DISPERMAT®
TORUSMILL®

Innovative stirring, dispersing and fine grinding systems for laboratory, pilot plant and production.

vma-getzmann.com

DISPERMAT®

Dissolvers for laboratory and pilot plant

The Dispersion Process

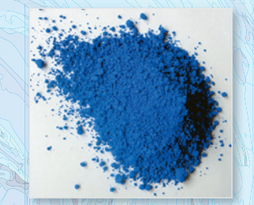
The most important function of the dissolver is the incorporation of solids into liquids. During this dispersion process, three individual steps are performed at the same time:

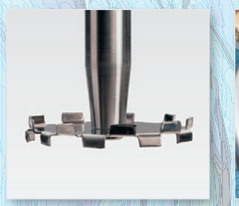
- Wetting of the surface of the solid particles by the fluid components of the millbase
- Mechanical break down of solid particles associated with each other (agglomerates and aggregates) to form smaller particles
- Stabilization of smaller particles generated during the dispersion process against reagglomeration

The application of a dissolver for high-speed dispersion differs considerably to stirring and mixing where low speeds and special tools are generally used. A high-speed dissolver is highly efficient and in many cases all that is needed to achieve the required dispersion result. If however, a finer dispersion result is desired, dispersion becomes a two step process, with the dissolver used for pre-dispersion, followed by further milling in a bead or basket mill.

Applications for dissolvers include:

- Dyestuffs and varnishes
- Pigments and additives
- Printing inks
- Chemistry
- Plastics
- Construction chemistry
- Electronics
- Adhesives
- Coatings
- Pharmacy and cosmetics
- Microbiology
- Agrochemicals





DISPERMAT® AE

Powerful dissolver up to 11 kW
with extensive process control

Dissolvers for reproducible dispersions in laboratory, pilot plant and production.

The popular and innovative DISPERMAT® AE dissolvers for laboratory, pilot plant and production are now available with a motor power up to 11 kW.

The operator has easy access to all of the machine controls from the control panel mounted conveniently on the machine stand.

The electric height adjustment as well as the control panel provides access to the complete control dispersion processes. Due to its process control the DISPERMAT® provides information about dispersion and milling processes.

DISPERMAT® pilot plant and production dissolvers with motors of 3 kW and larger are now equipped with one of the ergonomical stands of the H2SF/H3S-series. These functional and robust stands are equipped with an integrated safety device and an electric height adjustment. The stands are available in a table and a floor version.

The central clamping system is height adjustable and allows the application of the versatile modular accessories.

C – technology

- **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
- **Repeatability**
  dispersion method: constant speed or constant mechanical power input for optimum repeatability, temperature-based dispersing
- **Data recording**
  ecording of the process parameters with graphical indication
- **Switch off parameters**
  switch off function for temperature, speed, torque and power
- **Database**
  100 individual PRESET configurations for H1, H2, speed, time, switch off parameters, ramp function, etc.
- **DISPERSAFE®**
  TÜV-certified safety module for convenient use of variable container sizes without limit switches or mechanical contraption.
- **Power compensation**
  net power calibration
- **Height measurement**
  adjustable working range for different container sizes
- **Connectivity**
  USB, Wi-Fi, LAN

DISPERMAT® AE03 – AE06

DISPERMAT® AE03 – AE06 dissolver

The DISPERMAT® AE03 to AE06 dissolvers are well proven classical laboratory dissolvers which are idealy suited for dispersing both very small product volumes and larger formulations.

The high quality control system provides comprehensive data relating to the dispersion process and especially suitable not only for quality assurance but also for research and development assignments. The modular range of accessories ensure that the AE dissolvers are suitable for a wide variety of applications.

ACCESSORIES APS, TML, CDS, SR, ASC, TMS
Flexible. Powerful. Innovative.

PROCESS CONTROL C-TECHNOLOGY
Repeatable dispersion results

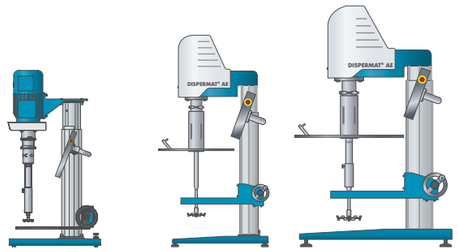
DISPERWHEEL® SPEED ADJUSTMENT
with rotary pulse encoder

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

HEIGHT ADJUSTMENT ELECTRIC
Easy handling, functional design

WORK SAFE DIRECTIVE 2006/42/EC
Integrated safety equipment

MADE IN GERMANY SINCE 1972
Quality, precision and durable technology



	DISPERMAT® AE01 – AE06 H2L STAND	DISPERMAT® AE07 – AE10 H2SF STAND	DISPERMAT® AE11 – AE12 H3S STAND
Dimensions W x H x D	70 x 142 x 55 cm	90 x 210 x 70 cm	120 x 237 x 105 cm
Height adjustment	electric	electric	electric
Container capacity	0.25 – 25 litres	15 – 100 litres	25 – 250 litres
Container clamping range	Ø = 5 – 35 cm	Ø = 25 – 61 cm	Ø = 30 – 75 cm
Container height	9 – 47 cm	25 – 74 cm	39 – 90 cm
Weight	87 – 101 kg	190 kg	350 kg

DISPERMAT® type	Power kW	Speed rpm	Torque Nm	Product volume, litre low-viscosity	medium-viscosity	high-viscosity	APS bead mill litre [page 146]	TML basket mill litre [page 148]	CDS vacuum system litre [page 76]	SR rotor-stator litre [page 104]	ASC scraper system litre [page 90]
AE03	1.1	0 – 10000	2	0.25 – 20	0.25 – 10	0.25 – 5	0.03 – 0.5	0.25 – 3.5	0.1 – 18	0.5 – 15	3.5
AE04	2.2	0 – 10000	4	0.25 – 20	0.25 – 15	0.25 – 7.5	0.03 – 1.5	0.25 – 11	0.1 – 18	0.5 – 15	3.5
AE05	1.1	0 – 6000	3.7	0.5 – 20	0.5 – 15	0.5 – 7.5	0.03 – 0.5	0.25 – 3.5	0.1 – 18	0.5 – 15	3.5
AE06	2.2	0 – 6000	7.4	0.5 – 20	0.5 – 20	0.5 – 10	0.03 – 2	0.25 – 11	0.1 – 18	0.5 – 15	3.5

Selection aid:
- *Product volume and viscosity*
- *Refer to page 22 for the container size and the dissolver disc diameter*

DISPERMAT® AE08 – AE10

DISPERMAT® AE08 – AE10 dissolver

AE08 – AE10 range of dissolvers features a new robust, smooth running and maintenance free H2SF electric stand. The motor mounting is specially designed to cope with the high torque generated by the powerful motors.

The quick release shaft system is modular and can easily be changed from a dissolver to a basket mill, vacuum system or rotor stator. These powerful dissolvers have a central clamping device and can be used with dispersion containers from 15 – 100 litres capacity.

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

PROCESS CONTROL C-TECHNOLOGY
Repeatable dispersion results

DISPERWHEEL® SPEED ADJUSTMENT
with rotary pulse encoder

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

HEIGHT ADJUSTMENT ELECTRIC
Easy handling, functional design

WORK SAFE DIRECTIVE 2006/42/EC
Integrated safety equipment

MADE IN GERMANY SINCE 1972
Quality, precision and durable technology

DISPERMAT® AE14

DISPERMAT® AE14 dissolver

DISPERMAT® AE14 small scale production dissolver incorporate the new high strength H3S, smooth running and maintenance free electric stand. The powerful dissolver has a central clamping device and can be used with dispersion containers from 25 - 250 litres capacity.

The removable dissolver shaft is fitted with a container cover that allows the dissolver disc height to be adjusted even during dispersion.
A unique C-technology control panel generates all of the data necessary to carry out efficient and repeatable dispersions.
For small scale basket milling the dissolver shaft can easily be exchanged with a TML basket mill.

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

PROCESS CONTROL C-TECHNOLOGY
Repeatable dispersion results

DISPERWHEEL® SPEED ADJUSTMENT
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DISPERSAFE® TÜV CERTIFIED
Safety module (EN ISO 13849-1)

HEIGHT ADJUSTMENT ELECTRIC
Easy handling, functional design

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Integrated safety equipment

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The applications of our high quality DISPERMAT® AE dissolvers are versatile:

- Paints and varnishes
- Pigments and additives
- Printing inks
- Chemistry
- Plastics
- Construction chemistry
- Electronics
- Adhesives
- Coatings
- Pharmacy and cosmetics
- Microbiology
- Agrochemicals

Selection aid:
- *Product volume and viscosity*
- *Refer to page 22 for the container size and the dissolver disc diameter*

DISPERMAT® type	Power kW	Speed rpm	Torque Nm	Product volume, litre low-viscosity	medium-viscosity	high-viscosity	APS bead mill litre [page 146]	TML basket mill litre [page 148]	CDS vacuum system litre [page 76]	CHS vacuum system litre [page 78]	SR rotor-stator litre [page 104]
AE08	4	0 – 6000	13.7	4 – 60	4 – 40	4 – 20	on request	2.5 – 25	3 – 18	5 – 25	15 – 70
AE10	4	0 – 3000	26.5	4 – 70	4 – 70	4 – 35	on request	5 – 25	3 – 18	5 – 25	15 – 70
AE14	11	100 – 3000	71.7	10 – 200	10 – 200	10 – 125	on request	???	???	???	???

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.

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DISPERMAT®
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www.vma-getzmann.com

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Subject to technical modifications