

designed for scientists

# LAB ESSENTIALS FOR CHEMICAL INDUSTRY



## Magnetic Stirrer

RCT basic

Market leading magnetic stirrer with heating function

- > The everyday lab essential for synthesis
- Activation of chemical reactions and synthesis procedures with precise control of the sample temperature

#### Overhead Stirrer EUROSTAR 60 control

Powerful stirring with advanced features

- Dissolving powders, facilitating chemical reactions and ensuring uniform heat transfer with a real-time temperature monitoring function
- Range of impeller designs to support different mixing applications

## **Temperature Control** CBC 5 control

Exact temperature control of your reaction

- Constant temperature control for exothermic reactions through active cooling and programmable cooling rate for crystallisation
- > Support reactor vessels with a temperature stability of +/- 0.01 °C



#### **Rotary Evaporator** RV 10 auto pro V-C Complete

Simple liquid separation

- Start your distillation with a single press of a button
- > Incl. glassware, vacuum pump, controller, bath and chiller



#### Vacuum Technology VACSTAR digital

Powerful vacuum source for vacuum filtration procedures

- > For dry and oil-free applications
- > Particularly chemical resistant pump membranes



## **Drying Oven**IKA OVEN 125 basic dry

Tempering, dry-aging

> Fast heat up times and a precise temperature control guarantee reproducible test results

## ElectraSyn 2.0: Modern breakthrough in drug synthesis

/// Electrochemistry for synthetic chemists

#### GERMAN TECHNOLOGY. AMERICAN DESIGN.

- > 3-in-1: potentiostat, analytical device and a stir plate
- > Automated data logging and data transfer with the ElectraSyn app
- > Compatibility with new accessories with a simple software update

LIFE-TIME **PATENTED WARRANTY** 



#### **MODULARITY WITH ACCESSORIES**



#### E-Hive

- > High throughput screening platform
- > Drug screening and early stage drug discovery



#### GOGO Module

> Run reactions under external reaction conditions



#### Carousel

- > 6 concurrent reactions
- > Easy scale up



#### Pro-Divide

> For divided cell reactions

EasySyn 5000 Advanced Reactor system

/// Scale up your reaction by using the EasySyn reactor system

Synthesis reactors are designed to perform organic or aqueous syntheses under controlled conditions. The use of chemically robust materials (borosilicate glass 3.3, PTFE, FEP) makes them suitable for a wide range of applications such as reflux condensations, reactions under vacuum, crystallizations, (pH-controlled) precipitation reactions, nanoparticle or catalyst syntheses as well as the transfer from laboratory to process scale.

#### EasySyn

/// Ideal for organic and aqueous syntheses

- > Large selection of reactor vessels (100 5000 ml)
- > One stand system for all vessel sizes for easy upscaling
- > Quick change of vessels for efficient operation
- > No dead spaces for complete mixing and draining of the reaction solution
- > High chemical resistance for demanding reaction conditions
- > Specially developed stand system for easy alignment of the overhead stirrer and height adjustment for any body size







milliliter volume



250 milliliter volume



500 milliliter volume



milliliter volume

milliliter volume

milliliter volume

Individually tailored solution

#### Would you like your own desired configuration? Or an individual offer?

With our online configurator, you can put together a reactor system that is individually tailored to your needs. You can choose between different reactor vessels, overhead stirrers, stirring tools, circulators and automation levels.

Click here for the configurator: ika.com/easysyn-config



# Automate your synthesis with labwordsoft®

Automate, control, monitor: With our labworldsoft® 6 laboratory software, you operate your entire reactor system from your PC. You define dependencies, automate routine tasks and define measured value recordings or real-time calculations.

Try it for free for 30 days!

IKA-Werke GmbH & Co. KG

Janke & Kunkel-Straße 10, 79219 Staufen, Germany Phone: +49 7633 831-0, eMail: sales@ika.de









# LAB ESSENTIALS FOR YOUR BOTANICAL APPLICATION



- LR 1000 control
- > 3 in 1: vessel + hot plate + stirring
- > Small batch R&D cream/salve formulation
- > Optional integrated homogenizer + vacuum
  - + cooling + pH measurement



### Viscometer

#### ROTAVISC me-vi Complete

> Viscosity analysis, quality control, R&D



#### Disperser | Homogenizer

#### T 25 easy clean control ULTRA-TURRAX®

> Dispersing and homogenizing beverages and infused products



#### Mill

#### MultiDrive control

- > Fibrous material processing
- > High flexibility due to a variety of possible grinding chambers



# A quality portfolio to support R & D, extractions and analytical workflows.



## **Pipettes**IKA PETTE fix and vario

> Analytical testing, precise dosing



## **Recirculating Chiller**

RC 2 GREEN control

- > Condenser cooling
- > Sample preparation / management
- > Double bath batch melting / re-constitution



## **Rotary Evaporator**

RV8

- > Lab solvent recovery
- > Small scale product refinement & isolation



## Magnetic Stirrer IKA Plate (RCT digital)

> Heated dissolution

> Salve / ointment formulation



## Overhead Stirrer EUROSTAR 60 control

> Large volume mixing, blending and solutions



#### **Hot Plate**

C-MAG HP 7

- > Decarboxylation
- > Batch melting / re-constitution



Janke & Kunkel-Straße 10, 79219 Staufen, Germany Phone: +49 7633 831-0, eMail: sales@ika.de









# LAB ESSENTIALS FOR FOOD AND BEVERAGE INDUSTRY





**Overhead Stirrer EUROSTAR 60 control** 

- > Mix-in thickeners dissolve ingredients and improve sample homogeneity with a variety of different impeller designs
- > Mixing with efficient heat transfer and real-time temperature



- > Gentle mixing and heating of food samples with integrated sample temperature measurement
- > Temperature range up to 310 °C with an adjustable safety circuit



- T 25 easy clean control ULTRA-TURRAX®
- > Break down agglomerates and disperse liquid ingredients to improve food texture and quality
- > Real-time temperature measurement to ensure no spoilage of temperature sensitive food products



> Extracting vitamins from beverages by homogenous mixing

and tempering 15 samples simultaneously

> Temperature range: RT+10K - 80 °C



#### **Drying Oven**

#### OVEN 125 control - dry glass

- > Accelerating the dehydration process with different fan speeds
- > Stability testing in a temperature-programmed drying oven



> Quality control to ensure consistent and sufficient quality and texture for each batch of production

# IKA SOLUTIONS FOR EXTRACTING, GRINDING, BLENDING AND DISPERSING



#### RV 10 auto pro

#### RV 10.400

#### RV 10 auto pro **Rotary Evaporator**

APPLICATION

Concentration	of extracts to a

specific volume prior sample analysis

Removal of high boiling point solvents after extraction

#### SOLUTION

- > IKA PATENTED volume dependent distillation function: automatically distill out desired volume of solvent before sample analysis
- > Integrated solvent library to provide reference distillation conditions and ensure efficient distillation with a powerful speed controlled IKA vacuum pump

#### RV 10.400 Evaporation cylinder

#### **APPLICATION**

Removal of viscous or sticky samples from evaporation flask after distillation for subsequent analysis

#### **SOLUTION**

> Wide cylindrical flask opening allows easy removal of viscous samples after distillation

#### MultiDrive control Mills

#### **APPLICATION**

Grinding a variety of wet and dry samples

#### **SOLUTION**

> Different vessels for blending, grinding and dispersing on one device

#### MultiDrive BL 2000 T MultiDrive MI 400 T Mills

#### APPLICATION

Grinding temperature-sensitive

samples

Grinding lightweight powdery samples

Weighing samples prior to grinding

#### SOLUTION

- > Integrated cooling chamber available to cool down temperature-sensitive samples during grinding
- > Temperature monitoring during grinding
- > Safety temperature setting to prevent sample overheating
- > Interval grinding settings for maximum grinding efficiency
- > Convenient weighing of samples directly in grinding vessels



MultiDrive control

MultiDrive BL 2000 T MultiDrive MI 400 T

IKA-Werke GmbH & Co. KG

Janke & Kunkel-Straße 10, 79219 Staufen, Germany Phone: +49 7633 831-0, eMail: sales@ika.de









# LAB ESSENTIALS FOR NATURAL PRODUCT INDUSTRY



- > Activation of chemical reactions and synthesis procedures with precise control of the sample temperature
- > Gentle mixing under low shear to promote particle collision for accelerated reaction times



- > Gentle heating to remove moisture from lightweight samples such as leaves and powders
- > Thermal pretreatment of biomass for efficient extraction



- KS 4000 ic control
- > Used to support natural product extraction procedures from raw materials
- > Cell culture inoculation for microbial assays



#### Dry Mill

#### MultiDrive basic M 20 Successor Package

- > Grinding raw materials for isolation and improved extraction efficiency of natural products
- > Real time temperature measuring and integrated cooling chamber to prevent thermal degradation



- > Fast recovery of extraction solvents under strong vacuum and low heating temperature
- > Automatic boiling point detection to provide an optimum pressure for any known or unknown solvents



- ICC basic eco 18
- > Enzyme kinetics studies and activity testing with a temperature stability of up to +/- 0.02 °C
- > Cell culture, extraction and pre-treatment of biomass

## IKA RECOMMENDATION

## /// For understanding and analyzing natural products





#### RV 10.500 Foam brake (NS 29/32)

#### APPLICATION

Solvent removal from saponin samples

#### SOLUTION

- > Rising foam produces burst in the glass ball extension. This stops foam from entering the receiving flask and the condenser
- > The RV 10 auto pro unit comes with a vent key for instantaneous foam dissipation



RV 10.606

Distilling spider with 5 flasks 50 ml (NS 29/32)

#### **APPLICATION**

Distilling many small volume samples at once by removing the same solvent

#### SOLUTION

> IKA distilling spider reduces operation time by simultaneously distilling many samples (up to 20)



#### RV 10.400

Evaporation cylinder (NS 29/32, 500 ml)

#### **APPLICATION**

Removal of viscous or sticky samples from the evaporation flask after distillation for subsequent analysis

#### **SOLUTION**

> Wide cylindrical flask opening allows easy removal of viscous samples after distillation



Janke & Kunkel-Straße 10, 79219 Staufen, Germany Phone: +49 7633 831-0, eMail: sales@ika.de









designed for scientists

# LAB ESSENTIALS FOR OIL & GAS INDUSTRY

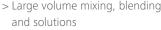


**Magnetic Stirrers** IKA Plate (RCT digital) > General lab mixing and heating



EUROSTAR 60 control > Large volume mixing, blending

Overhead Stirrer





> High-shear emulsification and mixing processes



## ROTAVISC me-vi Complete

> Determine the viscosity of liquids in all areas of application ranging from laboratory to quality control



#### **Calorimeters**

#### C 6000 Oxygen Combustion Calorimeter

- > Used in quality control, determination of degree of efficiency of engines, and heavy fuel oil testing (HFO), etc.
- > Complies to the standard test methods for heat of combustion of ASTM D 240 and ASTM D 4809 (precision method).



#### Pipettes & Accessories

#### IKA PETTE fix and vario

> Precise dosing, measuring and preparation of liquid samples











