

# IKA®

In partnership with

**Cole-Parmer®**  
fluid handling and analysis



**IKA® T25 Digital  
ULTRA-TURRAX®  
High-Speed  
Homogenizer**  
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**Free** Expert Product  
Assistance—  
Every Day

## Designs for the Future

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# IKA & Cole-Parmer: Partnering Quality with Expertise

IKA® C 1 Portable Calorimeter

**A little giant setting new standards for the industry!**

A high level of automation with extremely small footprint.

See page 27



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## IKA® RW 20 Digital Dual-Range Mixer

### No separate components to purchase— complete system is ready to go!

- No downtime—maintenance-free motor for continuous duty
- Fulfill all your lab mixing needs—two speed ranges for a variety of applications
- No need to move mixer head to reposition propeller—through-shaft design for easy adjustment
- No difficult controls—easy-to-use knob and LED display for accurate setting

Use this versatile, affordable mixer for liquid volumes up to 5 gallons (18.9 liters) and viscosities up to 10,000 cps (approximately the viscosity of honey). Select speed from 60 to 2000 rpm in two ranges for a variety of applications.

**What's included:** chuck (accepts up to 3/8" [10 mm] dia shafts), 6 1/4" L x 1/2" dia (159 mm L x 10 mm dia) mounting rod, four-blade propeller mixer stand, and clamp.



Speed (rpm)	hp	Max torque (in-oz)	Power (VAC, Hz)	Catalog number	Price
60 to 500/ 240 to 2000	1/25	259	115, 50/60 230, 50/60	IC-50705-00 IC-50705-10	

Mixers



50705-00  
shown with  
included  
propeller,  
stand, and  
clamp

### Accessories

included with Digital Mixer above

#### Four-Blade Propeller

Standard stirring element for drawing the material to be mixed from the top to the bottom. Local shearing forces. Generates axial flow in the vessel. Use at medium to high speeds.

**Yours free!**

#### Specifications

**Blade diameter:** 2" (50 mm)  
**Shaft diameter:** 5/16" (8 mm)  
**Shaft length:** 13 3/4" (350 mm)  
**Speed max:** 2000 rpm



#### Plate Stand

With slip-resistant foil.

**Yours free!**

#### Specifications

**Support rod dia:** 5/8" (16 mm)  
**Max load:** 11 lb (5 kg)  
**Dimensions(W X D x H):**  
7 7/8" x 12 7/16" x 3 1/2"  
(200 x 316 x 800 mm)



#### Boss Head Clamp

**Yours free!**

#### Specifications

**Clamp range:** 1/4" to 5/8"  
(6 to 16 mm)  
**Material:** Cast aluminum

Customer Approved

“Great product—Great bargain.”



Need more accessories? See our selection of IKA mixer propellers, stands, and clamps on page 8.

## Mixers IKA® EUROSTAR 20 & EUROSTAR 40 Digital Mixers No maintenance required

- Simple, reliable—volumes up to 6.6 gallons (25 liters) and viscosities up to 30,000 cps
- Stirring speeds up to 2000 rpm are automatically maintained as viscosity changes

These mixers feature a through-shaft design that permits adjustment of shaft length and impeller depth—allowing you to place or remove mixing vessels without repositioning the mixer. The motor and drive unit are conveniently integrated into a compact aluminum and thermoplastic housing with easy-to-use controls and a clear LED display of rpm. Mixers feature infinitely adjustable stepless speed control. Continuous comparison of shaft speed to desired speed is maintained and variations are adjusted automatically—guarantees a constant speed even with changes in fluid viscosity.

Quiet fan-cooled motors feature thermal overload shut-off, and an efficient heat-dissipating design to ensure a long service life. Motor is maintenance-free and rated for continuous duty. Safety circuits ensure automatic cut-off in an anti-stall or overload condition.

**EUROSTAR 20 Digital Mixer** (50702-30 and -35) handles volumes up to 4 gallons (15 liters) and viscosities up to 10,000 cps.

**EUROSTAR 40 Digital Mixer** (50702-40 and -45) will mix volumes up to 6.6 gallons (25 liters) and viscosities up to 30,000 cps.

**What's included:** chuck (accepts up to 3/8" [10 mm] dia shaft); 6 1/4"L x 1/2" dia (159 mm x 13 mm) mounting rod; and a 6 1/2-ft (2-m) three-wire power cord with plug.



Speed (rpm)	hp	Max torque (in-oz)	Power (VAC, Hz)	Catalog number	Price
<b>Eurostar 20 digital mixer</b>					
30 to 2000	1/16	28.3	115, 50/60	<a href="#">IC-50702-30</a>	
			230, 50/60	<a href="#">IC-50702-35</a>	
<b>Eurostar 40 digital mixer</b>					
30 to 2000	1/8	56.6	115, 50/60	<a href="#">IC-50702-40</a>	
			230, 50/60	<a href="#">IC-50702-45</a>	

**INNOCAL**  
INNOVATIVE CALIBRATION SOLUTIONS

**Calibrate to ensure accuracy**

[IC-17050-03](#) NIST-traceable calibration with data for mixers

## IKA® EUROSTAR 20 High-Speed Digital Mixer Get rapid mixing with speeds up to 6000 rpm

- High-performance mixer for volumes up to 5.3 gallons (20 liters) and viscosities up to 10,000 cps
- Precision cone seat ensures stirring shaft stability through full speed range

Mixer features a motor and drive unit conveniently integrated into a compact aluminum and thermoplastic housing. Easy-to-use controls and a clear LED display of rpm enable you to precisely control and repeat your process parameters. Unit features infinitely adjustable stepless speed control. Continuous comparison of shaft speed to desired speed is maintained and variations are adjusted automatically—guarantees a constant speed even with changes in fluid viscosity.

Quiet, fan-cooled motors feature thermal overload shut-off, and an efficient heat-dissipating design to ensure a long service life. Motor is maintenance-free and rated for continuous duty. Safety circuits ensure automatic cut-off in an anti-stall or overload condition and also produce safe, smooth starts to prevent spraying.

**What's included:** cone seat for precision screw-mount shaft, precision shaft; 6 1/4"L x 1/2" dia (159 mm x 13 mm) mounting rod; and a 6 1/2-ft (2-m) three-wire power cord with plug. Order precision high-speed propellers separately below.



Speed (rpm)	hp	Max torque (in-oz)	Power (VAC, Hz)	Catalog number	Price
150 to 6000	1/8	28.3	115, 50/60	<a href="#">IC-50702-60</a>	
			230, 50/60	<a href="#">IC-50702-65</a>	

- [IC-50702-67](#) High-speed propeller; three-blade, 1.8" (45 mm) dia
- [IC-50702-68](#) High-speed propeller; three-blade, 2.2" (55 mm) dia
- [IC-50702-69](#) High-speed propeller; dissolver-type for high-shear mixing, 1.7" (42 mm) dia
- [IC-50703-93](#) Mixer H-stand, 39 3/4" (1010-mm) H, extra stability for high-speed mixing
- [IC-50703-71](#) Mixer strap clamp, secures vessel for high-speed mixing



## IKA® EUROSTAR Control Mixers with Wireless Remote

### Control and monitor mixer wirelessly

- Torque trend function measures viscosity changes
- Integrated temperature measurement lets you monitor fluid temperature

These powerful and advanced mixers handle volumes up to 26.4 gallons (100 liters) and viscosities up to 150,000 cps. Unique features include a removable wireless controller with a multilingual LCD that lets you control and monitor all mixer functions. An integrated torque trend display is provided for the measurement of viscosity changes and a 1000 Ω Pt RTD temperature sensor input lets you monitor and display fluid temperature. Mixers also include RS-232 and USB interfaces to control and document all parameters. Additional control features include a timer function that allows you to preset run times and an interval function that enables you to program pause/run cycles.

Mixers feature infinitely adjustable stepless speed control. Continuous comparison of shaft speed to desired speed is maintained and variations are adjusted automatically. This guarantees a constant speed even with changes in fluid viscosity.

The EUROSTAR 60, 100, and 200 Control models (50705-30 through -55) also feature a through-shaft design that permits adjustment of shaft length and impeller depth—allowing you to place or remove mixing vessels without repositioning the mixer.

Quiet, fan-cooled motors feature thermal overload shut-off, and an efficient heat-dissipating design to ensure a long service life. Motor is maintenance-free and rated for continuous duty. Safety circuits ensure automatic cut-off in an anti-stall or overload condition.

**EUROSTAR 60 Control Mixer** (50705-30 and -35) handles volumes up to 10.6 gallons (40 liters) and viscosities up to 50,000 cps.

**EUROSTAR 100 Control Mixer** (50705-40 and -45) will mix volumes up to 26.4 gallons (100 liters) and viscosities up to 70,000 cps.

**EUROSTAR 200 Control Dual-Range Mixer** (50705-50 and -55) will mix volumes up to 26.4 gallons (100 liters) and viscosities up to 100,000 cps. Two selectable speed ranges give you the option of high viscosity or high-speed mixing.

**EUROSTAR 200 Control P4 Dual-Range/High-Torque Mixer** (50705-60 and -65) will mix volumes up to 26.4 gallons (100 liters) and viscosities up to 150,000 cps. A high-torque rating and two selectable speed ranges give you the option of high viscosity or high-speed mixing.

**What's included:** stainless steel Pt RTD temperature probe; chuck (accepts up to 3/8" [10 mm] dia shaft); 6 1/4" L x 1/2" dia (159 mm x 13 mm) mounting rod; and a 6 1/2'-ft (2-m) three-wire power cord with plug.



Speed (rpm)	hp	Max torque (in-oz)	Power (VAC, Hz)	Catalog number	Price
<b>Eurostar 60 control mixer</b>					
30 to 2000	3/16	85	115, 50/60	<a href="#">IC-50705-30</a>	
			230, 50/60	<a href="#">IC-50705-35</a>	
<b>Eurostar 100 control mixer</b>					
30 to 1300	1/8	142	115, 50/60	<a href="#">IC-50705-40</a>	
			230, 50/60	<a href="#">IC-50705-45</a>	
<b>Eurostar 200 control dual-range mixer</b>					
6 to 400/30 to 2000	1/8	283	115, 50/60	<a href="#">IC-50705-50</a>	
			230, 50/60	<a href="#">IC-50705-55</a>	
<b>Eurostar 200 control P4 dual-range/high-torque mixer</b>					
4 to 108/16 to 530	1/8	935	115, 50/60	<a href="#">IC-50705-60</a>	
			230, 50/60	<a href="#">IC-50705-65</a>	

[IC-50705-80](#) Replacement temperature probe, stainless steel

[IC-50705-82](#) Temperature probe, glass-coated stainless steel for acid and alkaline fluids

[IC-50705-84](#) Extension cable for temperature probe, connects probe to mixer, 3.3 ft (1 m) length



- Ultra-clear, high-contrast TFT LCD controller screen displays all process parameters

- RS-232 and USB interfaces for easy documentation of processes and firmware updates

**DETACHABLE WIRELESS CONTROLLER**—lets you monitor and control all functions remotely



## Mixers IKA® EUROSTAR Digital Constant-Speed Mixers Handle volumes up to 26.4 gallons (100 liters)

- Mixers maintain set speed even as fluid viscosity changes
- Dual-range EUROSTAR 200 digital handles viscosities up to 100,000 cps



These mixers feature a through-shaft design that permits adjustment of shaft length and impeller depth—allowing you to place or remove mixing vessels without repositioning the mixer. The motor and drive unit are conveniently integrated into a compact aluminum and thermoplastic housing with easy-to-use controls and a clear LED display of rpm. Mixers feature infinitely adjustable stepless speed control. Continuous comparison of shaft speed to desired speed is maintained and variations are adjusted automatically. This guarantees a constant speed even with changes in fluid viscosity.

Quiet, fan-cooled motors feature thermal overload shut-off, and an efficient heat-dissipating design to ensure a long service life. Motor is maintenance-free and rated for continuous duty. Safety circuits ensure automatic cut-off in an anti-stall or overload condition.

**EUROSTAR 60 Digital Mixer** (50704-20 and -25) handles volumes up to 10.6 gallons (40 liters) and viscosities up to 50,000 cps.

**EUROSTAR 100 Digital Mixer** (50704-30 and -35) will mix volumes up to 26.4 gallons (100 liters) and viscosities up to 70,000 cps.

**EUROSTAR 200 Digital Mixer** (50704-40 and -45) will mix volumes up to 26.4 gallons (100 liters) and viscosities up to 100,000 cps. Two selectable speed ranges give you the option of high viscosity or high-speed mixing.

**What's included:** chuck (accepts up to 3/8" [10 mm] dia shaft); 6 1/4" L x 1/2" dia (159 mm x 13 mm) mounting rod; and a 6 1/2-ft (2-m) three-wire power cord with plug.



Speed (rpm)	hp	Max torque (in-oz)	Power (VAC, Hz)	Catalog number	Price
<b>Eurostar 60 digital mixer</b>					
30 to 2000	3/16	85	115, 50/60	<a href="#">IC-50704-20</a>	
			230, 50/60	<a href="#">IC-50704-25</a>	
<b>Eurostar 100 digital mixer</b>					
30 to 1300	1/8	142	115, 50/60	<a href="#">IC-50704-30</a>	
			230, 50/60	<a href="#">IC-50704-35</a>	
<b>Eurostar 200 digital dual-range mixer</b>					
6 to 400/30 to 2000	1/8	283	115, 50/60	<a href="#">IC-50704-40</a>	
			230, 50/60	<a href="#">IC-50704-45</a>	

## IKA® RW 28 Digital Pilot-Process Mixer

### Tackle large batch mixing with ease

- Two selectable speed ranges for high viscosity or high-speed mixing
- Through-shaft design allows you to easily raise or lower the shaft and impeller

This mixer features a through-shaft design that permits adjustment of shaft length and impeller depth—allowing you to place or remove mixing vessels without repositioning the mixer. Easy-to-use controls and a clear LED display of rpm enable you to precisely control and repeat your process parameters. Mixer features infinitely adjustable stepless speed control.

Quiet, continuous-duty motor features thermal overload shut-off and an efficient heat-dissipating design to ensure a long service life. Safety circuits ensure automatic cut-off in an anti-stall or overload condition.

**What's included:** chuck (accepts up to 3/8" [10 mm] dia shaft); 6¼" L x 1/2" dia (159 mm x 13 mm) mounting rod; and a 6½-ft (2-m) three-wire power cord with plug.



Speed (rpm)	hp	Max torque (in-oz)	Power (VAC, Hz)	Catalog number	Price
60 to 400/240 to 1400	1/8	1275	115, 50/60	<a href="#">IC-50702-70</a>	
			230, 50/60	<a href="#">IC-50702-75</a>	



## IKA® RW 47 Digital Pilot-Process Mixer

### Mix large, viscous batches with ease

- Two speed ranges for intensive mixing up to 100,000 cps
- Stirs volumes up to 52 gallons (200 liters)

Mechanically controlled mixer is designed for intensive mixing applications in laboratories and pilot plants. Easy-to-use controls and a clear LED display of rpm enable you to precisely control and repeat your process parameters. Mixer features infinitely adjustable dual-speed control.

Self-locking temperature limiter protects against overheating and ensures safe operation through thermal overload shut-off. Quiet operation and a robust, ergonomic design ensure a long service life.

**What's included:** chuck (accepts up to 5/8" [16 mm] dia shaft). Note: power cable and plug are not included; unit to be wired on-site according to local ordinances.

**Complete system adds:** four-blade propeller 50702-90 and telescopic mixer stand 50702-95.



Description	Speed (rpm)	hp	Max torque (in-oz)	Power (VAC, Hz, phase)	Catalog number	Price
Mixer only	57 to 275/	5/8	4248	230, 60, 3	<a href="#">IC-50702-80</a>	
Complete system	275 to 1300				<a href="#">IC-50702-85</a>	

**Accessories** included in complete system 50702-85

**Four-Blade Propeller Assembly** is the standard stirring element for drawing the material to be mixed from the top to the bottom. Local shearing forces. Generates axial flow in the vessel. Use at medium to high speeds.

[IC-50702-90](#) Four-blade propeller



#### Specifications

**Blade diameter:** 6" (150 mm)  
**Shaft diameter:** 1/2" (13 mm)  
**Shaft length:** 31½" (800 mm)  
**Speed max:** 600 rpm

Complete system includes four blade propeller and telescopic stand. Save \$300!

**Telescopic Mixer Stand** features a pneumatic spring for effortless raising and lowering of the mixer.

[IC-50702-95](#) Telescopic mixer stand



#### Specifications

**Support rod dia:** 1 7/8" (48 mm)  
**Dimensions (W X D x H):**  
 7 7/8" x 12 1/16" x 31 1/2"  
 (200 x 316 x 800 mm)



## Mixers IKA® Mixer Accessories

### Get the most out of your IKA mixer!

#### A-H. Propellers and Stirrers

**A. Four-Blade Propellers** draw the material to be mixed from the top to the bottom. Create local shearing forces and axial flow in the vessel. Use at medium to high speeds.

**B-C. Three-Blade Propellers** draw material to be mixed from the top and the bottom while creating minimum shearing forces. Use at medium to high speed.

**D. Turbine Propellers** are used for drawing the material to be mixed from above while generating axial flow within the vessel. Minimum danger of injury when contact is made with the vessel. Create minimal shearing forces. Use at medium to high speeds.

**E. Dissolver Propellers** are for drawing the material to be mixed from the top and the bottom while creating high turbulence and high shearing forces for particle reduction. Use at medium to high speeds.

**F. Folding Propellers** are two-bladed, and the blades open with increasing speed, perfect for stirring in round vessels with narrow necks. Medium to high speeds are required.

**G. Paddle Stirrers** create tangential flow, minimum turbulence, good heat exchange, and gentle treatment of product. Use at low to medium speeds.

**H. Anchor Stirrers** create tangential flow, high shearing rate at edges, minimum deposits on the vessel wall, making them great for polymer reactions and even distribution of high mineral contents in liquids. Ideal for medium to highly viscous fluids. Use at low speeds.



#### I-K. Stands

**I. Mixer Plate Stand** comes with slip-resistant foil and a support rod with diameter of 5/8" (16 mm).

Key	Height, in. (mm)	Catalog number	Price
I	22 (560)	<a href="#">IC-50703-90</a>	
	31 1/2 (800)	<a href="#">IC-50703-91</a>	
	39 13/32 (1000)	<a href="#">IC-50703-92</a>	

**J-K. Mixer H-Stands.** Particularly stable stand with "H"-shaped base prevents the stand from tipping backwards. Model K is spring loaded to allow for height adjustment from 24 13/32" to 39 3/4" (620 mm to 1010 mm).

Key	Height, in. (mm)	Catalog number	Price
J	39 3/4 (1010)	<a href="#">IC-50703-93</a>	
K	24 13/32 to 39 3/4 (620 to 1010)	<a href="#">IC-50703-94</a>	

**IC-50703-70 Mixer strap clamp,** fits vessels from 1 1/2" to 11 3/4" (40 to 300 mm)

**IC-50703-71 Mixer strap clamp with Boss head clamps,** fits vessels from 1 1/2" to 11 3/4" (40 to 300 mm)

**IC-50703-96 Boss head clamp,** clamping range 1/4" to 5/8" (6 to 16 mm)

**IC-50703-97 Boss head clamp,** fits stands 1" to 1 1/2" (25 to 36 mm) dia and accommodates mounting rods 3/16" to 3/4" (5 to 21 mm) dia

**IC-50703-98 Boss head clamp,** fits stands 1 1/4" (34 mm) dia and accessory rods 2 1/32" (16 mm) dia

#### L. Mixer Flexible Coupling

Required for stirring tasks utilizing glass stirring rods, compensating for any structural variances. Clamping range is 1/4" to 3/8" (6 to 10 mm).

Key	Description	Catalog number	Price
L	Mixer flexible coupling	<a href="#">IC-50703-75</a>	

Key	Material	Shaft, dia x L, in. (mm)	Paddle dia, in. (mm)	Catalog number	Price
A	316 SS	1 1/2 x 13 3/4 (8 x 350)	2 (50)	<a href="#">IC-50703-25</a>	
	316 SS	1 1/2 x 21 1/4 (8 x 540)	4 (102)	<a href="#">IC-50703-26</a>	
B	316 SS	1 1/2 x 13 3/4 (8 x 350)	1 3/4 (45)	<a href="#">IC-50703-30</a>	
	316 SS	1 1/2 x 13 3/4 (8 x 350)	2 7/32 (56)	<a href="#">IC-50703-31</a>	
	316 SS	1 3/32 x 21 2 1/2 (10 x 550)	5 1/2 (140)	<a href="#">IC-50703-32</a>	
C	PTFE-coated SS	1 1/2 x 13 3/4 (8 x 350)	3 (75)	<a href="#">IC-50703-34</a>	
	316 SS	1 1/2 x 13 3/4 (8 x 350)	1 7/32 (31)	<a href="#">IC-50703-35</a>	
D	316 SS	1 1/2 x 13 3/4 (8 x 350)	2 (50)	<a href="#">IC-50703-36</a>	
	316 SS	1 3/32 x 15 3/4 (10 x 400)	2 3/4 (70)	<a href="#">IC-50703-37</a>	
	316 SS	1 1/2 x 13 3/4 (8 x 350)	3 3/32 (83)	<a href="#">IC-50703-40</a>	
E	316 SS	1 3/32 x 13 3/4 (10 x 350)	4 (102)	<a href="#">IC-50703-41</a>	
	316 SS	1 1/2 x 13 3/4 (8 x 350)	2 2 1/32 (68)	<a href="#">IC-50703-42</a>	
	316 SS	1 1/2 x 13 3/4 (8 x 350)	1 9/32 to 2 1 3/32 (15 to 61)	<a href="#">IC-50703-45</a>	
F	316 SS	1 1/2 x 13 3/4 (8 x 350)	1 to 4 (24 to 100)	<a href="#">IC-50703-46</a>	
	316 SS	1 1/2 x 21 2 1/2 (8 x 550)	2 3/4 (70)	<a href="#">IC-50703-51</a>	
G	316 SS	1 3/32 x 21 2 1/2 (10 x 550)	5 7/8 (150)	<a href="#">IC-50703-52</a>	
	316 SS	1 1/2 x 13 3/4 (8 x 350)	1 3/4 (45)	<a href="#">IC-50703-55</a>	
H	316 SS	1 1/2 x 13 3/4 (8 x 350)	3 1/2 (90)	<a href="#">IC-50703-56</a>	
	316 SS	1 3/32 x 21 2 1/2 (10 x 550)	5 7/8 (150)	<a href="#">IC-50703-58</a>	

#### Search

For our complete line of IKA products and accessories, go to...

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## IKA® Ultra-Flat Lab Disc Stirrer

### Get more thorough mixing

- Set up to reverse rotation direction every 30 seconds for better mixing
- Intrinsically safe
- No moving parts, making the drive wear-free

**What's included:** 5½-ft (1.7-m) power cord and adapters to work with US, EU, Canada, Australia, and UK outlets.



Top plate		Speed range	Max stirring capacity	Power		Catalog number	Price
Dimensions	Material			VAC	Hz		
3½" (8.9 cm) dia	Polyester	15 to 1500 rpm	0.8 L	100/240	50/60	<a href="#">IC-84002-71</a>	

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## IKA® Digital Color Squid and Big Squid Stirrers

### Electronically controlled motor for higher capacity stirring

- Compact and accurate with digital LED speed display
- Easy-to-clean glass top for outstanding chemical resistance
- Synthetic base is made of sturdy Hytrel®

**What's included:** 5½-ft (1.7-m) power cord and adapters to work with US, EU, Canada, Australia, and UK outlets.



Top plate			Speed range	Max stirring capacity	Power		Catalog number	Price
Design	Dimensions	Material			VAC	Hz		
<b>Color squid</b>								
White	4½" (11.4 cm) dia	Glass	0 to 2500 rpm	1 L	100/240	50/60	<a href="#">IC-84002-01</a>	
US flag							<a href="#">IC-84002-02</a>	
<b>Big squid</b>								
White	6¾" (16 cm) dia	Glass	0 to 2500 rpm	1.5 L	100/240	50/60	<a href="#">IC-84002-90</a>	



84002-02



84002-01

## IKA® Topolino Magnetic Stirrer

### Save valuable benchtop space

- Continually adjustable speed range up to 1800 rpm
- Durable polypropylene top plate

This compact, low-profile mini-stirrer is perfect for mixing quantities up to 250 mL. Its small size makes it convenient for use anywhere in the lab and maximizes premium benchtop space. Features a durable brushless motor and high magnetic adhesion.

**What's included:** power cord with plug.



Top plate		Speed range	Max stirring capacity	Power		Catalog number	Price
Dimensions	Material			VAC	Hz		
3¾" (8 cm)	Polypropylene	300 to 1800 rpm	250 mL	115	50/60	<a href="#">IC-84002-12</a>	
				230	50/60	<a href="#">IC-84002-13</a>	



## Stirrers

### IKA® Topolino Mobil Magnetic Stirrer

Take it where you need it—battery lasts up to 12 hours

- Mix samples up to 250 mL
- Durable brushless motor has high magnetic adhesion
- Included power adapter charges batteries and operates stirrer at the same time
- Charges in less than 3 hours

What's included: four AA rechargeable batteries and plug-in power supply.



Top plate		Speed range	Max stirring capacity	Power		Catalog number	Price
Dimensions	Material			VAC	Hz		
3 <sup>3</sup> / <sub>16</sub> " (8 cm)	Polypropylene	300 to 1800 rpm	250 mL	100 to 240	50/60	<a href="#">IC-84002-11</a>	

### IKA® RCT basic Digital Stirring Hot Plate Synthesis Packages

Perform multiple synthesis operations with a single stirrer

- Packages contain all necessary components including the stirrer
- Provide uniform mixing in every vessel or flask

#### Synthesis Package 1—Quarter System

Contains all the components necessary for multiple vessel applications. The carrier plate can be fitted with four identical or different aluminum quarters. The aluminum quarters guarantee optimal heat transfer throughout the process without interference to the magnetic field. This ensures that all the vessels are processed at the same temperature and the contents are uniformly mixed.

#### Synthesis Package 2—Flask System

This flexible package handles a wide range of flask applications. Exchangeable inserts provide high-precision thermal conduction directly into the flask. Allows for a safe and clean working environment.



04671-17



Description	Contents	Catalog number	Price
Synthesis package 1	RCT basic digital stirring hot plate (115 VAC), vertical support rod, boss head clamp, support rod, square carrier, 4 x 20 mL block, 4 x 30-mL block, 4 x 40-mL block, 16 x 4-mL block	<a href="#">IC-04671-17</a>	
Synthesis package 2	RCT basic digital stirring hot plate (115 VAC), vertical support rod, boss head clamp, support rod, extension, 500-mL flask carrier, 250-mL flask insert	<a href="#">IC-04671-18</a>	

#### Carriers

Description	Cat. no.	Price
Square carrier, accepts 4 blocks	<a href="#">IC-04672-00</a>	
Flask carrier, 100 mL; also accepts 10-, 25-, and 50-mL flask inserts	<a href="#">IC-04672-09</a>	
Flask carrier, 500 mL; also accepts 100- and 250-mL flask inserts	<a href="#">IC-04672-13</a>	
Flask carrier, 1000 mL; also accepts 500-mL flask insert	<a href="#">IC-04672-17</a>	
Flask carrier, 2000 mL; also accepts 1000-mL flask insert	<a href="#">IC-04672-19</a>	
Flask carrier, 3000 mL; also accepts 2000-mL flask insert	<a href="#">IC-04672-21</a>	
Flask carrier, 5000 mL; also accepts 3000-mL flask insert	<a href="#">IC-04672-23</a>	

#### Blocks for Square Carrier

Block size	Cat. no.	Price
16 x 4-mL flat bottom	<a href="#">IC-04672-01</a>	
16 x 8-mL flat bottom	<a href="#">IC-04672-02</a>	
9 x 16-mL flat bottom	<a href="#">IC-04672-03</a>	
4 x 20-mL flat bottom	<a href="#">IC-04672-04</a>	
4 x 30-mL flat bottom	<a href="#">IC-04672-05</a>	
4 x 40-mL flat bottom	<a href="#">IC-04672-06</a>	
100-mL round bottom	<a href="#">IC-04672-07</a>	
250-mL round bottom	<a href="#">IC-04672-08</a>	

#### Flask Inserts for Flask Carriers

Flask size	Cat. no.	Price
10-mL round bottom	<a href="#">IC-04672-10</a>	
25-mL round bottom	<a href="#">IC-04672-11</a>	
50-mL round bottom	<a href="#">IC-04672-12</a>	
100-mL round bottom	<a href="#">IC-04672-14</a>	
250-mL round bottom	<a href="#">IC-04672-15</a>	
500-mL round bottom	<a href="#">IC-04672-16</a>	
1000-mL round bottom	<a href="#">IC-04672-18</a>	
2000-mL round bottom	<a href="#">IC-04672-20</a>	
3000-mL round bottom	<a href="#">IC-04672-22</a>	

## IKA® RCT and RET Basic IKAMAG® Round-Top Digital Stirring Hot Plates

### Safe for unsupervised operation

- Both units have a high safety level due to their improved heat control technology
- Stronger motor for higher speed range—up to 1700 rpm

Platinum RTD temperature sensor ensures precise temperature control. You can digitally set safety temperature limit. Hot top indicator warns to prevent burns.

**RCT basic model** features a polished aluminum round top plate which provides more efficient heat transfer than standard top plates. Hot plate features an over-temperature safety circuit adjustable from 122 to 680°F (50 to 360°C) to protect your samples from overheating. Adjustable speed up to 1500 rpm.

**RET basic model** offers the same features of the RCT basic model (above) plus a stainless steel top plate for better chemical resistance and higher temperatures. Speed range is up to 1700 rpm for more demanding applications.



**What's included:** 1000 Ω Pt external temperature sensor and 5-ft (1.5-m) cord.



Top plate		Temperature range	Speed range	Max stirring capacity	Power		Catalog number	Price
Dimensions	Material				VAC	Hz		
<b>RCT basic stirring hot plate</b>								
5" (12.7 cm) dia	Aluminum alloy	122 to 680°F (50 to 360°C)	50 to 1500 rpm	20 L	115	50/60	<a href="#">IC-04671-21</a>	
					230	50/60	<a href="#">IC-04671-23</a>	
<b>RET basic stirring hot plate</b>								
5" (12.7 cm) dia	Stainless steel	122 to 644°F (50 to 340°C)	50 to 1700 rpm	20 L	115	50/60	<a href="#">IC-04671-25</a>	
					230	50/60	<a href="#">IC-04671-27</a>	

## IKA® RET Control-VISC Digital Stirring Hot Plate with Weighing and pH Functions

### Weigh, measure pH, and monitor temperature while heating and stirring

- Weigh and stir samples in one convenient unit
- Monitor pH of your sample with built-in BNC connector
- Built-in temperature sensor for precise temperature control

This innovative unit offers the most advanced features within the market today, providing you the ability to monitor your sample activity more accurately. Monitor and weigh samples up to 2 kg using the integrated weighing function. Built-in BNC connector allows you to attach an electrode for analyzing and adjusting the pH of your sample. Set hot plate temperature up to 644°F (340°C) and observe the actual temperature of the sample with the temperature probe. Easily examine all parameters on the alphanumeric graphical TFT LCD with excellent image quality, easy-to-use navigation control, torque trend, and timer/countdown functions.



Round stainless steel top provides quick and effective heat transfer to your samples. Improved heat control technology increases safety, while hot top indicator warns users to help prevent burns and injuries. Utilize the adjustable, from 122 to 698°F (50 to 370°C), over-temperature safety circuit to protect samples from overheating. Built-in RS-232 interface allows direct connection to a PC for control and documentation of trials for later study.

**What's included:** external temperature sensor and 5-ft (1.5-m) detachable power cord with plug.



Top plate		Temperature range	Speed range	Max capacity	Power		Catalog number	Price
Dimensions	Material				VAC	Hz		
5 5/8" (13.5 cm) dia	Stainless steel	Ambient to 644°F (ambient to 340°C)	50 to 1700 rpm	20 L	115	50/60	<a href="#">IC-04671-29</a>	
					230	50/60	<a href="#">IC-04671-31</a>	

## Stirrers IKA® Ceramic-Top Hot Plates

### Get more precise control

- Set temperature to exact needs via LED display
- Don't let sample overheat—optional temperature probe will monitor temperature and shut unit off if over temperature
- Quick heat-up
- Corrosion-resistant ceramic top for easy cleaning



What's included: a 5-ft (1.5-m) cord.



Top plate		Temperature range	Power		Catalog number	Price
Dimensions	Material		VAC	Hz		
4" x 4" (10.2 x 10.2 cm)	Ceramic	122 to 932°F (50 to 500°C)	120	50/60	<a href="#">IC-04671-60</a>	
			230	50/60	<a href="#">IC-04671-62</a>	
7" x 7" (17.8 x 17.8 cm)	Ceramic	122 to 932°F (50 to 500°C)	120	50/60	<a href="#">IC-04671-64</a>	
			230	50/60	<a href="#">IC-04671-66</a>	
10" x 10" (25.4 x 25.4 cm)	Ceramic	122 to 932°F (50 to 500°C)	120	50/60	<a href="#">IC-04671-68</a>	
			230	50/60	<a href="#">IC-04671-70</a>	

[IC-04671-55](#) Programmable temperature sensor; 1000 Ω Pt, 7/8" (19.7 cm) stainless steel probe

## IKA® Ceramic-Top Stirrers and Stirring Hot Plates

### Get precise digital control with superior stirring

- Extremely fast heating
- White ceramic top plate cleans easily and resists alkalis and acids
- Don't overheat—over-temperature safety circuit fixed at 1022°F (550°C)
- Optional temperature sensor for more precise temperature control



What's included: a 5-ft (1.5-m) cord.



Top plate		Temperature range	Speed range	Max stirring capacity	120 VAC (50/60 Hz)		240 VAC (50/60 Hz)	
Dimensions	Material				Cat. no.	Price	Cat. no.	Price
<b>Stirrers</b>								
4" x 4" (10.2 x 10.2 cm)	Ceramic	—	100 to 1500 rpm	5 L	<a href="#">IC-04671-38</a>		<a href="#">IC-04671-40</a>	
7" x 7" (17.8 x 17.8 cm)				10 L	<a href="#">IC-04671-42</a>		<a href="#">IC-04671-44</a>	
10" x 10" (25.4 x 25.4 cm)				15 L	<a href="#">IC-04671-46</a>		<a href="#">IC-04671-48</a>	
<b>Stirring hot plates</b>								
4" x 4" (10.2 x 10.2 cm)	Ceramic	122 to 932°F (50 to 500°C)	100 to 1500 rpm	5 L	<a href="#">IC-04671-26</a>		<a href="#">IC-04671-28</a>	
7" x 7" (17.8 x 17.8 cm)				10 L	<a href="#">IC-04671-30</a>		<a href="#">IC-04671-32</a>	
10" x 10" (25.4 x 25.4 cm)				15 L	<a href="#">IC-04671-34</a>		<a href="#">IC-04671-36</a>	

## IKA® Large-Capacity Digital Stirrers

### Digital control for your large, heavy-duty mixing

- Effectively stir up to 40 gallons (150 liters)

Powerful magnetic stirrers feature a flat, sturdy stainless steel casing—ideal for your heavy-duty mixing needs. Digital LED display allows for exact control. Unit features a timer for up to 56 minutes or set for continuous run.



What's included: a 5-ft (1.5-m) cord.

Top plate		Speed range	Max stirring capacity	Power		Catalog number	Price
Dimensions	Material			VAC	Hz		
13" x 13" (33.0 x 33.0 cm)	Stainless steel	0 to 1000 rpm	50 L	120	50/60	<a href="#">IC-04671-80</a>	
				230	50/60	<a href="#">IC-04671-81</a>	
19" x 19" (48.3 x 48.3 cm)	Stainless steel	0 to 600 rpm	150 L	120	50/60	<a href="#">IC-04671-82</a>	
				230	50/60	<a href="#">IC-04671-83</a>	

[IC-04627-00](#) Large-volume stir bar, measures 4 1/4" L x 1 1/16" dia (10.8 x 2.7 cm)

## IKA® RH Basic and Digital Stirring Hot Plates

### Stir volumes up to 15 liters

- Prevent splashing and spraying with soft-start motor
- Adjust speed from 50 to 2000 rpm
- Get rapid heating of samples to 608°F (320°C)
- Monitor temperature by connecting external sensor to DIN 12878 connection
- Choose analog (basic) or digital version

**What's included:** 5-ft (1.5-m) detachable power cord with plug.



Stirrers



Top plate		Temperature range	Speed range	Max stirring capacity	Power		Catalog number	Price
Dimensions	Material				VAC	Hz		
<b>Basic stirring hot plate</b>								
5 <sup>5</sup> / <sub>16</sub> " (13.5 cm)	Stainless steel	122 to 608°F (50 to 320°C)	50 to 2000 rpm	15 L	115	50/60	<a href="#">IC-04671-12</a>	
					230	50/60	<a href="#">IC-04671-13</a>	
<b>Digital stirring hot plate</b>								
5 <sup>5</sup> / <sub>16</sub> " (13.5 cm)	Stainless steel	122 to 608°F (50 to 320°C)	50 to 2000 rpm	15 L	115	50/60	<a href="#">IC-04671-14</a>	
					230	50/60	<a href="#">IC-04671-16</a>	

[IC-17002-27](#) NIST-traceable calibration with data for stirrer, heat

## IKA® Multiposition Stirrers and Stirring Hot Plates

### Maintain consistent and silent operation with wear-free and maintenance-free motor

- Stir consistently in all positions
- Adjust speed in 10-rpm increments—speed remains constant
- Easy clean-up
- Stirring hot plates feature synchronous heating and stirring, and homogeneous temperature distribution

**What's included:** RO models include a removable transparent antislip cover, 5<sup>1</sup>/<sub>2</sub>-ft (1.7-m) cord and adapters to work with US, EU, Canada, Australia and UK outlets. RT models include a 5<sup>1</sup>/<sub>2</sub>-ft (1.7-m) cord and plug.



Stirring positions	Volume per position	Top plate		Temperature range	Speed range	Power		Catalog number	Price
		Dimensions (W x D)	Material			VAC	Hz		
<b>RO multiposition stirrers</b>									
5	400 mL	4 <sup>3</sup> / <sub>4</sub> " x 18 <sup>1</sup> / <sub>2</sub> " (12 x 47 cm)	Stainless steel	—	0 to 1200 rpm	100–240	50/60	<a href="#">IC-04671-91</a>	
10		7 <sup>1</sup> / <sub>2</sub> " x 18 <sup>1</sup> / <sub>2</sub> " (19 x 47 cm)						<a href="#">IC-04671-92</a>	
15		11" x 18 <sup>1</sup> / <sub>2</sub> " (28 x 47 cm)						<a href="#">IC-04671-93</a>	
<b>RT multiposition stirring hot plates</b>									
5	400 mL	4 <sup>5</sup> / <sub>16</sub> " x 19 <sup>1</sup> / <sub>2</sub> " (11 x 49.5 cm)	Stainless steel	Room temperature to 248°F (120°C)	0 to 1100 rpm	115	50/60	<a href="#">IC-04671-94</a>	
10		7 <sup>1</sup> / <sub>8</sub> " x 19 <sup>1</sup> / <sub>2</sub> " (18 x 49.5 cm)						<a href="#">IC-04671-95</a>	
15		10 <sup>5</sup> / <sub>16</sub> " x 19 <sup>1</sup> / <sub>2</sub> " (27 x 49.5 cm)						<a href="#">IC-04671-96</a>	
						230	50/60	<a href="#">IC-04671-97</a>	
						115	50/60	<a href="#">IC-04671-98</a>	
						230	50/60	<a href="#">IC-04671-99</a>	

[IC-17050-04](#) NIST-traceable calibration with data for stirrers

[IC-17002-27](#) NIST-traceable calibration with data for stirrer, heat

## Homogenizers

### IKA® ULTRA-TURRAX® Tube Dispensers

#### Prevent contamination—process samples in hermetically sealed disposable tubes

- Multiple tube styles process a wide variety of sample types
- Saves time instead of dry mills

Each sample tube contains a stirring device, blade, or ball for mixing and homogenizing small samples. Choose from three tube styles with different mixing devices to process your particular sample type. Order basic or control version. Control version includes RS-232 computer interface for monitoring, controlling, and recording disperser functions.

**What's included:** power cord, two 15-mL dispersion tubes, two 15-mL stirring tubes, two 15-mL ball-mill tubes, glass and stainless balls, and carrying case.



Tube dispenser 04738-89 shown with sealed sample tube 04738-06



#### Specifications

**Speed range:** 300 to 6000 rpm    **Speed adjustment:** stepless    **Wattage:** 20 input, 17 output  
**Batch volume range:** 2 to 50 mL    **Timer:** 1 sec to 29 min    **Power:** 115 VAC, 50/60 Hz

Description	Catalog number	Price
ULTRA-TURRAX tube dispenser, basic	<a href="#">IC-04738-89</a>	
ULTRA-TURRAX tube dispenser, control	<a href="#">IC-04738-87</a>	



04720-95    04720-96    04720-97    04720-98

#### Sample Tubes

Tube type	Application	Catalog number	Processing volume	Price/pk of 25	Catalog number	Processing volume	Price/pk of 10
Dispersion	Homogenization, dispersion	<a href="#">IC-04738-06</a>	5 to 15 mL		<a href="#">IC-04720-95</a>	15 to 50 mL	
Stirring, glass ball	Mixing, stirring, dispersion	<a href="#">IC-04738-07</a>	2 to 15 mL		<a href="#">IC-04720-96</a>	15 to 50 mL	
Ball-mill, glass ball	Dry milling, cell disruption, brittle samples	<a href="#">IC-04738-08</a>	2 to 15 mL		<a href="#">IC-04720-97</a>	15 to 50 mL	
Ball-mill, stainless ball		<a href="#">IC-04738-09</a>			<a href="#">IC-04720-98</a>		

### IKA® T10 basic ULTRA-TURRAX® Homogenizer

#### No need for tools—quick-release for easy change outs

- Lightweight, ergonomic form is ideal for manual operation

This compact homogenizer is great for high-speed handheld operation. Through a combination of shear, impact, collision, and cavitation, the generator rapidly disperses and disintegrates the material suspended in the media. Disposable dispersion elements eliminate concerns of cross-contamination with DNA or PCR analysis.

**What's included:** storage case, clamp 04720-80, and 6-ft (1.8-m) power cord.



#### REQUIRED System Components

- 1) Homogenizer
- 2) Rotor-stator generator



#### 1. Homogenizer

Description	Handheld homogenizers	
Catalog number	<a href="#">IC-04720-50</a>	<a href="#">IC-04720-51</a>
Speed range	8000 to 30,000 rpm	
Batch volume range	0.5 to 100 mL	
Noise rating	65 dB	
Speed adjustment	Stepless	
Wattage	125 input, 75 output	
Power	115 VAC, 50/60 Hz	230 VAC, 50/60 Hz
Price		

#### 2. Rotor-Stator Generators



Sample volume range	Dimensions (L x OD)	Qty	Catalog number	Price
<b>Stainless steel dispersion elements</b>				
0.5 to 10 mL	92 x 5 mm	1	<a href="#">IC-04720-72</a>	
1 to 50 mL	115 x 8 mm	1	<a href="#">IC-04720-73</a>	
1 to 100 mL	115 x 10 mm	1	<a href="#">IC-04720-74</a>	
<b>Stainless steel sawtooth dispersion elements</b>				
1 to 50 mL	115 x 8 mm	1	<a href="#">IC-04720-52</a>	
1 to 100 mL	115 x 10 mm	1	<a href="#">IC-04720-54</a>	
<b>Disposable plastic tip dispersion elements</b>				
1 to 20 mL	65 x 7 mm	25/pk	<a href="#">IC-04720-76</a>	
1 to 40 mL	110 x 7 mm	25/pk	<a href="#">IC-04720-78</a>	

[IC-04720-79](#) Support stand (requires cross sleeve 04720-81)

[IC-04720-81](#) Cross sleeve, attaches stand to clamp

[IC-04720-80](#) Replacement clamp (one is included with homogenizer)

04720-72

04720-76

## IKA® T25 Digital ULTRA-TURRAX® High-Speed Homogenizer

Handle sample volumes from 1 to 2000 mL

- Systems can be used with tough solids or large-volume samples
- Generators are made of 316 stainless steel and PTFE, providing excellent chemical compatibility

System is ideal for batch homogenizing of cell tissues, emulsifying suspended solids, and air pollution filter extraction. The key component is the rotor-stator generator. (Order rotor-stator generators separately below.) Shielded in a 316 stainless steel shaft, the rotor acts as a centrifugal pump to recirculate the liquid and suspended solids through generator, where shear, impact, collision, and cavitation provide rapid homogenization.

**What's included:** 10-ft (3-m) power cord (the 115 VAC model has standard US plug; the 230 VAC model has a European plug). **Kit adds:** pack of 10 disposable generators, stand (50703-91), boss head clamp, and strap clamp.



### REQUIRED System Components

- 1) Homogenizer
- 2) Rotor-stator generator
- 3) Stand and clamps

### 1. Homogenizer



Description	Homogenizer only		Homogenizer kit	
	IC-04739-21	IC-04739-22	IC-04739-31	IC-04739-32
Speed range	500 to 25,000 rpm			
Batch volume range	1 to 2000 mL			
Noise rating	73 dB			
Speed adjustment	Stepless			
Wattage	800 input, 500 output			
Power	115 VAC, 50/60 Hz	220 VAC, 50/60 Hz	115 VAC, 50/60 Hz	220 VAC, 50/60 Hz
Price				

### 2. Rotor-Stator Generators, 316 Stainless Steel/PTFE

Style	Sample volume range	Ultimate fineness	Dimensions L x OD	Catalog number	Price
Standard	1 to 50 mL	10 µm	108 x 8 mm	IC-04720-11	
	1 to 100 mL	10 µm	105 x 10 mm	IC-04720-10	
	10 to 1500 mL	10 µm	194 x 18 mm	IC-04720-12	
	50 to 2000 mL	10 µm	194 x 25 mm	IC-04719-52	
	100 to 2000 mL	5 µm	194 x 25 mm	IC-04719-53	
Sawtooth	1 to 50 mL	10 µm	108 x 8 mm	IC-04737-90	
	1 to 100 mL	10 µm	105 x 10 mm	IC-04737-92	
	10 to 1500 mL	10 µm	194 x 18 mm	IC-04737-94	
	50 to 2000 mL	15 µm	194 x 25 mm	IC-04737-96	

### 3. Stands and Clamps

- IC-50703-90 Plate stand, 22" high
- IC-50703-91 Plate stand, 31½" high
- IC-50703-92 Plate stand, 39½" high
- IC-50703-96 Boss head clamp
- IC-50703-70 Strap clamp

## IKA® T18 Digital ULTRA-TURRAX® Homogenizer

Use for a wide variety of applications

- 500-watt motor processes sample volumes from 1 to 1500 mL
- Process samples from 500 to 25,000 rpm

Stainless steel dispersion elements remove quickly and clean completely for reuse. The digital unit features electronic speed control and overload protection. The rotor-stator generator uses a pump-like action to constantly draw in sample. Through a combination of shear, impact, collision, and cavitation, the generator rapidly disperses and disintegrates the material suspended in the media. The rotor-stator generators are easily detached, making the exchange and use of two dispersing elements seamless.

**What's included:** storage case and power cord.



### REQUIRED System Components

- 1) Homogenizer
- 2) Rotor-stator generator

### 1. Homogenizer



Description	Digital homogenizer	
	IC-04737-21	IC-04737-22
Speed range	500 to 25,000 rpm	
Batch volume range	1 to 1500 mL	
Noise rating	73 dB	
Speed adjustment	Stepless	
Wattage	500 input, 300 output	
Power	115 VAC, 50/60 Hz	230 VAC, 50/60 Hz
Price		

### 2. Rotor-Stator Generators, Stainless Steel

Style	Sample volume range	Dimensions (L x OD)	Catalog number	Price
Standard	1 to 100 mL	108 x 10 mm	IC-04720-84	
	10 to 1500 mL	204 x 19 mm	IC-04720-85	

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## Homogenizers

### IKA® T50 ULTRA-TURRAX® Heavy-Duty Homogenizer

#### Quickly homogenize tissues and solids from 0.25 to 30 liters

- Integrated control ensures constant speed even with changes in viscosity
- Output of 700 watts delivers superior dispersing power

The rotor-stator generator (order separately) uses a pump-like action to constantly draw in sample. Through a combination of shear, impact, collision, and cavitation, the generator rapidly disperses and disintegrates the material suspended in the media. Homogenizer is designed for continuous operation and features an infinitely variable-speed control from 500 to 10,000 rpm.

**What's included:** 8-ft (2.4-m) cord with standard plug on 115 VAC model (European-type plug on 230 VAC model). **Kit adds:** rotor stator generator 04738-72, a stand with H-shaped base for optimal stability, a boss head clamp (secures the drive to the stand), and strap clamp support (secures batch vessels to the stand).

#### 1. Homogenizer



Description	Homogenizer only		Homogenizer kit	
Catalog number	<a href="#">IC-04738-30</a>	<a href="#">IC-04738-35</a>	<a href="#">IC-04738-31</a>	<a href="#">IC-04738-36</a>
Speed range	500 to 10,000 rpm			
Batch volume range	0.25 to 30 L			
Noise rating	72 dB			
Speed adjustment	Stepless			
Wattage	1000 input, 700 output			
Power	115 VAC, 50/60 Hz	220 VAC, 50/60 Hz	115 VAC, 50/60 Hz	220 VAC, 50/60 Hz
Price				

#### 2. Rotor-Stator Generators, 316 Stainless Steel/PTFE

Style	Sample volume	Ultimate fineness	Catalog number	Price
Standard	0.25 to 10 L	10 µm	<a href="#">IC-04738-60</a>	
	0.5 to 20 L	40 µm	<a href="#">IC-04738-72</a>	
	0.5 to 15 L	50 µm	<a href="#">IC-04738-76</a>	
Sawtooth	0.5 to 20 L	40 µm	<a href="#">IC-04738-82</a>	

#### REQUIRED System Components

- 1) Homogenizer
- 2) Rotor-stator generator
- 3) Stand and clamps



#### 3. Stand and Clamps

- [IC-50703-93](#) H-Stand
- [IC-50703-98](#) Boss head clamp
- [IC-50703-71](#) Strap clamp

## IKA® T 65 D ULTRA-TURRAX® Batch Process Homogenizer

### Dispense high volumes with high performance

- Process volumes from 2 to 50 liters
- Plug-in connectors facilitate exchange of dispersing elements

With a digital speed display, the T 65 D homogenizer offers reproducible operations even with changes in viscosities since the speed remains constant. The stainless steel dispersing elements can be used under vacuum and pressure, and come in three configurations to meet a variety of applications (see our web site for additional configurations). Wide speed range allows for work at high circumferential speeds, even with small rotor diameters. Safety features include an electronic overload protection and error code display.

**Note:** Power cables and plugs are not included; unit to be wired on-site according to local ordinances.

**Kit includes:** Homogenizer, rotor-stator dispersing element, and telescopic stand.

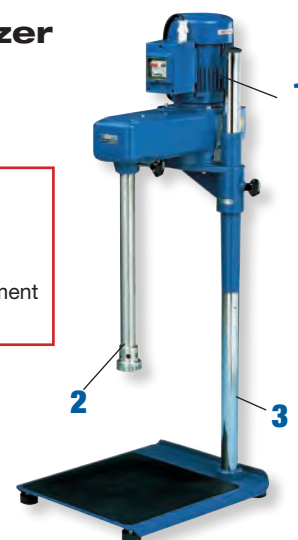
#### 1. Homogenizer



Description	Homogenizer only	Homogenizer kit
Catalog number	<a href="#">IC-04737-33</a>	<a href="#">IC-04737-30</a>
Speed range	1000 to 9500 rpm	
Batch volume range	2 to 50 liters (H <sub>2</sub> O)	
Noise rating	75 dB	
Speed adjustment	Stepless	
Wattage	2600 input, 2200 output	
Power	230 to 400 VAC, 50/60 Hz, 3 phase	
Price		

#### REQUIRED System Components

- 1) Homogenizer
- 2) Rotor-stator dispersing element
- 3) Telescopic stand



#### 2. Rotor-Stator Dispersing Element, 316 Stainless Steel/PTFE

Style	Sample volume	Ultimate fineness	Dimensions (L x OD)	Catalog number	Price
Standard	2 to 50 L (H <sub>2</sub> O)	25 µm	20½" x 2¾" (52 x 6.5 cm)	<a href="#">IC-04737-37</a>	

#### 3. Telescopic Stand

Stand features a pneumatic spring for effortless lowering and raising of the unit.

Base dimensions (W x D)	Support rod (H x dia)	Catalog number	Price
18½" x 20¾" (46 x 53 cm)	47¼" x 1¾" (120 x 4.8 cm)	<a href="#">IC-04737-35</a>	



## IKA® Economical Analytical Mill

### Grind dry, brittle, fibrous, or moist materials

- Grind substances up to 6 Mohs hardness with 420 SS beater
- Process up to 80-mL sample in heavy-duty chamber
- Eliminate misuse with safety switch
- Fits in one hand



#### Specifications

Speed: 28,000 rpm (fixed)



Sample capacity	Feed particle size	Final particle size	Power (VAC, Hz)	Catalog number	Price
80 mL	10 mm maximum	<500 µm	115, 50/60	<a href="#">IC-04300-10</a>	

## IKA® Heavy-Duty Analytical Mill

### Keep samples cool with water-jacketed chambers

- Handles up to 250 mL samples and grinds in seconds
- Auto shutoff safeguards against overheating and overloading

Durable chamber and blade care are made of 304 stainless steel. Water jacketed chamber accepts 3/8" ID tubing via barbed fittings.



#### Specifications

Speed: 20,000 rpm



Sample capacity	Feed particle size	Final particle size	Power (VAC, Hz)	Catalog number	Price
250 mL	20 mm maximum	1 to 100 µm	115, 50/60	<a href="#">IC-04301-10</a>	
			230, 50/60	<a href="#">IC-04301-15</a>	

**IC-04300-24 Tungsten-carbide blade** for grinding materials with a hardness factor up to 9 Mohs

**IC-04300-26 Star-shaped 301 SS blade** for grinding fibrous materials such as paper and vegetation

**IC-04300-28 Additional grinding chamber, 304 SS.** Order blade separately

**IC-04300-52 Replacement blade, 304 SS** grinds materials with a hardness factor up to 5 Mohs

## IKA® Continuous-Feed Grinding Drive and Heads

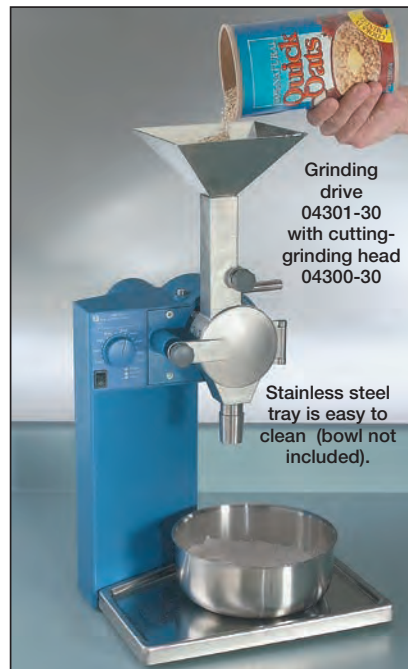
### Don't be limited by sample volume

- Interchange heads for changing needs
- Ideal for sanitary applications—contact surfaces made of 304 SS



#### REQUIRED System Components

- 1) Grinding drive
- 2) Grinding head
- 3) Sieve



Grinding drive 04301-30 with cutting-grinding head 04300-30

Stainless steel tray is easy to clean (bowl not included).

**1. Grinding Drive** is constructed of heavy-duty cast aluminum, enameled finish, with a stainless steel tray.



Speed	Power (VAC, Hz)	Catalog number	Price
3000 to 6500 rpm	115, 50/60	<a href="#">IC-04301-30</a>	
	230, 50/60	<a href="#">IC-04301-35</a>	

**2. Grinding Heads** are interchangeable. Cutting-grinding head is ideal for paper, vegetation, plastics, and materials with low-volume weight. Impact grinding head is ideal for crushing hard brittle materials such as minerals, grains, and pharmaceuticals.

Description	Blade speed	Feed particle size	Final particle size	Catalog number	Price
Cutting-grinding	73.8 ft/s max	10 mm max	250 µm	<a href="#">IC-04300-30</a>	
Impact grinding	103 ft/s max			<a href="#">IC-04300-32</a>	

**3. Sieves** are interchangeable; insert into grinding heads to filter maximum particle size.

Sieve opening (mm)	Catalog number	Price
0.25	<a href="#">IC-04300-33</a>	
0.5	<a href="#">IC-04300-34</a>	
1.0	<a href="#">IC-04300-35</a>	
2.0	<a href="#">IC-04300-37</a>	
3.0	<a href="#">IC-04300-38</a>	

## Shakers



### IKA® Lab Dancer Compact Vortex Shaker

#### Mix samples completely and easily in compact unit

- Secure base prevents walking across surface or tabletop

Ideal for small vessels—up to 30-mm diameter and 50-mL volume. Lightly press vessels against the inert plastic test tube surface to activate shaker.

**What's included:** 5-ft (1.5-m) power cord and adapters to work with US, EU, Canada, Australia, and UK outlets.



Speed range	Power		Catalog number	Price
	VAC	Hz		
2800 rpm, fixed	100–240	50/60	<a href="#">IC-84001-81</a>	

### IKA® Vortex 3 Shaker

#### No need for multiple shakers— simply change attachments

- Adjustable speed control from 250 to 2500 rpm

Compact, versatile shaker offers short-time, touch-activated function or continuous operation. Silicone feet and ultra-high, vibration-dampening base make this shaker stable at high speeds.

**What's included:** standard attachment for vessels up to 30 mm and 6-ft (1.8-m) power cord.

#### Specifications

**Speed range:** 250 to 2500 rpm      **Maximum load:** 1.1 lb (0.5 kg)



Orbit size	Power		Catalog number	Price
	VAC	Hz		
5/16" (4 mm) dia	115	50/60	<a href="#">IC-04304-10</a>	
	230		<a href="#">IC-04304-12</a>	

[IC-04304-50](#) Replacement standard attachment for test tubes and small vessels up to 30 mm

[IC-04304-51](#) One-hand attachment; 3 1/2" (89 mm) dia, with rubber insert

[IC-04304-52](#) Universal attachment; 9" (229 mm) dia, with rubber insert

[IC-04304-53](#) Test tube insert for 54 Eppendorf® 1.5- to 2.0-mL tubes

[IC-04304-54](#) Test tube insert for eighteen 10-mm test tubes

[IC-04304-55](#) Test tube insert for twelve 12-mm test tubes

[IC-04304-56](#) Test tube insert for eight 16-mm test tubes

[IC-04304-57](#) Test tube insert for eight 20-mm test tubes

[IC-04304-58](#) Erlenmeyer flask attachment holds one flask from 100 to 250 mL holds one standard microtiter plate



Basic model 04304-00 with standard attachment



Digital model 04304-04 with microplate attachment

### IKA® Orbital Shakers

#### Be more versatile with various attachments

- Timer with countdown function on digital model
- Operate continuously or by simply touching sample to attachment

Operate in either mode A or B. Mode A ("safe" mode) only allows maximum speed to be reached when using the standard attachment, all other attachments are limited to a speed of 1300 rpm. Mode B allows all attachments to operate at maximum speed. Knobbed feet provide stability on the work surface when operating at high speeds. Sturdy zinc die-cast casing.

**What's included:** standard attachment, universal attachment, one-hand insert, and a 6-ft (1.8-m) power cord and adapters to work with US, EU, Canada, Australia, and UK outlets. Digital model also includes a 96-well microplate attachment.



#### Specifications

**Speed range:** 0 to 3000 rpm      **Maximum load:** 1.1 lb (0.5 kg)  
**Timer range (digital only):** 1 sec to 999 min      **Platform dimensions:** 1 1/8" (28.6 mm) dia

Type	Orbit size	Power		Catalog number	Price
		VAC	Hz		
Basic	3/16" (4.5 mm)	100 to 240	50/60	<a href="#">IC-04304-00</a>	
Digital (LED)				<a href="#">IC-04304-04</a>	

## IKA® Rocker Shakers

### Get smooth, complete mixing with three-dimensional motion

- Mix samples in flasks, petri dishes, or tubes
- Easy-to-use keypad control
- Maintain constant speed, even with fluctuating loads

Digital model offers the addition of an LED display, adjustable speeds, programmable timer, and adjustable rocking angle.

**What's included:** 5-ft (1.5-m) power cord and adapters to work with US, EU, Canada, Australia, and UK outlets.



#### Specifications

##### Speed range:

Model 04304-14: fixed at 30 rpm

Model 04304-15: adjustable from 0 to 80 rpm

**Timer (model 04304-15):** 1 min to 99 hrs, 59 min

**Maximum load:** 4.4 lb (2 kg)

Type	Shaking angle	Power		Catalog number	Price
		VAC	Hz		
Basic	Fixed at 8°	100 to 240	50/60	IC-04304-14	
Digital	Adjustable from 0 to 15°			IC-04304-15	



#### Attachments and Mats

Description	Catalog number	Price
2nd level attachment	IC-04304-16	
Universal mat	IC-04304-17	
Burled mat	IC-04304-18	

#### Tube Trays

Accommodates	Catalog number	Price
28 x 5-mL tubes	IC-04304-19	
16 x 15-mL tubes	IC-04304-20	
10 x 30-mL tubes	IC-04304-22	
14 x 30-mL tubes	IC-04304-21	

## IKA® Variable-Speed Digital Orbital Shakers

### Get accurate shaking even under heavy loads

- Ideal swivel motion with a maximum shaking weight of 4 lb (2 kg)
- See both speed and time settings on digital display
- Use with almost any type of vessel

**Basic Model:** Low-profile, quiet shaker offers long service life even under extreme load conditions. Features stepless speed adjustment from 80 to 800 rpm. Operate continuously or in time operating mode (up to 50 minutes). Audio signal sounds when shaker process is complete.

**Control Model:** Backlit LCD shows speed, time, and operating mode. Activate, deactivate, or set target speed or agitation time with rotary dial. Electronic time switching clock allows for both continuous operation and timed runs up to 9 hours, 59 minutes. End-point positioning feature allows automated robot-controlled sampling. Order platforms and attachments separately below.



#### Specifications

**Speed range:** 80 to 800 rpm (adjustable)

**Maximum load:** 4.4 lb (2.0 kg)

##### Timer range:

Basic model: 5 to 50 min or continuous

Control model: 1 to 9 hr 59 min or continuous

**Platform dimensions (W x D):**  
9" x 9" (22.9 x 22.9 cm)

Orbit size	Power		Catalog number	Price
	VAC	Hz		
<b>Basic model</b>				
5/32" (4 mm)	115	50/60	IC-04303-02	
5/32" (4 mm)	230	50/60	IC-04303-00	
<b>Control model</b>				
5/32" (4 mm)	115	50/60	IC-04303-06	
5/32" (4 mm)	230	50/60	IC-04303-04	



Basic model  
04303-02



Control model  
04303-06

#### Platforms (one required)

Description	Catalog number	Price
Universal attachment	IC-04303-50	
Fixing clip attachment	IC-04303-52	
Dish attachment	IC-04303-54	
Test tube support	IC-04303-56	

#### Fixing Clips

Flask size	Catalog number	Price
25 mL	IC-04303-58	
100 mL	IC-04303-60	
200 mL	IC-04303-62	

## Shakers

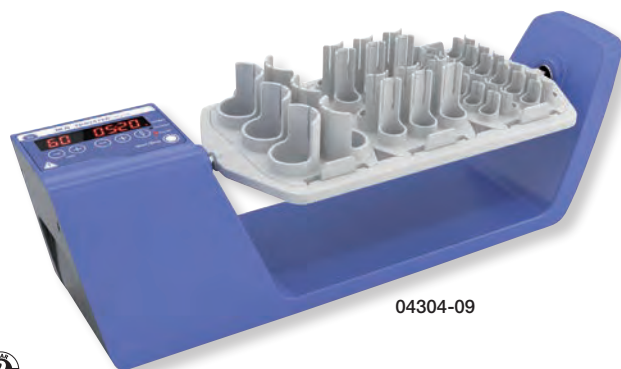
### IKA® Trayster Overhead Shakers

Mix samples smoothly and effectively with vertical rotation

- Mix powders, liquids, or biological samples in Eppendorf® or Greiner tubes
- Simple to use for samples up to 50 mL

Digital model features adjustable speed and a programmable timer from 1 minute to 99 hours with display of shaking time.

**What's included:** 5-ft (1.5-m) power cord and adapters to work with US, EU, Canada, Australia, and UK outlets.



04304-09



#### Specifications

##### Speed range

Model 04304-08: fixed at 20 rpm  
Model 04304-09: adjustable from 0 to 80 rpm

##### Timer range (model 04304-09):

1 minute to 99 hrs, 59 min

**Maximum load:** 4.4 lb (2 kg)

Type	Power		Catalog number	Price
	VAC	Hz		
Basic	100 to 240	50/60	<a href="#">IC-04304-08</a>	
Digital			<a href="#">IC-04304-09</a>	

#### Tube Inserts

Accommodates	Catalog number	Price
24 x 1.5-mL tubes	<a href="#">IC-04304-34</a>	
24 x 5-mL tubes	<a href="#">IC-04304-35</a>	
12 x 15-mL tubes	<a href="#">IC-04304-36</a>	
6 x 50-mL tubes	<a href="#">IC-04304-37</a>	

### IKA® Loopster Rotating Shakers

Adjust turntable from 0 to 90°

- Use for biological, powdered, or liquid samples
- Place samples up to 50 mL

Choose from basic or digital models. Both feature simple-to-use keypad control and removable turntable. Digital model also features adjustable speed control, LED display, and a programmable timer from 1 minute to 99 hours 59 minutes.

**What's included:** 5-ft (1.5-m) power cord and adapters to work with US, EU, Canada, Australia, and UK outlets.



Digital shaker 04304-13 shown with universal disc 04304-28



#### Specifications

##### Speed range

Model 04304-11: fixed at 20 rpm  
Model 04304-13: adjustable from 0 to 80 rpm

##### Timer range (model 04304-13):

1 minute to 99 hrs 59 min

**Maximum load:** 4.4 lb (2 kg)

Type	Power		Catalog number	Price
	VAC	Hz		
Basic	100 to 240	50/60	<a href="#">IC-04304-11</a>	
Digital			<a href="#">IC-04304-13</a>	

#### Tube Attachments

Accommodates	Catalog number	Price
48 x 1.5-mL tubes	<a href="#">IC-04304-23</a>	
25 x 5-mL tubes	<a href="#">IC-04304-24</a>	
20 x 15-mL tubes	<a href="#">IC-04304-25</a>	
12 x 30-mL tubes	<a href="#">IC-04304-26</a>	
12 x 50-mL tubes	<a href="#">IC-04304-27</a>	
Universal disc (requires clips at right)	<a href="#">IC-04304-28</a>	

#### Clips

Accommodates	Catalog number	Qty/pk	Price/pk
1.5-mL tube, 10-mm dia	<a href="#">IC-04304-29</a>	12	
5-mL tube, 12-mm dia	<a href="#">IC-04304-30</a>	12	
15-mL tube, 16-mm dia	<a href="#">IC-04304-31</a>	12	
30-mL tube, 25-mm dia	<a href="#">IC-04304-32</a>	12	
50-mL tube, 28-mm dia	<a href="#">IC-04304-33</a>	12	

## IKA® Roller Shakers

### Maximize mixing with rolling action

- Effectively mix viscous, solid, or liquid suspensions
- Remove rollers for accommodation of larger bottles
- Use conventional tubes or cylindrical bottles

Choose from either the fixed-speed basic or the adjustable-speed digital with a programmable timer from 1 minute to 99 hours. All models feature easy keypad operation.

**What's included:** 5-ft (1.5-m) power cord and adapters to work with US, EU, Canada, Australia, and UK outlets.



Speed range	Number of rollers	Timer range	Power		Catalog number	Price
			VAC	Hz		
<b>Basic shakers</b>						
Fixed at 30 rpm	6	—	100 to 240	50/60	<a href="#">IC-04304-01</a>	
	10					
<b>Digital shakers</b>						
Adjustable from 0 to 80 rpm	6	1 minute to 99 hrs, 59 min	100 to 240	50/60	<a href="#">IC-04304-05</a>	
	10					

04304-01



04304-07



## IKA® Incubating Shakers

### Leave unattended in a temperature-controlled environment

- Antimicrobial coating reduces bacteria on control surface
- Easy-to-read LED display of speed, temperature, and time
- RS-232 and USB ports for PC interface

Shakers features PID temperature control, to maintain temperature within  $\pm 0.1^\circ\text{C}$ . Independently monitor temperature by connecting an additional PT 1000 temperature sensor to a junction box within the chamber. Electronic speed control can be set from 10 to 500 rpm with a 20-mm orbit. Shaker can be set for timed operation up to 999 hours or for continuous operation. Unit shuts off automatically when lid is lifted. Collecting tray with drain hose on rear of unit simplifies cleanup. Platforms, attachments, and software are sold separately below.

**What's included:** 6-ft (1.8-m) power cord.

#### Specifications

Orbit size: 0.80" (20 mm)    Timer: 0 to 999 hours

Speed range (rpm)	Max load lb (kg)	Temperature range	Temperature accuracy	Power		Catalog number	Price
				VAC	Hz		
<b>Incubating shakers</b>							
10 to 500	16.5 (7.5)	5°C above ambient to 80°C	$\pm 0.05^\circ\text{C}$ at 37°C	115	50/60	<a href="#">IC-51715-01</a>	
	44 (20)		$\pm 0.1^\circ\text{C}$ at 37°C				
<b>Incubating shakers with built-in recirculating cooler†</b>							
10 to 500	16.5 (7.5)	10°C below ambient to 80°C	$\pm 0.05^\circ\text{C}$ at 37°C	115	50/60	<a href="#">IC-51715-02</a>	
	44 (20)		$\pm 0.1^\circ\text{C}$ at 37°C				

†Circulating chiller not included.

#### Accessories for Models 51715-01 and -02

- [IC-51715-46](#) Universal attachment
- [IC-51715-47](#) Fixing clip attachment
- [IC-51715-48](#) Dish attachment
- [IC-51715-49](#) Separating funnel attachment

#### Accessories for Models 51715-00 and -10

- [IC-51715-50](#) Universal platform with clamping rolls
- [IC-51715-52](#) Flask clamp platform
- [IC-51715-54](#) Universal platform with rubber mat



51715-01

51715-10



## Evaporators IKA® Rotary Evaporator Systems

### Get better evaporation with unique reversing feature

- Automatically lifts out of bath in case of power failure—minimizes loss of experiment
- Digital rotation speed display is standard on all models, making for easier repetition of parameters

These rotary evaporators were designed and engineered for ease of use, while maintaining the highest level of safety. Motorized lift is standard, making for easier removal of the evaporating flask from the hot water/oil bath. The brushless DC-drive motor features optional reversing rotation function commonly used for drying powders. Motor features a smooth start at 100 rpm to minimize the chance of splashing.

Unique oblong bath design heats up faster than other leading brands. Adjustable lift setting accommodates larger flasks. Systems are available with or without safety-coated glassware to minimize breakage and increase safety. Safety coating resists most solvents and acids, and protects you against shattered glass and dangerous reagents due to broken glass. Cold-trap condenser models are ideal for solvents with a high boiling point. Uses ice to cool the solvent more rapidly than diagonal or vertical condensers. Ideal for situations where you don't use a chiller.

**Standard Evaporators** are ideal for routine distillations, and feature digital rotational speed setting and display from 20 to 270 rpm. Set bath temperature via analog controller.

**Digital Evaporators** provide more control and easier repetition with a digital display for both rotational speed and bath temperature. Infrared interface provides constant communication between the bath and main unit, allowing the unit to automatically shut down in case of abnormalities. The RS-232 port provides easy remote operation and collection of data.

**Control Evaporators** offer the same features as the Digital models, plus integrated vacuum controller, integrated solvent library, automatic boiling point recognition, color graphic display, display of distillation curves, and more! Like the digital models, achieve remote operation via PC. See full description at [www.coleparmer.com](http://www.coleparmer.com).

**What's included:** rotary evaporator, water/oil heating bath, condenser set, evaporating and condensing flasks (each 1 L), and 6-ft (1.8-m) power cord.



#### REQUIRED System Components

- 1) Rotary evaporator ... [this page](#)
- 2) Vacuum pump ..... [ColeParmer.com](http://ColeParmer.com)
- 3) Circulating chiller ..... [ColeParmer.com](http://ColeParmer.com)



28710-40



28710-68



(excludes glassware and wearing parts)

#### Specifications

**Rotation speed:** 20 to 270 rpm  
**Evaporation flask size:** 50 mL to 3 L  
**Glass joint:** 24/40 (evaporating)  
**Vacuum seal:** PTFE

Condenser type	Digital display	Water bath		Dimensions (W x H x D)	Power	Evaporators with uncoated glassware		Evaporators with safety-coated glassware	
		Temp range	Watts			Catalog number	Price	Catalog number	Price
<b>Standard evaporators</b>									
Vertical	Rotation	20 to 180°C	1300	19 <sup>1</sup> / <sub>16</sub> " x 16 <sup>15</sup> / <sub>16</sub> " x 16 <sup>1</sup> / <sub>8</sub> " (50.0 x 43.0 x 41.0 cm)	115 VAC 230 VAC	<a href="#">IC-28710-00</a> <a href="#">IC-28710-02</a>		<a href="#">IC-28710-05</a> <a href="#">IC-28710-07</a>	
Cold-trap	Rotation	20 to 180°C	1300	20 <sup>7</sup> / <sub>8</sub> " x 22 <sup>7</sup> / <sub>16</sub> " x 16 <sup>1</sup> / <sub>8</sub> " (53.0 x 57.0 x 41.0 cm)	115 VAC 230 VAC	<a href="#">IC-28710-60</a> <a href="#">IC-28710-62</a>		<a href="#">IC-28710-72</a> <a href="#">IC-28710-74</a>	
<b>Digital evaporators</b>									
Vertical	Bath/rotation	20 to 180°C	1300	19 <sup>1</sup> / <sub>16</sub> " x 16 <sup>15</sup> / <sub>16</sub> " x 16 <sup>1</sup> / <sub>8</sub> " (50.0 x 43.0 x 41.0 cm)	115 VAC 230 VAC	<a href="#">IC-28710-20</a> <a href="#">IC-28710-22</a>		<a href="#">IC-28710-25</a> <a href="#">IC-28710-27</a>	
Cold-trap	Bath/rotation	20 to 180°C	1300	20 <sup>7</sup> / <sub>8</sub> " x 22 <sup>7</sup> / <sub>16</sub> " x 16 <sup>1</sup> / <sub>8</sub> " (53.0 x 57.0 x 41.0 cm)	115 VAC 230 VAC	<a href="#">IC-28710-64</a> <a href="#">IC-28710-66</a>		<a href="#">IC-28710-78</a> <a href="#">IC-28710-80</a>	
<b>Control evaporators</b>									
Vertical	Bath/rotation	20 to 180°C	1300	19 <sup>1</sup> / <sub>16</sub> " x 16 <sup>15</sup> / <sub>16</sub> " x 17 <sup>5</sup> / <sub>16</sub> " (50.0 x 43.0 x 44.0 cm)	115 VAC 230 VAC	<a href="#">IC-28710-40</a> <a href="#">IC-28710-42</a>		<a href="#">IC-28710-45</a> <a href="#">IC-28710-47</a>	
Cold-trap	Bath/rotation	20 to 180°C	1300	20 <sup>7</sup> / <sub>8</sub> " x 22 <sup>7</sup> / <sub>16</sub> " x 16 <sup>1</sup> / <sub>8</sub> " (53.0 x 57.0 x 41.0 cm)	115 VAC 230 VAC	<a href="#">IC-28710-68</a> <a href="#">IC-28710-70</a>		<a href="#">IC-28710-82</a> <a href="#">IC-28710-84</a>	

## IKA® RV 8 Basic Rotary Evaporator Systems

### Evaporate effectively without breaking the budget

- Easy-to-use manual lift with integrated safety lift-out function
- Ambidextrous design makes operation more comfortable
- Adjustable immersion angle and height for maximum heating efficiency
- Compatible with complete range of IKA rotary evaporator glassware

The RV 8 vertical distilling system was designed for ease of use in all standard evaporating applications. The manual lift with ambidextrous design allows for precise positioning of the glassware. Digital displays indicate both rotation speed and heating bath temperature, allowing for optimal control of the process. Easy-to-use clamp system simplifies changing evaporator flasks.

Ergonomic 4-L water/oil heating bath has a lock-out function for temperature settings from ambient to 180°C. Bath is designed with carrying handles for convenient positioning and oblong design for fast heating.

Systems are available with standard glassware, with dry-ice condenser glassware, or with no glassware. Safety-coated glassware options are available; they are resistant to acids and solvents and protect against shattered glass.

**What's included:** rotary evaporator, water/oil heating bath, and 6-ft. (1.8-m) power cord.



#### Specifications

<b>Condenser type:</b> vertical	<b>Bath capacity:</b> 4 L
<b>Rotation speed:</b> 5 to 300 rpm	<b>Display:</b> two separate LCDs (for speed and temperature)
<b>Temperature range:</b> ambient to 180°C	<b>Dimensions (W x H x D):</b> 19½" x 24¼" x 15¾"
<b>Evaporation flask size:</b> 50 mL to 3 L	<b>Watts:</b> 1400
<b>Glass joint:</b> 24/40 (evaporating)	<b>Power:</b> 115 VAC, 50/60 Hz



28710-08



#### REQUIRED System Components

- 1) Rotary evaporator ... **this page**
- 2) Vacuum pump ..... [ColeParmer.com](http://ColeParmer.com)
- 3) Circulating chiller ..... [ColeParmer.com](http://ColeParmer.com)

Description	Catalog number	Price
Evaporator system with glassware set	<a href="#">IC-28710-08</a>	
Evaporator system with safety-coated glassware set	<a href="#">IC-28710-18</a>	
Evaporator system; no glassware included	<a href="#">IC-28710-28</a>	
Evaporator system with dry-ice condenser glassware set	<a href="#">IC-28710-38</a>	
Evaporator system with safety-coated dry-ice condenser glassware set	<a href="#">IC-28710-48</a>	

## IKA® Fixed-Speed mini G Microcentrifuge

### Exchangeable rotors for nearly any quick-spin application!

- Easily observe your samples through the clear cover
- Includes rotors for common PCR and microvolume tubes

This space-saving, fixed-speed centrifuge will adapt easily to any lab needing quick spins for applications such as micro-filtration and cell separation. Centrifuge runs only when the lid is closed and will immediately stop if the lid opens. The lid pops open with the simple push of a button. The digital display has an integrated LED timer which can be adjusted from 1 to 99 minutes. Rotors do not require any tools to switch out.

**What's included:** one 8 x 1.5- to 2-mL rotor, one PCR four-strip (8 x 0.2 mL) rotor, and tube adapters 17701-04, 17701-06 and 17701-07.



#### Specifications

<b>Rotors (included):</b> one fixed-angle rotor with 8 x 1.5 to 2.0 mL tubes, and one 4 x 8-tube PCR (0.2 mL) strip tubes	<b>Dimensions (W x H x D):</b> 6½" x 4½" x 6⅞" (15.5 x 10.5 x 17.5 cm)
---------------------------------------------------------------------------------------------------------------------------	---------------------------------------------------------------------------

Speed range	Max RCF x g	Timer	Power		Catalog number	Price
			VAC	Hz		
6000 rpm	2000	1 to 99 min	100 to 240	50/60	<a href="#">IC-17701-01</a>	



## Heating Blocks

### IKA® Dry Block Heaters

#### Control temperature precisely for repeatable results

- Get quick and accurate heating
- Accurately determine melting and boiling point of samples and much more
- Set temperature easily with LCD
- Interchangeable modular heating blocks provide flexibility for heating different-sized tubes



#### REQUIRED System Components

- 1) Heater
- 2) Heating blocks



36700-01  
(blocks not included)



36700-08  
(blocks not included)

Each heater accepts separate interchangeable modular heating blocks, which accommodate various sample enclosures such as microtubes, centrifuge tubes, vials, microplates, and PCR strips or tubes. Modular blocks are constructed from a solid aluminum block. The close contact of tubes-to-block walls allow for maximum heat retention. Each block has a thermometer well for measuring block temperature (order blocks separately below). Other features include the display of the actual temperature, user-adjustable temperature set point, time display with set point, timer, counter, and external temperature probe.

**Single block dimensions (L x W x H):** 3¾" x 3" x 2" (9.5 x 7.6 x 5.1 cm).

**Double block dimensions (L x W x H):** 6" x 3¾" x 2¼"  
(15.2 x 9.5 x 5.7 cm); double block size fits 2/3/4-block heaters.

**What's included:** 3-wire cord with plug and Pt 1000 RTD temperature probe.

#### 1. Dry Block Heaters



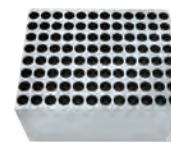
Number of blocks accepted	Uniformity	Maximum temperature	Power		Catalog number	Price
			VAC	Watts		
1	±0.4°F (0.2°C) within the block at 60°F (37°C)	248°F (120°C)	115	150	<a href="#">IC-36700-01</a>	
			230	150	<a href="#">IC-36700-02</a>	
2			115	250	<a href="#">IC-36700-03</a>	
			230	250	<a href="#">IC-36700-04</a>	
3			115	300	<a href="#">IC-36700-06</a>	
			230	300	<a href="#">IC-36700-07</a>	
4			115	375	<a href="#">IC-36700-08</a>	
			230	375	<a href="#">IC-36700-09</a>	

#### 2. Heating Blocks

Accommodates	No. of wells	Well dia	Well depth	Catalog number	Price
<b>Microcentrifuge tube blocks (single block size)</b>					
0.5 mL tube	30	7.9 mm	27.6 mm	<a href="#">IC-36700-11</a>	
1.5 mL tube	20	11.5 mm	39.1 mm	<a href="#">IC-36700-13</a>	
1.5 mL Eppendorf® tube	20	11.1 mm	36.9 mm	<a href="#">IC-36700-12</a>	
2 mL Eppendorf® tube	20	11.5 mm	38.1 mm	<a href="#">IC-36700-14</a>	
2 mL Corning® tube	20	10.9 mm	38.1 mm	<a href="#">IC-36700-16</a>	
<b>Titer plate block (double block size)</b>					
One titer plate	96 or 384	—	13.5 mm	<a href="#">IC-36700-51</a>	
<b>Conical-bottom centrifuge tube blocks (single block size)</b>					
15 mL tube	12	17.1 mm	44.5 mm	<a href="#">IC-36700-17</a>	
50 mL tube	5	29 mm	47.6 mm	<a href="#">IC-36700-18</a>	
<b>Standard test tube blocks (single block size)</b>					
6 mm tube	30	8.3 mm	48.4 mm	<a href="#">IC-36700-23</a>	
10 mm tube	24	10.7 mm	48.4 mm	<a href="#">IC-36700-24</a>	
12/13 mm tube	16	13.9 mm	48.4 mm	<a href="#">IC-36700-26</a>	
12/13 mm tube	20	13.9 mm	48.4 mm	<a href="#">IC-36700-27</a>	
15/16 mm tube	12	17.5 mm	48.4 mm	<a href="#">IC-36700-28</a>	
17/18 mm tube	12	19.1 mm	48.4 mm	<a href="#">IC-36700-33</a>	
20 mm tube	8	21 mm	48.4 mm	<a href="#">IC-36700-29</a>	
25 mm tube	6	26.2 mm	48.4 mm	<a href="#">IC-36700-31</a>	
35 mm tube	4	35 mm	47.6 mm	<a href="#">IC-36700-32</a>	
<b>Combination blocks (single block size)</b>					
Test tube combination	6 mm	6	8.3 mm	48.4 mm	<a href="#">IC-36700-19</a>
	12/13 mm	5	13.9 mm	48.4 mm	
	25 mm	3	26.2 mm	48.4 mm	
Centrifuge tube combination	1.5 mL	4	11.1 mm	39.1 mm	<a href="#">IC-36700-21</a>
	15 mL	3	17.1 mm	44.5 mm	
	50 mL	2	29 mm	47.6 mm	
Micro-tube combination	0.5 mL	6	7.9 mm	27.6 mm	<a href="#">IC-36700-22</a>
	1.5 mL	10	11.1 mm	39.1 mm	
	2 mL	5	11.5 mm	38.1 mm	



36700-39



36700-48



36700-49

Accommodates	No. of wells	Well dia	Well depth	Catalog number	Price
<b>Vial blocks (single block size)</b>					
12 mm vial	20	12.7 mm	30 mm	<a href="#">IC-36700-34</a>	
15 mm vial	20	15.8 mm	35 mm	<a href="#">IC-36700-36</a>	
16 mm vial	15	16.4 mm	45 mm	<a href="#">IC-36700-44</a>	
17 mm vial	12	17.8 mm	45 mm	<a href="#">IC-36700-37</a>	
19 mm vial	12	19.7 mm	45 mm	<a href="#">IC-36700-38</a>	
21 mm vial	9	21.7 mm	45 mm	<a href="#">IC-36700-39</a>	
23 mm vial	8	23.8 mm	45 mm	<a href="#">IC-36700-41</a>	
25 mm vial	8	25.8 mm	45 mm	<a href="#">IC-36700-42</a>	
28 mm vial	6	28.8 mm	45 mm	<a href="#">IC-36700-43</a>	
<b>Blocks for PCR plate, tube, strips</b>					
2 mL tubes, 96-well PCR plate	Block size, double	96	6.4 mm	15.5 mm	<a href="#">IC-36700-48</a>
2 mL tubes, 10 x 8 tube strips	Block size, single	80	6.4 mm	15.5 mm	<a href="#">IC-36700-46</a>
2 mL tubes, individual tubes	Block size, single	64	6.4 mm	20.2 mm	<a href="#">IC-36700-47</a>
<b>Cuvette block (single block size)</b>					
Twelve 12.5 mm cuvettes	2	—	25.4 mm	<a href="#">IC-36700-49</a>	



## IKA® Calorimeters

### Determine Gross Calorific Value (GCV) of samples in either liquid or solid state

- User-friendly CalWin® software available for controlling the calorimeter and administration of measuring data
- Validation according to DIN 51900, ISO 1928, ASTM D240, ASTM D4809, ASTM D5865, ASTM D1989, ASTM D5468, and ASTM E711

#### A. IKA C 200 Calorimeter

Easy-to-use calorimeter features a choice of four different methods depending on your requirements: manual, time-controlled, isoperibolic, or dynamic. In the manual (learning) method, the user triggers ignition and the end of the measurement. All calculations are manual. In the other operating modes, ignition and calculation of GCV are automatic. The GCV is shown on the digital display. Acid correction of the GCV and calculation of the heat values are performed manually. Unit requires manual filling of water and oxygen. This calorimeter can be operated via personal computer with the optional CalWin C 6040 software; order separately on page 27.

**What's included:** measuring cell, decomposition vessel, oxygen filling station, power pack and ignition adapter, and consumables for calibration and installation.

#### B. IKA C 2000 Calorimeters

Units feature a high level of automation with extremely simple handling—automatic water handling system includes tempering, filling, and emptying of calorimeter inner vessel. In addition to the isoperibolic measurement procedure (static jacket), a dynamic (reduced-time) working method is also available. Functions include automatic decomposition vessel identification and automatic sample ignition. To provide the calorimeter with cooling water, it needs to be connected to a circulating chiller (see ColeParmer.com) or a firmly installed water connection. Control up to eight measurement cells with a single PC, using a multi-serial plug-in card PCI 8.2 (not included). LIMS integration is possible. Order CalWin C 6040 software separately on page 27.

Models 50905-30 and -35 include a special halogen-resistant vessel instead of the standard vessel, for quantitative decomposition of halogens and sulfur. The decomposition vessel can be changed over to use combustible crucibles (sold separately).

**What's included:** decomposition vessel and consumables for calibrations and initial operation.



A



B



Range	Reproducibility	Max input power	Measuring time	Interface connections	Power (VAC, Hz)	Catalog number	Price
<b>A. IKA C 200 calorimeter</b>							
0 to 40,000 joules	Isoperibolic: 0.05% Dynamic: 0.1% RSD (relative standard deviation) based on analysis of 1 g benzoic acid NBS 39i	120 watts	Manual (isoperibol): up to 17 min Isoperibolic: up to 17 min Dynamic: up to 7 min Time-controlled	PC serial (RS-232); printer	120, 50/60	<a href="#">IC-50905-00</a>	
		120 watts			230, 50/60	<a href="#">IC-50905-05</a>	
<b>B. IKA C 2000 calorimeter with standard vessel</b>							
0 to 40,000 joules	Isoperibolic: 0.05% Dynamic: 0.1% RSD based on analysis of 1 g benzoic acid NBS 39i	1800 watts	Isoperibolic: up to 17 minutes Dynamic: up to 7 minutes	2 x PC serial (RS-232); external monitor, keyboard, printer; scale	120, 50/60	<a href="#">IC-50905-20</a>	
					230, 50/60	<a href="#">IC-50905-25</a>	
<b>B. IKA C 2000 calorimeter with halogen-resistant decomposition vessel</b>							
0 to 40,000 joules	Isoperibolic: 0.05% Dynamic: 0.1% RSD based on analysis of 1 g benzoic acid NBS 39i	1800 watts	Isoperibolic: up to 17 minutes Dynamic: up to 7 minutes	2 x PC serial (RS-232); external monitor, keyboard, printer; scale	120, 50/60	<a href="#">IC-50905-30</a>	
					230, 50/60	<a href="#">IC-50905-35</a>	

[IC-50905-53](#) Oxygen pressure gauge

[IC-50905-54](#) Combustion crucibles for IKA calorimeters. Pk of 25

[IC-50905-56](#) Decomposition vessel for use with combustion crucibles

[IC-50905-57](#) Benzoic acid blister package, pellets. Calibration standard for IKA calorimeters

[IC-50905-58](#) Cotton threads for ignition

[IC-50905-59](#) Aqua-Pro bath stabilizer agent for water tank

## Calorimeters

### IKA® C 6000 Calorimeters

## Analyze samples more easily—advanced automation and decomposition vessel

- Choose from various packages to suit the needs of your experiment
- Various interfaces allow connections to networks, PCs, balances, keyboards and more
- User-friendly CalWin® C 6040 software available (on page 27) for controlling calorimeter and administration of data

Units feature a high level of automation with three working methods—adiabatic, isoperibolic, and dynamic. The sleek design includes convenient touch-screen operation and a decomposition vessel with a spherical top for faster heat transfer results—speeding up your experiment times. Automatic water handling system includes tempering, filling and emptying of calorimeter inner vessel.

The C 6000 calorimeters interface with computer, scale, printer, and monitor. Units include an SD card slot for additional data management.

To provide the calorimeter with cooling water, it needs to be connected to a thermostat (order models 50906-10, -12, -18, or -20 with chiller) or a firmly installed water connection.

Models 50906-12, -16, -20, or -24 include a special halogen-resistant vessel, in lieu of the standard vessel, for quantitative decomposition of halogens and sulfur. The crucible holders can be changed over to use combustible crucibles, which are sold separately.

The C 6000 global standard models (50906-10, -12, -14, and -16) offer a fast dynamic method, as well as traditional adiabatic and isoperibol modes. The C 6000 isoperibol calorimeters (50906-18, -20, -22, and -24) offer the same advantages and features without the adiabatic measuring modes.

**What's included:** measuring well, decomposition vessel, and power cord.



50906-10



(with product registration)

### Specifications

Energy input range	0 to 40,000 joules
Resolution of temperature sensor (1000 Ω Pt RTD)	0.0001
Operating oxygen pressure	435 psi (30 bar)
Measurements per hour	Adiabatic (global standards only): 4 Isoperibol: 3 Dynamic: 7
Reproducibility	Adiabatic/isoperibolic: 0.05% Dynamic: 0.1% RSD based on analysis of 1 g benzoic acid NBS 39j
Jacket control	Controlled, water
Composition vessels allowed per unit	Up to 4
Decomposition vessel ID	Automatic (RFID)
Start temperature settings	22°C, 25°C, or 30°C (72°F, 77°F, 86°F)
Power (VAC, Hz)	115 to 230, 50/60
<b>Models with chiller</b>	
Water pressure from chiller	4.4 psi (0.3 bar)
Cooling medium	Tap water or distilled water with 50905-59

Description	Catalog number	Price
<b>Calorimeters without chiller</b>		
IKA C 6000 Calorimeter, global standards	<a href="#">IC-50906-14</a>	
IKA C 6000 Calorimeter, global standards, halogen resistant	<a href="#">IC-50906-16</a>	
IKA C 6000 Calorimeter, isoperibol	<a href="#">IC-50906-22</a>	
IKA C 6000 Calorimeter, isoperibol, halogen resistant	<a href="#">IC-50906-24</a>	
<b>Calorimeters with chiller</b>		
IKA C 6000 Calorimeter, global standards	<a href="#">IC-50906-10</a>	
IKA C 6000 Calorimeter, global standards, halogen resistant	<a href="#">IC-50906-12</a>	
IKA C 6000 Calorimeter, isoperibol	<a href="#">IC-50906-18</a>	
IKA C 6000 Calorimeter, isoperibol, halogen resistant	<a href="#">IC-50906-20</a>	

[IC-50905-40](#) Ignition wire, Kantal. Pack of 5

[IC-50905-42](#) Ignition wire, platinum, for samples with chlorine. Pack of 2

[IC-50905-56](#) Decomposition vessel for use with combustion crucibles

[IC-50905-57](#) Benzoic acid blister package, pellets. Calibration standard for IKA calorimeters

[IC-50905-52](#) Combustion crucibles, large. Pack of 25

[IC-50905-54](#) Combustion crucibles, small. Pack of 25

[IC-50905-58](#) Cotton threads for ignition. Pack of 500

[IC-50905-59](#) Aqua-Pro bath stabilizer agent for water tank, 40 mL

[IC-50905-46](#) Acetobutyrate capsules, recommended for samples containing volatile components. Pack of 100

[IC-50905-44](#) Combustion bags, with predetermined calorific value, 40 x 35 mm. Pack of 100

# IKA® C 1 Portable Calorimeter

## Measure Gross Calorific Value (GCV) anywhere you need

- Portable unit with small footprint
- Automated for easy determination—automatic ignition, water filling, venting, and flushing
- Various interfaces allow connections to networks, PCs, balances, keyboards and more

This little giant in calorimeters is a portable isoperibol static jacket calorimeter featuring a high level of automation and computer interface using optional CalWin C 6040 software (order separately) for controlling the calorimeter and administration of measuring data. The C 1 calorimeter will interface with a PC via USB, or printer/balance via a serial interface.



Calorimeters

The traditionally heavy screw-threaded bomb has been replaced by a light attachable combustion chamber. To provide the calorimeter with cooling water, it needs to be connected to a thermostat (order models 50906-00 or -02 with chiller) or a firmly installed water connection.

Models 50906-02 and -06 include a special halogen-resistant vessel, in lieu of the standard vessel, for quantitative decomposition of halogens and sulfur. The crucible holders can be changed over to use combustible crucibles (sold separately below).

Models 50906-04 and -06 are sold with a water heater, which can run with standard tap water.

**What's included:** measuring well, decomposition vessel, and power cord.



### Specifications

Energy input range	0 to 40,000 joules
Resolution of temperature sensor (1000 Ω Pt RTD)	0.0001
Operating oxygen pressure	435 psi (30 bar)
Measurements per hour	Isoperibol: 5
Reproducibility	Isoperibolic: 0.1% RSD (relative standard deviation) based on analysis of 1 g benzoic acid NBS 39i
Jacket control	Static, dry
Composition vessels allowed per unit	Up to 4
Decomposition vessel ID	Manual
Start temperature settings	2°C or 30°C (56°F or 86°F)
Power (VAC, Hz)	115 to 230, 50/60
<b>Models with chiller</b>	
Water pressure from chiller	4.4 psi (0.3 bar)
Temperature setting: isoperibol 22°C	20.5°C (69°F)
Temperature setting: isoperibol 30°C	28.5°C (83°F)
Cooling medium	Tap water
<b>Models with water heater</b>	
Tap water maximum temperature range	12 to 28°C (54 to 82°F)
Water pressure maximum	14.5 to 21.8 psi (1 to 1.5 bar)
Water consumption per experiment	Approximately 4 liters

Description	With chiller		With water heater	
	Catalog number	Price	Catalog number	Price
IKA C 1 Calorimeter	<a href="#">IC-50906-00</a>		<a href="#">IC-50906-04</a>	
IKA C 1 Calorimeter, halogen resistant	<a href="#">IC-50906-02</a>		<a href="#">IC-50906-06</a>	

[IC-50905-52](#) Combustion crucibles, large. Pack of 25

[IC-50905-54](#) Combustion crucibles, small. Pack of 25

### CalWin® C 6040 Software for IKA® Calorimeters

- Control, monitor, and view operational procedures from your computer
- Print and save measurement protocols with control chart view
- Identify and record samples
- Administration of sample racks
- Flexible administration and evaluation of calibrations
- Flexible administration and grouping of measurements
- Connect with IKA® C 1, C 200, C 2000, C 5000, and C 6000 calorimeters
- Print and save calibration and result protocols suitable for certification
- Library functions and data management with Microsoft® SQL server

Data transmission via RS-232 interface to Microsoft® Excel® and Access® applications. Correction calculations can be used to obtain the net calorific value according to various ISO, DIN, ASTM, GB, and GOST standards. Preprocessed work sheets for Microsoft Excel (configurable by user). System requirements include Windows XP® (SP2), Windows Vista, Windows 7, Microsoft SQL Server, and at least one free USB or RS-232 (9-pin) serial interface. Processor with minimum 1.6 GHz (single core-processor); 2 GB RAM; 2.5 GB free hard-disc space; DVD-ROM drive.

[IC-50906-51](#) CalWin C 6040 software for IKA calorimeters



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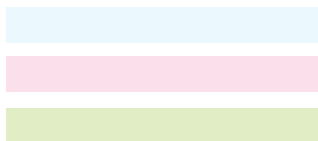


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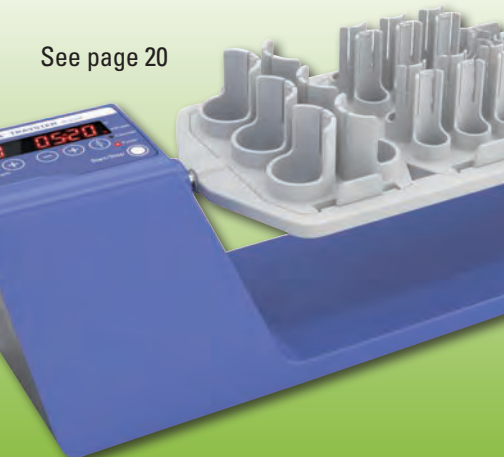
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