# **MQ** Benchtop Centrifuge (165000)

**Cat No: BTC-M-16500** 





## **Description**

MQ Benchtop Centrifuge (16500) adopts maintenance-free induction motor driving, microprocessor control, user-intuitive touchscreen interface display, steel housing, corrosion-resistant stainless steel centrifuge chamber, steel lid, electronic lid interlock, automatic rotor identification with overspeed protection, imbalance protection and other safety technologies for safe operation. It can store 1000 programs and there are 40 acceleration rates and 40 deceleration rates available for daily use. The operation parameters such as running time, running speed/centrifugal force, deceleration rate can be modified during operation. The self trouble diagnosis system can detect speed, lid lock, motor failure and many other kinds of fault automatically and show the fault code.

### **Features**

- Modern, graphic user-intuitive touchscreen interface enables easy access and programming for faster results.
- Entering parameters by tapping icons in the touchscreen then entering digits on the keypad directly, simple and time-saving.
- Easy access all centrifuge menus including settings, saved programs, function menu, icons of start/stop and lid open, simple one-handed operation with gloves on or without glove.
- Intelligentized status display, easily monitor your run progress with tracker bar which including the enlarged speed/RCF, time.
- The "Main" screen displays the main operating parameters of the unit, including saved programs, rotor no., current speed/RCF, speed setpoint, RCF setpoint, current runtime, runtime setpoint, acceleration as well as deceleration profiles. When alarms occur, this part of the display screen shows alarm information.

- Automatic rotor identification technology with overspeed protection for maximum operational safety.
- Electronic lid interlock for safe operation.
- 40 acceleration rates, 39 deceleration rates and unbraked deceleration for sensitive sample material.
- Multi-stage centrifugal mode (max up to 5 stages of speed & time) is available.
- Three-axis gyroscope monitors balance state throughout the whole run process.
- Emergency lid lock release.
- Lid dropping protection.
- Easy rotor changing.
- A large variety of rotors and accessories optional, broad choice of speed, capacity and application.
- Self trouble diagnosis system can detect speed, lid lock, motor failure and many other kinds of fault automatically and show the solutions if any problem occurs.
- The centrifuge housing made of high quality steel which was electrostatic powder coated, antirusting and anti-corrosive.
- Quiet operation design to operate at low noise levels for a relaxing work environment.

### **Design and Safety Parameters**

- Manufactured according to latest international safety regulations (EN 61010-1:2010, EN 61010-2-020:2006, EN 61000-3-2:2014, EN 61000-3-3:2013, etc.).
- Compact footprint saves valuable bench space.
- Automatic rpm/rcf conversion.
- Entering speed in both rpm and rcf.
- Speed range from 200 rpm to 16500 rpm.
- Rotors are in aeronautical aluminum (anodized), corrosion resistant, chemical resistant and organic solvents resistant.
- All rotors/adapters are autoclavable (121 °C, 20 min) to keep your lab and hands free of contamination.
- Corrosion-resistant 304 stainless steel centrifuge chamber, steel centrifuge housing and steel lid for safe operation.
- Maintenance-free induction motor controls speed.
- Viewing port in the lid for external speed monitoring.
- Lid opens easily via pneumatic springs.
- Lid open/close detector.
- Lid locking and holding during rotor run, centrifugation process can not start when lid is not lock.
- Auto power motor off when open lid.
- Overcurrent protection.
- Run the unit in continuous mode or timed mode.
- Entering the running time in the range of 1 s to 99 h 59 min 59 s.
- Safety, performance and operation simplified at every run. Durable, energy efficient and especially user-friendly.

#### **Choices of Rotors**



# **Specifications**

Model		BTC-M-16500		
Control system		Microprocessor		
Drive system		Direct, induction motor drive		
Display		Full color touchscreen interface		
Rotor identification		Auto-ID instant		
Multi-stage centrifugal mode		Max up to 5 stages of speed and time		
User lockout function		Yes		
Program storage		1000 user-defined		
Fixed-Angle Rotors	Max. capacity	6 x 100ml		
	Max. speed	16500 rpm with 12x1.5/2.0ml		
	Max. RCF	24760 xg with 24 x 1.5/2.0ml		
Swing-Bucket rotors	Max. capacity	2 x 2 microplates (48 wells)		
	Max. speed	4000 rpm with 2x2 microplate rotor		
	Max. RCF	1500 xg with 2x2 microplate rotor		
Running time		1s – 99 h: 59 min: 59s		
Timer		Count up or down		
Speed accuracy		±10 r/min		
Accel/Decel profiles		40/40		
Noise Level		≤60 dB (A)		
Power supply		AC 200-240V, 50/60Hz		

Rotor No.	Rotor Capacity	Tube Size	Max Speed	Max RCF
	(places x volume, ml)	(ΦxLinmm)	(rpm)	(g)
No.1 Fixed-Angle Rotor	12 x 1.5/2.0 ml (with adapters for 0.2/0.5ml tube)	Φ11 x 42	16 500 rpm	19 000 Xg
No.2 Fixed-Angle Rotor	12 x 5 ml	Φ14 x 54	15 000 rpm	18 240 Xg
No.3 Fixed-Angle Rotor	24 x 1.5/2.0 ml (with adapters for 0.2/0.5ml tube)	Φ11 x 42	16 000 rpm	24 760 Xg
No.4-1 Fixed-Angle Rotor	12 x 10 ml	Φ16 x 86		
No.4-2 Fixed-Angle Rotor	36 x 1.5/2.0 ml (with adapters for 0.2/0.5ml tube)	Φ11 x 42	13 000 rpm	15 630 Xg
No.5-1 Fixed-Angle Rotor	6 x 50 ml (conical)	Φ29 x 116		15 700 Xg
No.5-2 Fixed-Angle Rotor	48 x 1.5/2.0 ml (with adapters for 0.2/0.5ml tube)	Φ11 x 42	12 000 rpm	
No.5-3 Fixed-Angle Rotor	6 x 50 ml (round bottom)	Φ29 x 111		
No.6-1 Fixed-Angle Rotor	4 x 100 ml	Φ37 x 123		11 020 Xg
No.6-2 Fixed-Angle Rotor	8 x 50 ml (conical)	Φ29 x 116		
No.6-3 Fixed-Angle Rotor	12 x 15 ml	Φ17 x 121	10 000 rpm	
No.6-4 Fixed-Angle Rotor	8 x 50 ml (round bottom)	Φ29 x 111		
No.6-5 Fixed-Angle Rotor	24 x 10 ml	Φ16 x 86		
No.7 Fixed-Angle Rotor	6 x 10 ml	Φ16 x 86	16 000 rpm	18 950 Xg
No.8-1 Fixed-Angle Rotor	8 x 15 ml	Φ17 x 121	13 000	14 930 Xg
No.8-2 Fixed-Angle Rotor	6 x 30 ml	Φ25.5 x 100	13 000 rpm	
No.9 Fixed-Angle Rotor	4 x PCR-Strips	-	13 000 rpm	14 640 Xg
No.10 Fixed-Angle Rotor	6 x 100 ml	Φ37 x 123	8 000 rpm	7 720 Xg
No. 11 Swing-Bucket Rotor	2 x 2 pcs microplates (48 wells)	Load dimensions (WxDxH) up to 128x48x60 mm	4 000 rpm	1 500 Xg