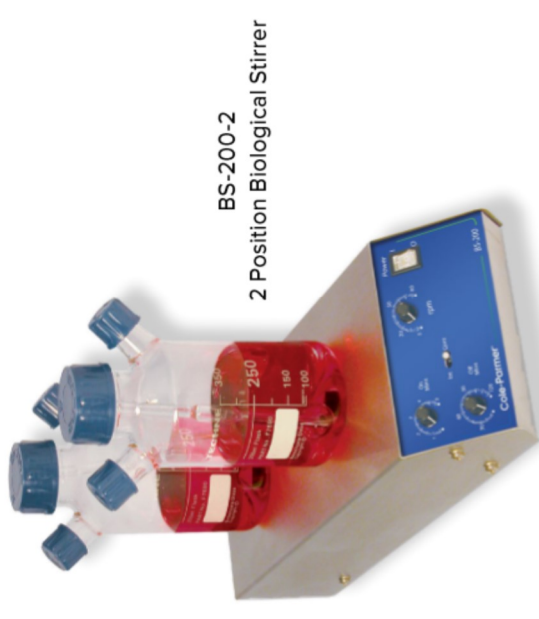


## Cole-Parmer® Biological Stirrers - BS-200

The stirrers are designed for optimal suspension cell culture and the use of microcarriers. The system comprises of a stirrer platform and a number of glass culture vessels.

- 2 and 4 position culture vessels, dependent on model
- Speed range from 0 to 80rpm
- Softstart/stop for slow acceleration and deceleration
- Interval setting option
- Stainless steel stirrer platform with locators for the culture vessels
- Designed for incubator environments upto 40°C and 95% humidity



BS-200-2  
2 Position Biological Stirrer



BS-200-4-5000  
4 Position Biological Stirrer

# Cole-Parmer® Biological Stirrers - BS-200

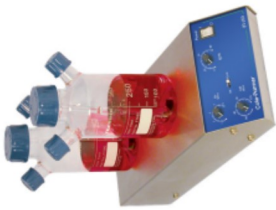
## Unique stirring action

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 by preventing cell shearing.

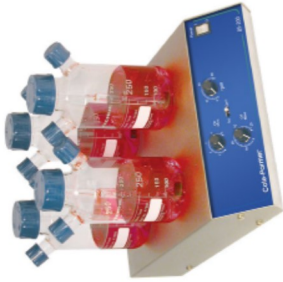
## Calibrated speed control and interval stirring

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.

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.



BS-200-2  
2 Position Biological Stirrer



BS-200-4-500  
4 Position Biological Stirrer



BS-200-4-1000  
4 Position Biological Stirrer



BS-200-4-5000  
4 Position Biological Stirrer

## Technical Specification

Specification	BS-200-2	BS-200-4-500	BS-200-4-1000	BS-200-4-5000
Vessels per stirrer	2	4	4	4
Maximum vessel size	1000mL	500mL	1000mL	5000mL
Speed range	0 to 80rpm	0 to 80rpm	0 to 80rpm	0 to 80rpm
Speed setting accuracy	±3rpm	±3rpm	±3rpm	±3rpm
Softstart speed control 20 second acceleration	20 second acceleration 20 second deceleration	20 second acceleration 20 second deceleration	20 second acceleration 20 second deceleration	20 second acceleration 20 second deceleration
Interval setting: variable on-time	6 seconds to 5 minutes	6 seconds to 5 minutes	6 seconds to 5 minutes	6 seconds to 5 minutes
Interval setting: variable off-time	2 minutes to 2 hours	2 minutes to 2 hours	2 minutes to 2 hours	2 minutes to 2 hours
Limited operating conditions	40°C and 95%	40°C and 95%	40°C and 95%	40°C and 95%
Voltage	Dual Voltage 230/110V 50/60Hz	Dual Voltage 230/110V 50/60Hz	Dual Voltage 230/110V 50/60Hz	Dual Voltage 230/110V 50/60Hz
Nominal power consumption	2W	2W	2W	2W
Dimensions (w x d x h)	140 x 400 x 90mm	140 x 400 x 90mm	140 x 400 x 90mm	140 x 400 x 90mm
Net weight (excluding vessels)	3.0kg	4.1kg	6.1kg	11.5kg
Shipping weight	4.2kg	5.3kg	7.1kg	13.5kg

## Ordering Information

Description	Ordering Number	Series No.	Model No.	Legacy Sku.
Cole-Parmer® MCS-102L Biological Stirrer, 2 position	21837-01	BS-200	BS-200-2	FMCS102L
Cole-Parmer® MCS-104S Biological Stirrer for culture vessels of maximum 500mL	21837-03	BS-200	BS-200-4-500	FMCS104S
Cole-Parmer® MCS-104L Biological Stirrer for culture vessels of maximum 1000mL	21837-02	BS-200	BS-200-4-1000	FMCS104L
Cole-Parmer® MCS-104XL Biological Stirrer for 5000mL culture vessels only	21837-04	BS-200	BS-200-4-5000	FMCS104XL

### Note:

Culture vessels must be ordered separately



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 Germany: +49 (0) 9377 92030

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 Italy: +39 (0) 1313 89513  
 UK: +44 (0) 1480 272279  
 All other countries: +1.847.549.7600

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