



METER · MIX · DISPENSE

rotordis rotormix

1K/2K-PROGRESSIVE CAVITY
PUMP SYSTEM



rotormix

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The rotormix Progressive Cavity Pump System can be used to process multicomponent materials such as resins, silicones, adhesives or sealants.



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The rotormix is a progressive cavity pump system designed for conveying and metering two-component materials. From water-thin to paste-like, highly viscous media, all materials can be optimally processed with the rotormix. Depending on the viscosity, the media can be fed either from cartridges, pressure tanks or vessel pumps, with application basically taking place directly from the metering system onto the component. Together with the DC drive, this ensures dynamic metering and a controllable back suction effect. A clean thread break is thus ensured at all times.

A major advantage of the volumetric metering system: The heart of the machine, consisting of only two parts, the stator-rotor combination, ensures leakage-free sealing. It conveys the material continuously through the system without volume limitation, with low shear and gently in the axial direction. This makes it particularly suitable for filled media.

An electronic metering control system was developed especially for this metering and mixing system, which ensures optimum adaptation of all application-specific parameters. In addition, a standardized interface ensures trouble-free integration into automated production processes. An integrated HMI enables simple and clear communication with the operator.

Product features

- Uninterrupted metering
- Speed proportional conveying
- Valve less system
- Conveying abrasive media
- Pulsation and low shear
- High repeatability and metering accuracy, $\pm 1\%$
- Parameterizable back suction effect
- Dynamic dosing
- Variable mixing ratio

Technical specifications

Series	1	2	3	4
Nominal size [ml]	0.01/0.01	0.05/0.05	0.15/0.15	0.30/0.30
Metering quantity [ml/U] *	2 x 0.013	2 x 0.059	2 x 0.163	2 x 0.3
Flow rate [ml/min]**	0.26 – 3.90	1.2 – 18.0	3.3 – 50.0	6.0 – 90.0
Min. metering volume [ml]***	0.006	0.03	0.08	0.15
Speed range (min ... max****) [min ⁻¹]	10 ... 150	10 ... 150	10 ... 150	10 ... 150
Pwork (Inlet pressure) [bar]	0 – 6			
Pmax (Max. pressure) [bar]	10			
Metering accuracy	$\pm 1\%$			
Mixing ratio A:B	1:1 ... 10:1			

* For volumetric mixing ratio 1:1

** At speed range 10–150 rev/min

*** Depending on material properties, nozzle size, alignment of PCP etc.

**** Depending on viscosity

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The progressive cavity pump system rotordis processes single-component materials such as adhesives or sealants.



- 1. Material pressure tank
- 2. Eccentric screw pump
- 3. Metering control unit

rotordis is an progressive cavity pump system designed for conveying and metering single-component materials. It is suitable for water-thin to paste-like, highly viscous media. The medium can be supplied from pressure tanks or drum pumps, depending on the viscosity. It is generally applied directly from the metering system onto the component. Together with the DC-motor drive, this enables both dynamic metering and a controllable back suction effect for a clean thread break. In the case of limiting ambient conditions, a hose connection and dispensing valve can also be used.

The heart of the system, which consists of only two components, is the stator-rotor combination. This is a volumetric metering system that is sealed leak-free. It conveys the material continuously through the system without volume limitation, with low shear and gently in the axial direction, making it particularly suitable for filled media.

The electronic metering control unit, which is specially customised for this metering system, ensures optimal customisation of all application-specific parameters and supports integration into automated production processes through a standardised interface. The integrated touch panel ensures simple, clear communication with the operator.

Product features

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- Uninterrupted metering
- Speed-proportional conveying
- Valve-less system
- Conveying of abrasive media
- Low pulsation and shear
- High repeatability and metering precision, $\pm 1\%$
- Parameterizable back suction effect
- Dynamic dosing

Technical specifications

Series	1	2	3	4
Nominal size [ml]	0.01	0.05	0.15	0.30
Metering quantity [ml/U]	0.013	0.059	0.163	0.3
Flow rate [ml/min]*	0.13 – 1.95	0.59 – 8.85	1.63 – 24.5	3.0 – 45.0
Min. metering volume [ml]**	0.002	0.008	0.01	0.03
Speed range (min ... max***) [min ⁻¹]	10 ... 150	10 ... 150	10 ... 150	10 ... 150
Pwork (Inlet pressure) [bar]	0 – 6			
Pmax (Max. pressure) [bar]	10			
Metering accuracy	$\pm 1\%$			

* At speed range 10–150 rev/min

** Depending on material properties, nozzle size, alignment of PCP etc.

*** Depending on viscosity



We are one of the world's most experienced manufacturers of high-quality metering technology. Wherever adhesives, resins, silicones or lubricants are metered and applied in industrial production, we offer reliable, precise solutions. We provide systems and components for highly automated production processes, including for the automotive, wind, household appliances and electrical industries, as well as for aviation.

DOPAG is part of the HILGER & KERN GROUP, a reliable supplier and a development and service partner to industrial companies in a variety of market segments for more than 90 years. The group employs around 350 people and has subsidiaries and distributors in more than 40 countries.



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