#### SciBot<sup>™</sup>

Customised laboratory robots

- » Cell culture in microtitre plates
- » Flexible liquid handling platform
- » Additional sensor and actuating systems can be integrated
- » Easy integration into up- and downstream applications
- » Simple programming via hteMaster™ software
- » Optional:
  - > Tool changer
  - > Miscellaneous tools
- > Sterilisable (24 h / 90 °C)



#### **AUTOSAN**

Automatic sample collector, four different models with sample bottles from 1.5 ml to 2,000 ml are available

- » Bottling of samples
- » Submission of educts
- » Quenching, mixing and diluting
- » Liquid handling
- » Optional:
- > Integrated magnetic stirrer
- Cooling incubator
- > Heater
- » Freely programmable methods with LiquiMaster™ PUTOSRM •



# HITEC ZANG

## accelerate your bioprocess development

#### Gmix"

High precision gas mixing station

- » Best possible accuracy and reproducibility
- » Precise process control
- » No inaccurate multiplex operation
- » Regulates each gas at every single input separately
- » Useable for stand-alone and remote operation
- » Compact design



#### Re-Engineering, Services & Maintenance



ervices & Didactics

Your fermenter control is outdated, you run your processes manually and want to have more time for your core capabilities?

As a competent partner for automation we can offer you a wide range of solutions.

Please talk to us!

From planning to training

- » Planning and projecting
- » Plant automation
- » Reconstruction and modernisation
- » Order programming
- » User training

#### **HiSense**

Precision gas analytics for biotechnology

- » 1 to 5 measurement channels for 1 to 4 fermenters
- » high-resolution measurement
- » Real OUR-, CER- and RQ-measurement

- » Humidity correction
- » Low cross sensitivity
- » Overpressure possible
- » Wear-free sensor technology
- » Optional:
- > Freely programmable
- > RQ and OTR based feed control



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- » Chemistry
- » Pharmaceuticals
- » Biotechnology
- » Food technology

#### www.hitec-zang.com



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Tel.: +49 (0)2407 / 910-100 Fax: +49 (0)2407 / 910-1099 E-Mail: info@hitec-zang.com

### **RAMOS**®

Bioprocess optimisation in shake flasks and microtitre plates

- » Exhaust gas analysis OTR, CTR, RQ
- » Differentiation between process-based and biological effects
- » An alternative to more expensive stirred tank bioreactor experiments
- » Equivalent cultivation conditions compared to standard shake flasks
- » Virtual non-stop processing through extremely short setup times
- » Establishes optimal screening conditions



#### **CULTILUX**

The CultiLux™ exposure measurement module for the RAMOS®, allows an individual exposure of every flask.

For the cultivation of plant cells or rather generally of phototrophic organisms, light energy is an essential requirement for semi-syntheses (light and dark reaction)

The exposure time as well as intensity, can be varied according to exposure profiles.



- » High automation level
- » Extensive sensor system
- » Online analytics-based regulation possible
- » Solid-state temperature control without heat carrier
- » Optional:
  - > Gravimetric dosing
- > Gas analytics & mixing
- > Rotary oscillating single-use square bottles



#### RAMOS -fb

The RAMOS® fed-batch system allows for performing controlled fed-batch experiments in shake flasks.

The feeding can be achieved by creating freely combinable feed profiles with a combination of constant, linear or exponential profiles or feed rates.



#### LA5manager®

The industrial standard for automation of laboratory plants, miniplants and pilot plants

- » Easy handling
- » Modular design
- » Highly precise, e.g. temperature measurement with 1 mK resolution
- » Extremely adaptable, compact and robust
- » Comfortable NAMUR connection technology
- » Scaleable from 4 up to 3,040 inputs/outputs
- » Also available as a fully compatible top hat rail system (DC-Manager™).



#### IA SSox

**Automation Technology** 

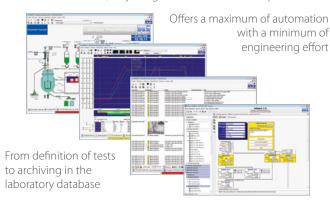
The LabBox® is your entry into the digital laboratory. You can easily automate experiments and processes and gain time for more runs:

- » Connect any sensors and devices
- » Freely configure the user interface
- » Define automated experiments
- » Document or export experiment
- » Unbeatable price-performance



#### Vision<sup>®</sup> کیا

Automation software, fully integrated and intuitive to operate



#### EasyBatch<sup>®</sup>

Spreadsheet-based recipe control

- » Intuitive operation
- » More efficient operation
- » Automatic testing
- » Modification of parameters during run time
- » GLP- and GMP-compliant operation



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#### **Dos**°

The universal dosing pump

- » High media resistance
- » Low pulsation conveying
- » Selectable conveying direction
- » Calibration possible in mg/min and ml/min
- » Highly precise drive
- » Easy to clean and maintain
- » Robust and compact stainless steel
- » Controllable via serial interface or manually



#### **Syr**Dos<sup>™</sup>

High-precision dosing of small and smallest quantities in the high-pressure range

- » Large pressure and volume range
- » High chemical resistance
- » Continuous, high-precision dosing
- » Syringe body exchangeable
- » Components connected without adhesive
- » Different conveying types
- » Feed rates from 1.56 µl/min to 156 ml/min
- » Wetted parts made of Borosilicate glass, depending on the valve PTFE/ PCTFE or Al<sub>2</sub>O<sub>2</sub>



#### **LAJ** Dos<sup>®</sup>

Solid dosers for dosing, portioning and filling

- » For powder, granules, crystals, chips etc.
- » Chemically resistant
- » For mounting on an NS29 socket or as a desktop unit
- » Optional:
- > Stand-alone version
- > Vacuum- and pressureresistant design

