## 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



#### 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 10,000–30,000 rpm, 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                                |  |  |  |  |
|---------------------------------------|--|--|--|--|--|
| Motor type                            | Universal motor, 500 Watt              |  |  |  |  |
| Voltage / Frequency                   | 110-120V/60Hz ,<br>220-240V / 50-60 Hz |  |  |  |  |
| Speed range (rpm)                     | 10,000 - 30,000                        |  |  |  |  |
| Max. Circum. Speed                    | 22.7-36m/sec                           |  |  |  |  |
| Speed control type                    | Dial knob 7 stage                      |  |  |  |  |
| Working Volume (ml, H <sub>2</sub> O) | 10-40000ml (Optional)                  |  |  |  |  |
| Max. Viscosity                        | 10,000mPas                             |  |  |  |  |
| Noise emission(drive only)            | < 79 dB(A) at 30,000 rpm               |  |  |  |  |
| Material of Dispersing Shaft          | SS 316L stainless steel / PTFE         |  |  |  |  |
| Dimension LxWxH (mm)                  | 70 x 70 x 255                          |  |  |  |  |
| Weight (kg)                           | 1.3                                    |  |  |  |  |
| Operating Environment                 | 0-40°C, 85% rel. humidity              |  |  |  |  |
| Protection class                      | IP20                                   |  |  |  |  |

#### Homogenizers of HOG-500-1/2

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

|  | Model     | Description of Applications / Dispersing Industry Examples Shaft | Applications /  | Treatable<br>Volume |               | of the        | Min/Max<br>Emersion |          |      |
|--|-----------|--|---|---------------------|---------------|---------------|---------------------|----------|------|
|  |           |  | (ml)  | Speed (m/sec)       | Rotor<br>(mm) | Depth<br>(mm) | Suspension          | Emulsion |      |
|  | D\$-500/1 | Solid/<br>liquid media   | Coarse crushing of hard<br>solids in liquid / Pharma,<br>Petro Industry, Ceramic<br>industry  | 10-5000             | 23.5          | 20            | 40/175              | 10-50    | 1-10 |
|  | D\$-500/2 | W/O or O/W<br>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 |

<sup>\*</sup> All kind of sterilization possible

# Generators for HOG-500 HOMOGENIZERS

**Summary of Options:** 

Shaft S \$20C 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.

#### **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)



Components of Dispersing shaft

18900122 S40C Stator 40 course (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



ER30 Rotor Emulsifying rotor 30

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

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