DISPERSING AND MIXING TECHNOLOGY BY KINEMATICA

# PT 1200 E

Ergonomic handheld homogenizer

Homogenizing and Mixing Technology for the laboratory

DISPERSING

HOMOGENIZING

EMULSIFYING

SUSPENDING

WET MILLING

MIXING





www.kinematica.ch

"handheld" (0.05 - 250 ml) Economic

Finest Swiss Made Solutions...

POLTRONS

... worldwide!

#### **DISPERSING / HOMOGENIZING / EMULSIFYING / SUSPENDING / WET MILLING**

# Homogenizer for small sized lab sample treatment

The Rotor/Stator principle for homogenizing equipment, originally invented by KINEMATICA, has become the accepted standard for homogenizing, dispersing and emulsifying worldwide.

The **POLYTRON® PT 1200 E** "*Eco Line*" System belongs within the KINEMATICA homogenizer product range to the handheld models for small sized applications in the range of approx. 0.05 - 250 ml.

The POLYTRON<sup>®</sup> PT 1200 E Handheld Homogenizing System features:

- unique ergonomic and
- user friendly design
- 100 Watt powerful low voltage motor with safety power supply
- speed regulation up to 25 000 RPM
- fast coupling for quick change of the Dispersing-Aggregate
- CE label

# POLYTRON<sup>®</sup> *EasyClean* Dispersing Aggregates

The modern *EC* aggregates are equipped with saw-teeth which increase the 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 safety ring which avoids the teeth from bending. The whole dispersing aggregate is made from *superior grade stainless steel (1.4435/316L)* and is *electropolished*.

POLYTRON<sup>®</sup> EC dispersing aggregates are equipped with special slide bearings made from a Teflon compound, which have extraordinary mechanical characteristics and superior chemical resistance and FDA approval.

The complete aggregate can be dismantled in two to three steps, easily cleaned and sterilised i.e. autoclaved.

Technical Data							
Rectification Data							
Motor Power, Type	100 W / 24V Low Voltage Motor						
Speed control	integrated speed regulation with control knob						
Soft Start	Yes						
Supply Voltage	230V / 100-120V, 50/60 Hz (Transformer)						
Supply Voltage Speed max.	230V / 100-120V, 50/60 Hz (Transformer) 0 - 25'000 rpm						
Speed max.	0 - 25'000 rpm ≤ 76 dB (A) at approx. 25'000 rpm						
Speed max. Noise emission	0 - 25'000 rpm ≤ 76 dB (A) at approx. 25'000 rpm ≤ 66 dB (A) at 20'000 rpm						
Speed max. Noise emission Ambient	0 - 25'000 rpm ≤ 76 dB (A) at approx. 25'000 rpm ≤ 66 dB (A) at 20'000 rpm 0 - 40°C, 95% max. rel. humidity EN / IEC 61010, 61326-1 für EMV &						
Speed max. Noise emission Ambient Standards	0 - 25'000 rpm ≤ 76 dB (A) at approx. 25'000 rpm ≤ 66 dB (A) at 20'000 rpm 0 - 40°C, 95% max. rel. humidity EN / IEC 61010, 61326-1 für EMV & SAFETY						



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



The complete EC aggregate can be dismantled in two to three steps, easily cleaned and sterilised i.e. autoclaved.

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## **Further Equipment & Order information**

		Order No.	Description	
	<b>A</b>	11010027	PT 1200 E, 230V (CH)	
unit		11010025	PT 1200 E, 230V (EU)	
	11010028	PT 1200 E, 230V (UK)	Drive unit with power supply	
	and the second se	11010026	PT 1200 E, 100-120V	
Drive		11035002	Adapter PT-DA / PT-DA (E/C)	Allows to use PT-DA-Aggregates for C-coupling (PT1200C,CL,B)

		Order No.	Description	Rotor-Ø /	Type of	Length of	Tip speed		
5				Stator-Ø	coupling	shaft	(max.)		
cites		Ø 3mm Dispersing-Aggregate							
5		11030004	PT-DA 03/2EC-E050	2.2/3.5 mm	E	50 mm	3 m/s		
		Ø 5mm Dispe	ersing-Aggregate						
Ľ		11030012	PT-DA 05/2EC-E085	3/5.5 mm	E	85 mm	4 m/s		
Aggr		Ø 7mm Dispersing-Aggregate							
	OR ANIA	11030031	PT-DA 07/2EC-E107	5/7.8 mm	E	107 mm	6.5 m/s		
5		11030030	PT-DA 07/2SYN-E082	5/7.8 mm	E	82 mm	6.5 m/s		
			(Package at 25 pcs each sterilely						
			packed)						
	•	Ø 12mm Disp	persing-Aggregate						
N.		11030047	PT-DA 12/2EC-E123	9/12 mm	E	123 mm	12 m/s		
		11030049	PT-DA 12/2WEC-E157	9/12 mm	E	157 mm	12 m/s		

		Order No.	Description
Stand	Holder System for drive unit, transformer, four dispersing aggregates and two tools (the holder system with order number 11040006 is not including drive unit, transformer, dispersing aggregates and tools)	11040006	HS 1200 E

	The suitable dispersing	Description	Order No.	Dim. (mm) Ø / H	Working Vol.			Model
S S S S S S S S S S S S S S S S S S S	vessel	GS 15 GS 25	11050010 11050011	30 / 150 55 / 150	35 ml 150 ml			top open with cover
Vessels	Most effective are the specially designed cloverleaf shaped dispersing vessels. Thanks to		11050020 11050021	30 / 150 55 / 150	35 ml 150 ml	aped	lass	with screw cap glas inlet: GS 15K Ø 9 mm GS 25K Ø 25 mm
Dispersing	spersing vessels. Thanks to the concentrated turbulences by uilt in baffles, the working the is reduced considerably	GS 15 KL 7.5 GS 25 KL 12	11050030 11050031	30 / 150 55 / 150	35 ml 150 ml	Clover leaf shaped Borosilicate glass	Borosilicate	with screw cap tapered fitting 7.5 or 12 mm glas inlet (as above)

### Dispersing Aggregates (choice)

		· · · · · · · · · · · · · · · · · · ·				
Model	PT-DA 03/2EC-E050 • Standard model • Rotor/Stator with one teeth row each	PT-DA 05/2EC-E085 • Standard model • Rotor/Stator with one teeth row each	PT-DA 07/2EC-E107 • Standard model • Rotor/Stator with one teeth row each	PT-DA 07/2SYN-E082 • Synthetics Aggregate • Rotor/Stator with one teeth row each	PT-DA 12/2EC-E123 • Standard model • Rotor/Stator with one teeth row each	PT-DA 12/2WEC-E157 • W-generator model • Rotor/Stator with one teeth row each
Working Volume (based upon water)	0.05 - 2 ml	0.1 - 5 ml	0.3 - 10 ml	0.3 - 10 ml	2 - 250 ml	2 - 250 ml
Applications	<ul> <li>Dispersing of small quantities of plant, animal or humantissues (also in round Eppendorf-Tubes)</li> <li>Unlocking of cells</li> <li>Dissolving of solids</li> <li>Extraction</li> </ul>	<ul> <li>Dispergieren von pflanz- lichen, humanen oder tierischen Feingewebe (also in round Eppendorf- Tubes)</li> <li>Unlocking of cells</li> <li>Dissolving of solids</li> <li>Extraction</li> </ul>	<ul> <li>Dispersing of cells and tissues in a small amount of liquid</li> <li>Unlocking of cells</li> <li>Dissolving of solids</li> <li>Extraction</li> </ul>	<ul> <li>Dispersing of cells and tissues in a small amount of liquid</li> <li>Unlocking of cells</li> <li>Dissolving of solids</li> <li>Extraction</li> <li>"Single-use" applications</li> </ul>	<ul> <li>Dispersing of plant, human or animal tissues, resins and pigments</li> <li>Dissolving of solids</li> <li>Extraction</li> <li>Production of suspensions and emulsions</li> </ul>	Dispersing of fibrous, stringy and brittle samples (e.g. flesh)

### HOMOGENIZING AND MIXING TECHNOLOGY



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 KINEMA-TICA. 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<sup>®</sup> and MEGATRON<sup>®</sup> systems.



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Finest Swiss Made solutions ....

POLYTRON

10-35 GT

lide range o

Finest Swiss Made solutions... worldwidel 🕂

PT 1600 E

Finest Swiss Made Solutions... worldwide!