

# Laboratory Stirrers



**LS- 5 / LS- 100**

- SPM presents the next generation of laboratory stirrers for stirring/mixing etc of chemical, pharmaceutical, food and cosmetic products. The equipment basically consists of body. Chuck, stainless steel blade propeller and a U- type stand.

## Salient Features :

- High torque even at low speeds.
- Monitoring of set & actual speed.
- Wide range of impellers Advanced Stirrers with microprocessor technology.
- Advanced Stirring speed control through VFD.
- Constant speed even with change of load / Voltage.
- Easy - to - read display of set & actual parameters.
- Accepts shafts up to 13mm.
- Motor protection in case of continuous overload.
- Stopper for protection of vessel & shaft.
- Special base design for topple free operation.

| Technical Data                         |                            |                            |
|----------------------------------------|----------------------------|----------------------------|
| Features                               | LS-5                       | LS-100                     |
| Max. stirring capacity (Water)(Liters) | 5                          | 100                        |
| Motor Type                             | BLDC                       | BLDC                       |
| Motor rating                           | 10 watt                    | 100 watt                   |
| Speed range (rpm)                      | 50-1500                    | 100-3000                   |
| Speed display                          | LED                        | LED                        |
| Timer                                  | 0 to 99 Minutes            | 0 to 99 Minutes            |
| Motor Overload protection              | LED light flash, auto stop | LED light flash, auto stop |
| Chuck (mm)                             | 1.5 to 10                  | 1.5 to 10                  |
| Stirring Shaft x length (mm)           | 8 x 250                    | 12 x 500                   |
| Impeller Type                          | Axial Turbine              | Pitched x 2                |
| Dimensions [W x D x H]                 | 320 x 285 x 620            | 115 x 180 x 155            |
| Stand length(mm)                       | 600('2')                   | 1220('2')                  |
| Weight [kg]                            | 6.5                        | 19                         |
| Power [W]                              | 10 watt                    | 175 watt                   |

Supply : 220-240 Volts , 50 Hz , single phase.

## Laboratory Stirrers



**LS-40/ LS-20**

- SPM presents the next generation of laboratory stirrers for stirring/ mixing etc. of chemical, pharmaceutical, food and cosmetic products. The equipment basically consists of body, chuck, stainless steel blade propeller and stand.

### Salient Features:

- 2 models - 40 liters & 20 liters capacity
- Speed range 50-2200 rpm.
- Monitoring of set & actual speed.
- Constant speed even with change of load/ voltage.
- High torque even at low speeds.
- Accurate stirring speed control.
- Maintenance free brush less DC motor ensures high torque.
- Display of torque/speed.
- Motor protection in case of continuous overload.
- Accepts shafts up to 13mm.
- Stopper for protection of vessel & shaft.
- Special base design for topple free operation.

### Technical Data

| Features                               | LS-40                      | LS-20                      |
|----------------------------------------|----------------------------|----------------------------|
| Max. stirring capacity (Water)(Liters) | 40                         | 20                         |
| Motor rating input [W]                 | 120                        | 60                         |
| Motor rating output [W]                | 100                        | 50                         |
| Speed range (rpm)                      | 50-2200                    | 50-2200                    |
| Speed display                          | LCD                        | LCD                        |
| Max. torque [Ncm]                      | 60                         | 40                         |
| Torque display                         | LCD                        | LCD                        |
| Motor Overload protection              | LED light flash, auto stop | LED light flash, auto stop |
| Chuck (mm)                             | 13                         | 13                         |
| Stirring Shaft x length (mm)           | 8 x 220                    | 8 x 220                    |
| Dimensions [W x D x H]                 | 83 x 186 x 220             | 83 x 186 x 220             |
| Stand length(mm)                       | 750                        | 750                        |
| Weight [kg]                            | 2.4                        | 2.4                        |
| Power [W]                              | 130                        | 70                         |
| Protection class acc. To DIN/EN 60529  | IP 42                      | IP 42                      |

Supply : 220-240 Volts , 50 Hz , single phase.

## Homogenisers & Emulsifiers

These are designed for homogenization, emulsification, dispersion and mixing of fluids at high speed. The user has a choice of selecting from AC Drive or AC / DC Drive with stepless speed regulations for continuous variation of speed as per requirements.

**LSH - 1** specially designed brush less AC variable speed Emulsifier driven by frequency inverter to ensure reproducible speed with any load. Steady & constant speed ideal for solutions that change viscosity during mixing. Emulsifier has built in digital RPM indicator for process validation and reproducibility .



**LSH - 1**

# Mixer Selection Chart

| Model                             | Stirring Shaft |        | Impeller     |        | Motor         | Speed (rpm) |      | Stirring capacity |             | Digital Speed Indicator |
|-----------------------------------|----------------|--------|--------------|--------|---------------|-------------|------|-------------------|-------------|-------------------------|
|                                   | Length (mm)    | Ø (mm) | Type         | Ø (mm) |               | Min         | Max  | Type of fluid     | Max. Volume |                         |
| Direct Drive Stirrers             |                |        |              |        |               |             |      |                   |             |                         |
| LS-121/D                          | 250            | 8      | Propeller    | 36     | PMDC          | 200         | 2000 | Water/Light Oil   | 10 Ltrs.    | ✓                       |
| LS-126/D                          | 450            | 10     | PBT          | 75     | PMDC          | 120         | 2000 | Water/Light Oil   | 25 Ltrs.    | ✓                       |
| LS-129/D                          | 550            | 10     | PBT          | 100    | PMDC          | 100         | 1400 | Water/Light Oil   | 50 Ltrs.    | ✓                       |
| LS-122/R                          | 250            | 6      | PBT          | 38     | AC/DC 1/20 HP | 800         | 4000 | Water             | 7 Ltrs.     | x                       |
| LS-122/D                          | 250            | 6      | PBT          | 38     | AC/DC 1/20 HP | 800         | 4000 | Water             | 7 Ltrs.     | x                       |
| LS-124A/D                         | 350            | 8      | PBT          | 52     | AC/DC 1/8 HP  | 300         | 4000 | Water             | 20 Ltrs.    | x                       |
| LS-124A/D                         | 350            | 8      | PBT          | 52     | AC/DC 1/8 HP  | 300         | 4000 | Water             | 20 Ltrs.    | ✓                       |
| LS-134S/D                         | 450            | 12     | PBT          | 55     | AC/DC 1/4 HP  | 900         | 5000 | Water             | 35 Ltrs.    | x                       |
| LS134L/D                          | 450            | 12     | PBT          | 65     | AC/DC 1/2 HP  | 900         | 6000 | Water             | 60 Ltrs.    | x                       |
| LS-134H/D                         | 450            | 12     | PBT          | 75     | AC/DC 2/3 HP  | 500         | 5000 | Water             | 80 Ltrs.    | x                       |
| LS-134H/D                         | 450            | 12     | PBT          | 75     | AC/DC 2/3 HP  | 500         | 5000 | Water             | 80 Ltrs.    | ✓                       |
| Geared Stirrers                   |                |        |              |        |               |             |      |                   |             |                         |
| LS-121/D                          | 250            | 6      | Propeller    | 36     | PMDC          | 50          | 550  | Light Oil         | 5 Ltrs.     | ✓                       |
| LS-126/D                          | 450            | 8      | FBT          | 75     | PMDC          | 50          | 750  | Paint/Gear Oil    | 15 Ltrs.    | ✓                       |
| LS-129/D                          | 550            | 10     | FBT          | 100    | PMDC          | 50          | 550  | Paint/Gear Oil    | 25 Ltrs.    | ✓                       |
| LS-128/D                          | 310            | 8      | FBT          | 90     | AC/DC 1/20 HP | 50          | 150  | Light Oil         | 3 Kgs.      | x                       |
| LS-128B/D                         | 310            | 8      | FBT          | 90     | AC/DC 1/8 HP  | 50          | 150  | Light Oil         | 7 Kgs.      | x                       |
| LS-128D/D                         | 450            | 12     | FBT          | 120    | AC/DC 1/2 HP  | 50          | 280  | Light Oil         | 20 Kgs.     | x                       |
| LS-128A/D                         | 450            | 8      | FBT          | 75     | AC Brushless  | 50          | 550  | Water             | 10 Ltrs.    | x                       |
| LS-128C/D                         | 450            | 10     | FBT          | 90     | AC Brushless  | 50          | 500  | Paint/Gear Oil    | 20 Ltrs.    | x                       |
| AC Stirrers / Flameproof Stirrers |                |        |              |        |               |             |      |                   |             |                         |
| LS-140/D                          | 730            | 10     | FBT          | 100    | AC Brushless  | 100         | 1400 | Water/Light Oil   | 40 Ltrs.    | ✓                       |
| LS-140/DFP                        | 550            | 10     | FBT          | 100    | Flame Proof   | 100         | 1400 | Water/Light Oil   | 40 Ltrs.    | ✓                       |
| Homogenizer / Emulsifiers         |                |        |              |        |               |             |      |                   |             |                         |
| LSH-127/D                         | 250            | 8      | Saw Cutter   | 30     | AC/DC 1/8 HP  | 300         | 6000 | Water             | 8 Ltrs.     | x                       |
| LSH-127/D                         | 250            | 8      | Saw Cutter   | 30     | AC/DC 1/8 HP  | 300         | 6000 | Water             | 8 Ltrs.     | ✓                       |
| LSH-127A/D                        | 275            | 8      | Roter Stater |        | AC/DC 1/8 HP  | 300         | 8000 |                   | upto 100ml  | x                       |
| LSH-127A/D                        | 275            | 8      | Roter Stater |        | AC/DC 1/8 HP  | 300         | 8000 |                   | upto 100ml  | ✓                       |
| LSH-130/D                         | 480            | 12     | Saw Cutter   | 40     | AC/DC 1/4 HP  | 300         | 5000 | Water             | 20 Ltrs.    | x                       |
| LSH-130/D                         | 480            | 12     | Saw Cutter   | 40     | AC/DC 1/4 HP  | 300         | 5000 | Water             | 20 Ltrs.    | ✓                       |
| LSH-130B/D                        | 480            | 12     | Saw Cutter   | 60     | AC/DC 2/3 HP  | 300         | 5000 | Water             | 35 Ltrs.    | x                       |
| LSH-130B/D                        | 480            | 12     | Saw Cutter   | 60     | AC/DC 2/3 HP  | 300         | 5000 | Water             | 35 Ltrs.    | ✓                       |
| LSH-140/DE                        | 480            | 12     | Saw Cutter   | 40     | AC Brushless  | 300         | 5000 | Water             | 35 Ltrs.    | ✓                       |

Supply : 220-240 Volts , 50 Hz , single phas.