

vectodis 

Application areas

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- Bonding
- Sealing
- Moulding
- Encapsulation
- Shot dispensing
- Bead dispensing

Features and benefits

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- Modular construction enables a wide range of use, variable mixing ratios and flow rates
- High precision through metering and mixing at the point of application
- High process security through:
 - construction with reduced dead space
 - de-airing on the top of the metering chamber
 - metering chamber with pressure monitoring
- Optimization of the maintenance through:
 - specially guided metering pistons
 - coupling between drive and metering piston
 - hermetic sealing of the piston with additional sealing liquid

Industries

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These modern metering systems can be used in any industry where materials need to be applied in a high precision and repeatable way.

- Automotive
- Electrical and electronic
- Renewable energy
- Aerospace
- White goods
- and many more

Control unit

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To control these systems a metering computer with touch screen terminal is used.

With this metering computer all applications that can be achieved with vectodis or vectomix can be parameterised and different metering processes can be memorised.

The control unit is wired into a control cabinet. The metering computer can also handle applications where a speed proportional material supply is required, for example in combination with a robot.



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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 almost 100 years. The group employs around 350 people and has subsidiaries and distributors in more than 40 countries.



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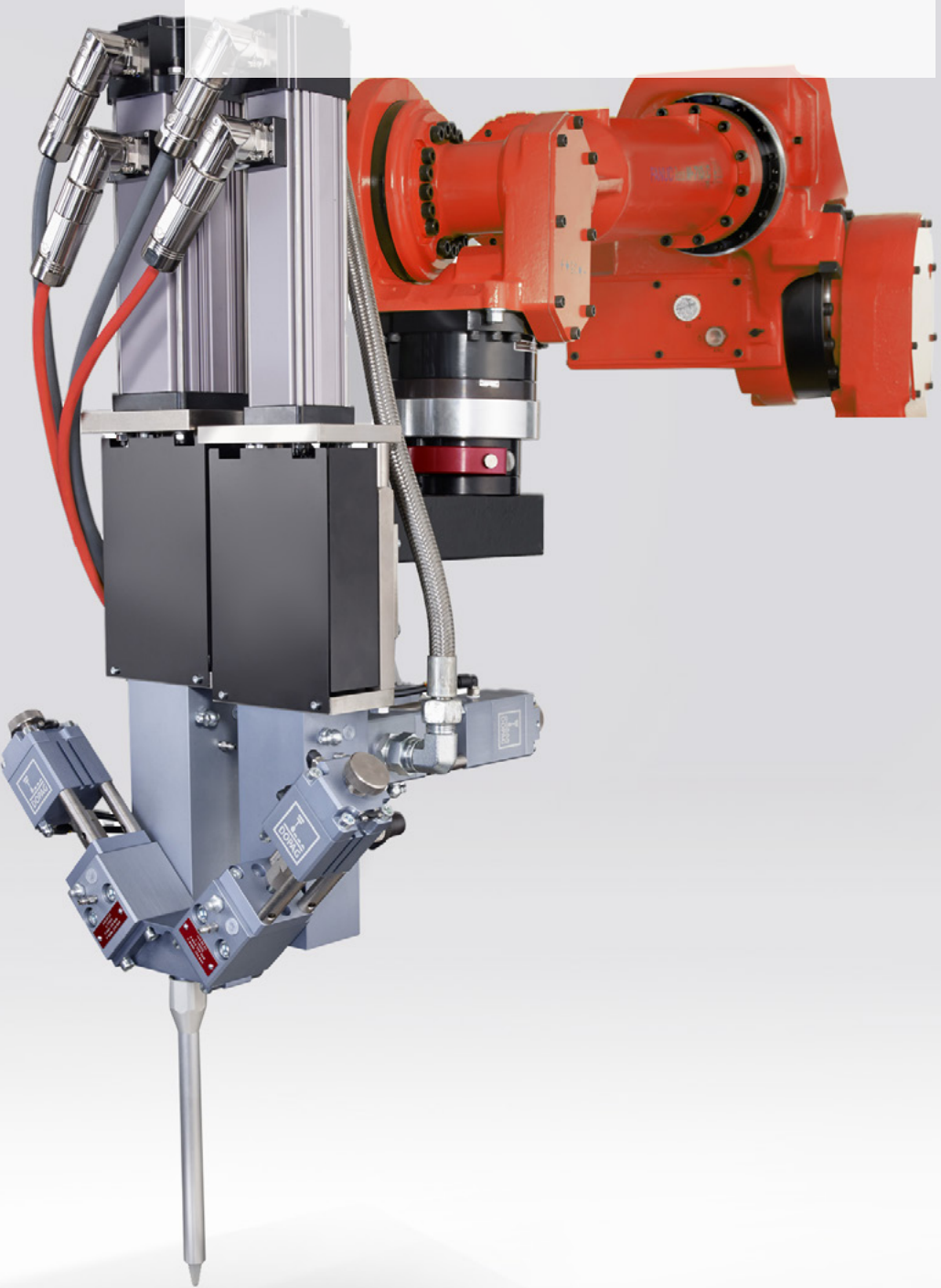
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vectodis vectomix

FOR THE PROCESSING OF LOW TO HIGH VISCOSITY MATERIALS



Maximum Perfection

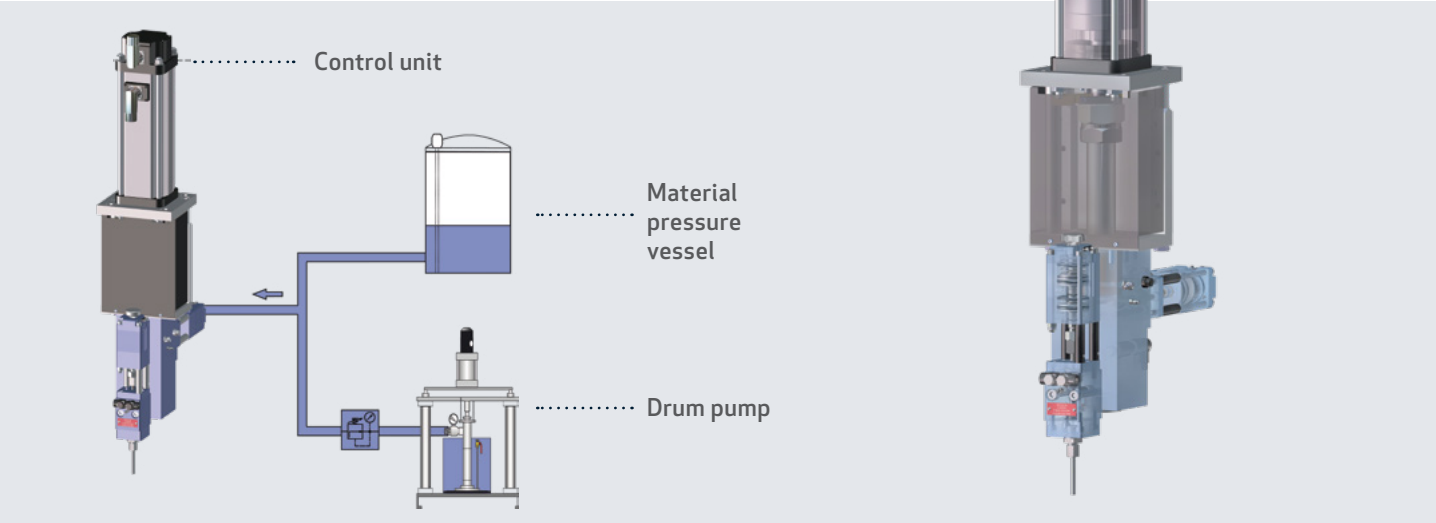
To process low to high viscosity and even abrasive materials, DOPAG has developed two product lines, vectodis and vectomix.

These products are the result of consistent research, development and engineering with the goal of finding a visionary concept, able to set standards for the future in metering technology. The modular construction of vectodis and vectomix enables a wide range of use.

Whenever the process requires a highly dynamic and precise application, these two products are used. Both systems can be configured for weight-optimized automation with a flexible hose connection between the feeder and the application system.

The rotational movement of a servo motor is converted into a linear movement by means of a spindle which is driving the steel piston. Various constructional characteristics are resulting in minimal maintenance and reduced service intervals which leads to a longer product life.

vectodis



The vectodis metering system is suitable for processing single-component media. The material is discharged in shot or bead form. The material is taken from the original container via a feed pump and fed to a piston metering unit with a servo motor. A material pressure regulator keeps the input pressure at the piston metering unit constant.

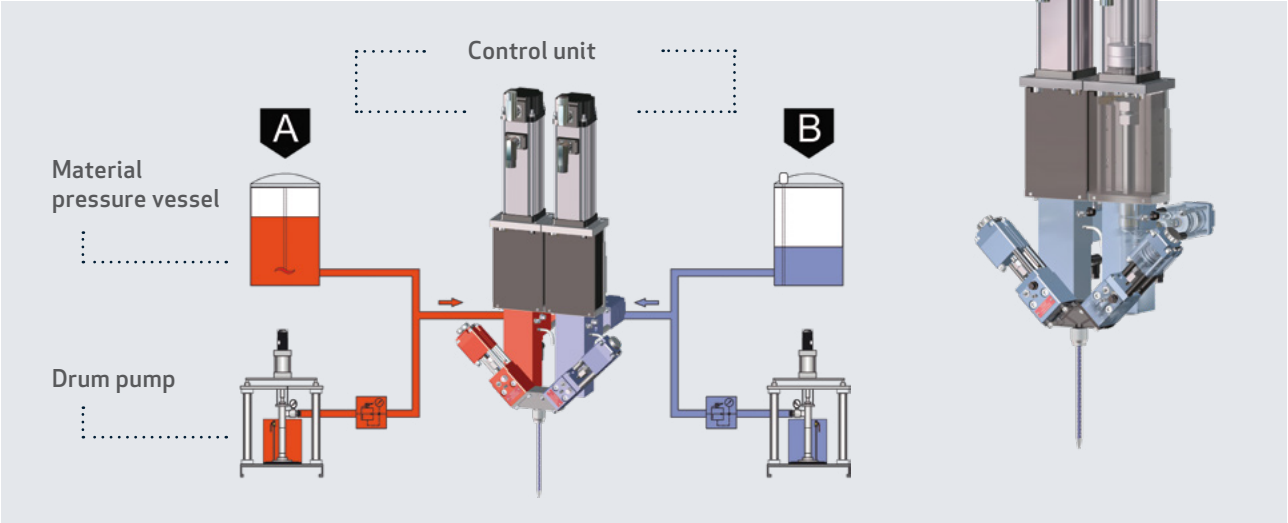
The material is discharged via a dispensing valve located at the outlet of the piston metering unit. The metering control unit

enables communication between the individual system components and coordinates the various features of the metering components. It can be operated conveniently via a touch panel. All the relevant process data is displayed here. The metering control unit enables features such as speed-proportional metering, which allows vectodis to be combined with an industrial robot. The software also provides modern features such as pre-compression and leakage control for reliable, reproducible application over the long term.

| Size | ø 6 | ø 10 | ø 20 | ø 36 |
|------------------------------------|---|---|---|---|
| Max. metering volume | 1.8 ml | 7.8 ml | 31 ml | 101 ml |
| Min. metering volume (5 mm stroke) | 0.14 ml | 0.4 ml | 1.6 ml | 5.1 ml |
| Metering stroke | 65 mm | 100 mm | 100 mm | 100 mm |
| Max. flow rate* | 2.75 ml/s | 7.8 ml/s | 31 ml/s | 101 ml/s |
| Min. metering time (Full stroke)* | 0.65 s | 1.0 s | 1.0 s | 1.0 s |
| Min. cycle time (Full stroke)* | 2.5 s | 3.0 s | 3.0 s | 3.0 s |
| Max. supply pressure | 160 bar | 160 bar | 100 bar | 100 bar |
| Min. supply pressure | 3 bar | 3 bar | 3 bar | 3 bar |
| Max. working pressure | 160 bar | 160 bar | 100 bar | 100 bar |
| Viscosity range** | 50 –1,000,000 mPas | 50 –1,000,000 mPas | 50 –1,000,000 mPas | 50 –1,000,000 mPas |
| Power supply | 400 VAC 3/N/PE / 50/60 Hz 230 VAC L/N/PE / 50/60 Hz 220-240 VAC 3/PE / 50/60 Hz | 400 VAC 3/N/PE / 50/60 Hz 230 VAC L/N/PE / 50/60 Hz 220-240 VAC 3/PE / 50/60 Hz | 400 VAC 3/N/PE / 50/60 Hz 230 VAC L/N/PE / 50/60 Hz 220-240 VAC 3/PE / 50/60 Hz | 400 VAC 3/N/PE / 50/60 Hz 230 VAC L/N/PE / 50/60 Hz 220-240 VAC 3/PE / 50/60 Hz |
| Max. dimensions | 102 x 320 x 596 mm | 116 x 365 x 759 mm | 116 x 365 x 769 mm | 150 x 390 x 858 mm |
| Weight | approx. 9.3 kg | approx. 11.8 kg | approx. 14.9 kg | approx. 26.9 kg |

* Depending on material characteristic, material supply pressure and use of the material compression function
** Other on request

vectomix



The vectomix is used to handle multi component materials. Due to its compatibility and modularity, two vectodis single component piston metering systems with equal or different sizes are used. They can be connected by simply using a mixing block onto the outlet of which a

disposable plastic mixer is mounted. The use of a hose package with a decentralized mixing system is also possible. Just a suitable material supply and metering computer is required.

| Size | ø 3/3 | ø 6/6 | ø 10/10 | ø 20/20 | ø 36/36 |
|-----------------------------------|---|---|---|---|---|
| Max. metering volume** | 0.9 ml | 3.6 ml | 15.6 ml | 62 ml | 202 ml |
| Min. metering volume ** | 0.08 ml | 0.3 ml | 0.8 ml | 3.2 ml | 10.2 ml |
| Metering stroke | 65 mm | 65 mm | 100 mm | 100 mm | 100 mm |
| Max. flow rate* | 1.4ml/s | 5.5 ml/s | 15.6 ml/s | 62 ml/s | 202 ml/s |
| Mixing ratio* | 100:100 bis 100:5 *** | 100:100 bis 100:5 *** | 100:100 bis 100:5 *** | 100:100 bis 100:5 *** | 100:100 bis 100:5 *** |
| Min. metering time (Full stroke)* | 0.65 s | 0.65 s | 1.0 s | 1.0 s | 1.0 s |
| Min. cycle time (Full stroke)* | 2.5 s | 2.5 s | 3.0 s | 3.0 s | 3.0 s |
| Max. supply pressure | 160 bar | 160 bar | 160 bar | 100 bar | 100 bar |
| Min. supply pressure | 3 bar | 3 bar | 3 bar | 3 bar | 3 bar |
| Max. working pressure | 160 bar | 160 bar | 160 bar | 100 bar | 100 bar |
| Viscosity range**** | 50–1,000,000 mPas | 50–1,000,000 mPas | 50–1,000,000 mPas | 50–1,000,000 mPas | 50–1,000,000 mPas |
| Power supply | 400 VAC 3/N/PE / 50/60 Hz 230 VAC L/N/PE / 50/60 Hz 220-240 VAC 3/PE / 50/60 Hz | 400 VAC 3/N/PE / 50/60 Hz 230 VAC L/N/PE / 50/60 Hz 220-240 VAC 3/PE / 50/60 Hz | 400 VAC 3/N/PE / 50/60 Hz 230 VAC L/N/PE / 50/60 Hz 220-240 VAC 3/PE / 50/60 Hz | 400 VAC 3/N/PE / 50/60 Hz 230 VAC L/N/PE / 50/60 Hz 220-240 VAC 3/PE / 50/60 Hz | 400 VAC 3/N/PE / 50/60 Hz 230 VAC L/N/PE / 50/60 Hz 220-240 VAC 3/PE / 50/60 Hz |
| Max. dimensions | 415 x 350 x 544 mm | 415 x 350 x 544 mm | 415 x 365 x 709 mm | 415 x 365 x 719 mm | 449 x 390 x 852 mm |
| Weight | approx. 14.8 kg | approx. 19.3 kg | approx. 24.3 kg | approx. 30.3 kg | approx. 55.3 kg |

* Depending on material characteristic, material supply pressure and use of the material compression function
** For volumetric mixing ratio 1:1 | *** Lower on request | **** Other on request