



ViscoTec Pumpen- u. Dosiertechnik GmbH
Adhesives & Chemicals



ViscoTec. We are an international company situated outside of Munich specializing in the design of systems for pumping, dosing, applying, filling and emptying medium to high viscous products.

Fluids showing up to 7,000,000 mPas in individual cases are pumped, conveyed and dosed totally pulsation free, exposed to almost no shear. Our dosing pumps and systems can be easily adapted for each application.

Along with technically sophisticated solutions, we will provide you with all dosing components



ViscoTec Pumpen- u. Dosiertechnik GmbH, Töging am Inn, Germany

required for your application even for the most complex of assignments. This ensures that all components work together. There is no need for you to

worry about time consuming and expensive production issues.

Find more information at:
www.viscotec.de

Our endless piston principle

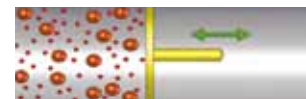
The principle of the dosing pumps from ViscoTec approximately corresponds to an endless piston device (see graph).

Our special dosing geometry allows an endless, pulsation-free dosing flow. The option of reversing the dosing direction (reverse flow) prevents dripping and results in a controlled break of the product thread at the dosing nozzle.

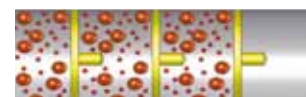
Particularly sensitive fluids with high viscosities and filler content experience a gentle treatment due to low shear stress and low pressures.

Therefore, the slogan is: multiple tasks – one principle!

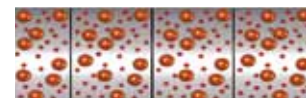
Whether dosing, filling, potting, supplying, emptying or treating - ViscoTec is always the right choice!



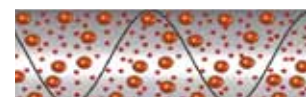
Just imagine a piston.



Or even better, several pistons behind each other.



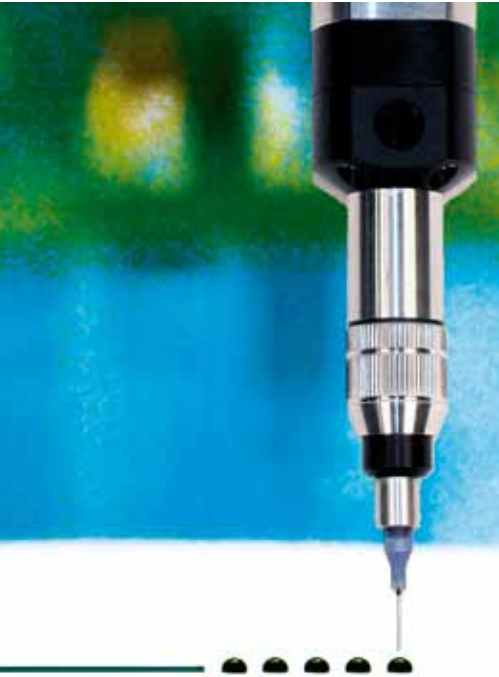
Now we'll make the wall thickness of the piston zero ...



and change the piston shape slightly.



Voilà - the endless piston principle!



Our passion - volumetrical dosing of fluids in the field of adhesives and chemicals. To accomplish this, we can offer a wide range of components for container emptying and material preparation and dosing.

Particularly in the automotive, electronics, solar and aerospace industries, with their extremely complex applications and sensitive systems, specific adaptations, high service life and competent service are the basic requirements for a reliable production.

We are experts when it comes to handling liquids that are extremely difficult to dose, adhesive and sealing materials with the highest viscosities, and pastes containing solids. We offer ideal solutions even for products with micro balloons.



Product examples

Adhesives & other chemical liquids

1- and 2-component adhesives, silicones, potting and sealing compounds, soldering pastes, copper pastes, greases, paints, resins, RTV silicones, anaerobic adhesives, acrylates, UV-curing adhesives, polyurethanes, epoxy resins, varnishes, offset paints, etc.

Materials

We maintain constant contact with the top fluid material and adhesive producers and exchange information with them regarding their material characteristics and their requirements for dosing systems.

Building on many years of experience, we have a comprehensive and extensive database of product specifications for dosing liquids with which we have worked. Based on this, we are able to provide you with comprehensive consultation regarding the design and optimisation of your dosing systems.

Advantages at one glance

- speed proportional dosing volume
- pulsation free
- very gentle on the product
- very high repeatability of the volume
- highly precise dosing due to the smallest dead spotfree design
- no dripping due to adjustable reverse flow
- no product accumulation at joints
- uniform bead shape even when the travel velocity is changed
- dot and bead dosing procedures in one device
- dosing volume can be adjusted easily
- valveless technology

1-component systems

Implement perfect applications with ViscoTec!

Eliminate the effects of fluctuation in pressure and viscosity in your production, as well as inaccuracies that may occur during the dosing process with difficult materials.

RD/VMP dispenser

These dispensers are ideal for bead application, dot dosing, potting, and filling assignments for highly viscous, abrasive, and shear sensitive fluids. The function volumetrically, with dynamic control, dosing process executed in a pressure stable and viscosity independent manner. A repeating accuracy of +/- 1% is guaranteed and our systems can be integrated into axis and robot systems in a precisely fitted, quick and uncomplicated way.



ViscoPro

Our servo motors, particularly for driving the ViscoTec dispensers, consist of a highly intelligent, integrated drive concept where all process relevant data is processed directly within the drive. In combination with the RD and VMP dispensers, they are an ideal valve replacement.

Perfectly dosed!



ViscoDuo

Potting, bonding, sealing, coating with 2-component liquids? With the ViscoDuo series, we offer the appropriate solution for nearly every application.

The dosing pumps mounted directly above the mixing unit allow highly-precise dot, endless, and volumetric dosing procedures, as well as a dynamic change of the dosing speed.

At the end of each dosing procedure, the break of the product thread can be controlled by the adjustable reverse flow. Furthermore, the pressure of each individual component is monitored continuously, giving an indication of the quality of the process.

The entire system is looped together ensuring a 100 % stable dosing process and giving the operator absolute control and security.



ViscoDuo-V



ViscoDuoV-4/4

Fields of application:

Automotive industry, electrical industry, photovoltaics industry, aviation industry, clothing industry...

Materials:

Silicones, adhesives, epoxy resins, polyurethanes, paints...

Advantages at one glance

- can be integrated in its basic form or as a table-top device or into industrial installations
- dot and bead dosing with one device
- dynamic speed change possible
- pressure ranges between 0 and 20bar possible
- viscosities that can be processed are in the range of 1 and 2,000,000mPas
- mixing ratios that can be adjusted: 1:1 and 100:1

ViscoTreat

Do you experience entrapped air or separating materials?

Using the ViscoTec preparation systems, you will achieve perfect [material preparation](#) for your dosing application.



ViscoTreat-H

ViscoTreat-P

ViscoTreat-P/H

Hydraulic accumulators in different sizes for [uninterrupted material supply](#) can also be integrated into already existing installations.

The ViscoTec hydraulic accumulators eliminate installation downtimes during container changeover by [buffering the fluids](#) in any material supply system. The optimised design guarantees that the liquid is supplied according to the "first in / first out" principle. Furthermore, it is possible to [reduce the supply pressure](#) in the event of highpressure supplies and to [compensate pressure fluctuations](#). The separation of air and product prevents any entry of air into the material.

Advantages at one glance

- available in 25ml, 150ml and 300ml
- buffer function, during container changeover in supply, hydraulic accumulator supplies for a certain period of time for running production
- supply pressure reduction in the event of high pressure supply
- minimised installation downtimes
- optimised material throughput
- first in / first out
- can be integrated quickly into an existing pipe system via the R3/4" internal thread connections
- separation of air and product, no air entry into the material



ViscoTreat-R

The preparation and supply system allows for [uniform and reliable product supply](#) for sedimenting material. Simultaneously, the fluid is prepared for the production process in an ideal manner by means of mixing and circulation.



ViscoTreat-R

Advantages at one glance

- for self levelling fluids
- very low shear stress of the material
- very low compressive stress of the liquid (max 18bar)
- emptying of fluids containing solids
- no backflow within the emptying pump
- electrical control of the pump with pressure control
- no air supply required
- no material pressure reducers required due to electronic pressure adjustment
- level monitoring by electronic sensors

ViscoTreat-Im/Inline

Can you see air bubbles within the material during bead dosing?
The installations of ViscoTreat-Im or ViscoTreat-Inline allow for uniform and reliable inline material supply with simultaneous degassing. Air pockets within fluids often mean that the production department faces huge challenges first and foremost for viscous and highly viscous liquids. The ViscoTec dispensers empty material from a vacuum; due to this extraordinary characteristic, the typical ventilation of the tank before further processing or dosing is not required. In this way, the installations serve as degassing, dosing station, material supply, and material buffer at the same time. Downtimes of installations caused by pail or barrel changeover are eliminated.



ViscoTreat-Inline



ViscoTreat-Im

Advantages at one glance

- no interruption of the production during degassing
- no entry of air during pail or barrel changeover
- uniform bleeding during restart due to recirculation
- prevention of sedimentation of solids due to ideal mixer geometry and recirculation
- adjustable primary pressure to the dosing system
- integrated material buffer
- can be retrofitted into existing installations
- pumping from the vacuum, no ventilation required
- level monitoring by electronic sensors

ViscoMT

ViscoTec material supply systems are designed to be **reliable, efficient, product saving!**

The material supply systems are suitable for all shapes of containers available on the market. Containers from approx. 100ml to approx. 300L are emptied up to a residual volume of < 1%. They are suitable both for supplying ViscoTec preparation systems and for direct dosing into production processes with the help of the ViscoTec dispensers. The combination of the interfaces with other installations and the specific advantages of the endless piston principle results in universal fields of nearly every application.



ViscoMT-C



ViscoMT-D



ViscoMT-XS



ViscoMT-XL

Advantages at one glance

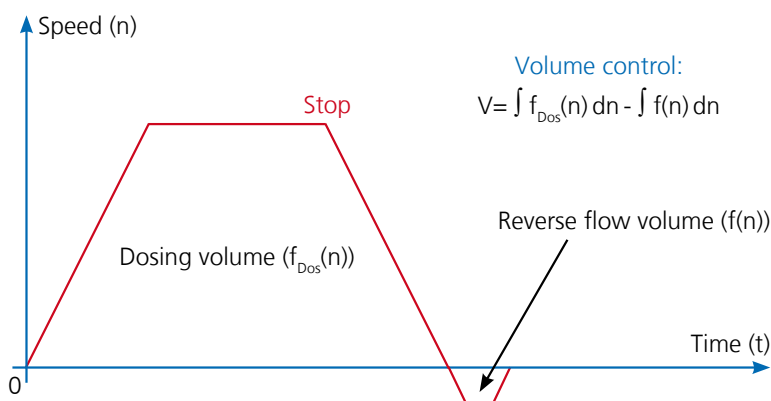
- container emptying up to residual volume of < 1%
- for all shapes of containers available in the market
- clean skimming of the barrel due to follower plate with specific sealing lip
- also for corrugated or conical barrels as well as plastic containers
- emptying speed can be controlled electronically
- completely heated (optional feature) or as a double-emptying-system with automatic switch over
- emptying of fluids directly from the delivered container, direct supply of the materials to the dispenser





ViscoDos Controllers

The dosing control units of the ViscoDos series offer the appropriate solution for each application. On the basis of the customized and application specific programming, the software can be adapted precisely to every process. Even the most diverse applications resulting from the wide product portfolio, different material supplies and preparation systems, 1-component dispensers or 2-component installations are perfectly covered. The integration and setup of the ViscoDos Controllers is easy and quick. The control unit will enable the operator to closely monitor all processes and parameters as well as adjust them on the fly if necessary. Naturally, ViscoTec also offers different control units depending on the customer requirements. All systems can be integrated seamlessly into existing PLCs.



Multi-functional touch panel



ViscoDos 4000

Advantages at one glance

- simple integration into existing installations
- volumetric dosing
- automatic reverse flow
- control of 1-component and 2-component installations
- available interfaces: CAN bus, Profi bus
- operation in several languages
- failure and warning messages clearly expressed
- menu guided calibration functions
- analogue and binary monitoring inputs
- max flexibility due to multi functional interface converters

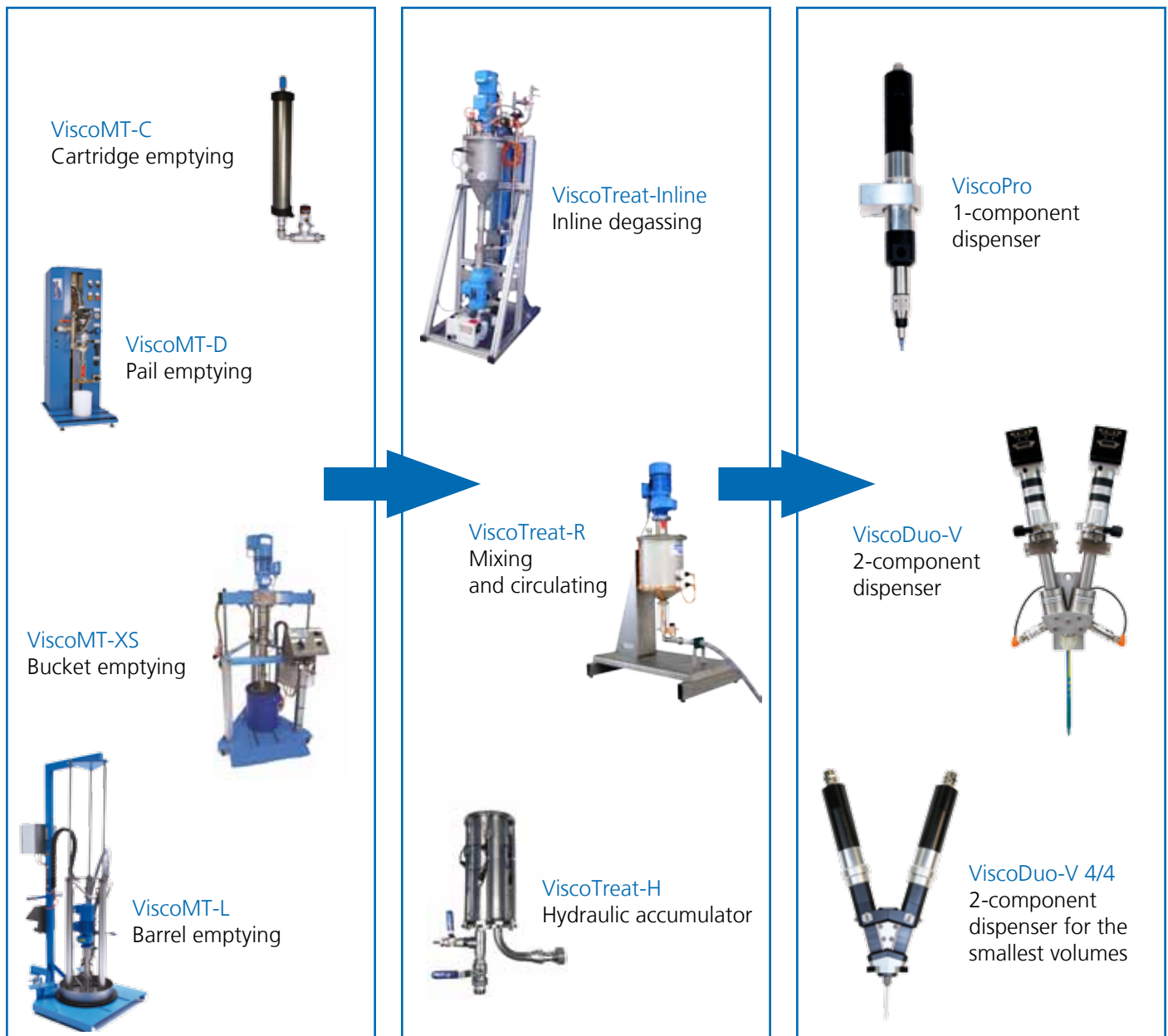
Examples of installations

ViscoTec covers the entire field from container emptying up to dosing, including the necessary product preparation. All systems can be combined and can also be integrated seamlessly into automated production lines.

Emptying systems

+ Preparation systems

+ Dosing systems





ViscoTec not only provides you with products, we also offer complete services: concept advice in the proposal stage, user specific test series in our technical center, on site commissioning, and training. Our experienced engineers will help you find an individual solution. If you have any questions after our product is delivered and upon successful commissioning, we will be happy to be of assistance.

Technical Centre

We will analyse and test the product you want to process. We will develop our installation for you on the basis of the test results.



Commissioning

At the time of delivery, your installation will be adjusted perfectly to your production procedure. In the case of more complex installations and systems, all parameters will be tested under actual operating conditions and optimised in our factory or directly with you on site, and your employees will be trained specifically for our installations.

Spare parts

All common spare and wear parts for our products are available permanently in our spare parts stock, resulting in low maintenance durations and downtimes for you.



Perfectly dosed!

