

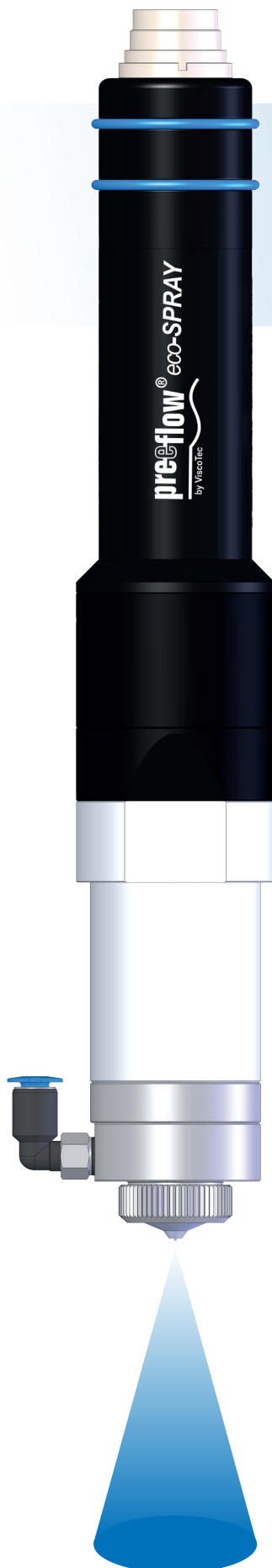
# Microspraying in Perfection!

**preeflow® eco-SPRAY**

by ViscoTec

[www.preeflow.com](http://www.preeflow.com)

Art.-No. 21448



## Functional Theory

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 highly viscous media with high edge definition and lowest possible overspray.

## Applications

- Dosing
- Coating
- Micronebulization
- Greasing
- Marking
- Many more...

## Media

- Grease
- Ink
- Activators/Primer
- Abrasive Media
- Adhesives
- Silicones
- Highly filled Media
- Many more...

## Technical Features

- Spraying of defined quantity
- Viscosity independent spraying
- Regardless of primary pressure
- Pressure-tight without valve
- Optional heating
- Easy to clean
- Controllable spray area
- Low to high viscosity media

## Advantages

- Constant amount/area
- Uniform Coating
- Defined volume per rotation
- High Bracing
- From dot to endless spraying
- Independent regulation of media flow rate and atomizer air
- Consistent spray-image
- Little overspray/high edge definition
- High chemical resistance
- Controllable round spray
- Low maintenance system
- High transfer efficiency

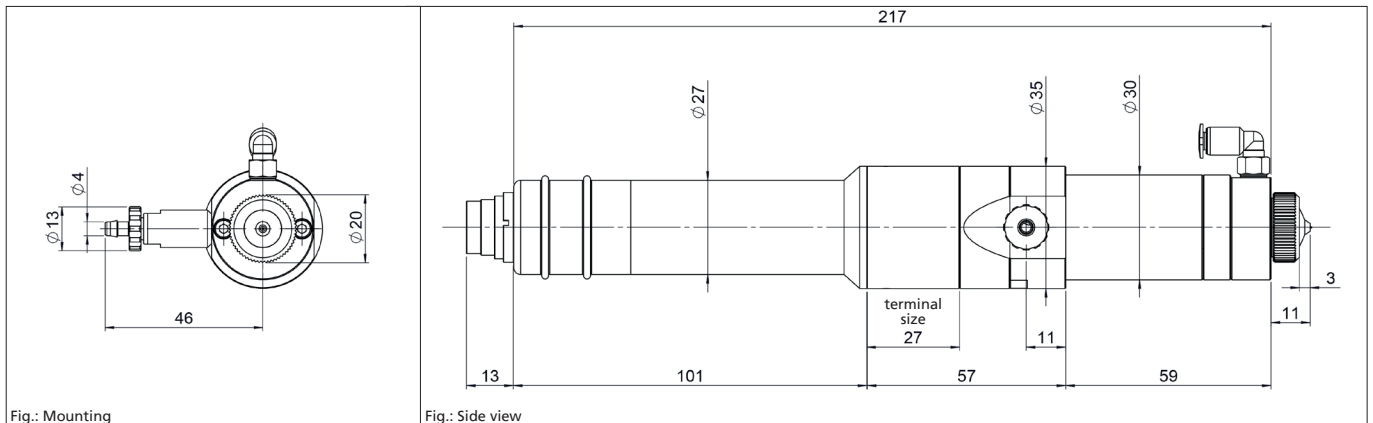
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## Technical Data

Dimension:	Length 228 mm, $\varnothing$ 35 mm
Material infeed:	1/8" cylindrical whithworth pipe thread DIN/ISO 228
Parts with medium contact:	HD-POM/Stainless Steel/PEEK
Min. operating pressure:	0 bar, self-levelling fluid
Max. operating pressure:	0 to 6 bar input pressure, non-self-levelling fluid
Intrinsic tightness <sup>(1)</sup> :	Approx. 2 bar (reference medium approx. 10 mPas at 20° C)
Seals:	High-molecular PE, VisChem
Motor:	18 to 24 V/DC, incremental encoder, planetary gears
Switching frequency:	Over 100 cycles/min
Operating conditions:	+10° C to +40° C, air pressure 1 bar
Medium temperature:	+10° C to +40° C (optional with heating)
Medium viscosity:	Low to high viscosity media
Min. dosing quantity:	50 $\mu$ l
Volume flow <sup>(2)</sup> :	0.5 to 6.0 ml/min
Diameter:	0.2 mm, 0.3 mm, 0.5 mm
Spraying accuracy <sup>(3)</sup> :	Amount of spraying $\pm$ 1%
Repeatability:	> 99%
Atomizer air:	0.1 to 6 bar
Atomizer supply:	Hose connector external diameter 4 mm (connection to the process M5)
Spray image:	Round spray (adjustable)
Spray angle:	15 to 30°

<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> Volume flow depends on viscosity and primary pressure.

<sup>(3)</sup> Volumetric dosing as absolute deviation in relation to one dispenser revolution. Depends on the viscosity of the dosing medium.

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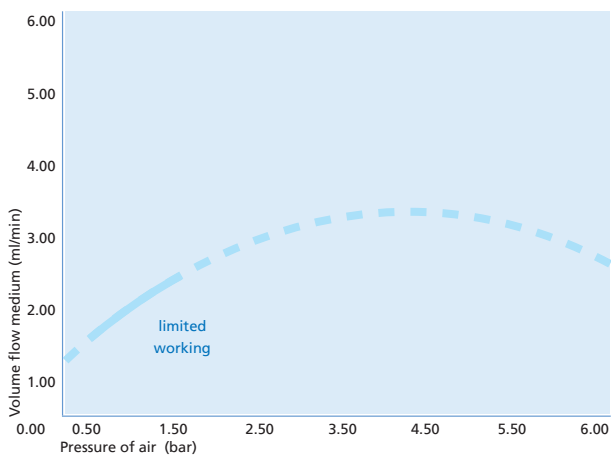
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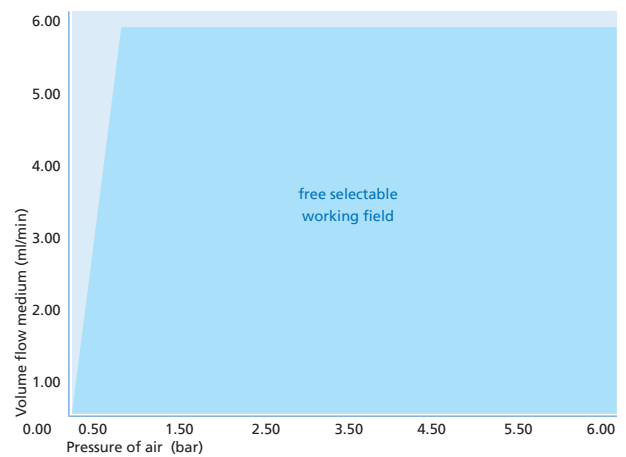
Standard spraying technology

eco-SPRAY

Volume flow depending on compressed air pressure with two-component jets of external mixing\*

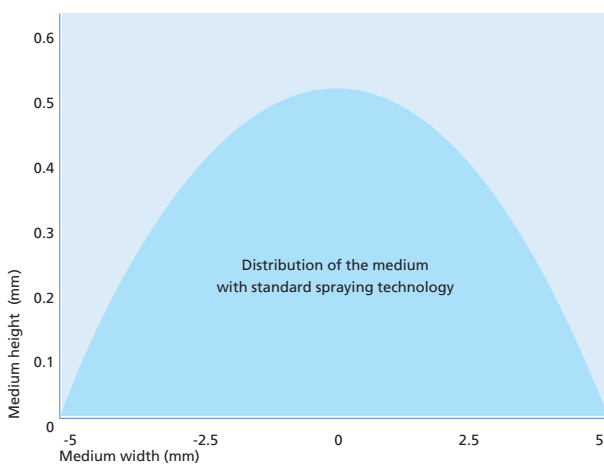


Limited working field. Volume flow of air & medium are interdependent.

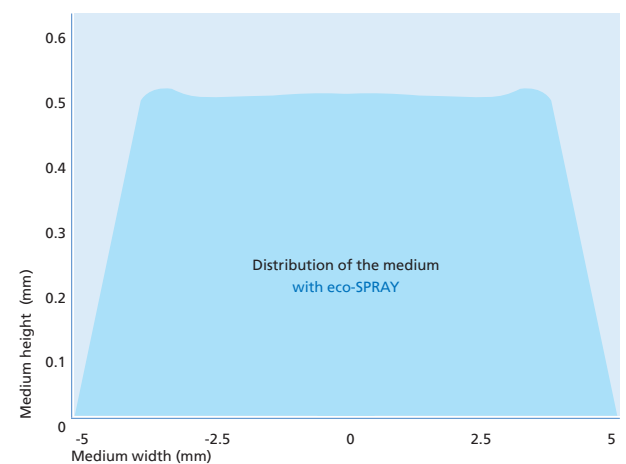


Working field is free selectable. Volume flow of air & medium are independently adjustable.

## Fluid distribution by comparison\*



Little edge definition – high overspray.



High edge definition – defined distribution.

\* Depends on viscosity and primary pressure.

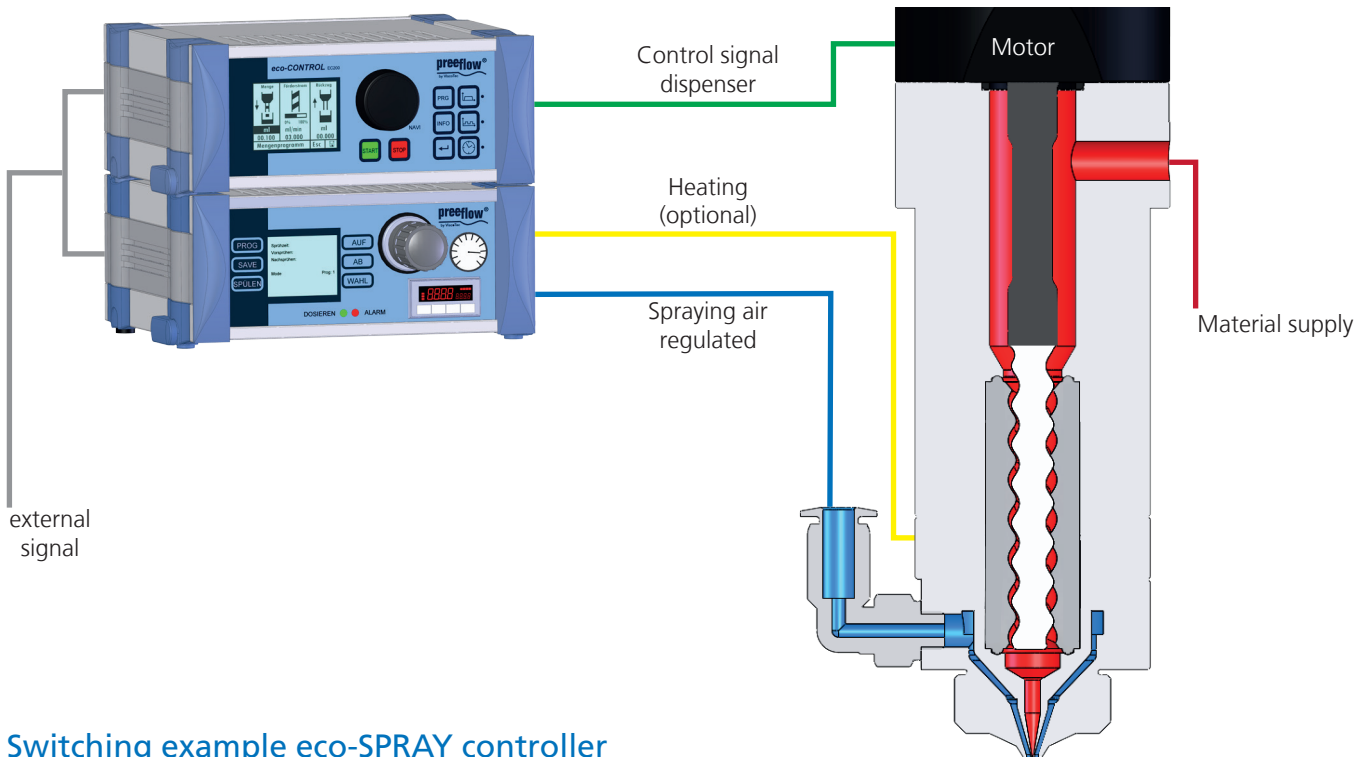
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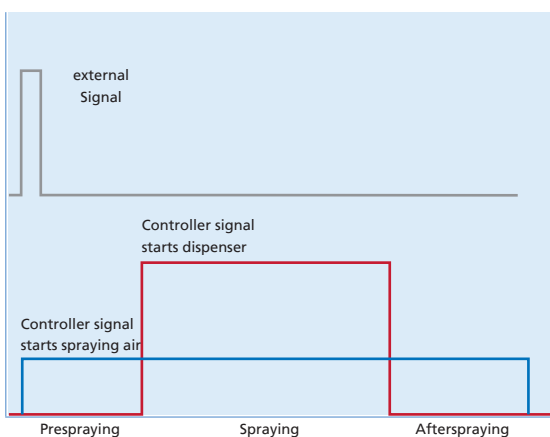
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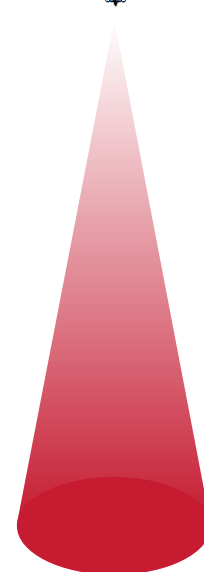
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## Switching example eco-SPRAY controller



Prespraying, spraying, afterspraying and pressure are customer specifically adjustable. Thereby individual spray contours are possible.



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