

PT 1300 D

*Digital handheld
homogenizer*

*Homogenizing and
Mixing Technology
for the laboratory*

DISPERSING

HOMOGENIZING

EMULSIFYING

SUSPENDING

WET MILLING

MIXING



KINEMATICA.CH

Dispersing and Mixing Technology

POLYTRON® PT 1300 D - innovative, elegant, comfortable

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

The POLYTRON® PT 1300 D belongs within the KINEMATICA homogenizer program to the handheld models for small scale applications in the range of approx. 0.05 - 250 ml.

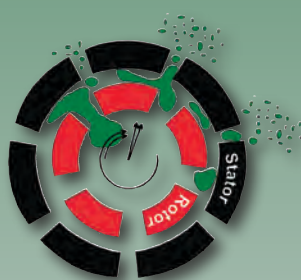
The POLYTRON® PT 1300 D handheld homogenizer is equipped with a 100 Watt powered drive system and control unit which is supplied with 24V safety current by the Power and Supply unit.

The intelligent electronical control system proofs steadily the given speed at the drive system and informs about discrepancy by changing viscosity.

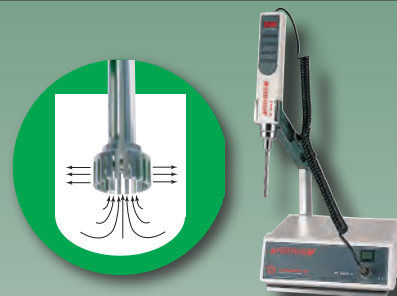
The dispersing system POLYTRON® PT 1300 D convinces with the following features:

- 100 Watt/24 V powerful drive
- Intelligent control system
- Digital Display
- RS232 PC-Interface (optional)
- MEMO function
- Foil keyboard
- Variable speed between 7000 and 30000 rpm
- Quick coupling for the dispersing aggregates

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	100 W (input) / 50 W (output) Brushless, wear-free motor
Speed control	Intergarted speed regulation, foil keyboard
Supply Voltage	230 V at 50 Hz or 100-120 V at 60 Hz
Speed max.	30'000 rpm
Noise emission	65 dB(A) at 30'000 rpm
Ambient	0 - 40°C, 95% max. rel. humidity
Standards	IEC/EN 61000-6-2 / EN 61000-6-3 IEC/EN 61010-2-51
Protection class	IP 20
Dimensions	210x40x45 mm (Drive unit) 230x205x95 mm (Power and Supply unit)
Weight	2100 g (Power and Supply unit) 600 g (Drive unit)

Further Equipment & Order information


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® 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.


Digital Display



With the POLYTRON® PT 1300 D - depending on the chosen dispersing aggregate and the material to be processed - infinitely variable speeds between approx. 7000 and 30 000 rpm can easily and exactly be adjusted and can be read-out from the digital display.


Thanks to the digital display at the POLYTRON® PT 1300 D it is finally possible to work under reproducible conditions with a handheld unit. Additionally a specific speed for the application can be memorized and recalled with a finger tip (MEMO function).

Quick Coupling



Drive and Power unit	Order No.	Description
	11010030	PT 1300 D, 230 V (EU-plug)
	11010031	PT 1300 D, 230 V (CH-plug)
	11010039	PT 1300 D, 230 V (UK-plug)
	11010032	PT 1300 D, 100 - 120 V

Stands	Order No.	Description
	11040010	ST-P00/200 - Hinged stand
	11040011	ST-P12/600 - Plate stand

Dispersing Vessels		<p>The suitable dispersing vessel</p> <p>The following overview should help you to find the correct working vessel for your application.</p> <p>We will be pleased to provide you with further information on other vessels and about special designs as well.</p>	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			with screw cap
			GS 15 K	11050020	30 / 150	35 ml			glas inlet:
			GS 25 K	11050021	55 / 150	150 ml			GS 15K Ø 9 mm
			GS 15 KL 7.5	11050030	30 / 150	35 ml	with screw cap tapered fitting 7.5, 12, 20 mm glass inlet (as above)		
			GS 25 KL 12	11050031	55 / 150	150 ml			
GS 25 KL 20	11050032	55 / 150	150 ml						

Dispersing Aggregates (choice)						
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-E157	PT-DA 12/2 WEC-E157
Ident-No.	11030004	11030009	11030024	11030030	11030042	11030060
Volume	0.05 - 5 ml	0.1 - 0.5 ml	0.3 - 10 ml	0.3 - 10 ml	100 -2000 ml	100 -2000 ml
Application	<ul style="list-style-type: none">Dispersing of small quantities of plant, animal or humantissuesDissolving of solids	<ul style="list-style-type: none">Dispersing of cell tissues in a small amount of liquidDissolving of solids	<ul style="list-style-type: none">ExtractionProducing of suspensions and emulsions	<ul style="list-style-type: none">Dispersing of cells and tissues in a small amount of liquidDissolving of solidsExtractions"Single-use" - Applications	<ul style="list-style-type: none">Dispersing of cells and tissues in a small amount of liquidDissolving of solids	<ul style="list-style-type: none">Dispersing of fibrous, stringy and brittle samples (e.g. flash)
						

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 1200 E

Ergonomic hand-held homogenizer

Homogenizing and Mixing Technology for the laboratory

DISPERSING
HOMOGENIZING
EMULSIFYING
SUSPENDING
WET MILLING
MIXING

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PT 10-35 GT

Benchtop lab homogenizer for a wide range of applications

Homogenizing and Mixing Technology for the laboratory

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Laboratory & Pilot Plant

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Pilot Plant & Production

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FOAM PRODUCTION

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