

Business Unit Components &amp; Devices

# Dosing technology

## Dosing system



**preeflow®** *eco-PEN300*  
by ViscoTec

### DESCRIPTION

The new and innovative precision-volume-dispenser eco-PEN300 made by ViscoTec offers a wide range of applications for low to high-viscosity dispensing.

### FUNCTIONAL THEORY

preeflow® eco-PEN is a rotating and perfectly pressure-tight displacement system. Self-sealing rotor/stator design. Conveyance action by medium displacement in the stator through controlled rotor movement. Safe conveyance without any modification of the medium. With its suck back option, preeflow® ensures clean and controlled material or medium cut-off while preventing post-dripping effects.

### APPLICATION

On-the-dot dosage with maximum volumetric precision – dot-and-bead application with application speeds adaptable to track speeds – joint sealing technology.

### RANGE OF USES

- electronic packaging
- semiconductor
- LCD/LED
- photovoltaic
- medical
- biological chemistry
- laboratory
- optics and photonics
- SMD/SMT

### TECHNICAL FEATURES

- Genuine volumetric dosing
- Viscosity-independent dosing
- Primary pressure-independent dosing
- Pressure-tight no valve
- Suck back effect
- Easy to clean
- Controllable dosing flow
- Range of dosing pressures 16-20 bar

optimized deaeration  
100% bubble free dispensing



# preeflow<sup>®</sup> eco-PEN300

by ViscoTec

Fig.: Side view

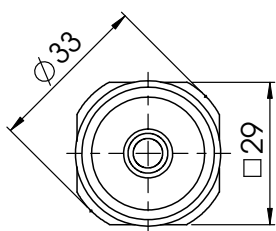
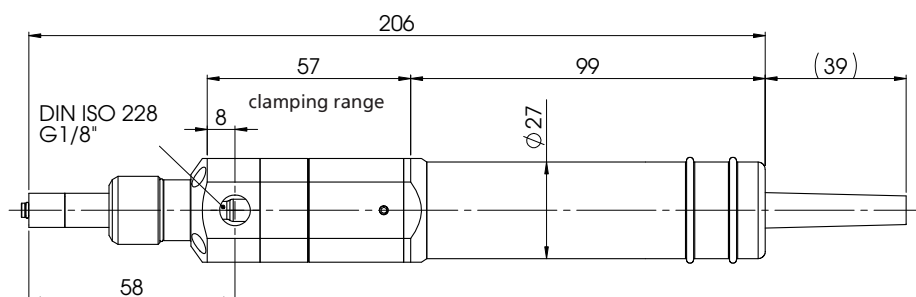
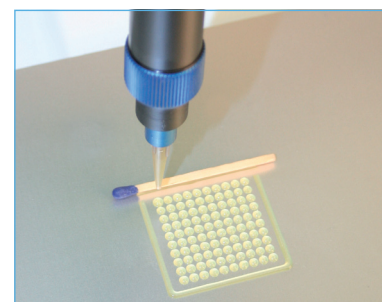


Fig.: Front view



## TECHNICAL DATA

Dimensions:	Length 206 mm, □ 29 x 29 mm, ø 33 mm
Weight:	approx. 380 gram
Material infeed:	1/8" cylindrical Whitworth pipe thread DIN/ISO 228
Material outfeed:	Luer lock with O ring, patented
Min. operating pressure:	0 bar, non-self-levelling-fluid
Max. operating pressure:	0 to 6 bar input pressure, self-levelling-fluid
Max. dosing pressure:	16 to 20 bar
Intrinsic tightness <sup>(1)</sup> :	approx. 2 bar (reference medium approx. 1000mPas at 20°C)
Parts in contact with the media:	HD-POM / stainless steel
Seals:	High-molecular PE, VisChem
Static seals:	Viton O ring (medium) NBR (dust)
Motor:	18 - 24 V DC, incremental encoder, planetary gears
Operating conditions:	+10°C to +40°C, air pressure 1 bar
Medium temperature:	+10°C to +40°C
Storage environment:	dry & dust-free, -10°C to +40°C
Approx. dosing volume per revolution:	0.012 millilitres per revolution
Accuracy of dosing <sup>(2)</sup> :	± 1%
Repeat accuracy:	> 99%
Min. dosing quantity:	0.001 millilitres
Volume flow <sup>(3)</sup> :	0.12 – 1.48 millilitres per minute



<sup>(1)</sup> Max. dosing pressure and intrinsic tightness will decrease in direct proportion to a decrease in viscosity and increase in direct proportion to an increase in viscosity. Consultation with the manufacturer recommended.

<sup>(2)</sup> Volumetric dosing as absolute deviation in relation to one dispenser revolution. Depends on the viscosity of the dosing medium.

<sup>(3)</sup> Volume flow depends on viscosity and primary pressure.



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