New Product Overview 2013

IKA®

designed
to work perfectly

IKA®-Werke GmbH & Co. KG in Staufen, Germany can now look back on a century of history.

The company, which was founded in 1910 as a distributor for pharmacies and hospitals, relocated from bombed-out Cologne to Staufen in 1942. There it quickly became the global market leader for laboratory technology as well as dispersing, stirring, and kneading instruments. Today, IKA® employs over 800 people at eight different locations on four continents.

IKA® laboratory technology offers a vast spectrum of innovative devices for numerous applications in research and development. For mixing, tempering, distilling or crushing, market leaders in varying fields of application rely on IKA®'s innovative and proven technology.

For more information, please visit:
www.ika.com

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Calorimeters | Page 38

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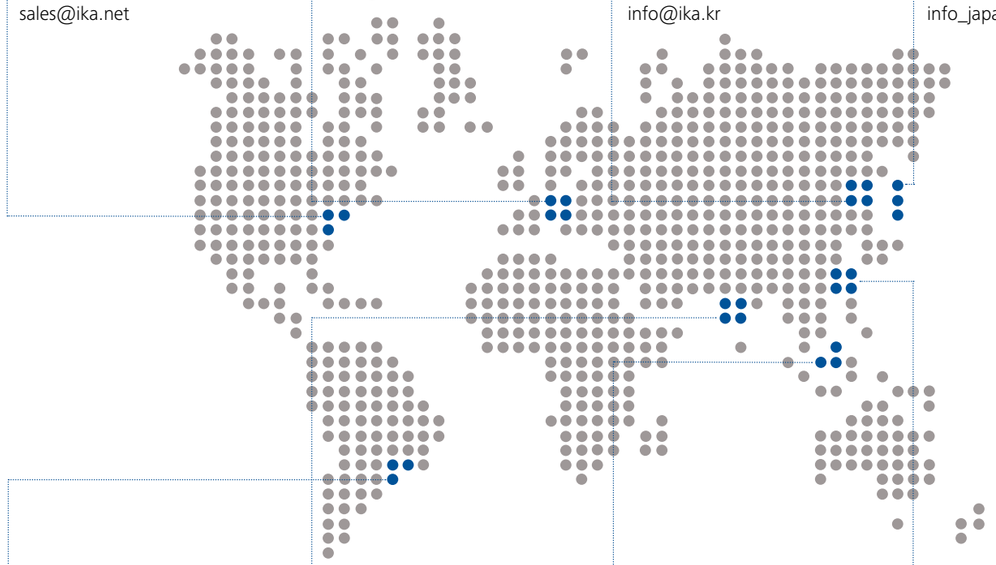

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Magnetic Stirrers with heating

The new generation of magnetic stirrers offer many unique features, such as an innovative RET control with patented integrated weighing function. In addition, the RCT basic is equipped with a USB interface. The multi-position magnetic stirrers are now equipped with digital displays and wear free magnetic coil technology.

RET control

Integrated weighing function with max. weighing range of up to 2 kg

TFT Display

TFT Display for better image quality and easy navigation

Integrated temperature sensor for precise temperature control

USB interface with the possibility to update the firmware

RH digital

> Strong magnetic field for volumes up to 15 liters

> Digital display for precise monitoring of speed and temperature

> "HOT" sign warning to prevent burns

IKA® Patent!
Weighing function

Available Q1/2013

Available Q2/2013

Available Q2/2013

Technical data	RH basic | digital	RCT basic	RET control
Max. stirring quantity (H_2O)	15 l	20 l	20 l
Motor rating input / output	15 / 2 W	16 / 9 W	16 / 9 W
Speed range	50 – 2000 rpm	50 – 1500 rpm	50 – 1700 rpm
Heat output	600 W	600 W	600 W
Temperature range	50 – 320 °C	RT – 340 °C	RT – 340 °C
Adjustable safety circuit	50 – 370 °C	50 – 370 °C	50 – 370 °C
Control accuracy with sensor	ETS-D5: ± 0.5 K ETS-D6: ± 0.2 K	PT 1000: ± 1 K /ETS-D5: ± 0.5 K / ETS-D6: ± 0.2 K	± 0.2 K
Set-up plate material	stainless steel 1.4301	Aluminium	stainless steel 1.4301
Set-up plate dimensions	Ø 135 mm	Ø 135 mm	Ø 135 mm
Dimensions (W x D x H)	160 x 246 x 90 mm	160 x 270 x 85 mm	160 x 270 x 85 mm
Weight	2 kg	3 kg	3 kg
	RH basic: Ident. No. 5019700 RH digital: Ident. No. 5019800	Ident. No. 5019900 PT 1000 included in the delivery	Ident. No. 5020000 PT 100 included in the delivery

Magnetic Stirrers with heating

LCD Display

LCD display for simultaneous display of target and actual temperatures

Integrated temperature sensor for precise temperature control

C-MAG HS 7 digital

Elevated control panel for protection against spilled liquids

Hot Top indicator to prevent burns

Ceramic

Ceramic heating plate offers excellent chemical resistance to acids, bases and solvents

NEW 2012

Technical data	C-MAG HS 4 digital	C-MAG HS 7 digital	C-MAG HS 10 digital
Max. stirring quantity (H_2O)	5 l	10 l	15 l
Motor rating input / output	15 / 1.5 W	15 / 1.5 W	15 / 1.5 W
Speed range	100 – 1500 rpm	100 – 1500 rpm	100 – 1500 rpm
Speed display	scale	scale	scale
Heat output	250 W	1000 W	1500 W
Temperature range	50 – 500 °C	50 – 500 °C	50 – 500 °C
Max. stirring bar length	30 mm	80 mm	80 mm
Adjustable safety circuit	550 °C (fixed)	550 °C (fixed)	550 °C (fixed)
Control accuracy with sensor	± 0.5 K	± 0.5 K	± 0.5 K
Set-up plate material	Ceramic	Ceramic	Ceramic
Set-up plate dimensions	100 x 100 mm	180 x 180 mm	260 x 260 mm
Weight	3 kg	5 kg	6 kg
	Ident. No. 4240200	Ident. No. 3487000	Ident. No. 4240400

PT 1000 included in the delivery

Multi-position magnetic stirrers

Heating foil for homogeneous temperature distribution of the heating plate

Reverse rotation switch for better mixing results

Wear-free magnetic coils for consistent and silent operation

RT 15

Available Q1/2013

Technical data	RO 5	RO 10	RO 15
Number of stirring positions	5	10	15
Max. stirring quantity (H_2O)	0.4 l	0.4 l	0.4 l
Distance between stirring places	90 mm	90 mm	90 mm
Deviation for individual stirring positions	0%	0%	0%
Speed display	LED	LED	LED
Speed range	0 – 1200 rpm	0 – 1200 rpm	0 – 1200 rpm
Speed adjustment	10 rpm steps	10 rpm steps	10 rpm steps
Max. stirring bar length	30 mm	30 mm	30 mm
Set-up plate material	stainless steel 1.4301	stainless steel 1.4301	stainless steel 1.4301
Set-up plate dimensions	120 x 470 mm	190 x 470 mm	280 x 470 mm
Dimensions (W x D x H)	120 x 570 x 60 mm	190 x 570 x 60 mm	280 x 570 x 60 mm
Weight	3 kg	5 kg	7 kg
	Ident. No. 3690500	Ident. No. 3691000	Ident. No. 3692500

Available Q1/2013

Technical data	RT 5	RT 10	RT 15
Number of stirring positions	5	10	15
Max. stirring quantity (H_2O)	0.4 l	0.4 l	0.4 l
Distance between stirring places	90 mm	90 mm	90 mm
Deviation for individual stirring positions	0%	0%	0%
Speed range	0 – 1000 rpm	0 – 1000 rpm	0 – 1000 rpm
Speed / Temperature display	LED	LED	LED
Heat output	175 W	375 W	580 W
Temperature range heating plate	RT – 120 °C	RT – 120 °C	RT – 120 °C
Set-up plate material	Aluminium alloy	Aluminium alloy	Aluminium alloy
Set-up plate dimensions	110 x 495 mm	180 x 495 mm	270 x 495 mm
Dimensions (W x D x H)	120 x 610 x 60 mm	190 x 610 x 60 mm	280 x 610 x 60 mm
Weight	4 kg	7.5 kg	10.5 kg
	Ident. No. 3690600	Ident. No. 3691100	Ident. No. 3692600

Overhead Stirrers

Designed to optimize complex stirring applications, IKA® offers the very best in overhead stirrer technology. Our overhead stirrers stand out because of their extraordinary features, which include: electronic safety circuit, digital display, two speed ranges, USB interface, removable wireless controller and many more.

°C — External probe for connection to a temperature sensor for accurate temperature control (only EUROSTAR control)

EC motor — Brushless EC motor for longer life span, low maintenance and higher efficiency

Digital Display — Digital display for precise monitoring of set and actual speeds

Available Q1/2013

Technical data	EUROSTAR 20 digital	EUROSTAR 40 digital	EUROSTAR 60 digital | control
Stirring quantity max. (H_2O)	15 l	25 l	40 l
Max. viscosity	10,000 mPas	30,000 mPas	50,000 mPas
Motor rating input / output	56 / 44 W	112 / 87 W	168 / 131 W
Speed range	0/30 – 2000 rpm	0/30 – 2000 rpm	0/30 – 2000 rpm
Max. torque at stirring shaft	20 Ncm	40 Ncm	60 Ncm
Display	LED	LED	LED | TFT
Chuck range	0.5 – 10 mm	0.5 – 10 mm	0.5 – 10 mm
Timer	no	no	no | yes
Temperature measurement	no	no	no | yes
Dimensions (W x D x H)	86 x 208 x 248 mm	86 x 208 x 248 mm	86 x 208 x 248 mm | 86 x 230 x 267 mm
Weight	4.4 kg	4.4 kg	4.4 kg | 4.7 kg
	Ident. No. 4442000	Ident. No. 4444000	Ident. No. 4446000 | 4440000

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Overhead Stirrers

Clockwise and
counter clockwise rotation

Wireless Controller (WiCo)
Removable wireless controller for easy
and user-friendly operation

Laboratory stirrer designed for highly
viscous applications and intensive mixing

Extremely powerful laboratory stirrer
designed with high torque

EUROSTAR 100 control

> USB interface with the possibility to update the firmware

> Brushless EC motor for longer life

The wireless controller can be separated from the overhead stirrer. This allows for working in a fume hood or safety cabinet without lifting the protective screen, which in turn helps protect the user from toxic material exposure in addition to preserving sample integrity.

Available
Q1/2013

Available
Q2/2013

Available
Q2/2013

Technical data	EUROSTAR 100 digital	EUROSTAR 100 control	EUROSTAR 200 digital | control
Stirring quantity max. (H_2O)	100 l	100 l	100 l
Max. viscosity	70,000 mPas	70,000 mPas	100,000 mPas
Motor rating input / output	174 / 142 W	174 / 142 W	121 / 99 W
Speed range	0/30 – 1300 rpm	0/30 – 1300 rpm	0/6 – 2000 rpm
Max. torque at stirring shaft	100 Ncm	100 Ncm	200 Ncm
Torque trend display	LED	TFT	LED | TFT
Chuck range	0.5 – 10 mm	0.5 – 10 mm	0.5 – 10 mm
Timer	no	yes	no | yes
Temperature measurement	no	yes	no | yes
Dimensions (W x D x H)	86 x 208 x 248 mm	86 x 230 x 267 mm	91 x 209 x 274 mm | 91 x 231 x 274 mm
Weight	4.4 kg	4.7 kg	4.6 kg | 4.9 kg
	Ident. No. 4238100	Ident. No. 4028500	Ident. No. 3990000 | 3992000

	EUROSTAR 20 high speed digital	EUROSTAR 200 P4 control	RW 28 digital	RW 47 digital
	20 l	100 l	80 l	200 l
	10,000 mPas	150,000 mPas	50,000 mPas	100,000 mPas
	171 / 133 W	121 / 99 W	220 / 90 W	513 / 370 W
	0/150 – 6000 rpm	0/4 – 530 rpm	60 – 1400 rpm (50 Hz)	57 – 1300 rpm (50 Hz)
	20 Ncm	660 Ncm	900 Ncm	3000 Ncm
	LED	TFT	LED	LED
	fixed	0.5 – 10 mm	1 – 10 mm	3 – 16 mm
	no	no	no	no
	no	no	no	no
	86 x 208 x 325 mm	91 x 230 x 379 mm	123 x 252 x 364 mm	145 x 358 x 465 mm
	5.3 kg	5.8 kg	7.5 kg	16 kg
	Ident. No. 4028600	Ident. No. 4090000	Ident. No. 5040000	Ident. No. 4050000

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winner 2012

Rockers & Rollers

Rocker 3D digital

Dual platform option expands workspace

Timer display for accurate and reproducible conditions

Three-dimensional tumbling rocking/ see-saw motion

Touch keypad for easy operation

Rocking action

Available Q2/2013

Technical data	Rocker 2D basic	Rocker 2D digital	Rocker 3D basic	Rocker 3D digital
Type of movement	rocking	rocking	tumbling	tumbling
Shaking diameter	8° (angle)	0 – 15° (angle)	8° (angle)	0 – 15° (angle)
Permissible shaking weight (incl. attachment)	2 kg	2 kg	2 kg	2 kg
Motor rating input / output	16 / 9 W	16 / 9 W	16 / 9 W	16 / 9 W
Permissible ON time	100%	100%	100%	100%
Speed range	5 – 80 rpm	5 – 80 rpm	30 rpm (fixed)	5 – 80 rpm
Speed display	7 segment LED	7 segment LED	none	7 segment LED
Timer	no	∞ / 1 s – 99.9 h	no	∞ / 1 s – 99.9 h
Timer display	none	7 segment LED	none	7 segment LED
Dimensions (W x D x H)	280 x 330 x 150 mm	280 x 330 x 150 mm	280 x 330 x 165 mm	280 x 330 x 185 mm
Weight	2.2 kg	2.2 kg	2.2 kg	2.2 kg
	Ident. No. 4002000	Ident. No. 4003000	Ident. No. 4000000	Ident. No. 4001000

IKA® is proud to introduce a brand new series of Rollers, Rockers and Overhead Rotators. The wide range of Rocking, Rolling, Rotating and Shaking covers the entire spectrum of motions in mixing technology. IKA® has also added a sibling to its' voluminous incubator shaker KS 4000 i control and ic control.

Rocking and rolling action

Timer display for accurate and reproducible conditions

C/T button for choosing the counter or the timer function

Removable rolls allow for the use of larger tubes

Roller 10 digital

Rocking and Rolling

Available Q2/2013

Technical data	Roller 6 basic	Roller 6 digital	Roller 10 basic	Roller 10 digital
Type of movement	rocking and rolling	rocking and rolling	rocking and rolling	rocking and rolling
Shaking diameter	24.5 mm (high)	24.5 mm (high)	24.5 mm (high)	24.5 mm (high)
Permissible shaking weight (incl. attachment)	2 kg	2 kg	2 kg	2 kg
Motor rating input / output	16 / 9 W	16 / 9 W	16 / 9 W	16 / 9 W
Permissible ON time	100%	100%	100%	100%
Speed range	30 rpm (fixed)	5 – 80 rpm	30 rpm (fixed)	5 – 80 rpm
Speed display	none	7 segment LED	none	7 segment LED
Timer	no	∞ / 1 s – 99.9 h	no	∞ / 1 s – 99.9 h
Timer display	none	7 segment LED	none	7 segment LED
Dimensions (W x D x H)	240 x 545 x 115 mm	240 x 545 x 115 mm	380 x 545 x 115 mm	380 x 545 x 115 mm
Weight	4.5 kg	4.5 kg	7 kg	7 kg
	Ident. No. 4010000	Ident. No. 4011000	Ident. No. 4012000	Ident. No. 4013000

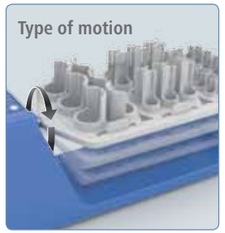
Trayster, Loopster & Incubator shakers

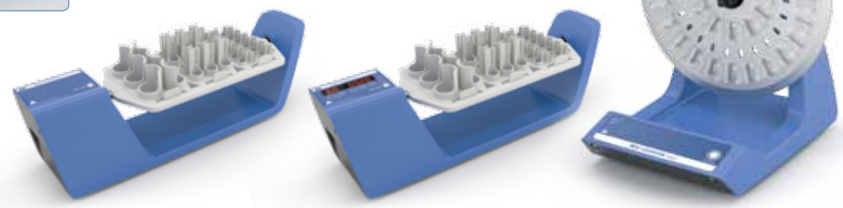
Loopster digital

Choice of tube holders to hold a number of different sized tubes

90 degree adjustable mixing angle

Touch keypad for easy operation





Available Q3/2013

Technical data	Trayster basic	Trayster digital	Loopster basic	Loopster digital
Type of movement	rotating	rotating	rotating	rotating
Permissible shaking weight (incl. attachment)	2 kg	2 kg	2 kg	2 kg
Motor rating input / output	16 / 9 W	16 / 9 W	16 / 9 W	16 / 9 W
Permissible ON time	100%	100%	100%	100%
Speed range	20 rpm (fixed)	5 – 80 rpm	20 rpm (fixed)	5 – 80 rpm
Speed display	none	7 segment LED	none	7 segment LED
Timer	no	∞ / 1 s – 99.9 h	no	∞ / 1 s – 99.9 h
Timer display	none	7 segment LED	none	7 segment LED
Dimensions (W x D x H)	460 x 160 x 150 mm	460 x 160 x 150 mm	300 x 300 x 360 mm	300 x 300 x 360 mm
Weight	1.7 kg	1.7 kg	3 kg	3 kg
	Ident. No. 4005000	Ident. No. 4006000	Ident. No. 4015000	Ident. No. 4016000

Orbital action

KS 3000 i control

Assure highly accurate temperature control

USB interface to control and document rheological changes and other parameters using labworldsoft® software and for updating the firmware

Wide range of attachments allows for using almost all shapes and sizes of vessels

Built-in cooling coil for connection to an external cooling unit

Available Q1/2013

Technical data	KS 3000 i control	KS 3000 ic control
Orbital diameter	20 mm	20 mm
Motor rating input / output	45 / 10 W	45 / 10 W
Speed range	10 – 500 rpm	10 – 500 rpm
Timer display	LED	LED
Time setting range	1 s – 999 h	1 s – 999 h
Heating temperature range	RT +5 – 80 °C	RT -10 – 80 °C
Heat output	1000 W	1000 W
Dimensions (W x D x H)	465 x 695 x 430 mm	465 x 695 x 430 mm
Weight	35 kg	37 kg
Interface	RS 232, USB	RS 232, USB
	Ident. No. 3940000	Ident. No. 3940100

For information about accessories, visit **www.ika.com**

Dispersers

The IKA® range of dispersers are used for volumes ranging from 0.5 to 50,000 ml (H_2O). Due to their broad spectrum of dispersing tools, IKA® dispersers are highly effective for a variety of uses. The unique and patented ULTRA-TURRAX® Tube Drive system is the world's first disperser system with disposable and sealed sample tubes.

T 25 digital

Digital Display — Digital display for precise monitoring of set and actual speeds

Wide selection of dispersing tools to suit your application

Protection — Motor protection against overload

Quick-connect coupling to exchange dispersing tools easily

Available Q1/2013

Technical data	T 10 basic	T 18 digital	T 25 digital
Motor rating input / output	125 / 75 W	500 / 300 W	800 / 500 W
Volume range (H_2O)	0.5 – 100 ml	1 – 1500 ml	1 – 2000 ml
Speed range	8000 – 30,000 rpm	500 – 25,000 rpm	500 – 25,000 rpm
Speed display	scale	LED	LED
Noise without element	65 dB(A)	75 dB(A)	75 dB(A)
Dimensions (W x D x H)	56 x 66 x 178 mm	87 x 106 x 271 mm	87 x 106 x 271 mm
Weight	0.5 kg	2.5 kg	2.5 kg
Protect. class DIN EN 60529	IP 30	IP 20	IP 20
	Ident. No. 3737000	Ident. No. 3720000	Ident. No. 3725000

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Dispersing tools are not included in delivery

Dispersers

Available Q1/2013

Available Q1/2013

Technical data	T 50 digital	T 65 basic	T 65 digital
Motor rating input / output	1100 / 700 W	1800 / 1500 W	2600 / 2200 W
Volume range (H_2O)	0.25 – 30 l	2 – 50 l	2 – 50 l
Speed range	500 – 10,000 rpm	7200 rpm (fixed)	1000 – 9500 rpm
Speed display	LED	–	LED
Noise without element	72 dB(A)	75 dB(A)	75 dB(A)
Dimensions (W x D x H)	115 x 139 x 355 mm	185 x 400 x 450 mm	300 x 400 x 390 mm
Weight	5.76 kg	26 kg	29 kg
Protect. class DIN EN 60529	IP 20	IP 54	IP 54
	Ident. No. 3787000	Ident. No. 4023500	Ident. No. 4234500

Dispersing tools are not included in delivery

Mills

IKA® introduces the world's first disposable grinding tube system which eliminates the possibility of cross-contamination and saves on associated cleaning costs. Anticipate our newly created A 10 basic mill with enhanced safety features.

Interval — Interval operation

Safety — Special safety features

Speed Time — Adjustable safety speed and time

Tube Mill control

World´s first

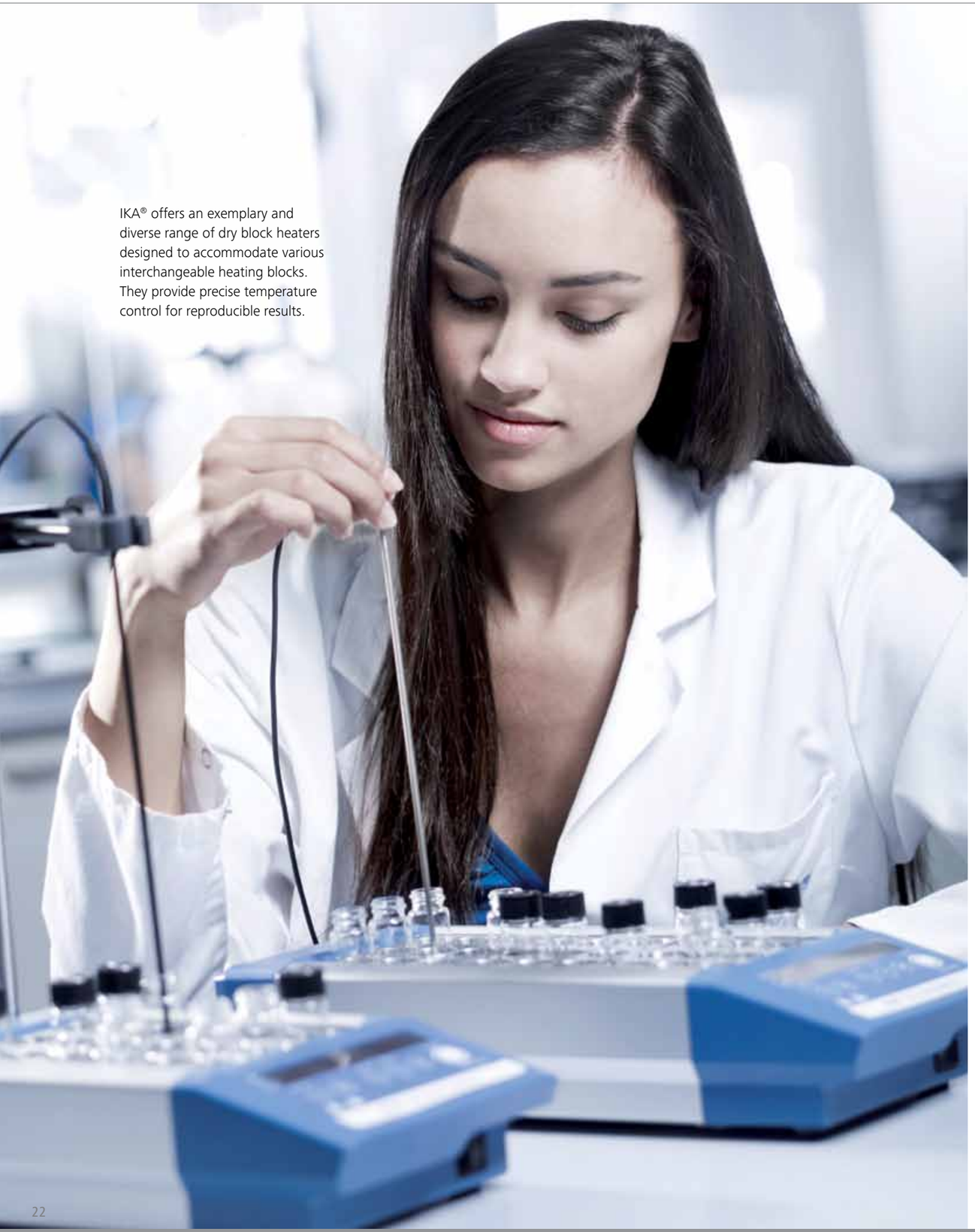
Tube Mill control

> Disposable grinding chamber
> Stops cross-contamination
> No cleaning required
> USB interface with the possibility to update the firmware

Available Q3/2013

Available Q1/2013

Technical data	A 10 basic	Tube Mill control
Motor rating input / output	500 / 400 W	175 / 123 W
Speed range	22,000 rpm (fixed)	5000 – 25,000 rpm
Speed display	no	digital
Useful volume	50 ml	40 ml
Duty cycle (ON / OFF)	10 min	5 s – 3 min (timer)
Overload protection	yes	yes
Circumferential speed	63 m/s	65 m/s
Max. feed hardness	9 Mohs	5 Mohs
Max. feed grain size	6 mm	10 mm
Grinding chamber material	stainless steel (AISI 14301)	Transparent plastic (PP)
Dimensions (W x D x H)	130 x 145 x 250 mm	180 x 300 x 170 mm
Weight	3.0 kg	2.7 kg
	Ident. No. 4020700	Ident. No. 4180000



IKA® offers an exemplary and diverse range of dry block heaters designed to accommodate various interchangeable heating blocks. They provide precise temperature control for reproducible results.

Dry Block Heaters

Dry Block Heater 3

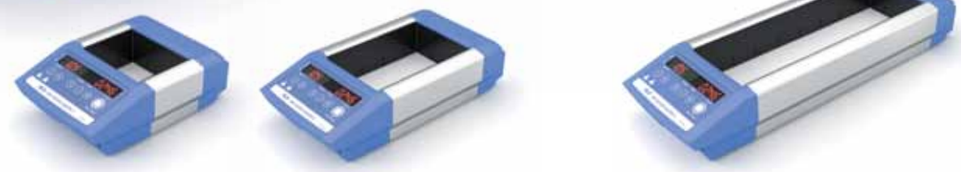
°C — Temperature display for the actual/set-point temperatures, up/down arrows for set-point control

A wide range of interchangeable heating blocks to fit any sample tube or plate

External probe for accurate temperature control

Timer Display — Timer display for accurate and reproducible conditions, up/down arrows for set-point control

For information about accessories, visit **www.ika.com**



Available Q1/2013

Technical data	Dry Block Heater 1	Dry Block Heater 2	Dry Block Heater 3	Dry Block Heater 4
Number of blocks	1	2	3	4
Heat output	150 W	250 W	300 W	375 W
Heating temperature range	RT to 120 °C	RT to 120 °C	RT to 120 °C	RT to 120 °C
Heat control	LED	LED	LED	LED
Heat control accuracy	± 1 K	± 1 K	± 1 K	± 1 K
Connection for ext. temperature sensor	DIN 12878	DIN 12878	DIN 12878	DIN 12878
Control accuracy with sensor	± 1 K	± 1 K	± 1 K	± 1 K
Material of the blocks	Aluminum alloy	Aluminum alloy	Aluminum alloy	Aluminum alloy
Timer	1 min to 99h 59min	1 min to 99h 59min	1 min to 99h 59min	1 min to 99h 59min
Dimensions (W x D x H)	151 x 228 x 73 mm	151 x 304 x 73 mm	151 x 380 x 73 mm	151 x 456 x 73 mm
	Ident. No. 4025100	Ident. No. 4025200	Ident. No. 4025300	Ident. No. 4025400

Thermostats

IKA® is proud to introduce several high-precision temperature control systems from -30 °C to +250 °C. This new product range consists of heating baths and immersion circulators, refrigerated circulators and combined refrigerating and heating bath circulators. The sophisticated combination of precise technology and user-friendly design simplifies the temperature control of every application.

IC control

Removable wireless controller (WiCo) for easy and safe operation

Flexible bath bridge enables easy mounting to different water baths

USB / RS 232 interface for PC control and documentation using labworldsoft® software and for online firmware-update

TFT Display

Large easy-to-read TFT display

Available Q2/2013

Available Q4/2013

Available Q2/2013

Available Q2/2013

Available Q2/2013

Technical data	ICC basic | control	IC basic | control	HBC 5 basic | control	HBC 10 basic | control
Appliance type	compact immersion circulator	immersion circulator	heating bath circulator	heating bath circulator
Cooling capacity at 20 °C	–	–	–	–
Heat output	2000 / 1000 W	2500 / 1200 W	2500 / 1200 W	2500 / 1200 W
Temperature range	RT – 100 °C | RT – 150 °C (20 °C with cooling coil*)	RT – 200 °C | RT – 250 °C (20 °C with cooling coil*)	20 – 200 °C | 20 – 250 °C (with integrated cooling coil*)	20 – 200 °C | 20 – 250 °C (with integrated cooling coil*)
Temperature display	LED | TFT	LED | TFT	LED | TFT	LED | TFT
Temperature stability DIN 12876	± 0.03 K | ± 0.01 K	± 0.02 K | ± 0.01 K	± 0.02 K | ± 0.01 K	± 0.02 K | ± 0.01 K
Bath volume range	depends on used bath	depends on used bath	5 – 7 l	8 – 13 l
Max. flow rate (at 0 bar)	20 l/min	20 l/min | 26 l/min	20 l/min | 26 l/min	20 l/min | 26 l/min
Max. pump pressure	0.2 bar	0.5 bar | 0.7 bar	0.5 bar | 0.7 bar	0.5 bar | 0.7 bar
Min. suction	0.18 bar	0.3 bar | 0.4 bar	0.3 bar | 0.4 bar	0.3 bar | 0.4 bar
Dimensions (W x D x H)	147 x 158 x 340 mm	245 x 260 x 300 mm	245 x 260 x 300 mm	275 x 510 x 455 mm
USB interface	yes	yes	yes	yes
	Ident. No. 4134400 | 4136600	Ident. No. 3861000 | 3863000	Ident. No. 4125000 | 4127000	Ident. No. 4135000 | 4137000

* Lower working temperatures possible with connection of a chiller

Thermostats

Available Q4/2013

RC 5 control

- Easily accessible filling port at the top of the unit with a protective lid
- Removable venting grid for easy cleaning
- Large easy-to-read TFT display
- Quiet operation
- Removable wireless controller (WiCo) for convenient and user-friendly operation

Available Q3/2013

Available Q4/2013

Technical data	RC 2 basic | control	RC 5 basic | control	CBC 5 basic | control	CBC 10 basic | control
Appliance type	refrigerated circulator	refrigerated circulator	combined refrigerating and heating bath circulator	combined refrigerating and heating bath circulator
Cooling capacity at 20 °C	350 W	600 W	350 W	600 W
Heat output	–	–	2500 / 1200 W	2500 / 1200 W
Temperature range	-20 – 40 °C	-20 – 40 °C	-30 – 200 °C	-30 – 200 °C
Temperature display	LED | TFT	LED | TFT	LED | TFT	LED | TFT
Temperature stability DIN 12876	± 0.5 K	± 0.5 K	–	–
Bath volume range	1.4 – 4 l	–	–	–
Max. flow rate (at 0 bar)	20 l/min	–	–	–
Max. pump pressure	0.2 bar	–	–	–
Min. suction	0.18 bar	–	–	–
Dimensions (W x D x H)	220 x 450 x 478 mm	–	–	–
USB interface	yes	yes	yes	yes
	Ident. No. 4171000 | 4173000	Ident. No. 4181000 | 4183000	Ident. No. 4165000 | 4167000	Ident. No. 4175000 | 4177000

IKA® is pleased to introduce the RV 8 rotary evaporator. The RV 8, a functional basic model with manual lift and adjustable immersion angle, is the most economic option in our range. For fully automated distillation, IKA® has developed a new RV 10 control with direct connection to a speed controlled pump and automatic boiling point detection.

IKA® Patent

One-hand lifting mechanism with ambidextrous design

240 rpm
58.4 °C

Two digital displays for an optimal overview

Key-button with locking function for the heating bath temperature

Adjustable immersion angle and height

Available Q2/2013

RV 8

Compatible with the complete range of IKA® RV 10 glassware

One-hand lifting mechanism with ambidextrous design

Heating bath can be used as a stand-alone unit and has integrated ergonomic carrying handles

Technical data	RV 8
Drive	
Motor type	brushless DC drive motor
Motor rating input	50 W
Speed range	5 – 300 rpm
Speed display	digital
Clockwise and counter-clockwise	no
Smooth start	yes
Head angle adjustable	0 to 45°
Stroke displacement	130 mm, manual
Setting of lower end stop	no
Vacuum controller	optional
Heating bath	
Bath volume max.	3 l
Temperature range	RT to 180 °C
Heating power	1300 W

P1 Package 1 with vertical glassware
Ident. No. 8033800

P2 Package 2 with vertical coated glassware
Ident. No. 8034200

P3 Package 3 without glassware (FLEX)
Ident. No. 8033400

Rotary Evaporators | RV 10 control

IKA+

- > RV 10 control with enhanced features
- > Automatic solvent boiling point detection
- > Integrated solvent library (extendible by the customer)
- > Direct connection to a speed-controlled pump
- > Online-firmware update via USB or RS 232 possible

Available Q1/2013

Technical data	RV 10 control + RV 10.4002 Magnetic valve	RV 10 control + N 920 Speed controlled pump
Drive		
Motor type	brushless DC drive motor	brushless DC drive motor
Motor rating input	50 W	50 W
Speed range	20 – 280 rpm	20 – 280 rpm
Speed display	digital	digital
Clockwise and counter-clockwise	yes	yes
Smooth start	yes	yes
Head angle adjustable	0 to 45°	0 to 45°
Stroke displacement	140 mm, motorised	140 mm, motorised
Setting of lower end stop	60 mm, contact free	60 mm, contact free
Vacuum controller	integrated	integrated
Heating bath		
Bath volume max.	3 l	3 l
Temperature range	RT to 180 °C	RT to 180 °C
Heating power	1300 W	1300 W

P1 RV 10 control V
Ident. No. 8037700

P2 RV 10 control V-C
Ident. No. 8037900

P3 RV 10 control FLEX
Ident. No. 8038100

P1 RV 10 control V auto
Ident. No. 8037800

P2 RV 10 control V-C auto
Ident. No. 8038000

P3 RV 10 control FLEX auto
Ident. No. 8038200

For information about accessories, visit **www.ika.com**

Pipettes

IKA® offers the most comprehensive range of fixed and variable volume pipettes: single channel (0.1 – 10,000 µl) and multichannel (0.5 – 300 µl) for assured versatility.
The effortlessly operated pipettes provide superior accuracy, precision and safety. Easy to sterilize, the ultra light-weight pipettes are ergonomically designed for efficacy and efficiency.

Pipettes | ALPHA

Fully autoclavable for easy sterilization

Ultra light weight and ergonomic design for comfortable control

UV Resistant — Resistant to UV radiation for enhanced durability

Volume range color coding for easy pipette selection

IKA® ALPHA fix

Variants	Ident. No.
IKA® ALPHA fix | 2.5 µl	Ident. No. 4391300
IKA® ALPHA fix | 5 µl	Ident. No. 4390000
IKA® ALPHA fix | 10 µl	Ident. No. 4390100
IKA® ALPHA fix | 20 µl	Ident. No. 4390200
IKA® ALPHA fix | 25 µl	Ident. No. 4390300
IKA® ALPHA fix | 50 µl	Ident. No. 4390400
IKA® ALPHA fix | 100 µl	Ident. No. 4390500
IKA® ALPHA fix | 200 µl	Ident. No. 4390600
IKA® ALPHA fix | 250 µl	Ident. No. 4390700
IKA® ALPHA fix | 500 µl	Ident. No. 4390800
IKA® ALPHA fix | 1,000 µl	Ident. No. 4390900
IKA® ALPHA fix | 2,000 µl	Ident. No. 4391000
IKA® ALPHA fix | 5,000 µl	Ident. No. 4391100
IKA® ALPHA fix | 10,000 µl	Ident. No. 4391200

IKA® ALPHA vario

Variants	Ident. No.
IKA® ALPHA vario | 0.1 – 2.5µl	Ident. No. 4393100
IKA® ALPHA vario | 0.5 – 10 µl	Ident. No. 4392000
IKA® ALPHA vario | 2 – 20 µl	Ident. No. 4392600
IKA® ALPHA vario | 5 – 50 µl	Ident. No. 4392100
IKA® ALPHA vario | 10 – 100 µl	Ident. No. 4392400
IKA® ALPHA vario | 20 – 200 µl	Ident. No. 4392700
IKA® ALPHA vario | 50 – 200 µl	Ident. No. 4392200
IKA® ALPHA vario | 100 – 1,000 µl	Ident. No. 4392500
IKA® ALPHA vario | 200 – 1,000 µl	Ident. No. 4392300
IKA® ALPHA vario | 500 – 5,000 µl	Ident. No. 4392900
IKA® ALPHA vario | 500 – 10,000 µl	Ident. No. 4393100
IKA® ALPHA vario | 1,000 – 5,000 µl	Ident. No. 4392800
IKA® ALPHA vario | 1,000 – 10,000 µl	Ident. No. 4393000

IKA® PRECISION Series

Ultra light weight and ergonomic design for comfortable control

UV Resistant — Resistant to UV radiation for enhanced durability

Fully autoclavable for easy sterilization (121°C)

Locking mechanism prevents accidental volume change (Only for IKA® PRECISION series)

Specially engineered plastics increase resistance to chemical and physical corrosion

Clear 4 digit display for volume setting (1000)

ISO 8655 — Supplied with individual quality certificate (QC) and calibration report as per ISO 8655

Volume range color coding for easy pipette selection

IKA® PRECISION fix

Variants	Ident. No.
IKA® PRECISION fix | 2.5 µl	Ident. No. 4394000
IKA® PRECISION fix | 5 µl	Ident. No. 4394100
IKA® PRECISION fix | 10 µl	Ident. No. 4394200
IKA® PRECISION fix | 20 µl	Ident. No. 4394300
IKA® PRECISION fix | 25 µl	Ident. No. 4394400
IKA® PRECISION fix | 50 µl	Ident. No. 4394500
IKA® PRECISION fix | 100 µl	Ident. No. 4394600
IKA® PRECISION fix | 200 µl	Ident. No. 4394700
IKA® PRECISION fix | 250 µl	Ident. No. 4394800
IKA® PRECISION fix | 500 µl	Ident. No. 4394900
IKA® PRECISION fix | 1,000 µl	Ident. No. 4395000
IKA® PRECISION fix | 2,000 µl	Ident. No. 4395100
IKA® PRECISION fix | 5,000 µl	Ident. No. 4395200
IKA® PRECISION fix | 10,000 µl	Ident. No. 4395300

IKA® PRECISION vario

Variants	Ident. No.
IKA® PRECISION vario | 0.1 – 2.5 µl	Ident. No. 4396000
IKA® PRECISION vario | 0.5 – 10 µl	Ident. No. 4396100
IKA® PRECISION vario | 2 – 20 µl	Ident. No. 4396500
IKA® PRECISION vario | 5 – 50 µl	Ident. No. 4396200
IKA® PRECISION vario | 10 – 100 µl	Ident. No. 4396300
IKA® PRECISION vario | 20 – 200 µl	Ident. No. 4396600
IKA® PRECISION vario | 100 – 1,000 µl	Ident. No. 4396400
IKA® PRECISION vario | 500 – 5,000 µl	Ident. No. 4396700
IKA® PRECISION vario | 1,000 – 10,000 µl	Ident. No. 4396800

IKA® Multichannel series

> Comfortable finger rest and soft comfort grip
> Durable and shock proof tip cone
> Can be freely rotated 360 degrees for flexible use

IKA® range of pipette tips includes both filter and non-filter tips. They provide more accurate sample dispensing and increased level of reproducibility.

In addition, they are easier to load and eject for reduced hand fatigue. The filtered tips are essential in critical applications, such as PCR, forensics, DNA amplification, clinical diagnostics, etc to ensure protection of samples and pipettes against cross-contamination.

IKA® PRECISION MC 8

Variants	Ident. No.
IKA® PRECISION MC 8 | 0.5 – 10 µl	Ident. No. 4398000
IKA® PRECISION MC 8 | 2 – 20 µl	Ident. No. 4398500
IKA® PRECISION MC 8 | 5 – 50 µl	Ident. No. 4398100
IKA® PRECISION MC 8 | 10 – 100 µl	Ident. No. 4398200
IKA® PRECISION MC 8 | 20 – 200 µl	Ident. No. 4398300
IKA® PRECISION MC 8 | 30 – 300 µl	Ident. No. 4398400

IKA® PRECISION MC 12

Variants	Ident. No.
IKA® PRECISION MC 12 | 0.5 – 10 µl	Ident. No. 4399000
IKA® PRECISION MC 12 | 2 – 20 µl	Ident. No. 4399500
IKA® PRECISION MC 12 | 5 – 50 µl	Ident. No. 4399100
IKA® PRECISION MC 12 | 10 – 100 µl	Ident. No. 4399200
IKA® PRECISION MC 12 | 20 – 200 µl	Ident. No. 4399300
IKA® PRECISION MC 12 | 30 – 300 µl	Ident. No. 4399400

Laboratory Reactors

The IKA® LR 1000 system is a modular, expandable laboratory reactor designed for optimizing chemical reaction processes as well as mixing, dispersing and homogenization applications at the laboratory scale. The system can be adapted for a wide range of applications and specific requirements especially in the cosmetic and pharmaceutical industry.

Technical data	IKA® LR 1000 basic | control
Usable volume	300 – 1000 ml
Max. working temperature	120 °C
Attainable vacuum	25 mbar
Max. viscosity	100,000 mPas
Speed range	10 – 150 rpm
Min. adjustable speed	10 rpm
Display	LED | TFT
Material in contact with medium	AISI 316L, borosilicate glass 3.3, PTFE, FKM
Heat output	1000 W
Heat control accuracy	± 1 K
Connection for ext. temperature sensor	PT 100
Temperature measurement resolution	0.1 K
Min. cooling medium temperature	3 °C
Support rod diameter (with integrated fastening on stand)	16 mm
Dimensions (W x D x H)	443 x 295 x 360 mm
Weight	16 kg
Permissible ambient temperature	5 – 40 °C
Permissible relative moisture	80%
Protection class according to DIN EN 60529	IP 21
USB and RS 232 interface	no | yes
Voltage	230 V
Frequency	50/60 Hz
Power input	1200 W

Ident. No. 3600000 | 3601000

Available Q1/2013

TFT Display — Large, easy-to-read TFT display for better image quality and easy navigation

Integrated weighing function

pH electrode — Possibility to connect pH electrode

USB interface to control and document rheological changes and other parameters using labworldsoft® software and for updating your firmware

Calorimeter | C 1

The C 1 oxygen bomb calorimeter is a little giant that sets new standards for the industry. The C 1 represents the smallest isoperibol static jacket calorimeter in the world. However, the new C 6000 global standards and C 6000 isoperibol calorimeters follow the traditional calorimetric approach.

The traditional heavy screw threaded bomb is now replaced by a light combustion chamber

Automatic oxygen filling, venting and flushing

Interfaces for PC (USB-B), printer (serial interface), balance (serial interface)

C 1

World´s first

Available Q2/2013

For information about accessories, visit **www.ika.com**

Technical data	C 1
Maximum energy input	40,000 J
Powe ON-time	continuous operation
Operating oxygen pressure	30 bar
Display	color display
Multifunctional push & turn dial	yes
Operator time	< 1 min
Measurements per hour	Isoperibolic (Regnault Pfaundler) 5

Ident. No. 3825000

Calorimeter | C 6000

Easy and convenient touch screen operation

SD Card slot for additional data management

Ethernet interface for data management via FTP Server

Decomposition vessel with spherical top allows better heat transfer and results in shorter measurement times

Software provides control chart view and correction calculation of globally used standards

RFID technology used for decomposition vessel identification

Available Q2/2013

C 6000 global standards

> Easy bomb preparation due to new "turned around" crucible holder technology

> Decomposition vessel with spherical top for faster heat transfer

Technical data	C 6000 isoperibol | C 6000 global standards
Maximum energy input	40,000 J
Powe ON-time	continuous operation
Operating oxygen pressure	30 bar
Display	touch screen
Operator time	< 1 min
Measurements per hour	Adiabatic (Only global standards) 4 Isoperibolic (Regnault Pfaundler) 3 Dynamic 7

C 6000 isoperibol Package 2/10
Ident. No. 8804700

C 6000 global standards Package 2/10
Ident. No. 8804300

For more packages, please contact us at sales@ika.de

Technical data	C 1	C 6000 isoperibol | C 6000 global standards
Maximum energy input	40,000 J	40,000 J
Resolution of temperature sensor PT 1000	0.0001	0.0001
Powe ON-time	continuous operation	continuous operation
Operating oxygen pressure	30 bar	30 bar
Display	TFT	TFT with touch screen
Multifunctional push & turn dial	yes	–
Measuring modes	Isoperibol (Regnault Pfaundler)	Adiabatic (Only global standards) Isoperibol Dynamic
Start temperature settings	2 possible settings: 22 °C or 30 °C	3 possible settings: 22 °C, 25 °C, 30 °C
Operator time	< 1 min	< 1 min
Measurements per hour	Isoperibol (Regnault Pfaundler) 5	Adiabatic (Only global standards) 4 Isoperibolic (Regnault Pfaundler) 3 Dynamic 7
Jacket control	static, dry	controlled, water
Reproducibility (using NIST benzoic acid 39j)	Isoperibol (Regnault Pfaundler) 0.1% RSD	Adiabatic (Only global standards) 0.05% Isoperibol (Regnault Pfaundler) 0.05% Dynamic 0.1%
Number of decomposition vessel per unit	up to 4	up to 4
Halogen resistant and catalytic activated vessels available?	yes	yes
Decomposition vessel ID	manual	automatic (RFID)
Interfaces		
PC	USB-B	9 pin (M) RS 232 serial
Printer	9 pin (M) RS 232 serial	USB-B
Balance	9 pin (M) RS 232 serial	9 pin (M) RS 232 serial
Ethernet	–	yes
for external keyboard or mouse	–	yes
sample rack	–	yes
Update & service interfacet	yes	–
SD-Card	–	yes
external water heater	yes	–
Automatic oxygen filling	yes	yes
Automatic oxygen venting	yes	yes
Automatic oxygen flushing	yes	yes
Automatic water filling	yes	yes
Automatic water drain	yes	yes
Automatic ignition and ignition energy determination for each experiment	yes	yes
Operated with KV 600		
Water pressure from Chiller	0.3 bar	0.3 bar
Temperature setting: isoperibol 22 °C	20.5 °C	–
Temperature setting: isoperibol 30 °C	28.5 °C	–
Cooling medium	tap water	tap water or distilled with Aqua Pro C 5003.1
Operated with tap water and C 1.20 waterheater		
Tap water temperature range	12 – 28 °C	–
Water pressure max.	1 – 1.5 bar	–
Water pressure min.	–	–
Water consumption per experiment	approx. 4 l	–
General Data		
Languages	D, E, Fr, Sp, Chi, Rus, Pol, I	D, E, Fr, Sp, Chi, Rus, Pol, I
Dimensions opened (W x D x H)	290 x 350 x 400 mm	500 x 450 x 620 mm
Dimensions closed (W x D x H)	290 x 350 x 270 mm	500 x 450 x 420 mm
Weight	15 kg	35 kg
Ambient temperature	20 – 25 °C	20 – 25 °C
Ambient humidity	80%	80%
Protection class according to DIN EN 60529	IP 20	IP 20
Voltage	100 – 240 V	200 – 240 V
Frequency	50 / 60 Hz	50 / 60 Hz
Power Input	150 W	2000 W
DC Voltage	24 V	–

Centrifuge | mini G

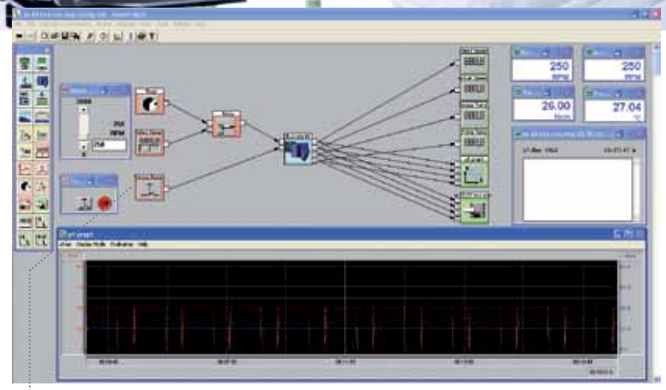
IKA® introduces a brand new mini centrifuge ideal for applications which do not require ultra high speeds e.g., micro-filtrations and cell separation. The unit features a compact design and a small footprint which requires minimal bench space. It can be used for both microcentrifuge and PCR strip tubes.

Technical data	mini G
Capacity	8 x 2.0 ml
Permitted density	1.2 kg / dm³
Centrifugal acceleration	2000 G
Max. kinetic energy	20 Nm
Motor rating input / output	12 / 8 W
Fixed speed	6000 rpm
Reversible direction of rotation	no
Dimensions (W x D x H)	155 x 175 x 105 mm
Weight	1.4 kg

Ident. No. 3958000

Available
Q1/2013

For information about accessories, visit **www.ika.com**



Red module represents manual and automatic control

Blue module signifies that the laboratory device is interfaced

Green module is for numeric or graphic displays of measured values

Ident. No. 2970000

Manufacturers with interface devices compatible to labworldsoft®:

- Ahlborn
- Delphin Technology AG
- Ehret
- Eyela
- Fluid / Ekato Group
- Fritsch
- Gerhardt
- GFL
- Hach Lange
- Harvard
- Heidolph
- Hermle
- Huber
- IKA®-Werke
- ILMVAC / Gardner Denver
- Infors
- ISMATEC
- Julabo
- Kern
- KNF Flodos
- KNF Neuberger
- Knick
- Lauda
- Martin Christ
- Metrohm
- Mettler Toledo
- MLT
- Nova Analytics
- PM Tamson Instruments
- Poly Science
- Sartorius mechatronics
- Sartorius stedim biotech
- Scaltec / Denver Instruments
- Sigma
- Telab
- Thermo / Haake
- Thermo / Neslab
- Thyracont Vacuum Instruments GmbH
- Troemner
- Vacuubrand

Software | Calwin

Ident. No. 4040500

Data management with Microsoft SQL Server

Clearly arranged layout of all measurements, results, and connected calorimeters on one screen

Printing and saving calibration protocols with control chart view

Modern Calorimetry requires modern Data handling…

Calwin C 6040 – PC control and evaluation software for the IKA® calorimeters.

The new IKA® calorimeter software Calwin C 6040 follows in the footsteps of our Calwin C 5040 with a vast array of modern solutions, ideas and possibilities for managing the measurements from our calorimeters. This software can be connected with the C 5000 (firmware 2.22), C 2000 (firmware 2.22), C 200 as well as the new calorimeters C 6000 global standards, C 6000 isoperibol and C 1.

Library and grouping functions with extended data filtering options

Correction calculations to obtain the net calorific value according to various ISO, ASTM, DIN, GB, GOST standards

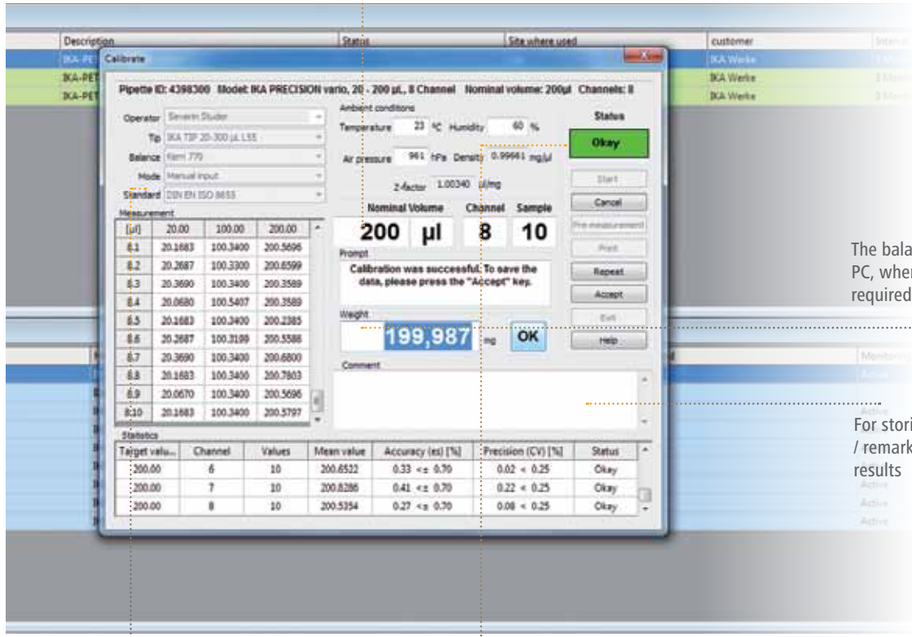
Data transfer to pre-configured work sheets for Excel (configurable by the user)

System requirements

Windows XP (SP2), Windows Vista, Windows 7, Microsoft SQL Server and at least one free USB or RS 232 (9 pin Sub-D (M)) serial interface. Processor with min. 1.6 GHz (single core-Processor); 2 GB RAM; 2.5 GB free hard-disc space; DVD-ROM-drive

Software | Pipette Calibration

The volume to be set by the user and specified by the manufacturer; used for identifying and specifying the measurement range

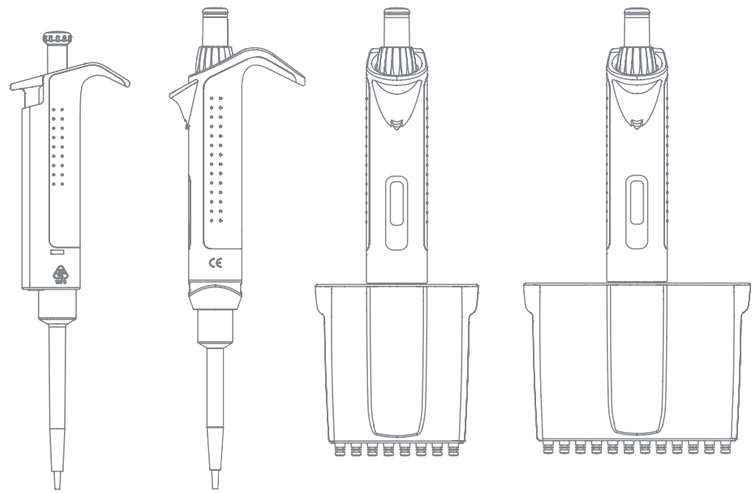


The balance transmits the weight to the PC, where the software performs all the required calculations automatically

For storing any comments / remarks about the test results

Allows you to select the standards to be used for calibration

Displays '**Okay**' for successful or '**Not okay**' for unsuccessful calibration



To ensure the accuracy and precision of each pipette, regular calibration of these instruments are necessary. IKA® provides a user-friendly pipette calibration software for scheduling, performing and documenting all calibration checks.

Prices valid until 31st of December 2013
All prices exclusive to VAT

Subject to alteration of prices
Subject to technical changes
Indications not binding for delivery

IKA®+

Ordering made easy!

For more information about our products and to place your order, please visit:

www.ika.com

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IKA® **German** technology