



RotoStream Dose!

Progressive cavity dispensing
valve with motion-synchronised
volumetric flow control and
integrated control system

RSD

Highlights/ Benefit

- Precise dispensing: High dosing accuracy and stable bead geometry based on the progressive cavity principle and motion-synchronised volumetric flow control.
- Plug & Produce: Minimal integration effort due to fully integrated control – no external controller required.
- Wide media range: Suitable for processing low- to high-viscosity media, including filled and reactive materials.

Constant application at variable speeds – volumetric dispensing perfected

Plug & Produce operation through integrated control and web-based configuration.

RotoStream Dose! is a volumetric dispensing valve designed for the accurate-quantity application of viscous, pasty, and filled media.

At its core is progressive cavity technology: a metallic rotor rotates eccentrically within an elastomeric stator, forming geometrically defined cavities. These cavities convey the medium to the outlet with a constant volume per revolution. The result is a uniform, pulsation-free volumetric flow – independent of pressure and viscosity fluctuations. RotoStream Dose! is therefore ideally suited for dot and bead applications requiring maximum dosing accuracy and reproducibility.

A key performance feature for automated applications is the speed-proportional control of the volumetric flow rate. Via analogue input signals, the rotor speed is directly synchronised with the traverse speed of robots or linear axes. The volumetric flow adjusts in real time to the motion of the handling system, ensuring a constant material output per unit length of travel. Even along complex paths, bead geometry remains stable; material build-up in curves or under-dispensing at high speeds is effectively prevented.

An active suck-back function ensures a clean cut-off at the end of the dispensing cycle. By controlled reversal of the rotor direction, pressure in the material chamber is immediately relieved, minimising after-drip and stringing. This ensures clearly defined start and end points, even with low-viscosity or thixotropic materials.

RotoStream Dose! features fully integrated control, eliminating the need for an external controller. This reduces interface risks, lowers integration effort and simplifies commissioning. Parameterisation is carried out directly via a browser-based user interface. Dispensing quantities can be defined either volumetrically or by weight; stored material densities are automatically taken into account, eliminating manual conversion.

The dispensing valve is suitable for a wide range of low- to high-viscosity media, including reactive materials such as adhesives and sealants. The integrated fluid barrier isolates the media-wetted section from ambient influences and prevents the ingress of air and moisture. This protects the material from premature curing and ensures reliable restart after production interruptions.

Follow the QR-Code for additional product info



Technical Data

Available as ...

BG	cm ³	cm ³ /min
1	0,003	0,003 – 00,36
2	0,010	0,010 – 01,20
3	0,050	0,050 – 06,00
4	0,140	0,140 – 16,00
5	0,530	0,530 – 60,00

BG = Size

cm³ = min. dispensing volume

cm³/min = Flow rate range

Inlet pressure (medium)
max. 6 [bar]

Temperature range
Medium / operation up to 80 [°C]

Power supply
24 [V DC]

Dimensions (L x B x H)
223 x 30 x 57,5 [mm]

Weight
approx. 0,5 [kg]

Materials (media-wetted parts):
PEEK / FFKM / FKM / UHMWPE
stainless steel (depending on variant)

*Also available as a spray version:
RotoStream Spray!*