

High (pressure) performance

Award for machine technology made by Hennecke GmbH

As a supplier of machines to BMW AG, Hennecke GmbH counts among the winners of the "8th Automotive Division Award 2003" conferred by the Society of Plastics Engineers (SPE).

In 2003, BMW AG has been presented with the "Innovation Award" in the "Body Exterior" category for the roof of the BMW M3 CSL, made of CFRP. Carbon fibre reinforced plastics (CFRP) are lightweight and have good crash and anticorrosion properties. Used as a design element, CFRP requires a Class A visual quality.

The roof is produced on the world's first highly automated production line for CFRP body components at BMW's Landshut site. For this process, BMW uses a Hennecke foaming machine, type HT 80, for the manufacture of parts in closed moulds in an RTM process (Resin Transfer Moulding).

For a number of years, the RTM method has already proven its worth in the commercial vehicle sector, where large-surface sandwich-fibre composite panels are increasingly used for wind deflectors, side trims and high-roofs. The reasons for this are evident: the panels are dimensionally stable, robust, corrosion-resistant and – above all – lightweight.

Here, Hennecke's HT 80 / HT 180 high-pressure technology has met with much success. This machine type is a low-disturbance metering system with tandem plunger pistons. A special control system allows a continuous metering process without any pressure peaks.

HT machines are tailored to meet extreme requirements in low- and medium output ranges and are suitable for processing filled, unfilled, and abrasive PU systems – even those with high viscosities.

HT machines have also proven their economic efficiency when processing synthetic resins using the RTM method. In addition to achieving excellent blending results with simultaneously low output quantities, the high-pressure mixing process accelerates the reaction and reduces the



Photo: Hennecke GmbH

curing time. The shrinkage of the resin can be balanced by re-injecting small mixture quantities at the right time. It is even possible to process synthetic resins with abrasive colour additives.

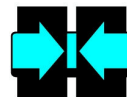
HT-plunger pistons are equipped with electronically controlled electromechanical independent drives. The frequency-controlled piston speed can be set with accurately reproducible precision that does not require any readjustments. The metering process is independent of pressure and free from internal leakage. HT 80 / HT 180 machines can be integrated into automated production lines and used in multi-point metering systems.

While low-pressure mixheads have to be cleaned with solvents after each shot series, HT-machines are equipped with Hennecke' successful high-pressure mixheads that have a solvent-free and loss-free cleaning system.

More information:

Thomas Kirsten
Manager Marketing-Communication
Tel. + 49 2241 339-297
Fax. + 49 2241 339-974
e-mail: thomas.kirsten.tk@hennecke.com

Hennecke
Polyurethane Technology



Hennecke GmbH
Polyurethane Technology
Birlinghovener Str. 30
D – 53754 Sankt Augustin

A  Bayer Polymers Company