

# SELECTION GUIDE

## Mixers/Shakers



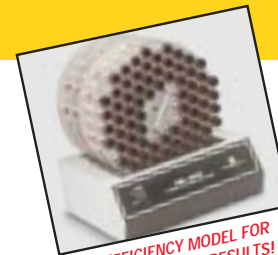
THE ULTIMATE IN PERFORMANCE AND DESIGN!



OUR NEWEST COMPETITIVELY PRICED PLATFORM ROCKER!



OUR BEST-SELLING TUBE ROCKERS AND ROTATORS!



HIGH EFFICIENCY MODEL FOR OPTIMUM CULTURE RESULTS!

### ORBITAL SHAKERS

	Type	Speed Range (rpm)	Orbit Size Inches (cm)	Ambient Conditions °C	Maximum Load Lb. (kg)	Page
<i>THE ULTIMATE IN PERFORMANCE AND DESIGN!</i>	Force 4626	15 - 500	0.75 (1.9)	15 - 40	35 (15.9)	204
<i>A BENCH TOP CHOICE FOR LARGE SCALE APPLICATIONS!</i>	Force 4633	15-500	0.75 (1.9)	15 - 40	50 (22.7)	204
<i>COMPACT AND RELIABLE!</i>	3518	40 - 400	0.72 (1.9)	15 - 40	35 (15.9)	205
<i>OUR MOST POPULAR ORBITAL SHAKER!</i>	3520	40 - 400	0.75 (1.9)	15 - 40	35 (15.9)	205
<i>DURABLE, AND MAINTENANCE FREE!</i>	Big Bill and Bigger Bill	25 - 450	0.75 (1.9)	4 to 5	50 (22.7)	206 - 207
<i>AFFORDABLE SHAKERS FOR THE CLASSROOM!</i>	1345, 1346	40 - 220	0.75 (1.9)	15 - 40	10 (5)	208
<i>A SOLUTION FOR PLATELET PHERESIS PROTOCOLS!</i>	Reciprocating 3506	10 - 250	0.5 - 1.5 (1.2 - 3.8)	4 to 40	15 (6.8)	209
<i>LOW PROFILE— HIGH PERFORMANCE!</i>	AROS 160	12 - 280	0.63 - 1.5 (1.6-3.8)	0 - 60	12 (5.4)	210
<i>TWO MIXING ACTIONS— ONE LOW PRICE!</i>	Dual Action	50 - 400	0.4 (0.9)	15 - 40	15 (6.8)	211
<i>OUR LARGEST DIGITAL OPEN AIR SHAKER!</i>	Force 4690	15 - 500	1 (3)	4 to 40	50 (22.7)	212
<i>LARGE CAPACITY WITH A LOWER PRICE!</i>	3590	40 - 400	1 (3)	4 to 40	50 (22.7)	213
	Platforms and Clamps					214 - 217

### TITER PLATE, ROTISSERIE AND ROCKING PLATFORM SHAKERS

	Type	Degree of Rocking Angle	Speed Range (rpm)	Orbit Size Inches (cm)	Ambient Conditions °C	Maximum Load Lb. (kg)	Page
<i>OUR NEWEST PLATFORM ROCKER!</i>	Platform Plus	11	0 - 60		15 - 40	20 (9)	218
<i>THE RIGHT CHOICE FOR GENTLE TO VIGOROUS ROCKING!</i>	Variable Speed 4638	20-30	0 -100		4 to 40	5 (2.27)	219
<i>BUILT TO LAST AT AN AFFORDABLE PRICE!</i>	Vari Mix Platform	48	5 to 30		0 - 65	15 (6.8)	220
<i>A BEST-SELLING TITER PLATE SHAKER!</i>	Titer Plate	n/a	40 - 1100	0.12 (0.3)	0 - 65	3 (1.36)	221
<i>WHEN YOUR APPLICATION REQUIRES SAFE, GENTLE ROCKING!</i>	Fixed Speed 4635	20	10		4 to 40	5 (2.27)	221
<i>A VARIETY OF CHOICES FOR TEST TUBES!</i>	Vari Mix	48	2 to 20		-4 - 60	1.25 (0.56)	222
	Speci Mix, 1/2 Size Speci Mix	48	18		-4 - 60	1.25 (0.56)	
<i>LIGHTWEIGHT AND SIMPLE TO USE!</i>	Multi-Tube	40	30		15 - 40	3 (1.36)	223
<i>OUR BEST-SELLING TUBE ROCKERS AND ROTATORS!</i>	Labquake Double deck trays and/or clip bar	90 360	8 8		0 - 65 0 - 65	1.76 (0.8) 1.76 (0.8)	224
<i>LOW COST ALTERNATIVE FOR HYBRIDIZATIONS!</i>	Labquake Rotisserie	360	8		0 - 65	3.5 (1.5)	225

### CEL-GRO ROTATORS

	Type	Drum Capacity	Tube Capacity	Speed Range (rpm)	Ambient Conditions °C	Page
<i>HIGH EFFICIENCY MODEL FOR OPTIMUM CULTURE RESULTS!</i>	Cel-Gro	1	142, 16 mm; 76, 25 mm; 60, 50 mm	5 to 70	15 -40	226
<i>OUR HIGH CAPACITY SLOW SPEED MODEL!</i>	Cel-Gro	2	284, 16 mm; 162, 25 mm; 120, 50 mm	0.2	15 -40	226

# SELECTION GUIDE

## Mixers/Shakers



**DELUXE BI-DIRECTIONAL ROTATOR!**



**OUR POPULAR VARIABLE SPEED ROTATORS!**



**THE PREFERRED VORTEX MIXER!**



**WHEN YOU NEED MAXIMUM MIXING RESULTS!**

### BI-DIRECTIONAL ROTATORS

	Type	Rocking Angle	Degree of Rotation	Speed Range (rpm)	Ambient Conditions °C	Maximum Load Lb. (kg)	Page
<b>BI-DIRECTIONAL ECONOMY MODEL!</b>	4630	10	360	30	4 to 40	3 (1.36)	227
<b>DELUXE BI-DIRECTIONAL ROTATOR!</b>	4631	6	360	0 - 25	4 to 40	3 (1.36)	227

### ORBITAL ROTATORS

	Type	Speed Range (rpm)	Orbit Size Inches (cm)	Ambient Conditions °C	Maximum Load Lb. (kg)	Page
<b>OUR VALUE PRICED ROTATORS!</b>	Rotomix	60, 100 200	0.8 (2) 0.8 (2)	17 - 27 4 to 40	3 (1.4) 3 (1.4)	228
<b>OUR POPULAR VARIABLE SPEED ROTATORS!</b>	Rotomix	10 - 60, 80-220	0.8 (2)	4 to 37, 4 to 56	5 (2.2)	229
<b>THREE PLATFORM SIZE OPTIONS!</b>	1304, 1309, 1314	40 - 220	0.75 (1.9)	4 to 40	10 (4.53)	230

### VORTEX MIXERS

	Type	Mixing Surface	Mixing Speed (rpm)	Page
<b>THE PREFERRED VORTEX MIXER!</b>	Maxi Mix II	Foam pad and single cup	100 - 3000	231
<b>OUR BEST VALUE VORTEX MIXERS!</b>	Maxi Mix I Maxi Mix Plus	Foam pad Foam pad and single cup	3200 3000	232
<b>SMALL FOOTPRINT!</b>	Mistral 1190 Mistral 1195	Single Cup Single Cup	100 - 3000 3000	233 233
<b>A REAL WORKHORSE THAT LOOKS GOOD TOO!</b>	Maxi Mix III	Various Attachments	100-2200	234
<b>MULTI-PURPOSE VORTEX MIXER!</b>	Mistral 4600	Various Attachments	50 - 240	235

### MULTI-WRIST SHAKER

	Type	Degree of Arc	Speed Range (rpm)	Ambient Conditions °C	Page
<b>WHEN YOU NEED MAXIMUM MIXING RESULTS!</b>	3589	4	30 - 750	4 to 40	236

# Mixers / Shakers

## FORCE ORBITAL BENCH TOP SHAKERS

Lab-Line

Model 4626



### THE ULTIMATE IN PERFORMANCE AND DESIGN!



- — Operates in temperatures 4°C to 40°C
- — Accommodates three platform sizes as well as dual tier configurations
- — Easy-to-read LED display
- ★ — Lifetime Warranty on Drive Mechanism, 60 Month Warranty on Components

### PRODUCT DESCRIPTION

- Precise microprocessor control of speeds from 15 to 500 rpm on .75" (1.9 cm) orbit.
- Three platform sizes available: 13" x 11" (33 x 28 cm), 18" x 18" (46 x 46 cm) and 18" x 24" (46 x 61 cm); plus dual tier configurations.
- Built-in memory maintains set points and automatically resumes operation after power is interrupted.
- Overspeed safety shut down turns off unit if speed set point is exceeded.
- Audible and visual alarms indicate overspeed deviations of  $\pm 2$  rpm or greater, as well as the end of a timed cycle.
- Timer can be set for 0.1 through 99.9 minutes or hours.
- Load capacity 35 lb. (15.9 kg).

### ORDERING INFORMATION

Model #	Electrical (50/60 Hz)			Dimensions Inches (cm)			Shipping Weight Lb. (kg)	US List Price
	Volts	Amps	Watts	W	H	D		
4626	120	0.8	100	11.5 (29)	6.5 (17)	16.5 (42)	43 (20)	\$1851.00
4626-1	240	0.4	100	11.5 (29)	6.5 (17)	16.5 (42)	43 (20)	\$1851.00
4626-1CE	240	0.4	100	11.5 (29)	6.5 (17)	16.5 (42)	43 (20)	\$1851.00

Model 4633



### A BENCH TOP CHOICE FOR LARGE SCALE APPLICATIONS!

- — Microprocessor speed control
- — Built-in memory
- — 9" (23 cm) height maximizes bench top space
- ★ — Lifetime Warranty on Drive Mechanism, 60 Month Warranty on Components

### PRODUCT DESCRIPTION

- Accurate microprocessor control of shaking with the capacity of a floor model in a compact design.
- Ideal for cell cultures, solubility studies, extraction procedures, diagnostic tests, general mixing, and bacterial suspensions.
- Precise digital control of speeds 15-500 rpm on .75" (1.9 cm) orbit.
- Can operate in temperatures from 4°C to 40°C.
- Built-in memory maintains set points and automatically resumes operation after power is interrupted.
- Accommodates 30" x 18" (76 x 46 cm) platform—ideal for large scale studies.
- Audible and visual alarms indicate the end of a timed cycle and overspeed deviations of  $\pm 2$  rpm or greater.
- Microprocessor timer can be set for 0.1 through 99.9 minutes or hours.
- Load capacity 50 lb. (22.7 kg).

### ORDERING INFORMATION

Model #	Electrical (50/60 Hz)			Dimensions Inches (cm)			Shipping Weight Lb. (kg)	US List Price
	Volts	Amps	Watts	W	H	D		
4633	120	0.5	60	20 (51)	9 (23)	18 (46)	75 (34)	\$2808.00
4633-1	240	0.25	60	20 (51)	9 (23)	18 (46)	75 (34)	\$2808.00

48 Hour or Sooner  
Express Shipping  
Guaranteed!\*



\*see inside front cover for details

# Mixers / Shakers

## ORBITAL BENCH TOP SHAKERS

**Lab-Line**

Model 3518



### COMPACT AND RELIABLE!

- — Large LED speed readout
- — Molded polyethylene body won't chip, rust or corrode
- — For use in temperatures from 4°C to 40°C
- ★ — Lifetime Warranty on Drive Mechanism, 60 Month Warranty on Components

- For operation in standard incubators or environmental chambers; ideal for cell cultures, solubility studies, extraction procedures, diagnostic tests, general mixing, bacterial suspensions, staining, destaining and washing procedures.
- Shaker platforms available in 13" x 11" (33 x 28 cm), 18" x 18" (46 x 46 cm) and 18" x 24" (46 x 61 cm) sizes; glassware capacity can be increased by stacking two 18" x 18" (46 x 46 cm) platforms.
- Solid state speed controller accurately regulates speeds from 40 to 400 rpm on .75" (1.9 cm) orbit.
- Triple eccentric counterbalanced drive mechanism provides uniform, vibration-free shaking at any speed.
- Shaker platform rotates on nine permanently lubricated, sealed ball bearings.
- Built-in timer can be set for continuous operation or timed shaking up to 60 minutes.
- Load capacity 35 lb. (15.8 kg).

### ORDERING INFORMATION

Model #	Volts	Electrical (50/60 Hz)		Dimensions Inches (cm)			Shipping Weight Lb. (kg)	US List Price
		Amps	Watts	W	H	D		
3518	120	0.9	105	11 (28)	7 (18)	13.5 (34)	39 (18)	\$1654.00
3519	240	0.4	105	11 (28)	7 (18)	13.5 (34)	39 (18)	\$1654.00
3519CE	240	0.4	105	11 (28)	7 (18)	13.5 (34)	39 (18)	\$1654.00



Model 3520



### OUR MOST POPULAR ORBITAL SHAKER!

- — Compact design
- — Molded polyethylene body
- — For use in temperatures from 4°C to 40°C
- ★ — Lifetime Warranty on Drive Mechanism, 60 Month Warranty on Components

- Can be operated in standard incubators or environmental chambers and are ideal for cell cultures, solubility studies, extraction procedures, diagnostic tests, general mixing and bacterial suspensions.
- Molded polyethylene body won't chip, rust or corrode.
- Shaker platforms available in 13" x 11" (33 x 28 cm), 18" x 18" (46 x 46 cm) and 18" x 24" (46 x 61 cm) sizes.
- Glassware capacity can be increased by stacking two 18" x 18" (46 x 46 cm) platforms.
- Solid state speed controller accurately regulates speeds from 40 to 400 rpm on .75" (1.9 cm) orbit.
- Triple eccentric counterbalanced drive mechanism provides uniform, vibration-free shaking at any speed.
- Shaker platform rotates on nine permanently lubricated, sealed ball bearings.
- Built-in timer can be set for continuous operation or timed shaking up to 60 minutes.
- Load capacity 35 lb. (15.8 kg).

### ORDERING INFORMATION

Model #	Volts	Electrical (50/60 Hz)		Dimensions Inches (cm)			Shipping Weight Lb. (kg)	US List Price
		Amps	Watts	W	H	D		
3520	120	0.8	100	11 (28)	7 (18)	13.5 (34)	39 (18)	\$1347.00
3521	240	0.4	100	11 (28)	7 (18)	13.5 (34)	39 (18)	\$1347.00
3521CE	240	0.4	100	11 (28)	7 (18)	13.5 (34)	39 (18)	\$1347.00



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\*see inside front cover for details

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Barnstead|Thermolyne

800-553-0039 or 319-556-2241

# Mixers/Shakers

BIG BILL ORBITAL BENCH TOP SHAKERS

**Thermolyne**

*Big Bill Orbital Shakers*



## **DURABLE AND MAINTENANCE FREE!**

- — Durable, heavy-duty cast metal case
- — Versatile platform design accommodates flasks from 10 ml to 6000 ml
- — Precise and accurate speed control from 25 to 450 rpm.
- ★ — 24 Month Warranty

## **PRODUCT DESCRIPTION**

- Available in two sizes.
  - Big Bill platform: 16.7" x 16.7" (42.4 x 42.4 cm).
  - Bigger Bill platform: 21" x 21" (53.3 x 53.3 cm).
- Unit platform accommodates a variety of vessels. Flask holders not included.
- Maintenance free! Solid mixing platform and sealed bearings prevent spills from seeping into the unit and provide dependable service.
- Two types of speed controls:
  - Analog: A most affordable choice when digital readout isn't necessary.
  - Digital Oscillating: Automatic self reversing mixing action and precise speed control with digital readout and timer. Try it for complete and sustained mixing.

## **APPLICATIONS**

- Molecular Biology.
- Fermentation.
- Mixing Viscous Solutions.
- Bacterial Suspensions.
- Cell Cultures.



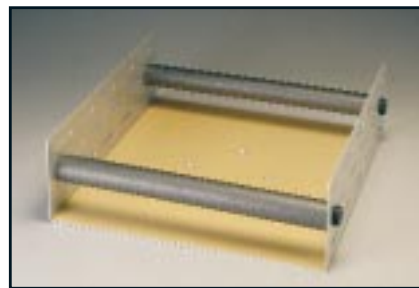
*Analog Control Panel*



*Digital Oscillating Control Panel*



*Universal Holder*



# Mixers / Shakers

## BIG BILL ORBITAL BENCH TOP SHAKERS



### PRODUCT SPECIFICATIONS

Type	Unit Dimensions Inches (cm)			Stirring Speed (rpm)	Platform Size Inches (cm)		Orbit Size Inches (cm)	Shipping Weight Lb. (kg)
	W	H	D		W	D		
All Big Bills	10.7 (27.2)	9 (22.9)	12.7 (32.3)	25 - 450	16.7 (42.4)	16.7 (42.4)	0.75 (1.9)	38 (17.2)
All Bigger Bills	17.3 (48.3)	9 (22.9)	12.7 (32.3)	25 - 450	21 (53.3)	21 (53.3)	0.75 (1.9)	50 (22.7)

Load Capacity 50 lb. (22.7 kg)

### ORDERING INFORMATION

Model #	Description	Electrical (50/60 Hertz)		US List Price
		Volts	Amps	
M49120-26	Analog Big Bill	220	0.2	\$1538.00
M49125	Analog Big Bill	120	0.4	\$1538.00
M73620-26	Digital Oscillating Big Bill	220	0.2	\$2057.00
M73625	Digital Oscillating Big Bill	120	0.4	\$2057.00
M49230-26	Analog Bigger Bill	220	0.2	\$1788.00
M49235	Analog Bigger Bill	120	0.4	\$1788.00
M73730-26	Digital Oscillating Bigger Bill	220	0.2	\$2322.00
M73735	Digital Oscillating Bigger Bill	120	0.4	\$2322.00

-26 Models Supplied with European Cord Set.

### ACCESSORIES

Model #	Description	US List Price
AY720X1	Bill's side wings—Holds units to a bench top	\$31.00
AY491X1A	Universal holder—Big Bill—accommodates flasks, test tube racks and unusually shaped objects 11" x 13" (27.9 x 33.0 cm)	\$223.00
AY492X1A	Universal holder—Bigger Bill—accommodates flasks, test tube racks and unusually shaped objects 16" x 16" (40.6 x 40.6 cm)	\$238.00
AY734X1	Tube holder—accommodates 42 16 mm x 125 mm test tubes	\$425.00
AY491X3A	Double tiered platform - Big Bill	\$178.00
AY492X3A	Double tiered platform - Bigger Bill	\$250.00

Model #	Description	Flask Size (ml)	Big Bill Capacity*	Bigger Bill Capacity*	US List Price
FCX63	Flask Holder	10	111	177	\$16.00
FCX64	Flask Holder	15	64	100	\$18.00
FCX65	Flask Holder	25	64	100	\$18.00
FCX66	Flask Holder	50	64	100	\$19.00
FCX67	Flask Holder	125	29	50	\$24.00
FCX68	Flask Holder	250	25	36	\$29.00
FCX69	Flask Holder	500	16	25	\$35.00
FCX70	Flask Holder	1000	9	16	\$37.00
FCX74	Flask Holder	2000	9	9	\$47.00
FCX84	Flask Holder	4000	5	5	\$65.00
FCX85	Flask Holder	6000	5	5	\$82.00

\* Depends on flask mix and configuration.

48 Hour or Sooner  
Express Shipping  
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\*see inside front cover for details

# Mixers/Shakers

LOW COST ORBITAL BENCH TOP SHAKERS

**Lab-Line**

Model 1345



## AFFORDABLE SHAKING FOR THE CLASSROOM!

- — Economical, dedicated shakers
- — Compact design conserves bench space
- ★ — 24 Month Warranty

## PRODUCT DESCRIPTION

- Solid state speed controller adjusts from 40 to 220 rpm.
- Operates in temperature from 4°C to 40°C.
- Built-in timer can be set for continuous operation or for timed shaking up to 60 minutes.
- Durable powder coated cold rolled steel body construction.

## PRODUCT SPECIFICATIONS

Type	Flask Size (ml)	Platform Capacity	Platform Dimensions Inches (cm)		Overall Dimensions Inches (cm)			Shipping Weight Lb. (kg)
			W	D	W	H	D	
1345	125	13	12.25 (31)	12.25 (31)	12.25 (31)	6.25 (16)	13.4 (34)	18 (8)
1345-1	125	13	12.25 (31)	12.25 (31)	12.25 (31)	6.25 (16)	13.4 (34)	18 (8)
1346	250	9	12.25 (31)	12.25 (31)	12.25 (31)	6.25 (16)	13.4 (34)	18 (8)
1346-1	250	9	12.25 (31)	12.25 (31)	12.25 (31)	6.25 (16)	13.4 (34)	18 (8)

Model 1346



## ORDERING INFORMATION

Model #	Volts	Electrical (50/60 Hz) Amps	Watts	Maximum Load Capacity	Speed Range (rpm)	US List Price
1345	120	0.4	50	10 (5)	40-220	\$764.00
1345-1	240	0.2	50	10 (5)	40-220	\$811.00
1346	120	0.4	50	10 (5)	40-220	\$764.00
1346-1	240	0.2	50	10 (5)	40-220	\$811.00

# Mixers / Shakers

RECIPROCATING SHAKER/FIVE-TIER PLATFORM

**Lab-Line**

Model 3506



## YOUR PLATELET PHERESIS PROTOCOL SOLUTION!

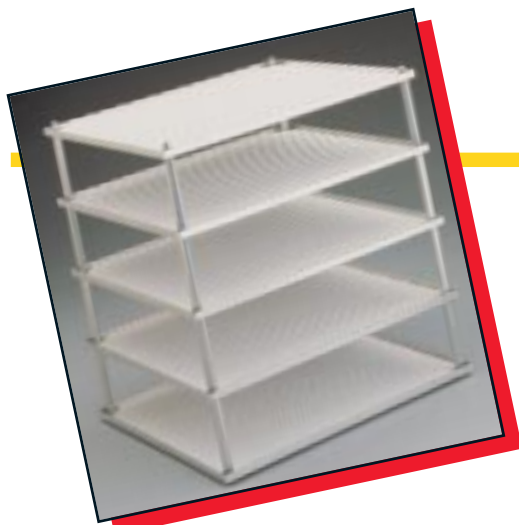
- — Durable powder coated steel outer body construction
- — Solid state speed control
- — Adjustable shaking motion
- ★ — 24 Month Warranty

### ORDERING INFORMATION

Model #	Volts	Amps	Watts	Overall Dimensions Inches (cm)			Shipping Weight Lb. (kg)	US List Price
				W	H	D		
3506	120	1.0	120	12.2 (31)	7.4 (19)	17.1 (43)	37 (17)	\$1586.00
3506-1	240	0.5	120	12.2 (31)	7.4 (19)	17.1 (43)	37 (37)	\$1648.00

### PRODUCT DESCRIPTION

- Provides linear shaking with an adjustable stroke length of 0.5" to 1.5" (1.2 to 3.8 cm), and is ideal for applications such as gel staining.
- Solid state speed control from 10 to 250 strokes per minute.
- Interchangeable 13" x 11" (38 x 28 cm) or 18" x 18" (46 x 46 cm) shaking platforms are available to accommodate a variety of laboratory vessels and glassware.
- Built-in timer can be set from 1 minute to 60 minutes or for continuous operation.
- Operates in temperatures from 4°C to 40°C.
- Load capacity 15 lb. (6.8 kg).



### ORDERING INFORMATION

Model #	W	Overall Dimensions Inches (cm)		Shipping Weight Lb. (kg)	US List Price
		H	D		
3523-51	11 (28)	13.75 (34.9)	13 (33)	11 (5 kg)	\$255.00

### PRODUCT DESCRIPTION

- A five tier aluminum platform assembly measuring 11" x 13" (28 x 33 cm).
- Distance between platforms is 3.25" (8.26 cm.)
- Each of the five platforms is equipped with a white ribbed vinyl mat.

### APPLICATIONS

- Use with model # 3506 reciprocating shaker for mixing contents of 10" x 10" (25.4 x 25.4 cm) bags of platelets used in Platelet Pheresis applications.
- May also be used with Lab-Line shakers 3508, 4626, 3518 or 3520.



# Mixers / Shakers

AROS™ ADJUSTABLE ORBITAL/RECIPROCATING

**Thermolyne**

AROS Orbital Shaker



## LOW PROFILE - HIGH PERFORMANCE!

- — Low profile design, suitable for incubator applications
- — Digital speed control from 12 - 280 rpm
- — Ambient conditions from 0 - 60°C

## PRODUCT DESCRIPTION

- Aros shaker includes solid platform, silicone rubber pad, detachable cordset, and tool for adjusting orbits.
- So versatile, it can also be used to shake Erlenmeyer flasks. Optional holders and platforms accommodate 10–1000 ml flasks.
- Load capacity: 12 lb. (5.4 kg).

## OPERATION

- Reciprocating or orbital shaking motion and variable speed operation; simulates any action from very slow, gentle agitation to vortexing-type action. Accommodates wide range of orbit sizes.
- Provides gentle ramping to set speed. Speed is monitored to within 1 rpm of set point by a digital tachometer.

## PRODUCT SPECIFICATIONS

Type	Top Mixing Surface Inches (cm)		Overall Dimensions Inches (cm)			Shipping Weight Lb. (kg)
	W	D	W	H	D	
M66000	11.7 (29.7)	14.0 (35.5)	16.0 (40.6)	4.6 (11.7)	15.1 (38.4)	24 (10.8)

### Shaking:

A) Range: 12-280 rpm

B) 1. Reciprocal: 0.63", 0.75", 1.0", 1.25", 1.5" (16.0, 19.1, 25.4, 31.8, 38.1 mm)

2. Orbital: 0.63", 0.75", 1.0", 1.25", (16.0, 19.1, 25.4, 31.8 mm)

## ORDERING INFORMATION

Model #	Volts	Electrical Amps	Hertz	US List Price
M66020-26	240	0.18	50/60	\$1918.00
M66025	120	0.14	50/60	\$1918.00

-26 Models CE marked.

## ACCESSORIES

Model #	Flask Capacity	Flask Size (ml)	US List Price
FCX63	60	10	\$16.00
FCX64	60	15	\$18.00
FCX65	48	25	\$18.00
FCX66	36	50	\$19.00
FCX67	20	100 or 125	\$24.00
FCX68	12	250	\$29.00
FCX69	9	500	\$35.00
FCX70	5	1000	\$37.00
PT651X6A	Platform for flask holders		\$129.00
PT586X2	Silicone rubber pad		\$53.00
PT651X5A	Platform with rubber pad		\$83.00
AY734X1	Tube holder accommodates forty-two (16 x 125 mm) test tubes		\$425.00

48 Hour or Sooner  
Express Shipping  
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\*see inside front cover for details

# Mixers/Shakers

DUAL ACTION ORBITAL/RECIPROCATING SHAKER

**Lab-Line**

Model 3508



## TWO MIXING ACTIONS—ONE LOW PRICE!

- — For use in temperatures from 4°C to 40°C
- — Molded polyethylene body—won't chip, rust or corrode
- — Provides both reciprocating and orbital motion
- ★ — 24 Month Warranty

CE

## PRODUCT DESCRIPTION

- Provides 0.4" (0.9 cm) orbital or linear shaking.
- Solid state speed control accurately regulates shaker speed from 50 to 400 rpm for both shaking motions.
- Control lever changes shaking motion while unit is stationary or in operation.
- Load capacity 15 lb. (7 kg).
- A variety of 13" x 11" (38 x 28 cm) or 18" x 18" (46 x 46 cm) interchangeable platforms are available to accommodate many laboratory vessels and glassware.

## ORDERING INFORMATION

Model #	Electrical (50/60 Hz)			Dimensions Inches (cm)			Shipping Weight Lb. (kg)	US List Price
	Volts	Amps	Watts	W	H	D		
3508	120	0.8	100	11.5 (29)	7.75 (19.7)	14 (36)	36 (16)	\$1529.00
3508-1	240	0.4	100	11.5 (29)	7.75 (19.7)	14 (36)	36 (16)	\$1529.00

## APPLICATIONS

- Bacteria Culture.
- Staining and destaining gels.
- Blotting.
- Platelet Pheresis applications.

48 Hour or Sooner  
Express Shipping  
Guaranteed!\*



\*see inside front cover for details

# Mixers / Shakers

## FORCE ORBITAL OPEN AIR SHAKER

**Lab-Line**

Model 4690



### OUR LARGEST DIGITAL OPEN AIR MODEL!

- — All parameters set digitally
- — Built-in memory provides protection in case of power interruption
- — Overspeed safety shutdown
- ★ — Lifetime Warranty on Drive Mechanism, 60 Month Warranty on Components

### PRODUCT DESCRIPTION

- Provides precise control over shaking speed and time for large capacity applications.
- Useful for cell cultures, solubility studies, extraction procedures, diagnostic tests, general mixing, bacterial suspensions, staining, destaining and washing procedures.
- 30" x 18" (76 x 46 cm) and 36" x 24" (91 x 61 cm) platforms are available to accommodate a wide variety of glassware.
- Durable heavy-gauge steel outer body construction with powder coated finish.
- Accommodates 6 /flasks; platforms up to 24" x 36" (61 x 91 cm).

### OPERATION

- Microprocessor control of orbiting speed from 15 to 500 rpm.
- Independent LED displays for digital setting of speed and time.
- Built-in memory maintains set points in the event of a power interruption.
- Accommodates loads up to 50 lb. (23 kg) at speeds up to 200 rpm.
- Operates in temperatures from 4°C to 40°C.

### SAFETY

- Visual and audible alarms warn user of overspeed deviations of  $\pm 2$  rpm or greater.
- Safety mechanism shuts down shaker if speed set point is exceeded.
- Resettable circuit breaker protects motor from electrical overload damage.

**48 Hour or Sooner  
Express Shipping  
Guaranteed!\***



\*see inside front cover for details

### PRODUCT SPECIFICATIONS

Type	Orbit Diameter	Shaker Speed (rpm)	W	Dimensions Inches (cm)		Shipping Weight Lb. (kg)
				H	D	
4690	1"	15-200	30 (76)	14 (36)	22 (56)	215 (98)
4690-1	1"	15-200	30 (76)	14 (36)	22 (56)	215 (98)

### ORDERING INFORMATION

Model #	Volts	Electrical (50/60 Hz) Amps	Watts	US List Price
4690	120	1.8	220	\$4820.00
4690-1	240	0.9	220	\$4820.00

# Mixers / Shakers

## LARGE CAPACITY OPEN AIR SHAKER

**Lab-Line**

Model 3590



### LARGE CAPACITY WITH A LOWER PRICE!

- — Solid state speed control
- — Can be used as a bench or floor unit
- — Protected from electrical overload
- ★ — Lifetime Warranty on Drive Mechanism, 60 Month Warranty on Components



### PRODUCT DESCRIPTION

- Ideal for large capacity applications.
- Can be used in a controlled temperature chamber.
- Solid state control of orbiting speed from 40 to 400 rpm.
- Counterbalanced triple eccentric drive provides smooth, vibration-free shaking at any speed.
- Resettable circuit breaker protects the 1/4 hp induction motor from electrical overload.
- Durable powder coated heavy-gauge steel body construction.
- Cushioned leveling legs minimize creeping.
- 30" x 18" (76 x 46 cm) and 36" x 24" (91 x 61 cm) platforms are available to accommodate a wide variety of glassware.
- Available dual tier platforms provide increased capacity at lower shaker speeds.
- Model 3590 is CSA certified.

### PRODUCT SPECIFICATIONS

Type	Orbit Diameter Inches (cm)	Shaker Speed (rpm)	W	Dimensions Inches (cm)		Shipping Weight Lb. (kg)
				H	D	
3590	1" (2.5)	40-400	30 (76)	14 (36)	22 (56)	215 (98)
3591	1" (2.5)	40-400	30 (76)	14 (36)	22 (56)	215 (98)

### ORDERING INFORMATION

Model #	Volts	Electrical (50/60 Hz) Amps	Watts	US List Price
3590	120	1.8	220	\$4108.00
3591	240	0.9	220	\$4290.00

### APPLICATIONS

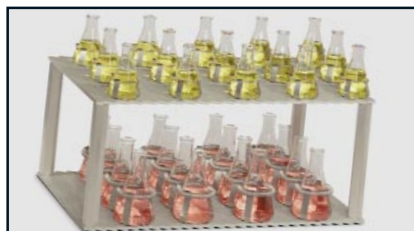
- Cell cultures.
- Solubility studies.
- Extraction procedures.
- Diagnostic tests.
- General mixing.
- Bacterial suspensions.
- Staining.
- Destaining.
- Washing procedures.

# Mixers / Shakers

## COMBINATION PLATFORMS AND CLAMPS

Lab-Line

Model 30124



Model 30125



Model 30167



Clamps



### ORDERING INFORMATION

#### Platforms

Model #	Dimensions L X W Inches (cm)	For Use with Shaker Series	US List Price
30100	13 x 11 (33 x 28)	3506, 3508, 3518, 3520, 4626	\$125.00
30105	13 x 11 (33 x 28)	3540, 3545, 4645	\$125.00
30106	18 x 24 (46 x 61)	3506, 3518, 3520, 4626	\$208.00
30110	18 x 18 (46 x 46)	3506, 3508, 3518, 3520, 3527, 3527-5, 3528, 3528-5, 4626, 4628	\$191.00
30115	30 x 18 (76 x 46)	3525, 3526, 3526-5, 3529, 3530, 3531, 3532, 3590, 3591, 3597, 4633, 4690, 4691	\$520.00
30120	36 x 24 (91 x 61)	3590, 3591, 4690, 4691	\$811.00
30124	30 x 18 (76 x 46)—Dual Tier	3590, 3591, 4690, 4691	\$1524.00
30125	13 x 11 (33 x 28)	Plastic clamp platform for 3506, 3508, 3518, 3520, 4626	\$125.00
30126	18 x 18 (46 x 46)	Plastic clamp platform for 3506, 3508, 3518, 3520, 3527, 3527-5, 3528, 3528-5, 4626, 4628	\$189.00
30127	30 x 18 (76 x 46)	Plastic clamp platform for 3525, 3526, 3526-5, 3529, 3530, 3531, 3532, 3590, 3591, 3591, 3597, 4633, 4690, 4691	\$520.00
30128	36 x 24 (91 x 61)	Plastic clamp platform for 3590, 3591, 4690, 4691	\$811.00

#### Clamps, Flasks and Racks

Model #	Type of Glassware	Capacity	US List Price
30150	10 ml Erlenmeyer Flask Clamp	1	\$16.00
30151	25 ml Erlenmeyer Flask Clamp	1	\$16.00
30152	50 ml Erlenmeyer Flask Clamp	1	\$18.00
30153	125 ml Erlenmeyer Flask Clamp	1	\$19.00
30154	250 ml Erlenmeyer Flask Clamp	1	\$20.00
30155	300 ml Erlenmeyer Flask Clamp	1	\$20.00
30156	500 ml Erlenmeyer Flask Clamp	1	\$22.00
30157	1 / Erlenmeyer Flask Clamp	1	\$30.00
30158	2 / Erlenmeyer Flask Clamp	1	\$38.00
30159	4 / Erlenmeyer Flask Clamp	1	\$53.00
30160	6 / Erlenmeyer Flask Clamp	1	\$62.00
30161	2500 ml Low Form Culture Flask	1	\$16.00
30162	2800 ml Fernbach Flask	1	\$16.00
30164	10 to 13 mm Test Tube Rack	60	\$18.00
30165	18 to 20 mm Test Tube Rack	44	\$19.00
30166	22 to 25 mm Test Tube Rack	24	\$20.00
30167	50 ml Centrifuge Tube Rack	24	\$20.00
30168	14 to 16 mm Test Tube Rack	48	\$22.00
30171	100/125 ml Erlenmeyer Plastic Flask Clamp	1	\$29.00
30172	250 ml Erlenmeyer Plastic Flask Clamp	1	\$39.00
30173	500 ml Erlenmeyer Plastic Flask Clamp	1	\$53.00
30174	1000 ml Erlenmeyer Plastic Flask Clamp	1	\$62.00

48 Hour or Sooner  
Express Shipping  
Guaranteed!\*



\*see inside front cover for details

# Mixers / Shakers

## DEDICATED PLATFORMS

Lab-Line

### ORDERING INFORMATION

13" X 11" (33 X 28 CM) PLATFORMS WITH CLAMPS FOR SHAKER  
SERIES 3506, 3508, 3518, 3520, 4626

Model #	Glassware	Capacity	US List Price
3522-3	Adapter Set for Tiering 2 Platforms	—	\$47.00
3523-1	10 ml Erlenmeyer Flask	60	\$369.00
3523-2	25 ml Erlenmeyer Flask	30	\$312.00
3523-3	50 ml Erlenmeyer Flask	30	\$296.00
3523-4	125 ml Erlenmeyer Flask	15	\$296.00
3523-5	250 ml Erlenmeyer Flask	10	\$296.00
3523-7	500 ml Erlenmeyer Flask	6	\$296.00
3523-8	1 / Erlenmeyer Flask	4	\$296.00
3523-9	2 / Erlenmeyer Flask	4	\$296.00
3523-39	Separatory Funnel (500 ml to 2 /)	2	\$296.00
3523-42	10 to 13 ml Test Tube	120	\$296.00
3523-43	18 to 20 mm Test Tube	88	\$296.00
3523-44	22 to 25 mm Test Tube	48	\$296.00
3523-45	50 ml Centrifuge Tube	48	\$296.00
3523-46	Utility Tray	—	\$234.00
3523-48	14 to 16 mm Test Tube	96	\$296.00
3523-49	Adjustable Flask Platform	—	\$572.00
3523-52	Plastic Clamp 100/125 ml Erlenmeyer	12	\$359.00
3523-53	Plastic Clamp 250 ml Erlenmeyer	8	\$302.00
3523-54	Plastic Clamp 500 ml Erlenmeyer	5	\$260.00
3523-55	Plastic Clamp 1 / Erlenmeyer	3	\$224.00

13" X 11" (33 X 28 CM) PLATFORMS WITH CLAMPS FOR SHAKER  
SERIES 3540, 3545, 4645

3540-0	10 ml Erlenmeyer Flask	63	\$624.00
3540-2	25 ml Erlenmeyer Flask	32	\$411.00
3540-3	50 ml Erlenmeyer Flask	32	\$411.00
3540-4	125 ml Erlenmeyer Flask	16	\$411.00
3540-5	250 ml Erlenmeyer Flask	9	\$322.00
3540-6	300 ml Erlenmeyer Flask	8	\$322.00
3540-7	500 ml Erlenmeyer Flask	6	\$322.00
3540-8	1 / Erlenmeyer Flask	4	\$322.00
3540-9	2 / Erlenmeyer Flask	2	\$322.00
3540-35	10 ml Beaker	76	\$296.00
3540-36	20 ml Beaker	52	\$296.00
3540-37	30 ml Beaker	52	\$296.00
3540-38	100 ml Beaker	22	\$296.00
3540-42	10 to 13 mm Test Tube Rack	120	\$296.00
3540-43	18 to 20 mm Test Tube Rack	88	\$296.00
3540-44	22 to 25 mm Test Tube Rack	48	\$296.00
3540-45	50 ml Centrifuge Tube	48	\$296.00
3540-46	Utility Tray	—	\$189.00
3540-48	14 to 16 mm Test Tube Rack	96	\$296.00
3540-49	Universal Platform	—	\$1024.00

Model 3523-49



Model 3523-50



Model 3523-46



Model 3540-5



Model 3540-36



Model 3540-48

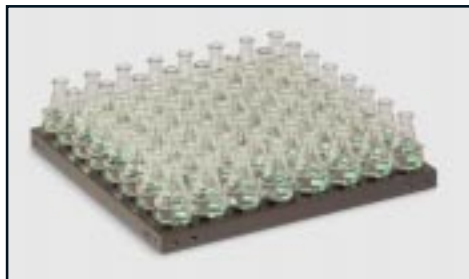


# Mixers / Shakers

## DEDICATED PLATFORMS

**Lab-Line**

Model 3524-3



Model 3524-8



Model 3524-39



Model 3524-49



### ORDERING INFORMATION

18" X 18" (46 X 46 CM) PLATFORMS WITH CLAMPS FOR SHAKER SERIES 3506, 3508, 3518, 3519, 3520, 3521, 3527, 3527-5, 4626, 4628, 4629

Model #	Glassware	Capacity	US List Price
3522-3	Adapter Set for Tiering 2 Platforms	—	\$47.00
3524-1	10 ml Erlenmeyer Flask	113	\$624.00
3524-2	25 ml Erlenmeyer Flask	64	\$525.00
3524-3	50 ml Erlenmeyer Flask	64	\$525.00
3524-4	125 ml Erlenmeyer Flask	32	\$525.00
3524-5	250 ml Erlenmeyer Flask	25	\$322.00
3524-6	300 ml Erlenmeyer Flask	16	\$322.00
3524-7	500 ml Erlenmeyer Flask	16	\$374.00
3524-8	1 / Erlenmeyer Flask	9	\$374.00
3524-9	2 / Erlenmeyer Flask	5	\$328.00
3524-35	10 ml Beaker	152	\$317.00
3524-36	20 ml Beaker	104	\$317.00
3524-37	30 ml Beaker	104	\$317.00
3524-38	100 ml Beaker	44	\$317.00
3524-39	250 ml Beaker	25	\$296.00
3524-40	400 ml Beaker	25	\$296.00
3524-41	600 ml Beaker	16	\$296.00
3524-42	10 to 13 mm Test Tube	240	\$369.00
3524-43	18 to 20 mm Test Tube	176	\$369.00
3524-44	22 to 25 mm Test Tube	96	\$369.00
3524-45	50 ml Centrifuge Tube	96	\$369.00
3524-46	Utility Tray	—	\$255.00
3524-48	14 to 16 mm Test Tube	192	\$369.00
3524-49	Separatory Funnel (500 ml to 2 l)	3	\$380.00
3524-53	Plastic Clamp 100/125 ml Erlenmeyer Flask	25	\$655.00
3524-54	Plastic Clamp 250 ml Erlenmeyer Flask	16	\$546.00
3524-55	Plastic Clamp 500 ml Erlenmeyer Flask	12	\$504.00
3524-56	Plastic Clamp 1 / Erlenmeyer Flask	6	\$390.00

48 Hour or Sooner  
Express Shipping  
Guaranteed!\*



\*see inside front cover for details

# Mixers / Shakers

## DEDICATED PLATFORMS

Lab-Line

### ORDERING INFORMATION

30" X 18" (76 X46) PLATFORMS WITH CLAMPS FOR SHAKER  
 SERIES 3525, 3526, 3526-5, 3529, 3530, 3531, 3532, 3590,  
 3591, 3597, 4633, 4690, 4691

Model #	Glassware	Capacity	US List Price
3599-1	10 ml Erlenmeyer Flask	112	\$1310.00
3599-2	25 ml Erlenmeyer Flask	112	\$1310.00
3599-3	50 ml Erlenmeyer Flask	112	\$1076.00
3599-4	125 ml Erlenmeyer Flask	56	\$1030.00
3599-5	250 ml Erlenmeyer Flask	40	\$822.00
3599-6	300 ml Erlenmeyer Flask	24	\$822.00
3599-7	500 ml Erlenmeyer Flask	24	\$822.00
3599-8	1 l Erlenmeyer Flask	12	\$822.00
3599-9	2 l Erlenmeyer Flask	12	\$858.00
3599-10*	4 l Erlenmeyer Flask	6	\$858.00
3599-11*	6 l Erlenmeyer Flask	4	\$822.00
3599-12	2500 ml Low Form Culture Flask	5	\$1076.00
3599-13	2800 ml Fernbach Flask	6	\$822.00
3599-14	Plastic Clamp 100/125 ml Erlenmeyer Flask	44	\$1373.00
3599-16	Plastic Clamp 250 ml Erlenmeyer Flask	24	\$1071.00
3599-21	Plastic Clamp 500 ml Erlenmeyer Flask	22	\$1102.00
3599-22	Plastic Clamp 1 l Erlenmeyer Flask	12	\$926.00
3599-42	10 to 13 mm Test Tube	420	\$749.00
3599-43	18 to 20 mm Test Tube	308	\$707.00
3599-44	22 to 25 mm Test Tube	168	\$707.00
3599-45	50 ml Centrifuge Tube Rack	168	\$707.00
3599-46	Utility Tray	—	\$593.00
3599-48	14 to 16 mm Test Tube	336	\$707.00
3599-49	Separatory Funnel (up to 2 l)	10	\$1383.00

Model 3599-5



Model 3599-12



36" X 24" (91 X 61 CM) PLATFORMS WITH CLAMPS FOR SHAKER  
 SERIES 3590, 3591, 4690, 4691

3599-52	50 ml Erlenmeyer Flask	160	\$1508.00
3599-53	125 ml Erlenmeyer Flask	80	\$1508.00
3599-54	250 ml Erlenmeyer Flask	70	\$1258.00
3599-55	300 ml Erlenmeyer Flask	70	\$1154.00
3599-56	500 ml Erlenmeyer Flask	40	\$1154.00
3599-57	1 l Erlenmeyer Flask	18	\$1102.00
3599-58	2 l Erlenmeyer Flask	15	\$1102.00
3599-59	4 l Erlenmeyer Flask	8	\$1102.00
3599-60	6 l Erlenmeyer Flask	6	\$822.00
3599-61	2500 ml Low Form Culture Flask	6	\$1310.00
3599-62	2800 ml Fernbach Flask	8	\$1310.00
3599-96	Separatory Funnel (up to 2 l)	16	\$2262.00

Model 3599-13



\* Not for use with 3525



# Mixers / Shakers

## FOUR TIER PLATELET PLATFORM

**Lab-Line**

Model 4636



### OUR NEWEST PLATFORM ROCKER!

- — Add up to three additional platforms
- — Adjustable speed and angle of rocking
- — Stainless steel construction
- ★ — 24 Month Warranty

### PRODUCT DESCRIPTION

- Includes base and one platform. Additional sets of tiers (up to three) available separately.
- Distance between tiers is 4.5" (11 cm).
- Provides a smooth, gentle to vigorous rocking motion.
- The 12" x 12" (30.5 x 30.5 cm) stainless steel platform (tier) has a ribbed, vinyl mat that prevents vessels from slipping and provides a better view of samples.
- The motor speed is adjustable from 0 to 60 rpm while the platform (tier) moves through a variable 11° arc of rotation.
- Operates in temperatures from 15° to 40°C.
- Load capacity is 5 lb. (2.26 kg) per tier.

### APPLICATIONS

- Gel staining and destaining.
- Western blots.
- Washing membranes.
- Cell culture.
- Tissue slides.

### PRODUCT SPECIFICATIONS

Type	Platform Dimensions Inches (cm)		Overall Dimensions Inches (cm)			Shipping Weight Lb. (kg)
	W	D	W	H	D	
4636	12 (30)	12 (30)	17.5 (44.5)	5 (12.7)	13.5 (34.3)	25 (11.3)
4636-1	12 (30)	12 (30)	17.5 (44.5)	5 (12.7)	13.5 (34.3)	25 (11.3)

### ORDERING INFORMATION

Model #	Volts	Amps	Watts	Hz	Operating Speed (rpm)	US List Price
4636	120	.2	25	60	0 - 60	\$795.00
4636-1	240	.1	25	50	0-60	\$795.00

Platform Plus Shaker with Optional Platforms



# Mixers / Shakers

## VARIABLE SPEED ANGLE ROCKER

**Lab-Line**

Model 4638



### THE RIGHT CHOICE FOR GENTLE TO VIGOROUS ROCKING!

- — Adjustable speed and angle of rocking
- — Electronic speed controller
- — Use with a wide variety of glassware
- ★ — 24 Month Warranty



### PRODUCT DESCRIPTION

- Provides gentle, adjustable-angle rocking.
- Ideal for applications such as hybridization blotting or staining and destaining gels.
- 15.4 x 15.4 (39 x 39 cm) non-skid platform accommodates many types of glassware.
- White platform mat allows easy viewing of glassware contents.

### OPERATION

- Electronic speed control from 0 to 100 cycles per minute.
- Adjustable rocking angle from 10 to 15° from horizontal.
- Operates in temperatures from 4° C to 40°C.

### PRODUCT SPECIFICATIONS

Type	Platform Dimensions Inches (cm)		Overall Dimensions Inches (cm)			Shipping Weight Lb. (kg)
	W	D	W	H	D	
4638	15.4 (39)	15.4 (39)	15.4 (39)	7 (15)	15.4 (39)	19 (9)
4638-1	15.4 (39)	15.4 (39)	15.4 (39)	7 (15)	115.4 (39)	19 (9)
4638-1CE	15.4 (39)	15.4 (39)	15.4 (39)	7 (15)	115.4 (39)	19 (9)

### ORDERING INFORMATION

Model #	Volts	Amps	Watts	HZ	US List Price
4638	120	0.4	50	50/60	\$920.00
4638-1	240	0.2	50	50/60	\$910.00
4638-1CE	240	0.2	50	50/60	\$910.00

48 Hour or Sooner  
Express Shipping  
Guaranteed!\*



\*see inside front cover for details

# Mixers/Shakers

## VARI MIX PLATFORM ROCKER

**Thermolyne**

Type M79700



### BUILT TO LAST AT AN AFFORDABLE PRICE!

- — Platform rocker provides smooth wave motion for solutions in lab dishes, plates and cell culture flasks
- — Platform easily adjusts to any angle of motion through a range of 48°
- ★ — 12 Month Warranty

### PRODUCT DESCRIPTION

- All finishes are chemically resistant and easy to clean.
- White, non-skid rubber platform is removable for autoclaving.
- Optional Universal holder accommodates flasks, test tube racks and unusually shaped objects.
- Optional double-tier platform doubles mixing surface.

### OPERATION

- Timer precisely allows up to 2 hours of automatic operation. Choose continuous mode for longer operation.
- Wide ambient operating range allows for use in many different laboratory applications.
- Speed varies from 5-30 ±2 rpm without a load.

### APPLICATIONS

- Cell culture.
- Staining and destaining gels.
- Tissue slides.
- Viral suspensions.
- Hybridization procedures.
- Immunoassays.
- Washing filters.

### PRODUCT SPECIFICATIONS

Type	Mixing Surface Dimensions Inches (cm)		Load Capacity Lb. (kg)	Overall Dimensions Inches (cm)			Shipping Weight Lb. (kg)
	D	W		W	H	D	
M79700	12.6 (32)	10.6 (26.9)	15 (6.8)	15.6 (39.6)	7.3 (18.5)	12 (30.4)	6.0 (2.7)

*-26 models supplied with European cord set.*

### ORDERING INFORMATION

Model #	Volts	Electrical Amps	Hertz	Operating Watt	US List Price
M79735	120	10	50/60	12	\$825.00
M79730-26	240	.05	50/60	12	\$825.00

*Speed varies from 5-30 ±2 without a load.*

### ACCESSORIES

Model #	Description	Overall Dimensions Inches (cm)		Max Load Lb. (kg)	US List Price
		W	L		
AY491X1A	Universal holder	—	—	15 (6.8)	\$223.00
AY797X1	Double-tier platform	10.6 (26.9)	12.6 (32.0)	15 (6.8)	\$203.00

48 Hour or Sooner  
Express Shipping  
Guaranteed!\*



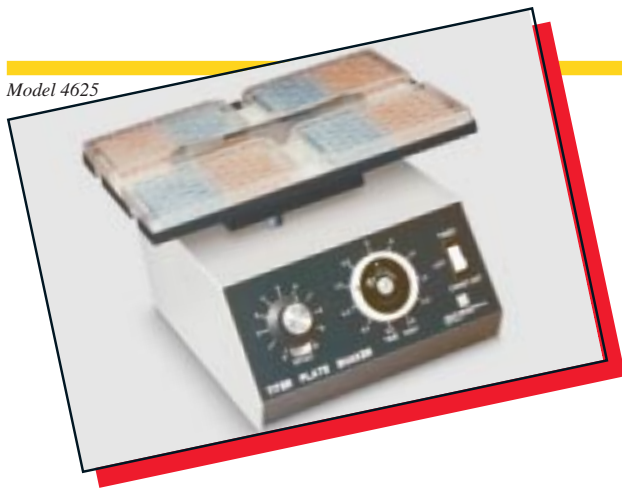
\*see inside front cover for details

# Mixers/Shakers

## TITER PLATE & ROCKING PLATFORM SHAKERS

**Lab-Line**

Model 4625



### BEST-SELLING TITER PLATE SHAKER!

- — Compact body design
- — Powder coated steel body construction for rugged durability
- — Vortexing motion for thorough mixing
- ★ — 24 Month Warranty

### PRODUCT DESCRIPTION

- Solid state speed control regulates shaking from 40 to 1100 rpm in a 0.12" (0.3 cm) orbit.
- Can be operated from 4°C to 40°C.
- Designed to rotate up to four 96-well titer plates.
- Finger slots facilitate titer plate removal.
- Ideal for virological, immunological, serological and hematological applications.
- Shaking platform has .36" (0.9 cm) sides.
- Plate retaining springs can be removed to allow shaking of other types of glassware.
- Built-in timer can be set for continuous operation or timed cycles up to 5 minutes; unit shuts off at end of cycle.
- Independent start switch can be used to activate shaker at preset speed and time for repeatability in tests.

### ORDERING INFORMATION

Model #	Volts	Hz	Amps	Watts	Dimensions*			Shipping Weight Lb. (kg)	US List Price
					W	H	D		
4625	120	60	1.0	120	11 (28)	7 (18)	11 (28)	25 (11)	\$884.00
4625-1	240	50	0.5	120	11 (28)	7 (18)	11 (28)	25 (11)	\$1003.00

\*Without platform.

Model 4635



### WHEN YOUR APPLICATION REQUIRES SAFE, GENTLE ROCKING!

- — Constant rocking motion
- — Rugged steel construction
- ★ — 24 Month Warranty

### PRODUCT DESCRIPTION

- Ideal for applications requiring smooth, gentle rocking motion; gel staining, mixing vacutainer tubes or aeration of cultures in petri dishes, culture bottles or flasks.
- Rocking motion is a constant 10 oscillations per minute.
- Versatile—Can be used in incubators and cold rooms between 4°C and 40°C.
- Durable steel body totally encloses motor to prevent hazardous spills onto drive mechanism.
- 11.5" x 13.5" (29 x 34 cm) platform holds samples securely on a removable grooved vinyl pad.
- Platform moves through a 10° angle from horizontal.
- Mechanical timer can be set for 1 to 60 minutes or for continuous operation.

### ORDERING INFORMATION

Model #	Volts	Hz	Amps	Watts	Dimensions*			Shipping Weight Lb. (kg)	US List Price
					W	H	D		
4635	120	60	1.0	12	9.5 (24)	6 (15)	10 (25)*	21 (10)	\$1082.00
4635-1	240	50	1.0	24	9.5 (24)	6 (15)	10 (25)*	21 (10)	\$1082.00

\*Without platform.

Maximum load: 5 lb. (2.3 kg)

**48 Hour or Sooner  
Express Shipping  
Guaranteed!\***



\*see inside front cover for details

# Mixers / Shakers

## TEST TUBE ROCKERS

**Thermolyne**

Type M71000, Type M26100  
& Type M48700



### A VARIETY OF CHOICES FOR TEST TUBES!

- — Ideal for blood collection tubes
- — Precision controlled test tube rocker provides smooth mixing action for consistently uniform specimen suspension
- — Removable pad
- ★ — 24 Month Warranty



### PRODUCT DESCRIPTION

- Reversible pad features one side for capped tubes up to 110 mm long; opposite side holds longer capped tubes.
- A white silicon rubber friction grip pad contrasts specimens and labels for easy viewing.
- Capped tubes can be easily loaded/unloaded without turning off the rocker.
- Includes three wire cord and plug.

### OPERATION

- Vari-Mix (M48700) options include: adjustable speed motor performance, 2 to 20 rpm and adjustable mixing platform, from 1 - 48° angle.
- Speci-mix and Half-Size Speci-Mix have a preset 18 rpm motor speed and a preset 48° angle mixing platform.

### PRODUCT SPECIFICATIONS

Type	Mixing Surface Dimensions Inches (cm)		Capacity* No. of Tubes	Overall Dimensions Inches (cm)			Shipping Weight Lb. (kg)
	D	W		W	H	D	
<b>Speci-Mix</b>							
M26100	4.5 (11.4)	12.0 (30.4)	16	13.8 (34.9)	4.3 (10.7)	5.5 (13.9)	5.3 (2.3)
<b>1/2 Size Speci-Mix</b>							
M71000	4.5 (11.4)	6.0 (15.2)	8	7.5 (34.9)	4.3 (10.7)	5.5 (13.9)	3.0 (1.4)
<b>Vari-Mix</b>							
M48700	4.5 (11.4)	12.0 (30.4)	16	15.0 (38.1)	4.3 (10.7)	5.5 (13.9)	5.8 (2.6)

\* Load Capacity 1.25 Lb. (.56 kg).

### ORDERING INFORMATION

Model #	Volts	Electrical Amps	Hertz	Operating Speed (rpm)	US List Price
M26125	120	.025	50/60	18	\$337.00
M26120-33	240	0.13	50	18	\$377.00
M71015	120	.03	50/60	18	\$280.00
M71010-33	240	.01	50	18	\$316.00
M48725	120	.025	50/60	2-20	\$509.00
M48720-33	240	.013	50	2-20	\$553.00

-33 Models CE marked.

48 Hour or Sooner  
Express Shipping  
Guaranteed!\*

\*see inside front cover for details

# Mixers / Shakers

## MULTI-TUBE ROTATOR

**Lab-Line**

Model 4632



### LIGHTWEIGHT AND SIMPLE TO USE!

- — Bi-directional rotation
- — Shaker speed: 30 rpm
- ★ — 24 Month Warranty

### PRODUCT DESCRIPTION

- Portable, lightweight metal body is durable and easy to clean.
- Compact size permits easy transportability and use in areas with limited space.
- White silicon, non-skid, double-sided platform surface holds 7 ml, 10 ml or 15 ml tubes firmly in place.
- The rocker's four rubber feet provide additional stability.

### OPERATION

- Ideal for use in hematology, blood chemistry and other laboratory applications where a continuous, gentle motion is necessary.
- Mechanical action of unit provides a circular motion coupled with a rocking pattern which keeps liquids and solutions gently mixed without the potential for shearing or other damage.
- Angle of rotation varies 20° from the horizontal plane.

### PRODUCT SPECIFICATIONS

Type	Mixing Surface Dimensions Inches (cm)			Overall Dimensions Inches (cm)			Shipping Weight Lb. (kg)
	D	W	W	H	D		
4632	8.6 (22)	5.1 (13)	7 (17)	8.1 (18)	8.5 (21)	8 (3.6)	
4632-1	8.6 (22)	5.1 (13)	7 (17)	8.1 (18)	8.5 (21)	8 (3.6)	

### ORDERING INFORMATION

Model #	Volts	Hz	Amps	Watts	US List Price
4632	120	60	.3	40	\$399.00
4632-1	240	50	.2	40	\$399.00

# Mixers / Shakers

LABQUAKE®

**Thermolyne**

Labquake



## OUR BEST-SELLING TUBE ROTATORS AND SHAKERS!

- — Compact design requires minimum bench space
- — Add or remove tubes during operation
- — Removable double deck trays are interchangeable with clip bar
- — Nonskid rubber liners and raised slides prevent samples from sliding.

### LARGE LABQUAKE® SHAKERS\*



Model #	Tube Capacity-ml	Attachments	Voltage (50/60 Hz)	Overall Dimensions Inches (cm)			Mixing Surface Inches (cm)	Shipping Weight Lb. (kg)	US List Price
				L	W	H			
415110	32	Clip bar for tubes 10 to 19 mm in diameter	120	18.5 (46.9)	4 (10.2)	6 (15.2)	—	4 (1.8)	\$282.00
415220	32	Clip bar for tubes 10 to 19 mm in diameter	240	18.5 (46.9)	4 (10.2)	6 (15.2)	—	4 (1.8)	\$302.00
4152110	14	Clip bar for tubes 17 to 30 mm in diameter	120	18.5 (46.9)	4 (10.2)	6 (15.2)	—	4 (1.8)	\$314.00
4152220	14	Clip bar for tubes 17 to 30 mm in diameter	240	18.5 (46.9)	4 (10.2)	6 (15.2)	—	4 (1.8)	\$332.00
T415110	46	Double deck trays for 10 ml Vacutainer® tubes	120	18.5 (46.9)	4.5 (11.4)	6 (15.2)	15 x 4.5 (38.1 x 11.4)	5 (2.2)	\$385.00
T415220	46	Double deck trays for 10 ml Vacutainer® tubes	240	18.5 (46.9)	4.5 (11.4)	6 (15.2)	15 x 4.5 (38.1 x 11.4)	5 (2.2)	\$405.00

*Includes Double Deck Tray and Clip Bar*

Model #	Description	Voltage (50/60 Hertz)	US List Price
C415110	Labquake Shaker w/double deck trays hold 46—10 ml Vacutainer® tubes, bar clip accommodates 32 clips for tubes 10 to 19 mm in diameter	120	\$414.00
C415220	Labquake Shaker w/double deck trays hold 46—10 ml Vacutainer® tubes, bar clip accommodates 32 clips for tubes 10 to 19 mm in diameter	240	\$432.00
C4152110	Labquake Shaker w/double deck trays hold 46—10 ml Vacutainer® tubes, bar clip accommodates 14 clips for tubes 17 to 30 mm in diameter	120	\$446.00
C4152220	Labquake Shaker w/double deck trays hold 46—10 ml Vacutainer® tubes, bar clip accommodates 14 clips for tubes 17 to 30 mm in diameter	240	\$461.00

### SMALL LABQUAKE® SHAKERS\*

Model #	Tube Capacity-ml	Attachments	Voltage (50/60 Hz)	Overall Dimensions Inches (cm)			Mixing Surface Inches (cm)	Shipping Weight Lb. (kg)	US List Price
				L	W	H			
4002110	8	Clip has bar w/clips for tubes 17 to 30 mm in diameter	120	11 (27.9)	4 (10)	6 (15.2)	—	3 (1.4)	\$269.00
4002220	8	Clip has bar w/clips for tubes 17 to 30 mm in diameter	240	11 (27.9)	4 (10)	6 (15.2)	—	3 (1.4)	\$286.00
400110	14	Clip has bar w/clips for tubes 10 to 19 mm in diameter	120	11 (27.9)	4 (10)	6 (15.2)	—	2 (.9)	\$238.00
400220	14	Clip has bar w/clips for tubes 10 to 19 mm in diameter	240	11 (27.9)	4 (10)	6 (15.2)	—	2 (.9)	\$256.00
T400110	22	Double deck trays for 10 ml Vacutainer® tubes	120	11 (18.4)	6.5 (16.5)	6 (15.2)	7.3 x 6.5 (18.4 x 16.5)	3 (1.4)	\$306.00
T400220	22	Double deck trays for 10 ml Vacutainer® tubes	240	11 (18.4)	6.5 (16.5)	6 (15.2)	7.3 x 6.5 (18.4 x 16.5)	3 (1.4)	\$338.00

*Includes Double Deck Tray and Clip Bar*

Model #	Description	Voltage (50/60 Hertz)	US List Price
C400110	Labquake Shaker w/double deck trays hold 22—10 ml Vacutainer® tubes, bar clip accommodates 14 clips for tubes 10 to 19 mm in diameter	120	\$348.00
C400220	Labquake Shaker w/double deck trays hold 22—10 ml Vacutainer® tubes, bar clip accommodates 14 clips for tubes 10 to 19 mm in diameter	240	\$366.00
C4002110	Labquake Shaker w/double deck trays hold 22—10 ml Vacutainer® tubes, bar clip accommodates 8 clips for tubes 17 to 30 mm in diameter	120	\$380.00
C4002220	Labquake Shaker w/double deck trays hold 22—10 ml Vacutainer® tubes, bar clip accommodates 8 clips for tubes 17 to 30 mm in diameter	240	\$396.00

**48 Hour or Sooner Express Shipping Guaranteed!\***

\*see inside front cover for details

\*Load capacity 1.75 Lb.(.80 kg)  
 All 240 Volt Models are CE marked.  
 400 Series and 415 Series can also accommodate 1.5 microcentrifuge tubes.  
 Vacutainer® is a registered trademark of Becton Dickinson.