

Ambr[®] 250 Modular



Technical Specification

Scope

System combines 2, 4, 6 or 8 "Easy-Connect" single-use bioreactors, automated platform, bioreactor controller and flexible system control software.

Recommended Working Space

System dimensions including monitor, excluding chiller and external system options.

Ambr[®] 250 Modular 2 vessel system

| Width | Depth | Height |
|---------|---------|--------|
| 88.5 cm | 45.5 cm | 60 cm |
| 35" | 18" | 24" |

Ambr[®] 250 Modular 4 vessel system

| Width | Depth | Height |
|--------|---------|--------|
| 127 cm | 45.5 cm | 60 cm |
| 50" | 18" | 24" |

Ambr® 250 Modular 6 vessel system

| Width | Depth | Height |
|----------|---------|--------|
| 165.5 cm | 45.5 cm | 60 cm |
| 65" | 18" | 24" |

Ambr® 250 Modular 8 vessel system

| Width | Depth | Height |
|--------|---------|--------|
| 204 cm | 45.5 cm | 60 cm |
| 80" | 18" | 24" |

System operating parameters

| | |
|---|------------------------------------|
| Agitation speed (standard) | 150 - 4500 rpm |
| Agitation speed (wide range) | 100 - 4500 rpm |
| Culture temperature | 18 - 55°C ± 0.5°C |
| Post culture period chilling | 6 - 8°C |
| Temperature shift rate | > 5°C per 30 mins |
| pH range | 2.0 - 8.5 |
| pH monitoring accuracy | ± 0.02 pH units |
| DO (% air saturation) monitoring range | 0 - 200% |
| DO monitoring accuracy | ± 2% @ 100% |
| Maximum air or total gas flow | 550 mL/min |
| Gas-flow monitoring accuracy | ± 5% @ > 50 mL/min |
| Exhaust gas CO ₂ monitoring | 0 - 20% |
| Exhaust gas CO ₂ monitoring accuracy | ± 5% @ 5% CO ₂ |
| Exhaust gas O ₂ monitoring range | 0 - 50% |
| Exhaust gas O ₂ monitoring accuracy | ± 2% @ 21% O ₂ |
| Integrated pump design | Syringe pumps |
| Flow rates | 0 - 20 mL/hr (viscosity dependent) |
| Pump dispense accuracy | ± 5% @ >10 µL/hr |
| Integrated pumps per vessel | 5 |
| Peristaltic pumps per bioreactor | 1 |
| Number of 125 mL reservoirs per bioreactor | 2 |
| Number of 50 mL reservoirs per bioreactor | 3 |

Note: All information is correct at time of publication, but Sartorius reserves the right to make alterations due to technical enhancements or other changes.

Maximum flow rate mL/min

| Gases | Cell culture | | Microbial | |
|----------------------|--------------|-----------|----------------|--------|
| | Sparge | Headspace | Gases | Sparge |
| Air N ₂ | 550 | 100 | Air | 550 |
| O ₂ | 80 | 50 | O ₂ | 120 |
| CO ₂ | 75 | 50 | N ₂ | 120 |

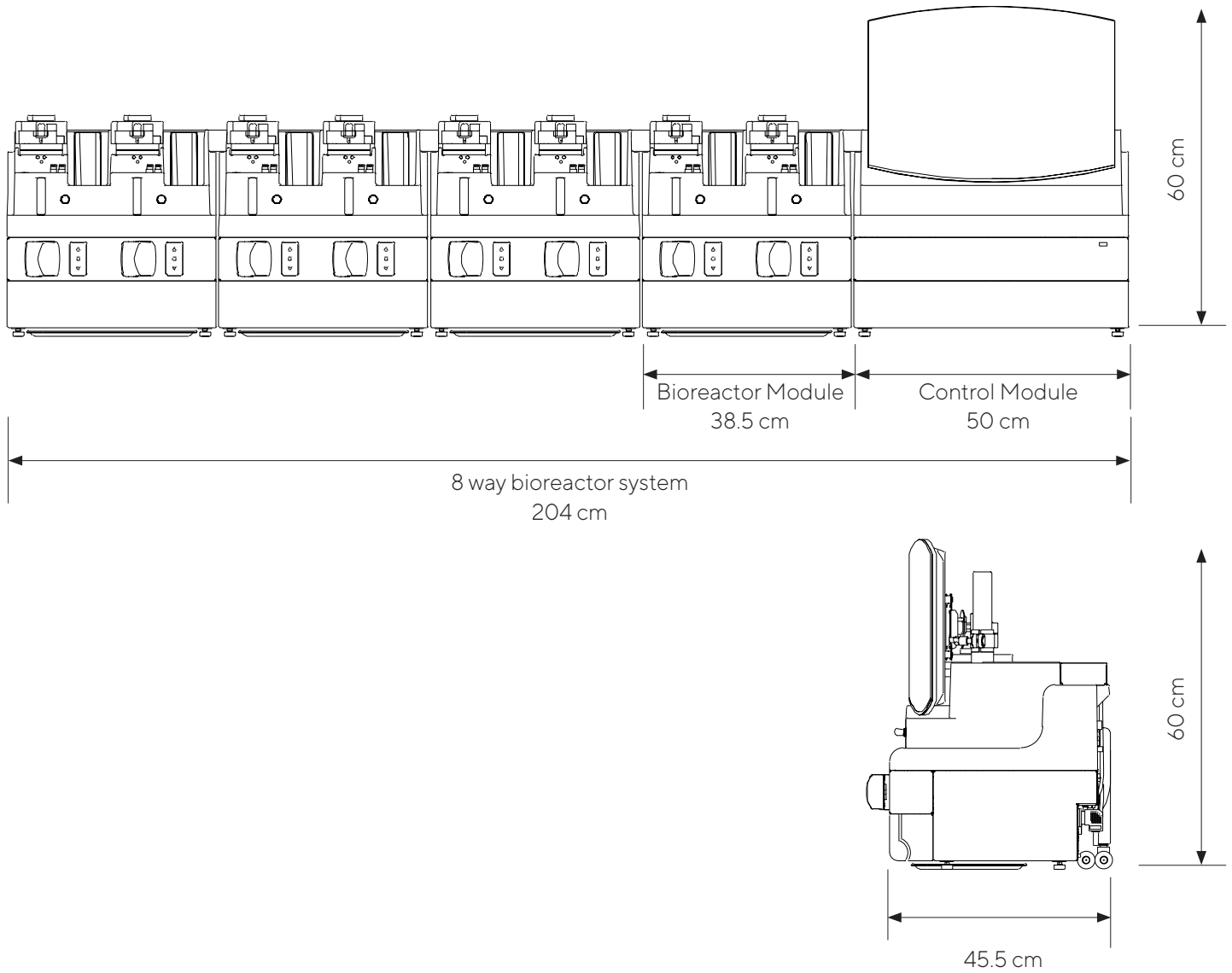
Bioreactor vessel general information

| | |
|--------------------------|---|
| Construction material | Polycarbonate, polypropylene, polyethylene |
| Dimensions | Internal diameter 60 mm. Internal height 120 mm |
| Total volume | 350 mL |
| Working volume | 100 - 250 mL |
| pH monitoring technology | Single-use electrode |
| DO monitoring technology | Fluorescence based spot |

Bioreactor vessel information

| Bioreactor type | Cell culture | Cell culture | Microbial |
|--|---|---|---|
| Baffles | 4 | 0 | 4 |
| Number of impellers | 2 | 1 | 2 |
| Impeller type | Pitch blade | Elephant ear | Rushton turbine |
| Diameter | Ø26 mm | Ø30 mm | Ø20 mm |
| Power number | 1.34 | 2.07 | 7.3 |
| kLa | 3.4/h @ 450 rpm, 200 mL water, 6 mL/min air | 2.3/h @ 200 rpm, 200 mL water, 6 mL/min air | 1780/h @ 4200 rpm, 250 mL water, 375 mL/min air |
| Maximum power input dependent on nature of culture | - | - | 35.1 kW/m ³ |
| Reynolds number | - | - | 3.37 x 10 ⁴ |
| Tip speed | - | - | 4.71 m/s |
| Mixing time | - | - | 0.642/s |

Dimensions of Ambr® 250 Modular 8 vessel system



Sales and Service Contacts

For further contacts, visit
sartorius.com

Germany

Sartorius Stedim Biotech
GmbH
August-Spindler-Strasse 11
37079 Goettingen
Phone +49 551 308 0

USA

Sartorius Stedim North
America Inc.
565 Johnson Avenue
Bohemia, NY 11716
Toll-Free +1 800 368 7178