

# Equipment

## **NUTATING MIXER - 3-DIMENSIONAL**

These versatile mixers are designed for thorough, foam-free mixing in tubes. They are offered in two platform sizes, and come standard with an autoclavable dimpled mat to hold tubes in place. Both sizes offer maintenance free brushless motors and are safe for use in cold rooms and incubators. Optional accessories include a flat mat for mixing other vessel types and stacking platforms for doubling the usable surface area of each model.



Item #	Description	Unit
520	Nutating Mixer, 10.5" x 7.5" platform, 115V	1
520-230	Nutating Mixer, 10.5" x 7.5" platform, 230V	1
520-FM	Optional flat mat, 10.5" x 7.5"	1
520-DM	Optional dimpled mat, 10.5" x 7.5"	1
520-SFM	Optional stackable platform with flat mat, 10.5" x 7.5"	1
520-SDM	Optional stackable platform with dimpled mat, 10.5" x 7.5"	1
522	Nutating Mixer II, 12" x 12" platform, 115V	1
522-230	Nutating Mixer II, 12" x 12" platform, 230V	1
528-FM	Optional flat mat, 12" x 12"	1
528-DM	Optional dimpled mat, 12" x 12"	1
528-SFM	Optional stackable platform with flat mat, 12" x 12"	1
528-SDM	Optional stackable platform with dimpled mat, 12" x 12"	1

### Specifications

Platform Size - Nutating Mixer	10.5 x 7.5" (27 x 19cm)
Platform Size - Nutating Mixer II	12 x 12" (30 x 30cm)
Dimensions - Nutating Mixer	10 x 7.5 x 8 inches
Dimensions - Nutating Mixer II	12 x 12 x 8.3 inches
Speed range	24 rpm*
Tilt Angle	+/- 20 degrees
Load Capacity	2.0 kg / 4.4lbs
Operating Temp. Range	+4°C to 65°C
Weight	2.0 kg / 4.4lbs
Warranty	2 years
Electrical	115V AC, 60 Hz, 0.4A 230V AC, 50 Hz, 0.2A

\* Speed for 230V version is 20 rpm

## **BLOT / GEL MIXER - 3-DIMENSIONAL**

Based on the same design as our Nutating Mixers listed above, we modified the speed to provide a gentle 3-dimensional motion for use with all blot related applications. The tilt angle and speed on our Blot Mixers have been optimally set for gentle, yet thorough mixing in gel trays, boxes and other flat vessels. They are offered in two platform sizes (mini and large), and come standard with autoclavable flat mats that are ideal for blot washes and gel staining/destaining. Both sizes offer maintenance free brushless motors and are safe for use in cold rooms and incubators. Optional accessories include a dimpled mat for mixing tubes and a stackable platform for doubling the usable surface area.

Item #	Description	Unit
525	Blot Mixer, 10.5" x 7.5" platform, 115V	1
525-230	Blot Mixer, 10.5" x 7.5" platform, 230V	1
520-FM	Optional flat mat, 10.5" x 7.5"	1
520-DM	Optional dimpled mat, 10.5" x 7.5"	1
520-SFM	Optional stackable platform with flat mat, 10.5" x 7.5"	1
520-SDM	Optional stackable platform with dimpled mat, 10.5" x 7.5"	1
526	Blot Mixer II, 12" x 12" platform, 115V	1
526-230	Blot Mixer II, 12" x 12" platform, 230V	1
528-FM	Optional flat mat, 12" x 12"	1
528-DM	Optional dimpled mat, 12" x 12"	1
528-SFM	Optional stackable platform with flat mat, 12" x 12"	1
528-SDM	Optional stackable platform with dimpled mat, 12" x 12"	1

### Specifications

Platform Size - Blot Mixer	10.5 x 7.5" (27 x 19cm)
Platform Size - Blot Mixer II	12 x 12" (30 x 30cm)
Dimensions - Blot Mixer	10 x 7.5 x 8 inches
Dimensions - Blot Mixer II	12 x 12 x 8.3 inches
Speed range	12 rpm*
Tilt Angle	+/- 20 degrees
Load Capacity	2.0 kg / 4.4lbs
Operating Temp. Range	+4°C to 65°C
Weight	2.0 kg / 4.4lbs
Warranty	2 years
Electrical	115V AC, 60 Hz, 0.4A 230V AC, 50 Hz, 0.2A

\* Speed for 230V version is 10 rpm

# Equipment

## MINI CENTRIFUGE

Our mini centrifuge is perfect for quick spin-downs of small samples. It comes standard with a six-place angle rotor for 1.5mL to 2mL microcentrifuge tubes, six tube adapters for 0.5mL tubes and a separate rotor for sixteen 0.2mL PCR tubes or 2 PCR strips. Each rotor can be easily interchanged by the user in a matter of seconds.

The crystal clear lid allows the operator to safely observe samples. A special safety shutoff system cuts the motor as soon as the lid is opened.

The centrifuge is small but mighty. It quickly accelerates to a maximum speed of 6,600 rpm (2,200 rcf) and stops within seconds. The motor provides a super quiet, vibration-free operation.



Item #	Description
545B	Mini centrifuge, blue, with 2 rotors and 6 adapters, 115V
545B-230	Mini centrifuge, blue, with 2 rotors and 6 adapters, 230V
545R	Mini centrifuge, red, with 2 rotors and 6 adapters, 115V
545R-230	Mini centrifuge, red, with 2 rotors and 6 adapters, 230V
545-RND	Extra rotor for six 1.5mL to 2mL microcentrifuge tubes
545-ADP	Extra adapters for 0.5mL tubes (six each)
545-STP	Extra rotor for sixteen 0.2mL PCR tubes or two 8-place 0.2mL PCR strips

### Specifications

RPM:	6,600 rpm
RCF:	2,200 x g
Max Capacity:	
Microtube Rotor:	6 x 1.5 or 2mL
PCR Strip Rotor:	2 x 8-strips or 16 x 0.2mL tubes
Dimensions (WxDxH):	5 x 5.4 x 3.9 inches
Operating Temp. Range:	+4°C to 50°C
Electrical:	100V to 230 VAC, 50/60 HZ, 0.1A
Warranty:	1 Year

## DIGITAL DRY BATHS

Caesa's digital dry baths are designed to keep samples at preset temperatures up to 150°C. They offer digital control over both temperature and time, eliminating the need for an external thermometer or timer. Available in three configurations, the digital dry baths offer capacity for up to four blocks. These models are extremely space efficient - with the largest model holding up to 96 x 1.5mL tubes and taking up less than a square foot of bench top space.

The cavities of the high grade aluminum blocks are precision machined to match the conical size and shape of 0.5, 1.5, 2.0, 15 and 50mL tube sizes, providing unsurpassed temperature uniformity. Assorted blocks are available for compatibility with most common tube sizes.

All Caesa dry baths offer a built-in user recalibration function to guarantee long term temperature accuracy. Each dry bath also includes an easy to use block lifter with a temperature insulated handle for quick, convenient exchange of blocks. **Note: Blocks are sold separately.**

Item #	Description
515	Digital dry bath, single position, 115V
515-230	Digital dry bath, single position, 230V
517	Digital dry bath, two position, 115V
517-230	Digital dry bath, two position, 230V
518	Digital dry bath, four position, 115V
518-230	Digital dry bath, four position, 230V
518-1	Solid block for slides and machining
518-2	Block, 24-place for 1.5mL micro tubes
518-3	Block, 24-place for 1.5 or 2mL micro tubes
518-4	Block, 24-place for 0.5mL micro tubes
518-5	Block, 12-place for 15mL tubes
518-6	Block, 20-place for 10mm test tubes or 2mL micro tubes
518-7	Block, 20-place for 13mm test tubes
518-8	Block, 5-place for 50mL centrifuge tubes
518-9	Block, 12-place for 15mm or 16mm tubes

### Specifications

Temperature Range:	Amb. +5 to 150°C*
Temp. Resolution:	0.1°C
Temp. Accuracy:	+/- 0.2°C
Temp. Increments:	0.1°C
Temp. Uniformity:	+/- 0.2°C
Timer:	1 to 999 minutes
Dimensions:	
Single:	7.8 x 9 x 3.2 inches
Two Position:	8.7 x 10.3 x 3.2 inches
Four Position:	8.7 x 14 x 3.2 inches
Block Dim (WxDxH):	3 x 3.75 x 2 inches
Chamber:	Fast Heating Aluminum
Operating Temp. Range:	+4°C to +65°C
Warranty:	2 Years
Electrical:	115V AC, 60Hz / 230V AC, 50 Hz

\* Temp. range of 4-position dry bath is Amb. +5 to 130°C

# Equipment

## **HOT PLATE / MAGNETIC STIRRER**

Caesa's hotplate stirrer offers the benefit of having two separate machines in one unit. The small, space-efficient design (8 x 9 inch footprint), makes it ideal for use on crowded benchtops and inside of bio-hoods. It features an exceptionally durable, chemical resistant white ceramic work surface.

The advanced microprocessor controls with convenient turn knobs allow quick, precise adjustment and maintenance of speed and temperature. Safety indicator LED's on the front panel indicate when the heating and/or stirring functions have been activated.

With a square 7.5 inches of work surface, the hotplate stirrer is compatible with a wide variety of glass beakers, flasks, bottles and other vessels. This model comes complete with a support rod for mounting thermometers and temperature probes.



### **Specifications**

Speed Range:	60-1500 rpm
Temperature Range:	Ambient +5 to 380°C
Platform:	7.5 x 7.5 inches
Control:	Quick adjustment knobs
Dimensions (WxDxH):	8 x 9 x 4.5 inches
Electrical Data:	120V, 60Hz 230V, 50/60 Hz

Item #	Description
508	Hotplate stirrer, 115V
508-230	Hotplate stirrer, 230V
508-S	Stainless steel rod stand, 300mm
508-B	Teflon coated magnetic stir bar, 25mm

## **INCUBATOR**

Caesa's mini incubator provides even heating and uniformity using wrap-around heating elements. Control of heating and temperature stability are maintained by a hydraulic thermostat. A thermometer port is built into the top of the incubator. A large plexiglass viewing area in the door of the incubator gives a clear view of the contents. Easy to clean shelves can be placed at two levels within the chamber. The corrosion resistant interior and sturdy, dependable construction provide a long, maintenance-free, service life. The mini incubator can accommodate up to 48 petri dishes or 28 standard 96 well plates.



- Ideal for microbiology, tissue culture and hematology applications
- Corrosion resistant chamber
- Door with large viewing area
- Pilot Light to Indicate Heating

Item #	Description
505	Incubator, Mini, 115V
506	Incubator, Mini, 230V

### **Specifications**

Exterior dimensions:	11.2 x 11 x 13.2 inches (WxDxH)
Interior dimensions:	9 x 7.9 x 7.9 inches (WxDxH)
Weight:	18.4 lb (8.3 kg)
Chamber capacity:	0.375 cu. ft. (9.2L)
Temperature range:	Ambient +5 to 60° C
Controls:	Analog
Stability:	±0.6°C at 37°C (N.I.S.T. traceable thermometer)
Uniformity:	0.65°C at 37°C
Warranty:	1 year
Electrical:	120V, 50/60Hz, 0.6A 230V, 50/60 Hz, 0.3A

# Equipment

## **ROCKER**

Caesa's 2 dimensional rocker is specifically optimized with the ideal rocking speed and tilt angle (+/-8° tilt) for blot washing, gel staining/destaining and hybridization applications. Available with an optional dual platform accessory, the rocker offers a sizeable work space, while maintaining a compact footprint and low profile design.

Lightweight and easy to carry, it can be easily transported from the lab bench to a cold room or incubator.

The large load capacity (7 lbs), optional dimpled mat for tubes and multiple platform tie-down points, make this rocker suitable for a wide variety of general purpose applications.

Item #	Description
528	Rocker, 12 rpm, 115V
528-230	Rocker, 10 rpm, 230V
528-FM	Optional flat mat, 12" x 12"
528-DM	Optional dimpled mat, 12" x 12"
528-SFM	Optional stacking platform with flat mat, 12" x 12"
528-SDM	Optional stacking platform with dimpled mat, 12" x 12"

### **Specifications**

Platform Size:	12 x 12" (30 x 30cm)
Speed:	Fixed at 12 rpm Fixed at 10 rpm
Tilt Angle:	+/- 8°
Work Surface:	Non-skid rubber mat
Load Capacity:	3.2 kg / 7 lbs
Operating Temp. Range:	+4°C to 65°C
Dimensions:	13.5 x 11.8 x 4.7 inches
Weight	3 kg / 6.5 lbs
Warranty	2 years
Electrical	115V AC, 60 Hz, 0.4A 230V AC, 50 Hz, 0.2A

## **VORTEX MIXER**

Our vortex mixer provides a smooth instant vortexing of even the largest sample sizes, including 50mL tubes. The unique counter balance system creates maximum vortexing action, while minimizing noise and excessive vibration. This results in a quieter, more efficient and longer lasting operation. The vortex mixer offers touch or continuous operation as well as variable speed control from 200 to 3200 rpm.

Other features include: suction feet, cold room and incubator compatibility as well as spill-proof electronic controls.

Item #	Description
500	Vortex mixer with universal cup head, 115V
500-230	Vortex mixer with universal cup head, 230V
500-FH	Optional flat head
500-CH	Optional combo head for tubes and microplates, holds 66 tubes (38 x 1.5mL and 28 x 0.5mL) or one microplate

### **Specifications**

Speed Range:	200 to 3200 rpm
Operating Modes:	Touch or continuous
Operating Temp. Range:	+4°C to 65°C
Dimensions:	5 x 6.3 x 6.7 inches
Weight:	3.8 kg / 8.4 lb
Electrical:	115V AC, 60 Hz, 1.5A 230V AC, 50 Hz, 0.75A
Warranty:	2 years

## **6 LITER MINI WATER BATH**

- Compact Design
- Stainless Steel Gable Cover
- 550W Heating Power
- Pilot Light to Indicate Heating
- Stainless Steel, Seamless Chamber

Item #	Description
510	Mini water bath with stainless steel cover and thermometer clip, 120V
511	Mini water bath with stainless steel cover and thermometer clip, 230V



### **Specifications:**

Exterior dimensions:	14 x 11 x 13 inches (W x D x H)
Interior dimensions:	12.6 x 6.7 x 6.9 inches (W x D x H)
Weight:	17 lb (7.7kg)
Chamber capacity:	6 liter
Temperature range:	Ambient +5° to 100° C
Warranty:	1 year
Electrical:	120V - 50/60Hz, 4.8A 230V - 50/60Hz, 2.4A