

# Homogenizers

# HOMOGENIZERS Hand Held, BenchTop, 160Watt, 0.1–250ml

The Homogenizer is widely used in fields of Biotechnology, Human & veterinary medicine/clinical medicine, Pharmaceutical industry, Cosmetics industry, Food industry, Petrochemistry, Paint & lacquer industry etc. The material is repeatedly cycled through narrow slits in the stator where it is rapidly sheared and disintegrated by high shear mechanical action. Complete homogenization of tissues (muscle, liver, breast tissue, etc.) is usually achieved in a few seconds. Little, if any, heat is produced during the process.



**HOG-160-1/2**

## Features:

- Easy to hold & light weight for one hand operation.
- Sample Volume Range: 0.1–50 ml or 1–250ml
- Autoclavable stainless steel shafts. Inert to aggressive solutions.
- All shafts are interchangeable shafts and are easily removed for cleanup.
- High speed motor. Speed control from 8,000 to 30,000rpm.

## HOG-160-1/2, Handheld Homogenizer

Use for mixing, emulsification, shredding, or chopping.

Practical answer for small samples.

D-160 is a rotor/stator type hand held tissue homogenizer which can rapidly homogenize, disperse and emulsify samples in 0.1–250ml. During operation, the suspended material is drawn into the core of the homogenizer by a rotor turning at up to 30,000 rpm.



Model	HOG-160-1/2
<b>Power Supply</b>	110–120V/60Hz , 220–240V / 50–60 Hz
<b>Motor Type</b>	Universal motor, 160 Watt
<b>Speed range (rpm)</b>	8,000 – 30,000
<b>Max. Circum. Speed</b>	6.3–14m/sec
<b>Speed control type</b>	Dial knob 6 stage
<b>Working Volume (ml, H<sub>2</sub>O)</b>	0.1–50ml(Dispersing shaft DS-160/5) 1–250ml(Dispersing shaft DS-160/10)
<b>Max. Viscosity</b>	5000mPas
<b>Material of Dispersing Shaft</b>	SS 316L stainless steel / PTFE
<b>Dimension LxWxH (mm)</b>	46 x 55 x 230
<b>Weight (kg)</b>	0.6
<b>Noise</b>	72 dB(A)
<b>Operating Environment</b>	0–40°C, 85% rel. humidity
<b>Protection class</b>	IP20

## Homogenizers of HOG-160-1/2

Model	Package Include	Power supply
<b>HOG-160-1 (Package 1)</b>	HOG-160 drive, H 370 Stand, DS-160/5 shaft, Dispersing shaft 5mm, for solid/liquid media volumes from 0.1–50ml	110–120V, 50/60Hz
		220–240V, 50/60Hz
<b>HOG-160-2 (Package 2)</b>	HOG-160 drive, H370 Stand, DS-160/10 shaft Dispersing shaft 10mm, for solid/liquid media volumes from 1– 250ml	110–120V, 50/60Hz
		220–240V, 50/60Hz

Model	Description of Dispersing Shaft	Applications / Industry Examples	Treatable Volume (ml)	Max. Circum. Speed (m/sec)	Dia. of the Rotor (mm)	Min/Max Emersion Depth (mm)	Ultimate Fineness (µm)	
							Suspension	Emulsion
<b>DS-160/5</b>	5mm for Solid/ liquid media	Biotechnology, Pharmaceutical industry 0.1ml – 50ml	0.1–50	6.3	5	7/50	10–50	1–10
<b>DS-160/10</b>	10mm for Solid/ liquid media	Biotechnology, Pharmaceutical industry 1ml – 250ml	1–250	14	10	10/120	10–50	1–10

\* All kind of sterilization possible

# HandHeld, BenchTop, 250Watt, 0.3–3000ml **HOMOGENIZERS**



**HOG-020D**

## **HOG-020, HOG-020D, HOG-022, BenchTop Homogenizers**

### **Applications:**

- Widely used in dispersing various materials.
- Also applied to biology & medical research for skin tissue, cells and so on.
- Fiber, paper, cloth, cosmetic, dye & ink can be applied.
- Water and oil mixing and emulsifying.





### **Features:**

- Digital speed meter display (HOG-022).
- Spring elevator for easy positioning the pole (HOG-022).
- With an overheat protection and fuse safety device (HOG-022).
- Various containers can be used.
- Operating capacity: 0.3m1–3L with the same driver but different homogenizer head choices.
- \*Any homogenizer head need be purchased separately. (Photo shown here is for reference only).
- The impeller can be separated completely and cleaned easily.



**HOG-020**

Model	HOG-020	HOG-020D
Digital	NO	YES
Motor	DC 250W	
Speed (rpm)	26,000	
Size (mm)	W200xD315xH500	
Weight (kg)	7	
Power	AC110/220V, 50/60Hz	

	Model	Capacity (H <sub>2</sub> O)	Dimension	Application
	<b>GEN-0010</b>	0.3~10 ml	Ø7x130 mm	To homogenized and mix cell tissue in small amount
	<b>GEN-0250</b>	2~250 ml	Ø12x170 mm	To disperse plant and animal tissue, To dispose suspensions and emulsions for homogenizing, mixing & extraction
	<b>GEN-2000</b>	2~2000 ml	Ø20x200 mm	To disperse plant and animal tissue, To dispose suspensions and emulsions for homogenizing, mixing & extraction
	<b>GEN-3000</b>	100~3000 ml	Ø30x250 mm	To disperse organic and inorganic matters for homogenizing, mixing and extraction

# HOMOGENIZERS BenchTop, 500Watt, 10ml-8Liter

## HOG-500, Homogenizer

Philosophy made simple, so easy to handle. Ability to achieve quality results fast. It has the speed and power to emulsify, suspend, cut-up and disrupt to yield accurate results every time. Full flexibility as hand-held, post or wall



HOG-500

### Features:

- Viscosity up to 10,000 mPas
- Continuously adjustable speeds for better results
- Light-weighted and small-dimensioned for better handling
- Triple safety of the drive, overload protection & Smooth start – against jerky work, safety switch
- 316L steel High quality dispersing tools as standard for better resistance to corrosion
- Quick-change system of the dispersing tools for a short changing time between preparations.

mounted, with H-stand or plate-stand support.

Top speed of high 10,000-30,000rpm, reduces processing time significantly. Big safety switch for unexpected emergency stop. Smooth motor drive makes working very safe and comfortable. Additional feature of automatic overload protection increases the life span of the motor. Smooth start also prevents unnecessary spills.

### Process of dispersing:

The material is sucked in to the head axially, then accelerated using the rotor's high rpm rate, circumferential or peripheral velocity. The centrifugal acceleration between the outer rotor wall and the inner stator wall propels the material through the stator shearing slits.

### Quick-change-system:

MRC tools consists of only a few parts. One shaft, one axle, one Teflon bearing and one rotor stator. No special tools are needed to dissemble. Only requirement is a simple piece of cloth.

### Optional Dispersing shaft: SS5CSR5. Model: DS-500/5

- Volume 1-50 ml • Max. Circum. Speed 5,8m/sec
- Applications: Dispersing shaft 5mm for solid/liquid media Dispersing of tissue decomposition, clinical & medical diagnostics and suspensions. Suitable for centrifuge products and Eppendorf tubes, centrifugal glasses etc. Dia. 5mm.



Model	HOG-500
<b>Motor type</b>	Universal motor, 500 Watt
<b>Voltage / Frequency</b>	110-120V/60Hz , 220-240V / 50-60 Hz
<b>Speed range (rpm)</b>	10,000 – 30,000
<b>Max. Circum. Speed</b>	22.7-36m/sec
<b>Speed control type</b>	Dial knob 6 stage
<b>Working Volume (ml, H<sub>2</sub>O)</b>	10-40000ml (Optional)
<b>Max. Viscosity</b>	10,000mPas
<b>Noise emission(drive only)</b>	< 79 dB(A) at 30,000 rpm
<b>Material of Dispersing Shaft</b>	SS 316L stainless steel / PTFE
<b>Dimension LxWxH (mm)</b>	70 x 70 x 255
<b>Weight (kg)</b>	1.3
<b>Operating Environment</b>	0-40°C, 85% rel. humidity
<b>Protection class</b>	IP20

## Homogenizers of HOG-500-1/2

Model	Package Include	Power supply
HOG-500-1 (Package 1)	HOG-500 drive, with dispersing shaft 1 for solid/liquid media & H-600 stand, 10-5000ml of water	110-120V, 50/60Hz 220-240V, 50/60Hz
HOG-500-2 (Package 2)	HOG-500 drive, with dispersing shaft 2 for W/O or O/W emulsions & H-600 stand, 10-5000ml of water	110-120V, 50/60Hz 220-240V, 50/60Hz

Model	Description of Dispersing Shaft	Applications / Industry Examples	Treatable Volume (ml)	Max. Circum. Speed (m/sec)	Dia. of the Rotor (mm)	Min/Max Emersion Depth (mm)	Ultimate Fineness (µm)	
							Suspension	Emulsion
DS-500/1	Solid/liquid media	Coarse crushing of hard solids in liquid / Pharma, Petro Industry, Ceramic industry	10-5000	23.5	20	40/175	10-50	1-10
DS-500/2	W/O or O/W emulsions	Emulsions, intensive mixing of w/o & o/w emulsions. Dispersing of resins & pigments for paint & lacquer industry / Sewage/Pollution Control, Paint Industry, Paper & Tissue Industry, Pharmaceutical industry	10-5000	23.5	20	40/175	10-50	1-10

\* All kind of sterilization possible



**Summary of Options:**

Shaft S S20C SR20 → Standard Rotor 20mm Coarse Stator 20mm

← Coarse Stator 20mm

- Material used for shaft is high grade fine 316L stainless steel and PTFE for seal
- Dispersing shaft consists of shaft tube, axle, PTFE seal, a rotor and a stator.

**Components of Dispersing shaft****Stators:**

**18900118**  
S20C Stator  
20 coarse (C)



**18900119**  
S20F Stator  
20 fine (F)



**18900120**  
S30C Stator  
30 coarse (C)



**18900121**  
S30F Stator  
30 fine (F)



**18900122**  
S40C Stator  
40 coarse (C)

**Rotors:**

**18900123**  
SR20 Rotor  
Standard 20



**18900124**  
SR30 Rotor  
Standard 30



**18900125**  
CR20 Rotor  
Cutter rotor 20



**18900126**  
CR30 Rotor  
Cutter rotor 30



**18900127**  
MR20 Rotor  
Mixing rotor 20



**18900128**  
MR30 Rotor  
Mixing rotor 30



**18900129**  
ER20 Rotor  
Emulsifying rotor 20



**18900130**  
ER30 Rotor  
Emulsifying rotor 30

Model	Description of Shaft	Applications / Industry Examples	Treatable Volume (ml) (H <sub>2</sub> O)	Max. Circum. Speed (m/sec)	Dia. of the Rotor (mm)	Min/Max Immersion Depth (mm)	Ultimate Fineness (µm)	
							Suspension	Emulsion
<b>18900118/18900125</b>	Dispersing tool with knives for brous/stringy materials	Fragmentation of vegetable, animal and human tissues / Sewage/Pollution Control, Pharma, Food, Paper & Tissue, Tobacco Industry	10-5000	23.5	20	40/175	10-50	1-10
<b>18900118/18900127</b>	Solid/liquid media	Suspensions, intensive mixing / Ceramic Industry, Paint Industry	10-5000	23.5	20	40/175	10-50	1-10
<b>18900119/18900125</b>	Dispersing tool with knives for brous/stringy materials	Fragmentation of vegetable, animal and human tissues / Sewage/Pollution Control, Bio Technology, Pharma, Food, Paper & Tissue, Tobacco Industry	10-5000	23.5	20	40/175	10-150	1-10
<b>18900119/18900127</b>	Solid/liquid media	Emulsions, intensive mixing of w/o & o/w emulsions / Ceramic, Cosmetic, Paint, Food, Paper & Tissue, Petro Chemistry Industry	10-5000	23.5	20	40/175	10-150	1-10
<b>18900120/18900124</b>	Solid/liquid media	Coarse crushing of hard solids in liquid / Sewage/Pollution Control, Pharma, Food, Paper & Tissue, Petro Chemistry Industry	100-8000	36.1	30	40/175	5-25	1-5
<b>18900120/18900126</b>	Dispersing tool with knives for brous/stringy materials	Fragmentation of vegetable, animal and human tissues / Sewage/Pollution Control, Pharma, Food, Paper & Tissue, Pharma Industry	100-8000	36.1	30	40/175	5-25	1-5
<b>18900120/18900128</b>	Solid/liquid media	Suspensions, intensive mixing / Ceramic Industry, Paint Industry	100-8000	36.1	30	40/175	5-25	1-5
<b>18900121/18900124</b>	Solid/liquid media	Dispersing of resins and pigments for paint and lacquer industry / Sewage/Pollution Control, Paint Industry, Paper & Tissue, Pharma Industry	100-8000	36.1	30	40/175	5-25	1-5
<b>18900121/18900130</b>	W/O or O/W emulsions	Emulsions, intensive mixing of w/o and o/w emulsions. Dispersing of resins and pigments for paint & lacquer industry / Sewage/Pollution Control, Paint Industry, Paper & Tissue, Pharma Industry	100-8000	36.1	30	40/175	5-25	1-5
<b>18900121/18900128</b>	Solid/liquid media	Emulsions, intensive mixing of w/o and o/w emulsions / Sewage/Pollution Control, Cosmetic, Pharma, Tobacco Industry	100-8000	36.1	30	40/175	5-25	1-5
<b>18900120/18900127</b>	Stirring Shaft	High speed mixing without crushing / Ceramic, Food, Sewage/Pollution Control Industry	250-20000	36.1	30	40/175	High-Speed Mixer	
<b>18900122/18900128</b>	Stirring Shaft	High speed mixing without crushing / Ceramic, Food, Sewage/Pollution Control Industry	1000-40000	36.1	30	40/175	High-Speed Mixer	

\* All kind of sterilization possible

# HOMOGENIZERS BenchTop, 250Watt



## HOG-022, BenchTop Homogenizers

### Applications:

- Widely use in homogenizing, blending, dispersing, emulsifying, suspending and combining various materials
- Biology and medicine research included skin tissue, cell disruption, isolated nuclei, vaccines, enzymes and so on.
- Processing of natural/artificial fibers and dyes
- Fine breaking and crushing of cellulose, hard tissue, paper, cloth, and so on
- Fine breaking and blending the rubber, resin, natural/artificial materials
- Mixing and emulsifying lubricants
- Mixing and emulsifying other oil products
- Mixing and emulsifying water and oil
- Adhesives, coatings, inks, cosmetics.

### Features:

- Digital speed display
- Spring-lift pole for easy operation
- Over-heat and fuse protection devices
- No special containers, as long as the dispersing element can be placed in.
- With same one driver Different dispersing elements for purchasing separately to deal with different capacities from 0.3ml - 3L
- A mechanical crushing effect from the composition of the fixed cutter and inner cutter of the Dispersing element.

Model	HOG-022
Digital	YES
Motor	DC 250W
Speed (rpm)	500 ~ 20,000
Body Size (mm)	W146xL283xH250
Overall Size (mm)	W313xL303xH540
Weight (kg)	10
Power	AC110/220V, 50/60Hz

	Model	Capacity (H <sub>2</sub> O)	Dimension	Application
	GEN-0010	0.3~10 ml	Ø7x130 mm	To homogenized and mix cell tissue in small amount
	GEN-0250	2~250 ml	Ø12x170 mm	To disperse plant and animal tissue, To dispose suspensions and emulsions for homogenizing, mixing & extraction
	GEN-2000	2~2000 ml	Ø20x200 mm	To disperse plant and animal tissue, To dispose suspensions and emulsions for homogenizing, mixing & extraction
	GEN-3000	100~3000 ml	Ø30x250 mm	To disperse organic and inorganic matters for homogenizing, mixing and extraction

**HOG-08/09/011, Homogenizers Spin-Mix**

Homogenizer can be widely used in mixing and dispersing, emulsifying for Medicine, foods, Cosmetics, Industrial products.

**Features:**

There are many uses for homogenizer as following different fields:

- Chemical: Dyestuff, pigment, additive .. etc.
- Medical: Biochemistry, virus, bacteria, yeast .. etc.
- Pharmacy: Medicine test, vaccines, syrup .. etc.
- Food: Trial, study check.
- Others: Magnetized chemical tape analysis, silicone .. etc.

**Optional Tank Sets:**

Model	HOG-08	HOG-09	HOG-011
Motor	100W	250W	150W High Frequency Motor
Max. Rotational Speed	18,000rpm	15,000rpm	18,000rpm
Capacity	30~1,000ml	30~1,000ml	30~1,000ml
Timer	15 min or Continuous running	15 min or Continuous running	1~60min or Continuous running
Dimensions(mm)	W250×D250×H396	W250×D250×H396	W250×D250×H413
Weight	6kg	8kg	8kg
Control System	Thyristor Control System	Thyristor Control System	Inverter Control System
Power Source	AC100V 50/60Hz 3A	AC100V 50/60Hz 6A	AC100V 50/60Hz 5A

# HOMOGENIZERS Top Speed

## HOG-06/24/24R, Homogenizers



Fast, effective and reproducible homogenization of a wide range of samples, including tissues and cells hard to lyse. They also own extraordinary power for the processing of even impact resistant samples such as bones or cartilage. The HOG-06 and HOG-24 are ideal solutions for releasing DNA, RNA, Proteins, Enzymes, etc. from very tough samples while still retaining molecular integrity

### Highlights:

- "3D Rotating High Speed Motion" for quick disruption of those fibrous tissues and resistant cells
- A wide range of rotation speed settings from 4.0 m/s to 7.0 m/s
- Brushless motor realizing no brush particle generation
- Easy to remove sample tube holder and fix sample tubes
- Easy to monitor the disruption process through the clear lid
- Simultaneously homogenization:
  - HOG-06 6x2ml tubes or 2x5ml tubes
  - HOG-24 24x2ml tubes or 12x5ml tubes
  - HOG-24R 24x2ml tubes or 12x5ml tubes
- Disposable tubes ensure no threat of cross-contamination or sample degradation
- The HOG-06 & HOG-24/24R vigorously & uniformly, shakes the tubes providing an efficient, consistent, high-yield & quality homogenization usually in 35s or less.

### Holder and Adapter:

Holder for 6 x 2.0ml & for 2 x 5.0ml for HOG-06



### Rotor Adapter:

Rotor for 24 x 2.0ml/Rotor for 12 x 5.0ml for HOG-24/24R

301-13011-02

301-13011-01

### HOG-06 homogenizer:

- Built upon the innovative design and designed for personal use
- Broad performance range-speed settings from 4 to 7 m/s
- Small footprint — requires minimal bench space
- Holds 6x0.5ml/1.5ml/2ml or 2x5ml tubes
- Patent design for the damping institutions and hold ultra quiet operation, even at the highest speed running.

### How to use beads:

#### 1.4mm & 2.8mm Ceramic Beads:

Ideal for soft animal, plant or human tissues:

- Brain • Liver • Skin • Leaves • Gonad • Muscle, etc.

#### 3mm & 6mm Metal Beads:

Ideal for any hard tissue types:

- Hair • Teeth • Bones • Seeds • Corn • Rice • Nail, etc.

#### 1mm & 3mm Glass Beads:

Ideal for microorganisms, Optimal for:

- Spores • Fungi • Yeast • E-coli, etc.

We will offer the Lysing Kits which are available with Plastic or Stainless Steel pre-filled sample tubes in future.

### Typical Samples:

- Bone, brain, tumors • Bacteria gram + or -
- Yeast, fungi, spores • Seeds, roots
- Feces, swabs • Soil, sediments.

### Applications:

Any researcher who requires genomic DNA, total RNA or recombinant protein as a starting material will benefit from the unit system.

- Northern blot analysis, qPCR and microarrays
- Optimization of recombinant protein expression
- Library synthesis and Southern blots
- RT-PCR and differential display
- Pathogen screening of soil or water
- Environmental surveys
- Verification of food safety.

### Grinding tubes:

- HOG-06: Simultaneous processing 6x2ml/1.5ml/0.5ml tubes or 2x5ml tubes
- HOG-24/HOG-24R: Simultaneous processing 24x2ml/1.5ml/0.5ml tubes or 12x5ml tubes
- The grinding tubes must be with high toughness and low temperature resistance.



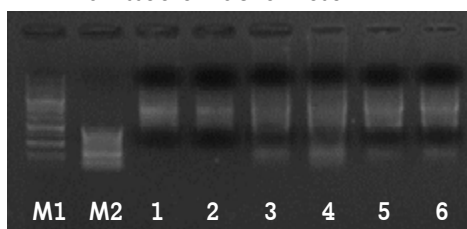
**HOG-24R refrigerated homoge:**

HOG-24R refrigerated homogenizer has the internal compressor which was upgraded on the basis of normal HOG-24 homogenizer. Partial active ingredients will be negatively affected when use the conventional methods to homogenize most of the soft or sensitive samples under room temperature, while the low temperature can prevent this situation. Therefore the cooling technique is the key effective method to save the complete sample. In addition, the sample will change more crisp which can be homogenized easily and efficiently. Thus, HOG-24R refrigerated homogenizer plays an important role in the extraction progress of RNA, DNA and the protein activity determination

- The lowest temperature: -10°C
- Internal turbo fan in the homogenized cavity which can keep the temperature uniformity within 2°C
- Environment friendly for compressor
- Effectively prevent the reduction of sample activity which caused by the high temperature with the refrigerated function when extracting the RNA, Protein etc.
- Has the dry homogenization & wet homogenization function.

**Extraction results:**

- Animal tissue extraction result

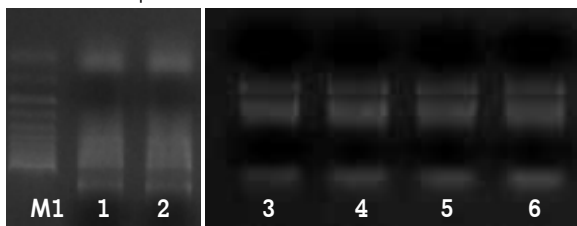


Remark: M1 was 10kb marker; M2 was 1000kb marker; Line 1 and 2 were room temperature homogenization; Line 3 and 4 were refrigerated homogenization which were homogenized directly when the temperature cooled to 0°C; Line 5 and 6 were refrigerated homogenization which cooled to 0°C and kept 5 min before homogenization.

No.	260nm	280nm	260/280	C:ng/ul
1	3.872	1.963	1.972	154.874
2	4.219	2.073	2.035	168.772
3	16.65	8.177	2.036	665.989
4	20.379	10.15	2.008	815.151
5	17.433	8.741	1.994	697.308
6	13.726	6.792	2.021	549.059

According to the RNA concentration and electrophoretogram above, the results which were homogenized directly when the temperature cooled to 0°C by the refrigerated homogenizer is much better than in room temperature.

- Plant sample extraction result



Remark: M1 was 1000bp marker; Line 1 was vegetable leaf which was treated by liquid nitrogen before homogenization; Line 2 was vegetable leaf treated by refrigerated homogenization; Line 3 was rice which was treated by liquid nitrogen before homogenization; Line 4 was rice treated by refrigerated homogenization; Line 5 was corn leaf which was treated by liquid nitrogen before homogenization; Line 6 was corn leaf treated by refrigerated homogenization.

No.	260nm	280nm	260/280	C:ng/ul
1. liquid-N2	26.371	16.177	1.63	1054.852
2. HOG-24R	20.668	12.285	1.68	826.79
3. liquid-N2	2.143	1.24	1.73	85.741
4. HOG-24R	2.014	1.1058	1.82	80.6227
5. liquid-N2	1.911	1.114	1.72	76.447
6. HOG-24R	1.898	1.045	1.82	75.9924

According to the RNA concentration & electrophoretogram above, the results which were homogenized by refrigerated homogenizer & treated by liquid nitrogen were similar, while for some soft samples, the results which treated by liquid nitrogen were better because of the sample became more crisp after the treatment by liquid nitrogen

**Specification:**

Model	HOG-06	HOG-24	HOG-24R(Cooling Function)
Display	LCD	OLED	OLED
Temperature range	-	-	-10°C ~ 40°C
From RT. to 0°C	-	-	< 30min
Temp. uniformity	-	-	±2°C
Cooling method	-	-	Compressor refrigeration
Speed Range (m/s)	4.00m/s~7.00m/s increment 0.05m/s		
Speed Range (rpm)	2500~4350rpm increment 10rpm	2430~4260rpm, increment 10rpm	
Cycle Duration	1~90s (increment 1s)		
Pause Time	1~90s (increment 1s)		
Cycle	10		
Programmable Samples	1 6 x 2ml/1.5ml or 2 x 5ml	50 24x 2ml/1.5ml or 12x 5ml	50 24x 2ml/1.5ml or 12x 5m
Tube Type	grinding tube		
Acceleration Time	<2s	<4s	
Noise	<65 db	<70 db	
Power Supply / Consumption	AC100~240V, 50/60Hz / 150W		
Adapter	Holder for 2ml/5ml (Standard)	Rotor for 2ml x 24 (Standard) or Rotor for 5ml x 12 (Optional)	
Dimensions / Weight	W354xD218xH206mm / 8.9kg	W280xD360xH385mm / 25kg	W300xD500xH360mm / 40kg

# HOMOGENIZERS Refrigerated



HOGR-10/50

## Technical Characteristics:

- Refrigerated homogenizer for shredding, grinding, emulsifying & homogenizing food & feed samples
- Stainless steel structure
- Display with intuitive icons for the selection of all working parameters.
- Memory for uncountable programs for ramps of speed/time/temperature up to 16 steps/program.
- A SD Memory Card is provided.
- Stainless steel chamber, easy to clean.
- Set of stainless steel blades, easy to dismount and wash.



## HOGR-10/50, Refrigerated Homogenizers for Food/ Feed Samples

### Shredding and homogenization of food and feed samples from room temperature down to -24°C

HOGR-10/50 are refrigerated homogenizers with stainless steel blades, designed to prepare food and feed samples prior to nutritional or chemistry analysis without heating them up, so avoiding the consequent loss of humidity that may cause wrong analytical results. The homogenization chamber of HOGR-10/50 can be set at a precise temp., between ambient value and -24°C, with 1°C steps: this is a unique characteristic that allows the operator to decide and set the best conditions to prepare each kind of sample according to its specific nature. The useful "Wait Temperature" function (WT) prevents the beginning of the homogenization process before the desired temperature is reached.

The homogenization chamber has a capacity of 2 litres and includes a set of stainless steel blades, easy to dismount and wash; the blades can reach a maximum speed of 8.000 rpm or even 12.500 rpm in the advanced Power version.

The display allows the easy setting of all working parameters (speed, time, temperature...) and uncountable working programs that can be stored in the provided SD Card of the equipment; every program can be based on different ramps of speed/temperature/time up to 16 steps/program.

Thanks to its flexibility and perfect temperature control, HOGR-10/50 can ensure standardized, accurate and reproducible analytical results.



Model	HOGR-10	HOGR-50
Capacity of the chamber	2L	
Temperature setting	From room temperature to -24°C, with 1°C steps	
Speed setting	26 selectable speeds, 0 - 8.000rpm	26 selectable speeds, 0 - 12.500rpm
Timer	Up to 4 working hours	
Wait Temperature function (WT)	The homogenization starts only when the desired temp. is reached	
Power Supply	220 V, 50/60 Hz, 1.750 W (basic version)	
Dimensions (WxDxH)	320x520x390mm	
Weight	26kg	