

## PT 2500 E

*Economical and  
technically  
superior*

*Homogenizing  
and Mixing  
Technology for  
the laboratory*

**DISPERSING**

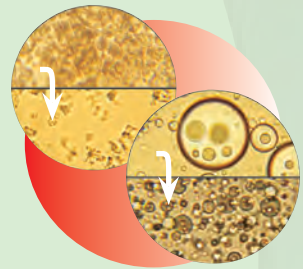
**HOMOGENIZING**

**EMULSIFYING**

**SUSPENDING**

**WET MILLING**

**MIXING**



# KINEMATICA.CH

Dispersing and Mixing Technology

# PT 2500 E - powerful, sturdy, noiseless

**KINEMATICA AG** is the leading manufacturer of homogenizing, mixing and milling equipment based on our technology of rotor/stator dispersing principles.

The **POLYTRON® PT 2500 E** extends our standard line «small» (Lab „small“, 0.05 ml - 2000 ml) by a powerful benchtop homogenizer with LED speed indication and replaces the **POLYTRON®** devices PT 1600 E and PT 2100.

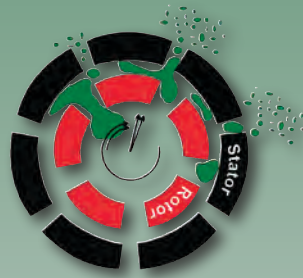
When two become one: The new drive gains the performance from the proven PT 2100 and the quick coupling from the PT 1600 E extended with newest electronic regulation, LED display and housing for noise reduction.

This new unit offers the user the same well known **KINEMATICA** high quality properties for a fast and successful sample preparation, a good way to enter the world of homogenizing with **POLYTRON®**, the number one in dispersing and mixing based on the Rotor/Stator technology.

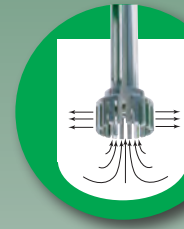
The dispersing system **POLYTRON® PT 2500 E** convinces with the following features:

- 500 Watt motor power
- Integrated electronic speed regulation/ stabilisation with control knob
- LED speed indicator
- Soft-start
- Rotor speed range from 500 up to 30'000 rpm
- Quick coupling for dispersing aggregates (Type E)
- Space saving “slim line” design
- Interchangeable dispersing aggregates in EC design from Ø 3mm to Ø 25mm
- CE label, compliant with RoHS, UL/ CSA

## PRINCIPAL OF PROCESS



Rotor / Stator principle



POLYTRON® batch principle



The Rotor/Stator principle for dispersing and homogenizing equipment, originally invented by KINEMATICA, has become the worldwide accepted standard for homogenizing and dispersing a solid or fluid or gaseous phase into a fluid phase.

The dispersing aggregates of the **POLYTRON®** and **BIOTRONA®** batch dispersing systems are directly immersed into the medium. The product will be processed by the rotor/stator dispersing generator at the tip of the dispersing aggregate.

**POLYTRON®** Rotor/Stator homogenizers successfully process emulsions, suspensions and foams by reducing the size of solid particles, droplets and gas bubbles to a few microns or less. Small and large amounts of product are being dispersed in a more economical, faster and better way than with any other device.

## TECHNICAL DATA



Motor Power, Type	500 W, Universal motor
Speed control	integrated electronic speed regulation with control knob, LED indication
Soft Start	Yes
Supply Voltage	230V / 100 - 120V, 50/60 Hz
Speed	500 - 30'000 rpm
Direction of rotation	clockwise, seen from above
Noise emission	approx. 66dB(A) at 25'000 rpm approx. 72dB(A) at 30'000 rpm
Ambient temperature	0 - 50°C
Relative humidity	95% max.
Standards	CE label, EN / IEC 61010, 61326-1 for EMC & SAFETY
Protection class	IP 20
Dimensions (drive only)	157 x 76 x 236 mm (LxWxH)
Weight (drive only)	1.8 kg



# Further Equipment & Order information

## EASYCLEAN DISPERSING AGGREGATES



The modern **EC** aggregates are equipped with saw-teeth, that increase their efficiency in the preliminary size reduction of the droplets/particles and considerably shortens the processing time. The tips of the teeth are secured by a ring which avoids the teeth from bending. The whole dispersing aggregate is made from superior grade stainless steel (1.4435/316L). All these POLYTRON® EC dispersing aggregates are equipped with special slide bearings, which have extraordinary mechanical characteristics and superior chemical resistance. They can be dismantled simply, easily cleaned and sterilised or autoclaved.

## CONTROL KNOB / DIGITAL DISPLAY



With the drive unit POLYTRON® PT 2500 E, stepless rotor speeds up to 30'000 rpm can easily be adjusted (depending on the chosen dispersing aggregate and the product to be treated) and read out from the visual LED speed indicator.

## QUICK COUPLING



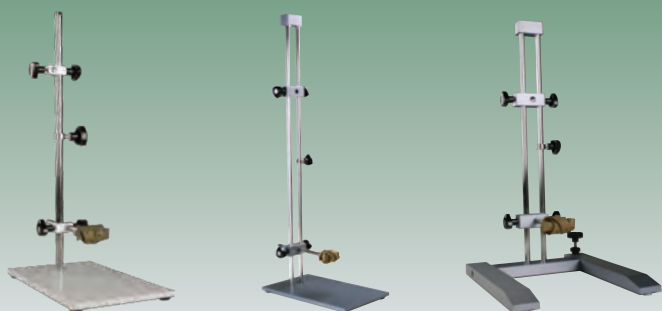
A unique quick coupling system (Type E) allows to mount or change the dispersing aggregate with one hand within seconds.

### DRIVE UNIT



Order No.	Description
11010056	PT 2500 E, 230V (CH-plug)
11010055	PT 2500 E, 230V (EU-plug)
11010057	PT 2500 E, 230V (UK-plug)
11010058	PT 2500 E, 100-120V

### STANDS & EQUIPMENT



Order No.	Description
11040015	ST-P11/600 - Plate stand (one rod design)
11040051	ST-P20/600 - Plate stand (two rod design)
11040020	ST-F20/600 - H-shape feet stand
11045010	Vessel holder with boss head for ST-P11/600
11045011	Vessel holder with boss head for ST-F20/600 / ST-P20/600
11045030	Safety positioning ring for ST-P11/600
11045031	Safety positioning ring for ST-F20/600 / ST-P20/600

### DISPERSING VESSELS



#### The suitable dispersing vessel

The following overview should help you to find the correct working vessel for your application. We will be pleased to provide you with further information on other vessels and about special designs as well.

Description	Order No.	Dim. (mm) Ø / H	Working Vol.	Model	
GS 15	11050010	30 / 150	35 ml	Clover leaf shaped Borosilicate glass	top open with cover
GS 25	11050011	55 / 150	150 ml		
GS 40	11050012	80 / 200	500 ml		
GS 50	11050013	90 / 250	1000 ml		
GS 60	11050014	100 / 300	1300 ml		
GS 15 K	11050020	30 / 150	35 ml		Cylindrical
GS 25 K	11050021	55 / 150	150 ml		
GS 40 K	11050022	80 / 200	500 ml		
GS 50 K	11050023	90 / 250	1000 ml		
GS 60 K	11050024	100 / 300	1300 ml		
GS 15 KL 7.5	11050030	30 / 150	35 ml	with screw cap tapered fitting 7.5, 12, 20 or 25 mm glas inlet (as above)	
GS 25 KL 12	11050031	55 / 150	150 ml		
GS 25 KL 20	11050032	55 / 150	150 ml		
GS 40 KL 25	11050034	80 / 200	500 ml		
GS 50 KL 25	11050036	90 / 250	1000 ml		
GS 60 KL 25	11050038	100 / 300	1300 ml		
GS 100 Z	11050060	100 / 150	900 ml	Cylindrical	top open without cover
GS 130 Z	11050061	125 / 170	2000 ml		

## DISPERSING AGGREGATES (CHOICE)

Further Dispersing Aggregates on request

Model	PT-DA 03/2 EC-E050	PT-DA 05/2 EC-E085	PT-DA 07/2 EC-E107	PT-DA 07/2 SYN-E082	PT-DA 12/2 EC-E123	PT-DA 20/2 EC-E170	PT-DA 25/2 FEC-E170
Ident-No.	11030004	11030012	11030031	11030030	11030062	11030073	11030091
Volume	0.05 - 2 ml	0.1 - 5 ml	0.3 - 10 ml	0.3 - 10 ml	2 - 250 ml	100 - 2'000 ml	100 - 2'000 ml
Application	<ul style="list-style-type: none"> <li>Dispersing of small quantities of plant, animal or humantissues (also in round Eppendorf-Tubes)</li> </ul>	<ul style="list-style-type: none"> <li>Dispersing of small quantities of plant, animal or humantissues</li> <li>Dissolving of solids</li> <li>Unlocking of cells</li> </ul>	<ul style="list-style-type: none"> <li>Dispersing of cell tissues in a small amount of liquid</li> <li>Dissolving of solids</li> </ul>	<ul style="list-style-type: none"> <li>Extraction</li> <li>Producing of suspensions and emulsions</li> <li>"Single-use" - Applications, Pack à 25pcs (sterile-packed)</li> </ul>	<ul style="list-style-type: none"> <li>Dispersing of cells and tissues in a small amount of liquid</li> <li>Extractions</li> </ul>	<ul style="list-style-type: none"> <li>Dispersing of tissues, resins and pigments in liquid</li> <li>Extractions</li> <li>And many others...</li> </ul>	<ul style="list-style-type: none"> <li>Producing of creams and ointments, coating solutions for tablets, gels, shampoo...</li> <li>For medium to very fine particle/ droplet sizes</li> </ul>

# HOMOGENIZING AND MIXING TECHNOLOGY

**POLYTRON®**  
DISPERSING AND MIXING TECHNOLOGY BY KINEMATICA

**BIOTRONA®**  
DISPERSING AND MIXING TECHNOLOGY BY KINEMATICA

**POLYMIX®**  
DISPERSING AND MIXING TECHNOLOGY BY KINEMATICA

**MEGATRON®**  
DISPERSING AND MIXING TECHNOLOGY BY KINEMATICA

**REACTRON®**  
DISPERSING AND MIXING TECHNOLOGY BY KINEMATICA

A wide range of products with the finest solution for every application, matched by the superior quality of all components make KINEMATICA a world leader for Dispersing and Mixing technology.

## With Keen Eyes ...

Development knows no rest at KINEMATICA. Our systems are constantly upgraded to reflect the state-of-the-art technology and the needs of the market. KINEMATICA has always had a keen eye for major advances, as proven by various patents. The rotor/stator principle for dispersing technology was conceived and developed at KINEMATICA and has become the world standard.

## ... For Your Needs

Applications for Dispersing/Homogenizing Technology are always on the increase. KINEMATICA continually creates new areas of processing applications based on innovations. We do not neglect the human factor as it is exemplified by the safe and comfortable operation and noise reduction of our high-speed systems.

Please, get in touch with us, our local appointed agent or your preferred dealer. We will be pleased to supply more details or arrange a personal demonstration of our POLYTRON® and MEGATRON® systems.

**POLYTRON®** Finest Swiss Made Solutions... worldwide! +

**PT 3100 D**

Digital High-End Benchtop Homogenizer with PC Interface

Homogenizing and Mixing Technology for the Laboratory

DISPERSING  
HOMOGENIZING  
EMULSIFYING  
SUSPENDING  
WET MILLING  
MIXING



**KINEMATICA.CH**  
Dispersing and Mixing Technology  
www.kinematika.ch

**MEGATRON®** Finest Swiss Made solutions... worldwide! +

**MT 3000**

Inline homogenizer for throughputs up to 40 l/min

LAB Scale continuous In-Line/Recirculating

Homogenizing and Mixing Technology for the laboratory

DISPERSING  
HOMOGENIZING  
EMULSIFYING  
SUSPENDING  
WET MILLING  
MIXING



**KINEMATICA.CH**  
Dispersing and Mixing Technology  
www.kinematika.ch

Finest Swiss Made solutions... worldwide! +

**POLYTRON®**  
**POLYMIX®**  
**MEGATRON®**  
**REACTRON®**

Homogenizing and Dispersing Technology for

**Laboratory & Pilot Plant**

HOMOGENIZING  
EMULSIFYING  
SUSPENDING  
WET MILLING  
MIXING  
DRY MILLING  
FOAM PRODUCTION  
POWDER INTRODUCTION



**KINEMATICA.CH**  
Dispersing and Mixing Technology  
www.kinematika.ch

Finest Swiss Made solutions... worldwide! +

**POLYTRON®**  
**MEGATRON®**  
**POLYMIX®**  
**REACTRON®**

Homogenizing and Dispersing Technology for

**Pilot Plant & Production**

HOMOGENIZING  
EMULSIFYING  
SUSPENDING  
WET MILLING  
MIXING  
POWDER INTRODUCTION  
FOAM PRODUCTION



**KINEMATICA.CH**  
Dispersing and Mixing Technology  
www.kinematika.ch