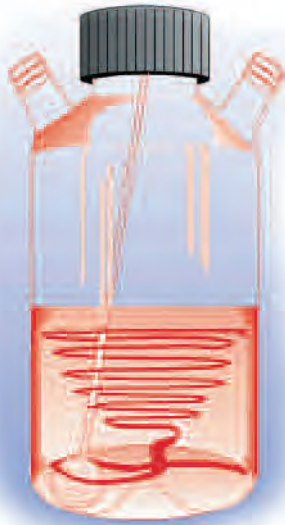


biological stirrers



Computer generated image of flow pattern generating a gentle controlled spiralling movement of the cell culture, upwards in the middle and downwards at the sides.

Biological Stirrers

The stirrers are designed for optimal suspension cell culture and the use of microcarriers.

A system comprises of a stirrer platform and a number of glass culture vessels.

- Five stirrer platform sizes are available, along with 7 sizes of culture vessel
- Speed range from 0 to 80rpm
- Softstart for slow acceleration and deceleration
- Interval setting option
- Stainless steel stirrer platform with locators for the culture vessels
- Designed for incubator environments

Unique stirring action

The culture vessels incorporate a unique base design which, together with the bulb-ended stirrer, ensures that the cells are lifted into suspension at the lowest possible speeds. This gentle stirring action promotes high cell yields.

The stirrers create virtually no heat so there is negligible heat transfer from the magnetic drive to the culture vessel, making the system suitable for use in both incubators and cold rooms.

Calibrated speed control and interval stirring

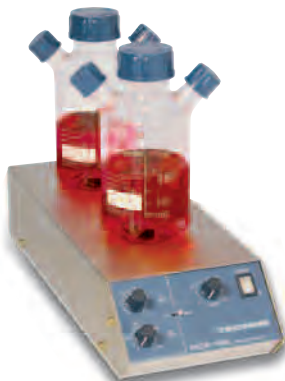
Cell attachment to microcarriers and high cell yields are ensured by the special softstart/stop design and interval stirring option. The former ensures slow acceleration and deceleration of the stirrer, avoiding excessive turbulence in the culture media and eliminating cell damage. The interval stirring can be used during the attachment phase to further reduce agitation of the media or when culturing particularly fragile cells.



MCS-101L

MCS-101L

- Accommodates one large vessel; either 3 or 5 litres
- Strong, rugged and lightweight



MCS-102L

MCS-102L

- Holds up to two 1 litre culture vessels
- Small, light and compact and space saving



MCS-104S

- Compact version of the MCS-101L
- Hold up to four 500ml culture vessels
- Small, light, compact and space saving



MCS-104S

MCS-104L

- Holds up to four 1 litre cultures vessels
- Strong, rugged and lightweight



MCS-104L

MCS-104XL

- 4 extra large vessels
- Accommodates four 5 litres culture vessels
- Designed for large-scale production
- Strong, rugged and lightweight



MCS-104XL

Technical Specifications

All models

Speed

Speed range	0 to 80rpm
Speed setting accuracy	$< \pm 3$ rpm
Softstart speed control	20 second acceleration 20 second deceleration

Interval stirring

Variable on-time	6 seconds to 5 minutes
Variable off-time	2 minutes to 2 hours
Limited operating conditions	40°C and 95% relative humidity (non-condensing)

Power supply	Dual Voltage 230/110V 50/60Hz
Nominal power consumption	2W
Fuse rating	100mA



biological stirrers

Technical Specifications

Specifications unique to each model

	MCS-101L	MCS-102L	MCS-104S	MCS-104L	MCS-104XL
Vessels per system	1	2	4	4	4
Maximum vessels size, ml	5000 (3000 min.)	1000	500	1000	5000 (only)
Width (mm)	395	140	250	395	530
Depth, including mains plug (mm)	495	400	365	495	595
Height, excluding vessel locators (mm)	90	90	90	90	90
Net weight, excluding vessels (kg)	6.5	3.0	4.1	6.1	11.5

Ordering Information

Product Code	Description
FMCS101L	MCS-101L biological stirrer
FMCS102L	MCS-102L biological stirrer
FMCS104S	MCS-104S biological stirrer
FMCS104L	MCS-104L biological stirrer
FMCS104X	MCS-104XL biological stirrer

Cell Culture Vessels

The culture vessels can be sealed for use with pathogenic materials. The stirrer rod design eliminates rotating bearings within the culture vessels, avoiding the difficulties arising from attempts to clean and autoclave conventional vessels.

The stirring system uses Pyrex® borosilicate glass culture vessels and stirrer rods which are silicised to reduce the possibility of cells attaching to and growing on the surfaces. Vessels are available with nominal working volumes of 125ml, 250ml, 500ml, 1 litre, 3 litre (all with two side necks) and 5 litre (with two or five side necks).

Note that you must order culture vessels to suit your needs; they are not supplied with the MCS platform.



Technical Specification

	125ml	250ml	500ml	1 litre	3 litre	5 litre	5 litre
Filled volume, ml	250	500	1000	2000	6000	10000	10000
Nominal working volume, ml	125	250	500	1000	3000	5000	5000
Working volume range, ml	50 – 175	100 – 350	200 – 700	500 – 1500	1500 – 3500	2000 – 7000	2000 – 7000
Height, mm	145	170	205	263	284	365	365
Diameter, mm	65	80	100	140	215	240	240
Top cap–thread size (mm)	42	42	42	60	60	60	60
Side cap–thread size (mm)	20	20	30	42	42	24	42
Port size (mm)	14	14	23	33	33	18	33
No. of side necks	2	2	2	2	2	5	2

Ordering Information

Product Code	Description
F7988	Culture vessel, 125ml
F7689	Culture vessel, 250ml
F7607	Culture vessel, 500ml
F7608	Culture vessel, 1 litre
FA298	Culture vessel, 3 litre
FA296	Culture vessel, 5 litre, 5 neck
FA709	Culture vessel, 5 litre, 2 neck



Thank you for reading this data sheet.

For pricing or for further information, please contact us at our UK Office, using the details below.



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Please note - Product designs and specifications are subject to change without notice. The user is responsible for determining the suitability of this product.