



## VisCompact Duo-Desk 2-Component Dosing System for Desktop Working Station







## ViscoTec Dispenser Technology



#### ViscoTec Endless-Piston-Principle (EPP)

Characterizes an enhanced volumetric operating principle for an uninterrupted, pulsation-free and highly precise dosing process available with the new ViscoTec platform **VisCompact Duo-Desk**. The technology guarantees the system accuracy by its sophisticated dosing principle and eliminates the requirement of additional metering tools and complex closed loop control systems for the operation within the system specification.

#### **Special Rotor-Stator Geometries**

Allow flexible control of the amount of the medium conveyed and the direction of the medium flow. Alternately opening chambers provide for gentle transport of the medium inside the dispenser and a pulsation-free output. Each individual dispenser chamber conveys an exactly defined volume of medium and works simultaneously as sealing line in the way of the pump input and output side. The individual stator geometries of our products are designed by ViscoTec and represent the optimum of our long term dosing experience. The ViscoTec endless-pistontechnology provides programmable dosing volumes in high accuracy independent on media viscosities or even varying viscosities during the dosing process.



The housing shape of the ViscoTes dispenser allows an easy and comprehensive access to the inner pump area – especially to the rotor and drive shaft – even without disassembly of the sealing housing. Dispensers cleaning and maintenance costs are specifically reduced to a minimum and a high level of system availability is assured in the industrial production processes. With costs for cleaning material and their disposal significantly reduced production at smaller batch sizes can be realized economically and lines resources operated on higher utilization rates.



#### Valveless Dosing Technology

The valveless system design is based on a circumferential sealing line in order to prevent leakage of the medium at the dispenser outlet side. In addition, the ViscoTec wellestablished RD-EC dispensers provide a programmable suck-back option at the end of each dosing step.



#### ViscoTec Dispenser Technology

- Use of the endless-piston-principle (EPP)
- Precise volumetric dosing technology for a continuous dosing process
- System accuracy independent on medium viscosity / variation of viscosity
- Applicable for the handling of shear-sensitive, filled or abrasive liquids
- Pulsation free
- Valveless dosing principle
- Linear-volumetric-dosing (LVD), suck-back option
- Scalable for 2-component system configurations

#### Linear Volumetric Dosing (LVD)

Represents the sophisticated control concept of the Vis-Compact Duo-Desk which allows to work with direct linear drive channels between control signals and dosing volumes. The rotation speed of the dispenser drive units is controlled by an analogue signal directly connected to the motor interface. The dosing volume is provided with high accuracy and in direct linearity to the analog signal level at the dispenser output. The additionally available suck-back function by a simple revert of the rotating direction offers the process-related option to actively prevent material dripping effects at the end of the dosing cycle and to control the cut-off string of a medium through recipe settings. 2-component applications can be realized by this technology by the combination of two dispenser units. Such combined dispensers are able to be controlled individually per channel in terms of programmable dosing speed and dosing volume, which provides a maximum of process flexibility for 2-component customer applications.











#### VisCompact Duo-Desk

The VisCompact Duo-Desk was especially developed to give access to the ViscoTec endless-piston-technology for 2-component desktop dispensing configurations. The technology of programmable dosing volumes and mixing ratios as already used in fully automatic production lines is available for manual assembly work places now as well. The centerpiece of the product consists of 2 units of ViscoTec high precision dispensing pumps connected by an accurately fitting mixing head. The dispensing pumps are actuated by servo motors with programmable on-board control units. The system is controlled by a panel processor with touch screen interface. The system set-up and operation can be handled by users via a well designed graphical user interface including service and calibration menus for a comfortable system operation. The two 5 I feeding tanks are equipped with clamp connectors for rapid disassembly and liquid level sensors in order to indicate a required refill task. Individual pressure sensors for dosing channel A and B monitor the dosing pressure to operate the static mixer and mixing process within the specified values. The system concept does not require specific metering components, feedback control systems or accuracy assurance options to operate within the system specification.



#### Programmable Dosing Volume

The VisCompact Duo-Desk provides two dosing modes to meet individual customer requirements: a) Volume mode applies an accurate, pre-set dosing volume after a trigger signal, b) Continuous mode supplies fluid with a pre-set dosing speed between a start and stop signal. The key benefit of the ViscoTec concept is that dosing volumes and dosing speed can simply be adapted by software configuration. It is not required to manage mechanical system conversion or system adjustments at all.

#### Programmable Mixing Ratio

One of the system key features is the definition of the compound mixing ratio by software parameters via the graphical user interface. The VisCompact Duo-Desk is built of two separate dosing units which can be controlled separately each in terms of dosing speed and volumes. The two individual dosing channels – represented by two separate dispenser units – are synchronized by a 2-component system master routine. The dosing para-

meters for a 2-component application, such as the mixing ratio and the total volume to be dosed, are set via the recipe management menu and automatically converted into individual control commands per dispenser by the 2-component controller.

The process set-up does not require any change-over procedure or mechanical system adjustments any longer in order to adapt mixing ratios.





## VisCompact Duo-Desk Graphical Interface



#### Graphical User Interface

All system operation and set-up steps at the VisCompact Duo-Desk can be handled via the new developed operating software. The interface is separated into individual sections, represented by dedicated menus each. The system covers configuration screens for the set-up of basic settings, the dispensing mode, system calibration functions and a service menu with indication of the signal input/output status. Access functions are administrated by password levels. The graphical user interface was designed to provide a well-balanced tool of functionality with clear and structured system handling for users. All software functions of the system are already included within the basic software license.



## VisCompact Duo-Desk - System Information

#### VisCompact Duo-Desk Product Benefits

- 2-component desk-top dosing system based on sophisticated endless-piston technology
- Fully programmable dosing volume, dosing speed and mixing ratio via configuration menu
- Dedicated graphical user interface
- High precision compliance of the mixing ratio even with varying fluid viscosities
- Repeatable dosing results without mechanical system adjustment
- No contact of the 2 mixing material until in the Static Mixer elimination of possible cured material in the dispensers
- Compact system design dosing spot right at mixing head
- Extremely high wear resistance of used dispenser technology
- Cost savings through high production quality and less rejected parts

### Applications

The ViscoTec product VisCompact Duo-Desk is applicable for a wide range of 2-component dosing processes.



Typical products: PCB, electronic modules/housings, sensors, magnet coils, motor rotors/stators, optical components, mechanical parts, home appliances, automotive components

#### System Specification

Dispenser type	3 RD 10 EC per side
Dosing volume (total for channel A/B)	11 - 275 ml / min.
Dosing volume (total for channel A/B)	2.2 ml / rev.
Minimum dosing quantity (total for channel A/B)	0.010 ml
Dosing accuracy (total for channel A/B)	
Operating temperature	+10 °C - +100 °C
Material temperature	20 °C - +100 °C
Max. dosing pressure	
System dimensions (W x L x H)	
System weight	
Electrical Power	
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#### System Options

The system can be equipped with a tube hand loader (hose package) for remote dosing applications.



# Perfectly dosed!

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