

INNOVATION



## DISPERMAT® CV3evo

The new compact laboratory dissolver with electrical height adjustment and innovative process control for stirring, dispersing, homogenizing and fine grinding in the laboratory

[www.vma-getzmann.com](http://www.vma-getzmann.com)

The new, innovative all-rounder for the laboratory.  
In ergonomic design with process control and electric height adjustment.

**Versatile laboratory dissolver for stirring, dispersing, vacuum dispersing, homogenising and fine grinding.**

The DISPERMAT® CV3evo is a completely redesigned laboratory dissolver and impresses with a particularly ergonomic and compact design. It is equipped with an electric height adjustment and can be used for versatile tasks in the laboratory.

The controller is situated in the new, high-quality stainless steel housing with an innovative glass panel and can be operated via the integrated, solvent-resistant membrane keyboard. The large colour screen shows all relevant process parameters.

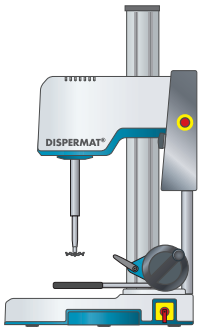
Thus the new DISPERMAT® CV3evo combines form and functionality in a new way.

The sturdy central clamping system offers further comfort. With the clamping arms the dispersion container is centrally located and secured safely under the dissolver shaft. The integrated safety package in accordance with the machine directive 2006/42/EC provides reliable protection during the dispersing process.

High grade design, certified quality and eliable technology characterise this all-rounder for the laboratory.

**The DISPERMAT® CV3evo dissolver is suitable for multiple tasks in the laboratory and pilot plant:**

- Dispersing
- Fine grinding
- Stirring and mixing
- Homogenizing
- Dispersing under vacuum
- Dispersing high-viscosity substances
- Emulsifying
- Suspension
- Solving





**PROCESS CONTROL** CVEVO-TECHNOLOGY  
Repeatable dispersion results



**HEIGHT ADJUSTMENT** ELECTRIC  
Easy handling, functional design



**ACCESSORIES** APS, TML, CDS, SR  
Flexible. Powerful. Innovative.



**MADE IN GERMANY** SINCE 1972  
Quality, precision and durable technology



**DISPERWHEEL®** SPEED ADJUSTMENT  
with rotary pulse encoder



**DISPERSAFE®** TÜV CERTIFIED  
Safety module (EN ISO 13849-1)



**WORK SAFE** DIRECTIVE 2006/42/EC  
Integrated safety equipment

DISPERMAT® CV3evo	
Dimensions W x H x D	65 x 85 x 52 cm
Height adjustment	electric
Container capacity	0.125 – 10 litres
Container clamping range	Ø = 5 – 35 cm
Container height	3 – 38 cm
Weight	37 kg

Electric height adjustment  
of the drive motor



Flexible. Powerful. Innovative.  
Modular dispersion and fine grinding systems  
for the dissolver DISPERMAT® CV3evo

Large colour screen

Control housing made of stainless  
steel with innovative glass panel  
and integrated solvent-resistant  
membrane keypad

Height adjustable central container  
clamping device

Option: laboratory scale  
operated via the glass panel

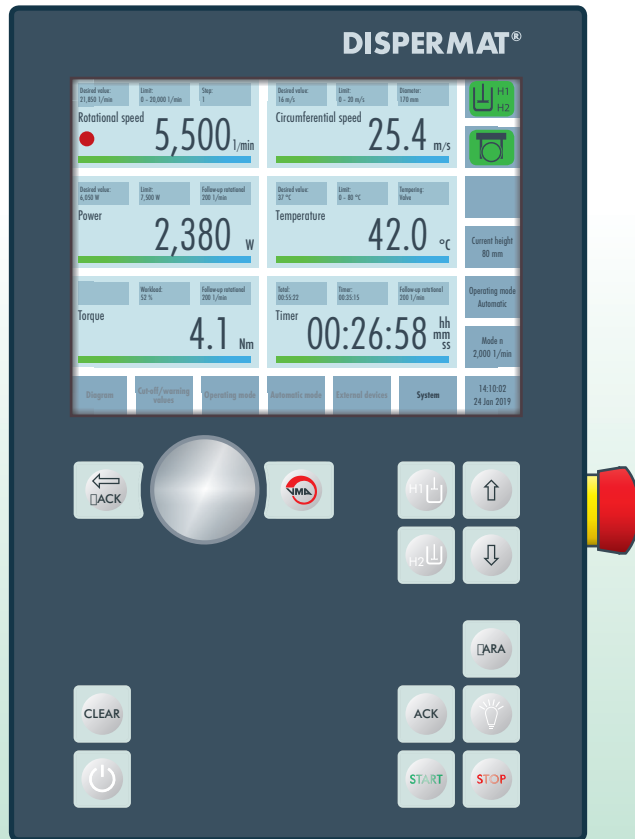
Stainless steel working platform



DISPERMAT® type	Power kW	Speed rpm	Torque Nm	Product volume, litre		
				low-viscosity	medium-viscosity	high-viscosity
CV3evo	0.75	0 - 20000	0.8	0.05 - 7	0.05 - 5	0.05 - 2.5
CVP3evo	0.75	0 - 12000	1.3	0.05 - 7	0.05 - 7	0.05 - 4



APS bead mill litre	TML basket mill litre	CDS vacuum system litre	SR rotor-stator litre
0.01 - 0.5	0.25 - 1.4	0.1 - 0.7	0.5 - 5
0.01 - 0.5	0.25 - 1.4	0.1 - 0.7	0.5 - 5



## Standard configuration

- **DISPERWHEEL® speed adjustment**  
infinitely variable speed adjustment with rotary pulse encoder
- **Large color display**  
indications of speed, torque, power, product temperature, timer, peripheral speed and height of the dispersing tool
- **DISPERSAFE®**  
TÜV-certified safety module for convenient use of variable container sizes without limit switches or mechanical contraption
- **Height measurement**  
adjustable working range for different container sizes
- **Connectivity**  
USB

## Additional options

- **Data recording with curve representation**  
the dispersion parameters are shown as curves on the colour display, saved and can be exported as a CSV file
- **Switch off parameters**  
switch off function for temperature, speed, torque and power
- **DISPERMAT® parameters**  
100 individual PRESET configurations for speed, time, switch off parameters, etc.
- **Power compensation**  
net power calibration
- **Weight measurement**  
indication of weight from optional external scale
- **User management**  
configuration of user rights



## Large color display

The innovative and easy-to-operate control system allows extensive process control, showing all relevant data in the display. The figure shows the most important indications of the graphic display.

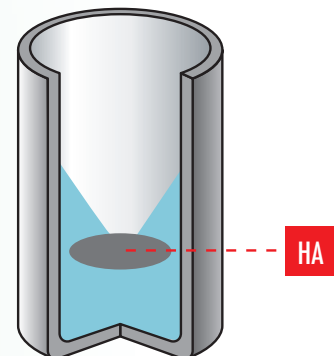
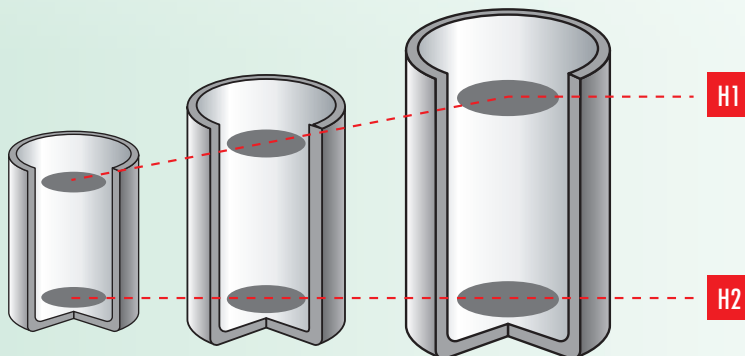
- Speed
- Power input
- Product temperature
- Timer, operating time
- Circumferential velocity of the dispersion tool
- Torque
- Current height of the dispersion tool

Different containers have different working ranges. Therefore, the CV technology make an individual adjustment of them possible. Thus, the dissolver disc can be prevented from having a contact with the container bottom or operating outside the working range. The current distance of the dissolver disc H2 is permanently shown in the display. This unique function provides support for all dispersion tasks and facilitates your work.

**H1:** When the rotating dissolver disc switches to position H1 during acceleration, the lifting motor is deactivated.

**H2:** When the rotating dissolver disc switches to position H2 during deceleration, the lifting motor is deactivated. The difference between H1 and H2 is the working range.

**HA:** The position of the dissolver disc is permanently displayed digitally so that the distance between H2 and dissolver disc can be adjusted exactly and reproducibly.





# APS bead mill

Bead mill accessory for DISPERMAT® dissolvers

**Optional:** Nano, ceramic, pressure and vacuum design

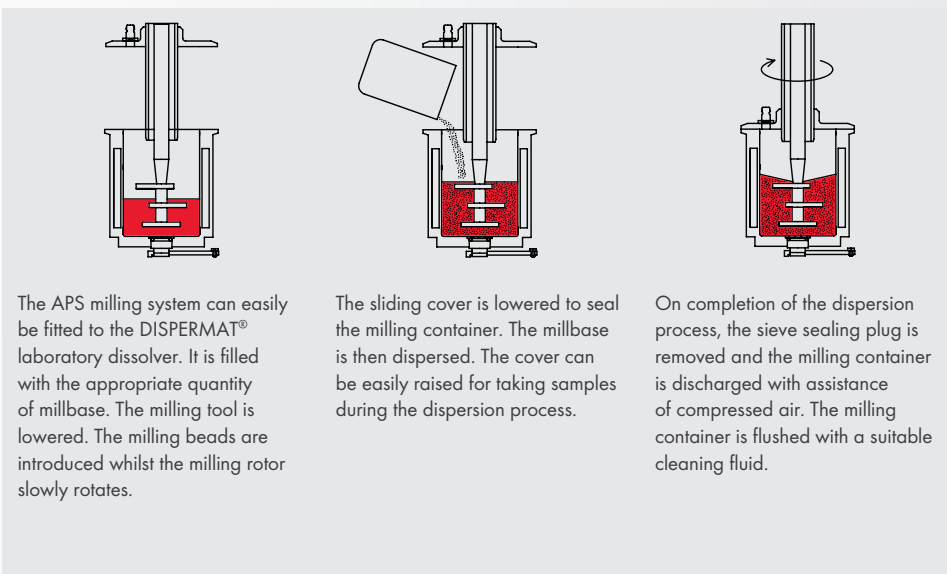
## Dispersing and fine grinding with one device: the APS bead mill accessory

In combination with an APS milling system, a DISPERMAT® laboratory dissolver changes into a closed batch bead mill. The system is easily adapted to the corresponding dissolver via the dissolver shaft or the adapter flange.

The DISPERMAT® can be used as a dissolver or as well as a bead mill.

### Bead mill APS: environmentally friendly and efficient milling technology

- easy to use milling systems
- dispersion in a closed system
- low energy consumption
- simple and secure handling
- fast change of milling beads
- very easy-to-clean







APS bead mill type	Container capacity litre	Product volume litre
APS 30 - APS 1000	0.03 - 1	0.08 - 0.5



# TORUSMILL® TML basket mill

Basket mill accessory for DISPERMAT® dissolvers

**Optional:** Nano, ceramic and vacuum design, scraping system

## TML basket mill: highly efficient fine milling system for DISPERMAT® dissolvers

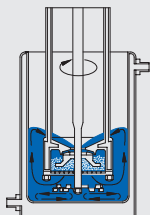
The modular TORUSMILL® TML basket mill accessory converts a DISPERMAT® dissolver into an extremely efficient batch bead milling system.

The dissolver shaft is easily replaced by the basket mill accessory without the need for any tool. Basket mills are highly efficient batch milling systems. An integral impeller pumping wheel agitates the beads and circulates the millbase through the basket.

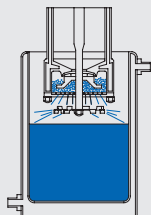
The milling basket is double-walled for cooling and has a screen that retains the milling beads but allows the millbase to pass through. An efficient circulation of the millbase through the basket ensures excellent dispersion results in a short period of time.

### Especially eco-friendly and efficient milling technology

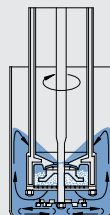
- excellent dispersion results in a short time
- excellent product circulation due to dissolver disc and pump wheel
- highly repeatable dispersion results
- uniform average residence time
- narrow particle size distribution
- no dead areas due to effective mill base circulation
- no escape of milling beads during the dispersion
- dispersion in a closed system
- low energy requirement
- Simple cleaning and quick change of millbase
- Especially user-friendly milling system: very simple and safe handling



The double-walled milling basket filled with beads is lowered into the millbase. Intense circulation of the product is generated with the dissolver disc and integrated pump wheel.



For assessment of the milling process – during dispersion – a product sample can be taken at any time. When the milling process is complete, the grinding basket is raised.



Product residue in the milling basket is centrifuged out by briefly running the milling and the dissolver discs. Cleaning the milling system is carried out with a suitable cleaning fluid in a separate container.







TML basket mill type	Container capacity litre	Product volume litre
TORUSMILL® TML 05	0.5, 1.2	0.25 - 1.4

Illustration: DISPERMAT® CV3evo  
with working platform made of NBR.



# CDS vacuum dispersion system

Modular vacuum system for DISPERMAT® dissolvers

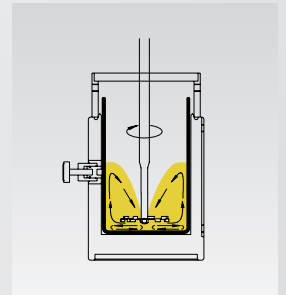
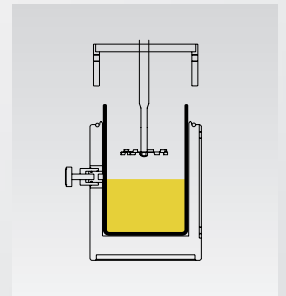
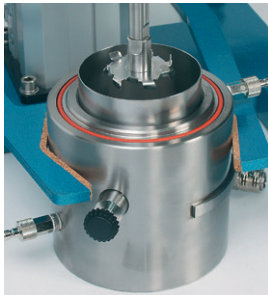
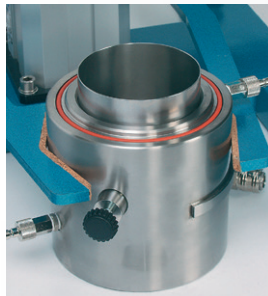
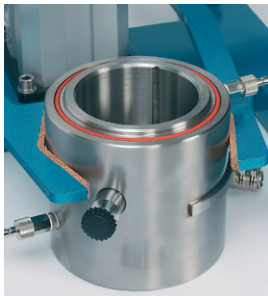
**Option:** single-walled or double-walled container holder

## Dispersion under vacuum with the modular CDS dispersion system

The CDS dispersion system enables the dispersion process to be carried out in single-walled containers in a closed system under vacuum. The single-walled containers are placed into the container holder and secured in place. If the dispersion process needs to be cooled a double-walled container holder is available. After the liquid and powder components have been added, the glass cover can be lowered onto the container holder over the vacuum shaft guide tube. The actual dispersion process can now be run and the product is set into a turbulence free rolling motion.

If vacuum is required the vacuum pump can be switched on. The impeller height can easily be raised or lowered during the dispersion process even under vacuum. The dispersion process can be observed clearly through the large glass cover.

The CDS system can be equipped with a particularly bright LED light as well as an integrated infrared temperature measurement system.





CDS vacuum system type	Container capacity litre	Product volume litre
CDS 250 - CDS 1000	0.25 - 1	0.1 - 0.7





# SR Homogenizer

Modular rotor–stator dispersion system  
for DISPERMAT® dissolvers

## Modular rotor–stator systems

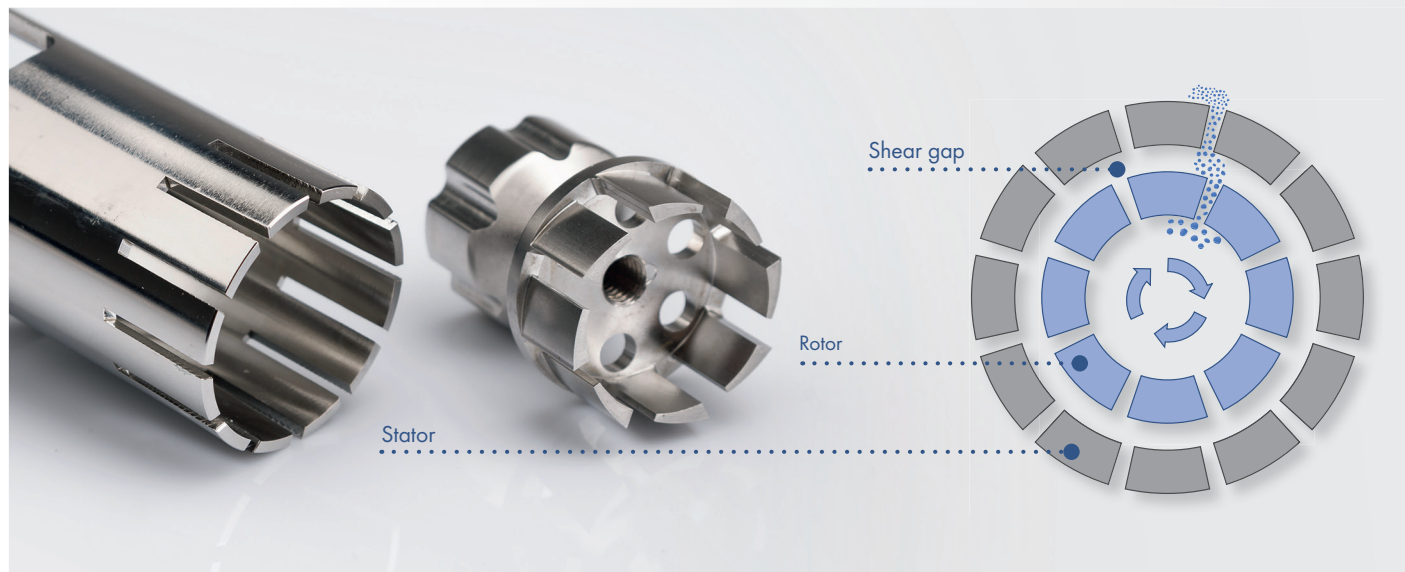
The rotor-stator systems SR03 and SR17 can be easily adapted with a quick coupling. The DISPERMAT® CV3evo has a powerful actuation with 0.75 kW. The high speed of 20,000 min<sup>-1</sup> generates the shear forces and impact effects required for the rapid homogenization of a medium.

This short processing time makes sure that the product is not stressed excessively.

The infinitely adjustable drive speed from 0 allows convenient work.

The bearing between the rotor and stator consists of especially high grade ceramic materials. The systems can be removed easily, cleaned simply and sterilized, if required.

In addition, the proven SR03 and SR04 bearing free rotor–stator systems are available.





SR rotor-stator  
type

Product volume  
litre

Rotor-Stator SR03 / SR17

0.5 - 5

Illustration: DISPERMAT® CV3evo  
with working platform made of NBR.



# Innovative stirring, dispersing and fine grinding **technology.**

Innovative dissolvers, basket mills, bead mills, rotor-stator homogenizers and stirrers for laboratory, pilot plant and production. Our experienced engineers will be pleased to provide you with personal advice.

**+49 2296 8030**

**[vma-getzmann.com](http://vma-getzmann.com)**







# Quality and precision made in Germany

## DISPERMAT® TORUSMILL®

Our experience, your advantage: Please visit us in our highly equipped laboratory and pilot plant for a personal product demonstration with your own materials. Our skilled engineers will be pleased to show you the impressive capabilities of our patented DISPERMAT® and TORUSMILL® dispersing and fine grinding systems. We are looking forward to your visit.

Please contact us: **+49 2296 8030**



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### DISPERMAT® TORUSMILL®

Innovative mixing, dispersing and fine grinding systems for laboratory, pilot plant and production. Made in Germany.

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Subject to technical modifications