

Dispersion and Fine Milling in the Laboratory



DISPERMAT® LC
DISPERMAT® CV



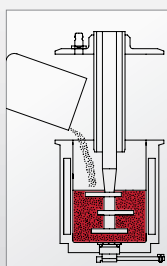
Innovation made in Germany: Modular Dispersing and Milling Systems

APS

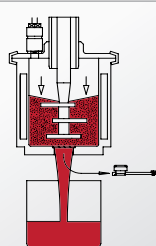
APS Milling System

Optional: Nano and ceramic version

When combined with the APS Milling System and a suitable impeller a DISPERMAT® laboratory dissolver is converted into a closed, batch bead mill.



The sliding cover is lowered to seal the milling container. The millbase is then dispersed.



On completion of the dispersion process, the sieve sealing plug is removed and the millbase is discharged from the milling container with the assistance of compressed air, leaving the beads behind.

APS system	millbase quantity*	container capacity	milling beads approx.
APS 30	12 ml	30 ml	12 ml
APS 50	20 ml	50 ml	20 ml
APS 125	50 ml	125 ml	50 ml
APS 250	60 - 110 ml	250 ml	100 ml
APS 500	110 - 210 ml	500 ml	200 ml
APS 1000	220 - 430 ml	1 litre	400 ml

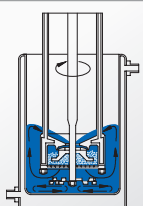


TML

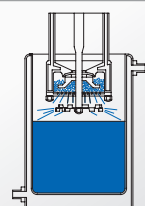
TML Basket Milling System

Optional: Nano, ceramic and vacuum version

The addition of the TML converts the DISPERMAT® into a closed basket milling system. Basket mills are extremely efficient grinding systems where a grinding basket is lowered into the millbase for dispersion. The rotating milling tool agitates the beads inside the basket which disperses the millbase. The dissolver disc, the basket and the patented pumping wheel generate effective circulation of the millbase, helping to provide excellent dispersion results in a short period of time.



Intense circulation of the product is generated with the dissolver disc and integrated pump wheel.



When the milling process is complete, the grinding basket is raised. Any product remaining in the basket is centrifuged out by briefly running the milling and dissolver disc.

TML system	millbase quantity*	container capacity	milling chamber
TML 05	250 ml	500 ml	43 ml
TML 1	500 ml - 3 litres	1, 2, 3, 5 litres	65 ml

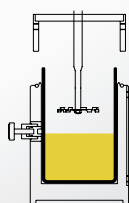


CDS

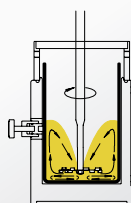
CDS Vacuum Dispersion System

Optional: Single or double walled container holder

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. The liquid and powder components are added and the glass cover lowered into place. The actual dispersion process can then be carried out under vacuum.



The single walled container is placed in the single or double walled container holder and the liquid and powder components are added.



After pre-mixing, the dispersion starts under vacuum. The dispersion process can be continuously monitored through the glass cover.

CDS system	product volume *	container size	container dimensions
CDS 250	200 ml	250 ml	dia.: 65 mm / height: 85 mm
CDS 500	400 ml	500 ml	dia.: 80 mm / height: 100 mm
CDS 1000	700 ml	1 litre	dia.: 100 mm / height: 130 mm
CDS 2000	1.5 litres	2 litres	dia.: 120 mm / height: 180 mm
CDS 3000	2.2 litres	3 litres	dia.: 140 mm / height: 200 mm

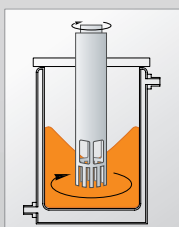


SR

SR 03/04

Rotor-Stator System

The SR rotor-stator system is a dispersion system for batch processing low viscosity products. The bearing free stator is an ideal flow breaker. It prevents rotation of the product and provides input of mechanical energy in a very concentrated area.

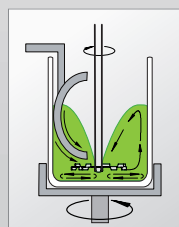


ASC

Scraper ASC

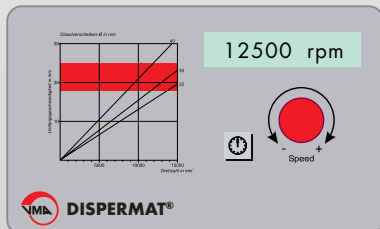
for high viscosity products

In order to guarantee a perfect dispersion even with very high viscosity and non-flowing substances, very often a scraper system is absolutely essential. With the scraper system ASC the scraper arm is not guided in a circle within the container as usual but the firmly clamped container is rotating and the scraper arm stands still. The handling is very easy: the scraper system ASC is simply pushed into the stand and fixed with the central container clamping system.



DISPERMAT® LC30

LC-TECHNOLOGY



LC-controls for the DISPERMAT® LC30, LC55 and LC75:

- adaptive turn sensitive speed adjustment
- digital speed indication
- timer function with digital display of the pre-selected time as well as the elapsed time



CDS

+

SR

APS

DISPERMAT® LC30: 0.3 kW / 0 – 20000 rpm

Proven laboratory dissolver with the latest motor technology

The DISPERMAT® LC30 is an efficient high speed dissolver which is suitable for various applications including dispersion and homogenisation.

The motor is convection cooled and is extremely quiet during operation.



DISPERMAT® LC55 and LC75



DISPERMAT® LC55: 0.55 kW / 0 – 20000 rpm

DISPERMAT® LC75: 0.75 kW / 0 – 20000 rpm

Strong laboratory dissolver with timer and central clamping system

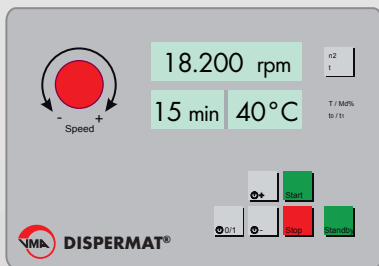
The DISPERMAT® LC55/LC75 is a strong laboratory dissolver which can be used for small as well as large millbase volumes.

In order to comply with the latest safety directives and reduce the risk of injuries caused by the rotating dissolver disc, these DISPERMAT® dissolvers are fitted with a safety device.



DISPERMAT® CV3

CV-TECHNOLOGY



CV-controls for the DISPERMAT® CV3 and CV4:

- adaptive turn sensitive speed adjustment
- digital display of speed and torque
- timer function with display of the pre-selected time as well as the elapsed time
- adjustment to a second speed by the timer
- connection for PT100 with digital display of the product temperature

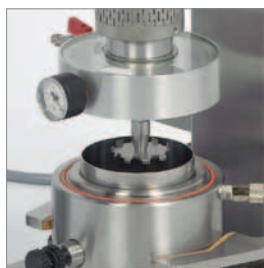


DISPERMAT® CV3: 0.75 kW / 0 – 20000 rpm

The compact all-rounder for the laboratory

The DISPERMAT® CV3 has digital displays for speed, torque, time and product temperature. An additional timer enables the speed to be changed automatically to another setting.

The ergonomically designed stand with a precision linear guide for easy height adjustment, is available with a stainless steel or painted column.



DISPERMAT® CV4



DISPERMAT® CV4: 1.5 kW / 0 – 20000 rpm

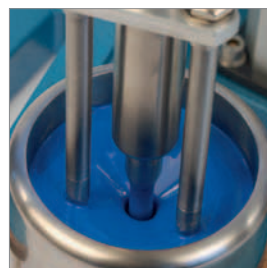
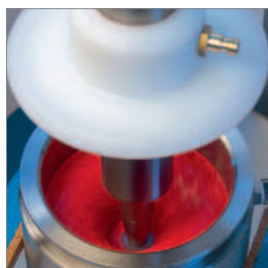
Designed with the requirements in practice

The DISPERMAT® CV4 is a universally usable laboratory and pilot plant dissolver, which is ideal for research and development tasks as well as for larger formulations.

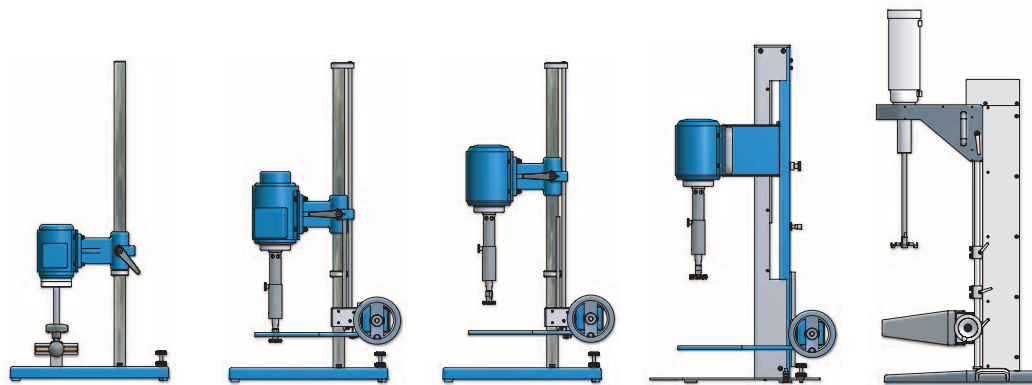
The heat generated during the operation of the AC motor is dissipated over the surface of the motor housing.

This ensures a very quiet motor operation.

The stand convinced by its very solid and robust design.









Technical data DISPERMAT® LC and CV:



	DISPERMAT® LC30	DISPERMAT® LC55	DISPERMAT® LC75	DISPERMAT® CV3	DISPERMAT® CV4
speed	0 – 20000 rpm	0 – 20000 rpm	0 – 20000 rpm	0 – 20000 rpm	0 – 20000 rpm
power	0.3 kW	0.55 kW	0.75 kW	0.75 kW	1.5 kW
torque	0.4 Nm	0.6 Nm	0.8 Nm	0.8 Nm	1.5 Nm
control panel	LC	LC	LC	CV	CV
timer	●	●	●	●	●
product temperature indication	–	–	–	●	●
Switch over to a second speed	–	–	–	●	●
stand	H1	H1	H1	BK1	BK2G
container clamping	●	–	–	–	–
central clamping system	–	●	●	●	●
safety device	–	●	●	●	●
container diameter	50 – 250 mm	50 – 250 mm	50 – 250 mm	50 – 250 mm	50 – 350 mm
dimensions	42 x 42 x 85 cm	53 x 42 x 85 cm	53 x 42 x 85 cm	62 x 46 x 89 cm	86 x 59 x 120 cm
weight	31 kg	38 kg	45 kg	55 kg	80 kg

Product quantities and adaptable accessories

	Dissolver	50 ml – 1 litre	50 ml – 3 litres	50 ml – 5 litres	50 ml – 5 litres	50 ml – 10 Liter
	modular bead mill APS	APS 30 – APS 250	APS 30 – APS 500	APS 30 – APS 1000	APS 30 – APS 1000	APS 30 – APS 1000
	modular basket mill TML	–	–	TML 05	TML 05	TML 1
	modular vacuum system CDS	CDS 250 – CDS 1000	CDS 250 – CDS 1000	CDS 250 – CDS 2000	CDS 250 – CDS 2000	CDS 250 – CDS 3000
	modular rotor-stator SR	SR 03	SR 03	SR 03	SR 03	SR 04
	modular scraper system ASC	–	–	–	–	ASC 500 – ASC 5000

* Product volumes are based on medium viscosity. The actual volume may differ depending on the flow behaviour of the product.
With high viscous products the TML can be combined with the modular scraper system ASC.

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