UV Painting
Special solutions for 1K and 2K UV painting systems

Increasing interest in the painting with UV coatings resulted in the REITER GmbH + Co. KG Oberflächentechnik, Winnenden to the development of special solutions and special components for use with UV coating. As mainly UV materials are very sensitive to temperature and creep, you need an adjustment of conventional standard components for the lifetime of the device to increase and reach maximum process reliability.

Paint needle with special packing with extended service life

Conventional paint needle packing with a single sealing lip tend at use of abrasive materials or strong creeping to rapid wear. As a result, the switching behaviour of the guns is changed and the paint quality suffers. The multi-part special package allows up to 10x longer life and so secures the quality and cost of the investment.

The paint needle is hard chrome-plated, ceramic-coated or from all-ceramic.

Easy flushable 2-piece 12-hole-nozzle

The advantage over a standard nozzle is soft and uniform spray pattern with homogeneous boundary areas and improved the course material. Especially for processing small quantities of paint and delicate materials offers the 2-piece nozzle advantages.

The paint area behind the paint nozzle is significantly reduced and the paint material forced out around the needle packing. This reduces the risk of tipping and paint entrainment during the flushing process.

The special design increases the turbulence and thereby reduces the risk to dry on. Particularly advantageous for small amount of paint to 100ml/min.
Mass flow transducer

Everywhere where quantities of paint with high accuracy and reproducibility are controlled automatically assume the non-contact, mass flow transducer the task of monitoring the paint mass flow.

The collected data are used to control the amount of painting through a pressure regulator. For use on paint robots Reiter has developed together with the manufacturer a mass flow transducer sensor with greatly increased sampling rate and optimized measuring tube.

This system has already proven in daily use at a well-known painter wage its reliability for over 12 months.

Gear pump without packing

To allow the users of UV coatings the advantages of volume dosing in automatic systems – precisely repeatable application rates and high dynamics in changing this, even with fluctuating viscosities – Reiter developed his UV-DOS technology.

UV materials are extremely sensitive to temperature and creep. This allows them with conventional paint gear pumps with packs (sealed drive shafts) to penetrate the sealing gaps and crystallize by the frictional heat.

Enters the flaky powder into the paint flow, painting flaws threaten. To eliminate this risk, Reiter presented a gear pump driven by magnetic coupling. Thus, an infiltration of the packing by strong creep materials is excluded and the high dynamics of a gear pump is nevertheless available.

The customized gear geometry also prevents the entry of energy and a reaction of the UV coating.