

HyPerforma Rocker Bioreactor

The Thermo Scientific™ HyPerforma™ Rocker Bioreactors bring control and measurement to rocking bioreactor applications. The rocker is controlled by a Thermo Scientific™ HyPerforma™ Bioprocess Controllers and Thermo Scientific™ Bioprocess Automation and Control Software, powered by the Emerson™ DeltaV™ Distributed Control Platform. This provides a complete solution for research, process development, or seed train production applications. The HyPerforma Rocker Bioreactors use BPCs with working volumes of 5, 10, and 25 L are available with or without the novel Thermo Scientific™ pH+dO₂ sensor and reader.

Key features

- Compatible with most cell culture applications
- Rocking motion is customizable to your specific workflow—from a smooth waveform that minimizes shear forces for sensitive cell lines, through four intermediate steps, to an aggressive motion that maximizes oxygen transfer for robust cells with high oxygen demands
- Quick, simple setup with a HyPerforma Bioprocess Controller and TruBio software
- Optional accessories include rocker cover, tray adapter for use with 10 L and 20 L BPCs, and sensorless cover plate for when the reader is not being used
- Each HyPerforma Rocker BPC is available in 10, 20, and 50 L (5, 10, and 25 L maximum liquid volume) sizes and is delivered with all relevant certificates, gamma-irradiated (25 to 40 kGy) and conforming to USP Class 6 specifications
- Standard service packages
- cGMP-compliant capabilities
- Load cell for weight control
- The pH+dO₂ sensor provides measurement and control of critical process parameters: pH, dissolved oxygen (DO), and temperature



HyPerforma Rocker BPC sizes	10 L	20 L	50 L
Rocker BPC dimensions	549.4 x 330.2 mm (21.6 x 13.0 in.)	549.4 x 660.1 mm (21.6 x 26.0 in.)	711.2 x 723.9 mm (28.0 x 28.5 in.)
Working volume	5 L	10 L	25 L
Minimum working volume	1 L	2 L	5 L
HyPerforma Rocker Bioreactor	Rocker bioreactor assembly, load cell, GMP, stainless steel (includes rocker base, tray base, 50 L tray)		
Bag adapter	10 L/20 L BPC mounting adapter for 50 L rocker tray		
Vent filter heater	BPC filter heater (quantity: 2)		
Dimensions (H x W x D)	264 x 782 x 701 mm (10.4 x 30.8 x 27.6 in.); 490 x 835 x 712 mm (19.3 x 32.9 x 28.0 in.) with cover		
Weight (base + tray)	38.5 kg (85 lb)		
Rocking angle	2° to 12° per side		
Rocking rate	2 to 40 cycles per minute		
Electrical power	110–120 V, 220–240 V, 50/60 Hz, powered by the HyPerform Bioprocess Controllers		
Operating temperature	0°C to 45°C (32°F to 158°F)		
Storage temperature	–40°C to 70°C (–40°F to 158°F)		
Humidity	5% to 95%, noncondensing		
Acoustic noise level	<70 dBA		
pH sensor range	pH 5.5 to 8.5		
pH sensor relative accuracy	±0.1 pH units over calibration range after a 2-point calibration having 0.3 to 0.8 pH units of separation		
DO sensor range (percent saturation)	0% to 250%		
DO sensor limit of detection	0.03% O ₂		
DO accuracy	At 25°C: ±1.1% at 20.95% O ₂		
Temperature	10°C to 45°C (50°F to 113°F)		
Temperature accuracy	±0.15°C at 15°C to 40°C (±0.25°F at 59°F to 104°F)		



TruBio Bioprocess Automation and Control Software

The TruBio software provides easy-to-configure process control, eliminating the need to learn automation control programming. Developed for use with HyPerforma Bioprocess Controllers, TruBio software is designed to support easy scaling and technology transfer and building of sophisticated process control strategies. It also provides the flexibility to incorporate a wide range of cell culture, fermentor, or mixing vessels, and manage multiple data streams from several unit operations. TruBio software is powered by the Emerson DeltaV system, has been developed according to Good Automated Manufacturing Practice (GAMP™) 5 methods, and conforms to regulatory requirements for use in cGMP-compliant processes.

- **For non-GMP research and process development applications:** Thermo Scientific™ TruBio™ Discovery Bioprocess Control Software powered by the Emerson™ DeltaV™ Discovery platform
- **For GMP and typical scale-up to manufacturing applications:** TruBio software powered by the conventional DeltaV platform



Ordering information

HyPerforma Rocker Bioreactors and BPCs	Cat. No.
HyPerforma Rocker Bioreactor, with load cells	F100-2683-001
HyPerforma Rocker Bioreactor, without load cells	F100-2683-002
10 L HyPerforma Rocker BPC, LDPE film, cGMP, with sensor	F100-2544-001
20 L HyPerforma Rocker BPC, LDPE film, cGMP, with sensor	F100-2545-001
50 L HyPerforma Rocker BPC, LDPE film, cGMP, with sensor	F100-2546-001
10 L HyPerforma Rocker BPC, Aegis5-14 film, cGMP, without sensor	SH31187.01
20 L HyPerforma Rocker BPC, Aegis5-14 film, cGMP, without sensor	SH31187.02
50 L HyPerforma Rocker BPC, Aegis5-14 film, cGMP, without sensor	SH31187.03

Find out more at thermofisher.com/rockerbioreactor