micro dispensing in perfection!
preeflow®
1K dispensers

The brand with the systematic approach. preeflow® – high-quality products ranging from control units to dispensers that live up to our vision ‘small, precise, economical’.

- **eco-PEN300**
  - min. dosing quantity: 0.001 ml
  - volume flow: 0.12-1.48 ml/min
  - weight: approx. 380 g

- **eco-PEN450**
  - min. dosing quantity: 0.004 ml
  - volume flow: 0.5-6.0 ml/min
  - weight: approx. 410 g
**eco-PEN600**
- min. dosing quantity: 0.015 ml
- volume flow: 1.4-16.0 ml/min
- weight: approx. 750 g

**eco-PEN7003D**
- min. dosing quantity: 0.060 ml
- volume flow: 5.30-60.0 ml/min
- weight: approx. 750 g
preeflow® 2K dispensers

eco-DUO600
- min. dosing quantity: 0.030 ml
- volume flow: 0.6-32.0 ml/min
- weight: approx. 1,600 g
eco-DUO330
min. dosing quantity
0.005 ml
volume flow
0.1-6.6 ml/min
weight
approx. 1,100 g

eco-DUO450
min. dosing quantity
0.010 ml
volume flow
0.2-12.0 ml/min
weight
approx. 1,100 g
preeflow®
1K controllers

EC200-K
original sizes

EC200-B
process safe

plug’n’dose
precise
Precision mechanics coupled with the latest digital control – a perfect combination. Designed to optimize your 2K process. preeflow® – micro dispensing in perfection!

You can find more information about our 2K equipment and the other preeflow® products on our website: www.preeflow.com
The new precision volume dispenser eco-SPRAY made by ViscoTec offers a wide range of applications for low to high viscosity spray media. The preeflow® eco-SPRAY guarantees a volumetric spray application based on the endless piston principle. The base of this new microspraying technology is still our proven rotor/stator technology. Due to a defined rotary motion of the rotor, the medium in the stator is volumetrically replaced and conveyance is created. Thus a determined amount of medium is process controlled and directed to the special low flow spray chamber.

The precise nebulization and spraying can take place continuously or punctually. The revolutionary combination of the endless piston principle and the low flow spraying chamber guarantees perfect spraying of low to high-viscosity fluids with high edge definition and lowest possible overspray.

**eco-SPRAY**
- min. dosing quantity: 50 µl
- volume flow: 0.5 to 6.0 ml/min
- weight: approx. 640 g
Prespraying, spraying, afterspraying and pressure are customer specifically adjustable. Thereby individual spray contours are possible.
The dosing principle of preeflow® dispenser is based on progressive cavity pumps.

This special dosing geometry allows an endless and pulsation free dosing flow. The possibility of reversing the dosing flow (suckback) will prevent from dripping and leads to a perfect control of media stringing or dripping.

Especially sensitive fluids with high viscosity and fillers inside experience a gentle treatment due to the low shear stress and the low pressure.

Therefore, it is: many tasks – one principle!
Dosing technologies in use:

- preeflow® endless piston principle by ViscoTec
- JET dispenser
- peristaltic pump
- time pressure dispenser
- needle valve
- auger valve

Dot size range:

- v: 0.0001, d: 0.73
- v: 0.0003, d: 1.05
- v: 0.0005, d: 1.24
- v: 0.001, d: 1.56
- v: 0.003, d: 2.25
- v: 0.005, d: 2.67
- v: 0.01, d: 3.37
- v: 0.03, d: 4.86
- v: 0.05, d: 5.78
- v: 0.07, d: 6.44
- v: 0.1, d: 7.26

Bead size range:

- 0.25
- 0.5
- 1.0
- 1.5
- 2.0
- 2.5
- 3.0

v: ml (shot volume)
d: mm (diameter)
Optical Bonding

Optical Bonding is a process in which a clear adhesive is applied between the layers of glass in a touch screen display. The main goal of this bonding process is to improve the performance of the display. This procedure eliminates the gap between the glass and the display. A great deal of importance is placed on dosing precision in the field of smartphone and tablet manufacturing in particular.

Bonding

In the industrial world, the term of Bonding refers to join securely to something else, especially by means of an adhesive or chemical substance, heat or pressure. In our case, any combination of any type and roughness of materials could be joined together through the application of adhesives. The bonding therefore replaces more traditional techniques such as riveting or welding.

preeflow® products offer the ideal properties to ensure that all relevant 1 & 2 component applications in several industries are perfectly dosed!
Conformal Coating

Conformal Coating is a protective coating which takes the form of a non-transparent or transparent varnish that is applied to all or parts of PCBs. The materials are usually high viscosity thermal or UV curing materials and are dosed onto the PCB using either a thin film or a thick film procedure.

- no stringing nor dripping
- bead factor < 2%
- independent of pressure, temperature and time
- rapid dosing
- very wide viscosity range
- liquids containing fillers
- pulsation free

Dam & Fill

In Dam & Fill applications, the primary aim is to protect highly complex assemblies. Firstly, a high viscosity barrier, known as the “Dam”, is applied to the surface to be sealed. Then the adjacent area is filled with a filler which provides protection and sealing effect.
Glob Top

Glob Top potting is designed to protect sensitive components, usually semiconductor chips, from mechanical stress such as vibrations or fluctuations in temperature. External environmental factors too, like moisture or corrosion, are thus prevented from having an impact on the potted components. This effect is realised by applying a fluid resin matrix, mostly an epoxy resin adhesive, which is then cured.

Underfill

Underfill applications usually are used with isotropic conductive adhesives. In this case, the isotropic conductive adhesive provides the electrical connection from the microchip to the substrate. As this adhesive is not applied over the entire surface, after the thermally or UV curing process, another filling of the hollow space is necessary, the so called “Underfill”.

Examples of materials:

- UV & light curing
- heat curing
- 1K epoxy
- 2K epoxy
- anaerobic
- gasoline
- high fill fluids
- thermal conductive paste
- toluene
- sealing agents
- shear-sensitive adhesives
- flavours
Micro Dispensing

Micro Dispensing refers to the dosing of fluid media in volume of just a few microlitres. Other fields of application are, for example, bead dosing, sealing, dot dosing, potting and 2 component applications. These applications in particular call for high levels of precision, repeatability and reliability.

Encapsulating

Encapsulating is the process of applying a fluid sealing compound to a small and defined area on a component or on a surface. The sealing compound protects the electrical component both in transports and from environmental influences such as vibration, shakes, humidity, dust and extreme temperature. Other benefits include an improved electrical insulation, a higher safety against damage as well as a better chemical resistance.
Preeflow®
by ViscoTec

Easy dosing technology
Easy handling, easy dispensing
Xact, precise dosing
Effective dosing
Economic, saves up to 30% of the medium

More information: www.preeflow.com

Specialized dealer:

International service & support center please contact us for further information!

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