here no longer necessary at all.

Variation from shot to shot

The production of a glass-fibre reinforced moulded part for example is based on a batch that will be mixed initially at a preparation station. In other words, a polyol/glass mixture must be produced in the first place, before it can be supplied to production.

Such polyol/glass-fibre batches do however have a very short life span. If ambient conditions, such as the air humidity, change, the shrinkage behaviour of the moulded part during production

may also vary. These changes must be compensated by altering the glass-fibre content. As a result, the original batch with its initially defined glass content can no longer be used. Therefore, a new batch has to be prepared with a correspondingly adapted glass content.

Hennecke's FiberFlex technology has the benefit that any change in the moulded part's shrinkage behaviour can be compensated directly in the next shot. In other words, the glass-fibre content can be adjusted without having to mix a new polyol/glass-fibre batch. It is furthermore possible to realise different filler contents in moulded parts at different foaming stations from one batch only. There is hence no need to mix an extra polyol/filler batch for each case. Now, one and the same production system can be used for making moulded PU parts with different filler contents, such as mudguards, bumpers or rocker panels, all at the same time.

FiberFlex was developed in joint co-operation with Wayand GmbH. The very first system was installed with four foaming stations at the Wayand site in Idar-Oberstein. KVG GmbH in Geilenkirchen near Aachen is also benefiting from this new manufacturing technology.

A RIMDOMAT-FiberFlex line with three foaming stations for producing bumpers and rocker panels has been running here successfully since October 2001.

Hennecke's FiberFlex is available as an optional subassembly. RIMDOMAT lines already in operation can hence be retrofitted.



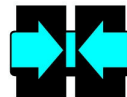
FiberFlex increases the economic efficiency of RRIM applications

Photo: Hennecke GmbH

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