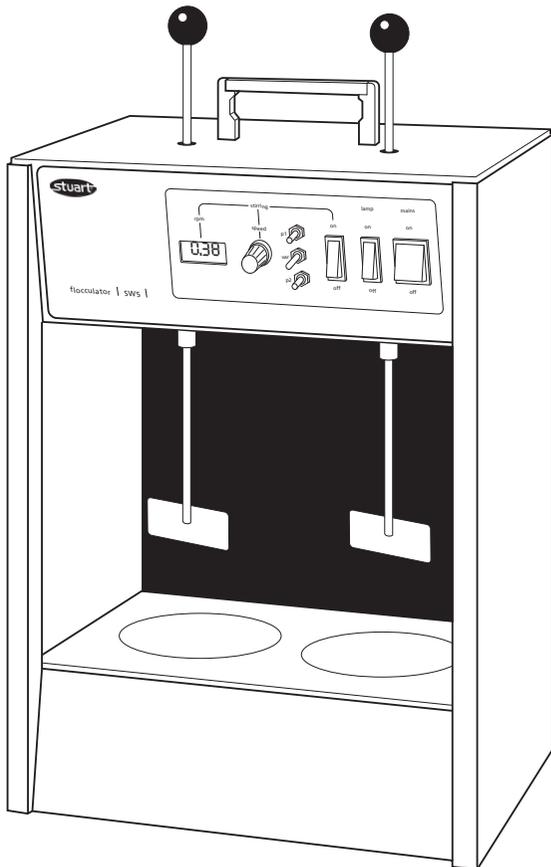
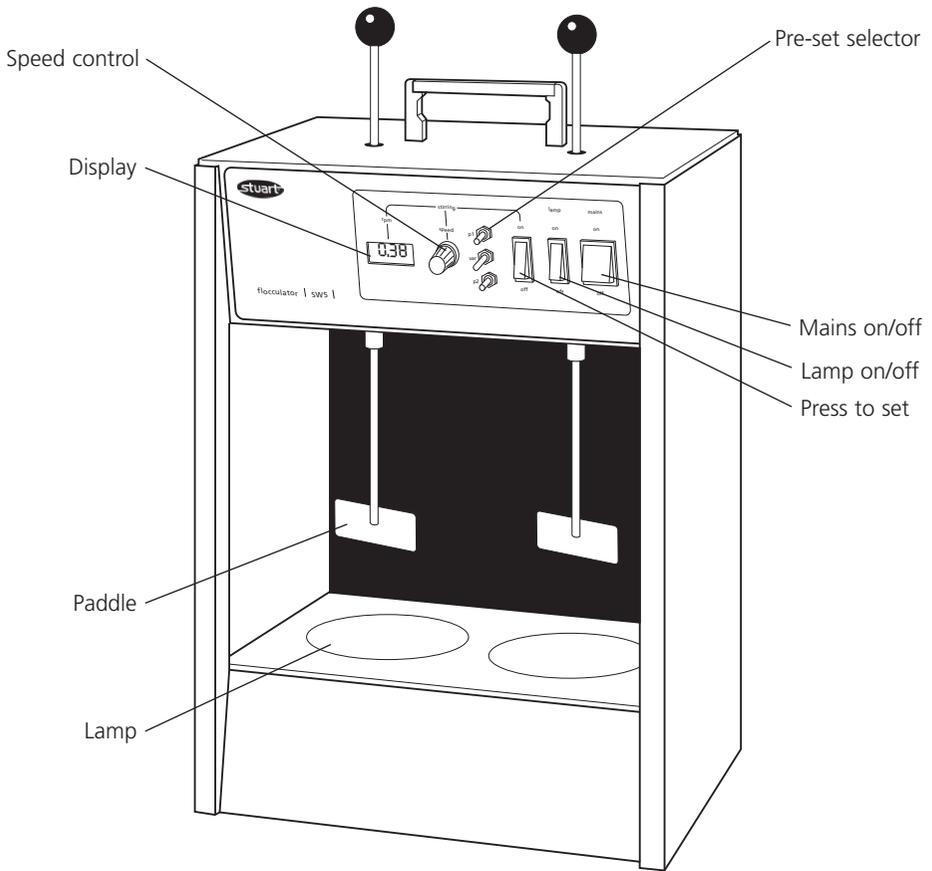




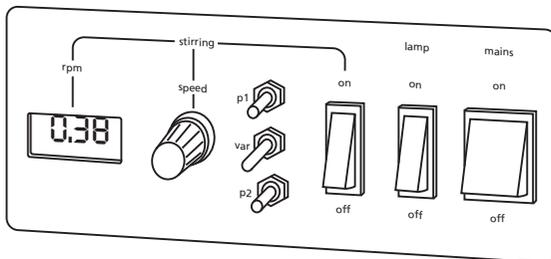
# Flocculator SW5

## Instructions for use





**Fig 1 SW5**



**Fig 2 Control panel**

**Thank you for purchasing this Bibby Scientific product. To get the best performance from the equipment, and for your personal safety, please read these instructions carefully before use.**

This equipment is designed to operate under the following conditions:-

- ❖ For indoor use only
- ❖ Use in a well ventilated area
- ❖ Ambient temperature range +5°C to +40°C
- ❖ Altitude to 2000m
- ❖ Relative humidity not exceeding 80%
- ❖ Mains supply fluctuations not exceeding 10%
- ❖ Overvoltage category II IEC60364-4-443
- ❖ Pollution degree 2 IEC664

If the equipment is not used in the manner described in this manual the protection provided by the equipment may be impaired.

## Electrical Installation



**THIS EQUIPMENT MUST BE EARTHED**

**Before connection please ensure that the line supply corresponds to that stated on the rating label.**

This unit requires a supply rated at 230V, 50-60Hz, single phase. Power consumption is 100W.

There is an IEC socket at the rear of the instrument for connection to the mains supply. The unit is supplied with two mains leads fitted with IEC plugs for connection to the instrument. One has a U.K. 3 pin plug and the other has a 2 pin "Shuko" plug for connection to the mains supply. Choose the lead appropriate for your electrical installation and discard the other.

Should neither lead be suitable, take the lead with the U.K. plug and replace the plug with a suitable alternative. See the enclosed instruction sheet for advice on how to carry out this procedure.

Should the mains lead require replacement a cable of 1mm<sup>2</sup> of harmonised code H05W-F connected to an IEC 320 plug should be used.

N.B. The UK mains lead is protected by a 10A fuse mounted in the plug top.

The mains lead should be connected to the instrument BEFORE connection to the mains supply.

### **IF IN DOUBT CONSULT A QUALIFIED ELECTRICIAN**

#### **Safety Advice Before Use**

- ❖ Never move or carry the unit when in use or connected to the mains electricity supply.
- ❖ Never move or carry the unit while beakers are in place.
- ❖ The SW5 may be carried by the handle on the top of the unit.

## General Description

The Stuart SW5 Flocculator is designed to ensure repeatable conditions between samples during water and sewage flocculation tests.

The speed control has electronic feedback to accurately maintain the rotational speed of the stainless steel paddles. A digital display clearly indicates the speed, which is variable between 25 and 250 rpm. Alternatively, the use of two adjustable pre-sets allows repetition of pre-selected speeds at the flick of a switch.

All paddles can be easily lifted out of the samples when required. Observation and monitoring of samples is assisted by diffused base illumination and a black background.

## Controls (see previous page)

Figure 2 shows the controls for the SW5.

**Mains on/off:** This is a rocker type switch which illuminates when the unit is on.

**Lamp on/off:** This is a rocker type switch which illuminates when the unit is on.

**Pre-set selector:** This three way switch allows selection of either variable speed (VAR), or one of the two pre-set speeds (P1 and P2).

**Speed controller:** This knob controls the paddle speed in conjunction with the press to set switch. Turning it to the right increases the speed, turning it to the left decreases the speed.

**Digital display:** This screen displays the paddle speed in rpm.

## Operation (see Fig 1 & 2)

Place the unit on a firm, level surface and connect to the mains supply. Leave sufficient space to access the side IEC socket.

Turn the mains and lamp switch on and observe the fluorescent lamp illuminate. Use the blue knob to move the stirrer paddles up or down as required.

To position a beaker, lift the paddle up to its maximum height using the paddle lift and place the vessel over the illuminated base. Once the samples are in position, lower the paddles into the beakers to the required depth.

### Selecting a variable speed

Set the Pre-set Selector to the VAR (variable) position. Hold down the 'Press-to-set' switch and turn the Speed Controller until the desired speed in rpm appears on the digital display.

### Selecting a pre-set speed

Set the Pre-set Selector to the P1 position. To change the fixed speed, insert the blade of a small screwdriver and turn the screw control clockwise or anticlockwise until the desired speed in rpm appears on the digital display. Now every time the Pre-set Selector is put to the P1 position, the stirring paddles will rotate at that speed.

If a second pre-set speed is required, set the Pre-set Selector to the P2 position and repeat the procedure.

## Maintenance & Servicing



**WARNING:** Ensure the unit is disconnected from the mains electricity supply before attempting maintenance or servicing.

Periodically clean the instrument using a damp cloth and mild detergent solution. Do not use harsh or abrasive cleaning agents.

**Any repairs or replacement of parts MUST be undertaken by suitably qualified personnel.**

The following spares and accessories are available from your laboratory dealer.

| Description  | Catalogue Number |
|--------------|------------------|
| Fuse         | ESM3C15(S)UL     |
| Mains On/Off | ESM3C21(S)       |
| Paddle       | CSW124           |
| Light tube   | ESW501(S)        |
| Motor        | MSW501(S)        |

For a comprehensive list of parts required by service engineers conducting internal repairs and a service manual, please contact the Service Department at Bibby Scientific Ltd. quoting both the model and serial number.

Only spare parts supplied or specified by Bibby Scientific Ltd. or its agents should be used. Fitting of non-approved parts may affect the performance and safety features designed into the instrument.

If in any doubt, please contact the Service Department of Bibby Scientific Ltd. or the point of sale.

# Warranty

Bibby Scientific Ltd warrants this instrument to be free from defects in material and workmanship, when used under normal laboratory conditions, for a period of three (3) years. In the event of a justified claim, Bibby Scientific Ltd will replace any defective component or replace the unit free of charge.

This warranty does NOT apply if damage is caused by fire, accident, misuse, neglect, incorrect adjustment or repair, damage caused by installation, adaptation, modification, fitting of non-approved parts or repair by unauthorized personnel.

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# Technical Specification

|                | <b>SW5</b>        |
|----------------|-------------------|
| No. of samples | 2                 |
| Speed range    | 25-250rpm         |
| Speed pre-sets | 2                 |
| Speed display  | LED               |
| Dimensions     | 320 x 210 x 500mm |
| Net weight     | 8.6kg             |
| Power          | 100W              |

# Notes



These products meet the relevant EC harmonised standards for radio frequency interference and may be expected not to interfere with, or be affected by, other equipment with similar qualifications. We cannot be sure that other equipment used in their vicinity will meet these standards and we cannot guarantee that interference will not occur

in practice. Where there is a possibility that injury, damage or loss might occur if equipment malfunctions due to radio frequency interference, or for general advice before use, please contact the Service Department of Bibby Scientific Ltd.

## Declaration of Conformity

### Flocculator, Model SW5

These products comply with the requirements of the EU Directives listed below:

**2004/108/EC** EMC Directive.

**2006/95/EC** Low voltage Directive (LVD)

Compliance with the requirements of these Directives is claimed by meeting the following standards:

**EN 61326: 1997 + Amendments A1: 1998, EN 61000-4-2: 1995, EN 61000-4-4: 1995, EN 61000-4-5: 1995, EN 61000-4-6: 1996, EN 61000-4-9: 1993, EN 61000-4-11: 1994, EN 61000-3-2: 1995, EN 61000-3-3: 1995, EN 61010-1: 1993 + Amendments A1: 1992 & A2: 1995, EN 61010-2-51: 1995.**

#### Compliance Certificates and Full Reports.

Ref: RETS0287/51 and RETS0287/52

The above certificates and reports, from Epsilon Technical Services, an independent test house, are available upon request.

CE mark affixed '02.

Signed:  (Mr D. E. Hicks CEng MIEE)

Date: 

Authority: Technical/Development Manager  
Bibby Scientific Ltd

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DoFC\_88\_Rev01

# INSPECTION REPORT

**MODEL** SW5

## ELECTRICAL SAFETY

1. Earth continuity
2. Insulation
3. Flash test

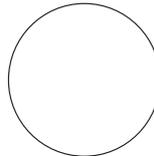


## FUNCTIONAL

1. Indicators
2. Speed
3. Visual acceptance



**QUALITY CONTROL INSPECTOR**



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