



# LABORATORY EQUIPMENT



WATER CHILLERS  
THERMOSTATIC BATHS  
DIGESTION SYSTEMS  
ROTARY EVAPORATORS  
VACUUM PUMPS  
AIR COMPRESSORS  
HOTPLATES  
HOTPLATE STIRRERS



**LabTech**

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# WATER CHILLERS

## Cooling Solutions by LabTech

Even if water is one of the most precious and scarce resources, it is still largely used as coolant in many laboratories.

Most of the water used as coolant is not recycled, involving higher and higher laboratory costs.

LabTech offers a complete line of recirculating water chillers to virtually match all laboratory needs.

The LabTech's state-of-the-art water chillers ensure accurate and constant cooling of instruments even in the harsh laboratory conditions.



## 6 Good reasons to choose LabTech Water Chillers

### High Energy Efficiency

The “hot gas bypass” technology carries back the hot, uncondensed refrigerant through a reservoir coil eliminating both the ON/OFF compressor cycle and energy-waste.

### Accurate Temperature

P.I.D. is a dynamic temperature control technique through proportional, integral derivative algorithms controls that guarantees precise and stable temperature setpoint.

### High Quality Components

All parts used in LabTech's chillers have to pass strict quality control tests. The quality control ensures a long lifespan, even with 24/7 use.

### Operating Cost Reduction

The LabTech's recirculating chillers allow to save a large amount of tap water, significantly reducing lab costs.

### “Green Lab Conditions”

All LabTech's chillers use CFC-free cryogenic gas which is compatible with international environmental standards.

### High Performance

The LabTech's chillers guarantee quiet operations and low water consumption providing rapid and powerful cooling.

## When an instrument has nothing to hide



**FRONT**

- Touch control panel for pressure, temperature and flow parameters
- Easy to clean condenser
- Liquid level indicator
- ON/OFF switch



**BACK**

- Supply / Return / Drain hydraulic connections
- Liquid bypass valve
- Safety fuse
- Electric power socket IEC320



**LEFT**

- Adjustable cooling gas valve
- Hot-gas bypass valve
- Liquid reservoir



**RIGHT**

- Top quality gas compressor and condenser
- Liquid pump
- Vibration insulation system

# Innovation Inspired

LabTech develops and produces innovative temperature control instruments.

LabTech instruments are used whenever high precise temperature control and rapid temperature changes are required. LabTech follows “Green Lab Conditions” regulations using eco-friendly materials.

The LabTech water chiller line constantly adopts new technologies and innovations to maintain world-class reliability and quality.

The LabTech water chiller line is specially designed for analytical, medical and industrial use providing accurate control of the liquid temperature. All production steps are focused to offer high quality and customized solutions to meet any requirement.

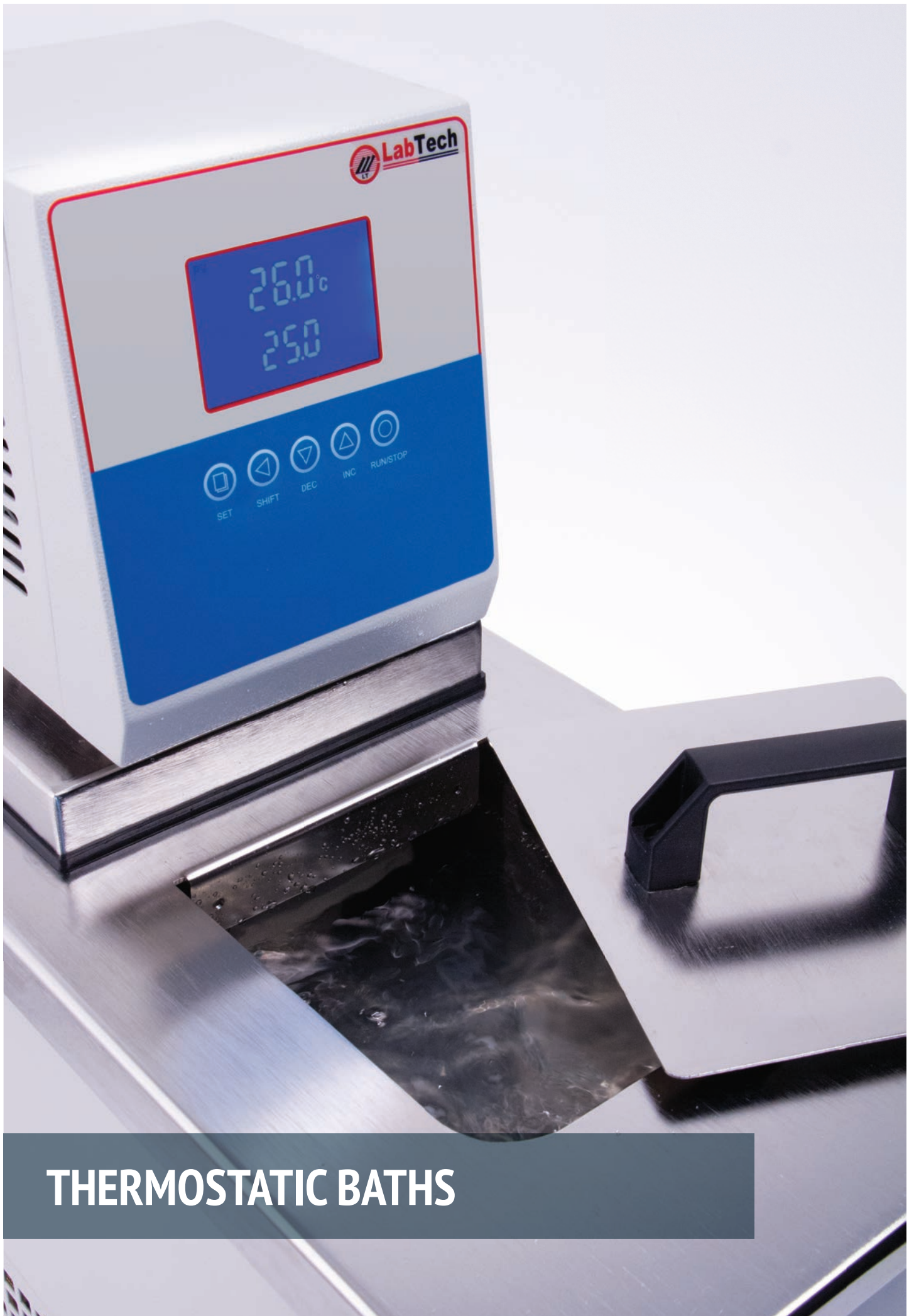
## Safety

- Safety bypass on the hydraulic circuit
- Liquid level indicator
- High & Low pressure switches
- Temperature alarms
- General alarms
- Anti-freezing protection



## Main Applications

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- |                      |                       |
|----------------------|-----------------------|
| ■ AAS                | ■ Lasers              |
| ■ CP-OES             | ■ Distillation        |
| ■ ICP-MS             | ■ Packaging           |
| ■ XRF                | ■ Sputtering          |
| ■ XRD                | ■ Industry            |
| ■ Rotary evaporation | ■ Electron microscopy |
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## THERMOSTATIC BATHS

## LabTech Thermostatic Baths: flexibility and convenience

The LabTech cooling and heating circulators are the best choice for cooling small instruments. The LabTech circulators can be used in routine laboratory applications either with sample dipping or for external temperature control applications.

### Features

- Temperature range  $-40^{\circ}\text{C} \sim 100^{\circ}\text{C}$
- Both cooling and heating functions
- Internal and external liquid circulation
- High performance
- Ease of use
- Safe and quiet operation
- Robust and reliable
- P.I.D. precise temperature control
- High and low temperature protection
- Low liquid level protection
- Large LCD display
- Temperature control accuracy  $\pm 0.2^{\circ}\text{C}$
- Excellent price/performance ratio



### Main Applications

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- |                      |                   |
|----------------------|-------------------|
| ■ Rotary evaporation | ■ Electrophoresis |
| ■ Distillation       | ■ Polarimetry     |
| ■ Calorimetry        | ■ Photometry      |
| ■ Fermentation       | ■ Viscometry      |
| ■ Refractometry      | ■ Rheometry       |
-



# DIGIBLOCK DIGESTION SYSTEMS

LabTech



## DigiBlock: your partner in metal digestion

The DigiBlock digestion system provides clean, economical and efficient digestions.

The heating surface is made of graphite or stainless steel protected by PTFE coating; the DigiBlock can accommodate as many as 54 graduated tubes and can operate from room temperature up to 450°C.

LabTech offers a complete range of DigiBlock digestion systems to fit any customer need.

The DigiBlock complies with the highest international standards to perform EPA approved methods.

The DigiBlock uses low cost, disposable digestion tubes to speed up and simplify the digestion process.

The LabTech PP digestion tubes contain no detectable background contaminants and do not require washing with acids prior to use.

Different sizes of disposable tubes are available to meet any laboratory needs.

- Easy to use
- Performance
- Flexibility
- Safety and Control
- Productivity

The LabTech Touch front panel offers a unique and innovative tool to match the most demanding control needs throughout the entire sample digestion process. The LabTech Touch software provides a user-friendly control of the sample digestion process with automatic and real-time parameters.

## Main Applications

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- |                  |                  |
|------------------|------------------|
| ■ Food and Feed  | ■ Paint chips    |
| ■ Environmental  | ■ Cosmetics      |
| ■ Pharmaceutical | ■ Industry       |
| ■ Biochemistry   | ■ Petrolchemical |
| ■ Clinical       | ■ Polymers       |
-

## Solutions in sample prep

Sample preparation procedures take approximately 85% of the time associated with atomic spectroscopy analysis. Quality, easy to use and speed are key factors in today's analytical labs.

- High throughput of samples
- Uniform temperature across the block
- Minimum radiant heat loss
- Contamination reduction
- Cost savings by disposable digestion tubes

## The best choice for organic sample digestion

Acid digestion of organic samples produces gaseous by-products that affect closed digestion vessels.

Larger samples of several grams are needed in a variety of applications to have a more representative portion of large sample bulk or to compensate limitations in the sensitivity of analytical instrument.

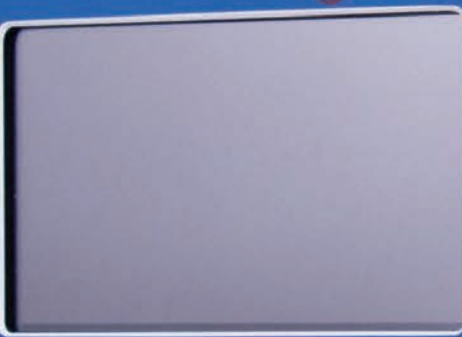
The LabTech DigiBlock digestion line allows rapid open digestions up to 54 organic samples with dry weight of several grams each.





0365

LabTech



iTouch

LabTech



Alarm



**LabTech**



# ROTARY EVAPORATORS



# LabTech EV series Rotary Evaporators

The LabTech evaporation solutions introduce a new concept in routine distillation/evaporation processes: safety, efficiency and durability to support lab user work.

With an innovative and ergonomic design, the EV series rotary evaporators include digital display to monitor and control rotation speed and temperature, motorized vertical lift (depending on model), evaporation flasks, on line sample adding through a PTFE valve and can be completed with LabTech vacuum and cooling accessories to reach top efficiency of process. The stand alone heating bath guarantees maximum safety in operations and easy maintenance.

Every rotary evaporator is equipped with a 1L evaporating flask, 1L receiving flask and a condenser.

- Total solution
- Pre-loaded solvents library
- Intuitive and programmable operations
- Anticorrosion sealing system
- Integrated vacuum control
- Maximum safety
- Quite operation
- Vapor temperature (opt., depending on model)
- Excellent price/performance ratio

## Main Applications

- Solvent recycling
- Solvent distillation
- Powder drying
- Chemical synthesis
- Extraction
- Liquid mixture separation
- Active agent concentration
- Vacuum distillation of sensitive substances
- Research



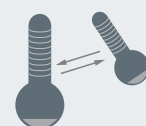
Two digital displays for an optimal view



The lift can be raised up to 160mm to accommodate different flasks



Glassware for various applications



Compatible with the most of commercial glassware



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



Adjustable immersion angle and height

## Features

- Motorized vertical lift (depending on model)
- Support both water and oil
- Programmable operation and vacuum control
- Lift-up in case of electric power failure
- PTFE/FKM sealing protection against corrosion
- Wide range of glassware and flask sizes



### Technology & Design

- Digital rotation speed control and temperature display ensure accurate and stable operations
- Trouble free operation and long lifetime
- The PTFE seal loop ensures excellent elasticity and resistance at high temperature acid/solvent corrosion
- Online sample addition by PTFE valve ensures high efficiency and easy operation
- Automatic vertical lift-up protection in case of electric power failure



### Safety & Ease of use

- Stand alone heating bath guarantees maximum safety and easy maintenance
- Motorized vertical lift (depending on model)
- Wide range of evaporation flasks
- Self calibration function and wide temperature range control from room temperature up to 230°C
- Innovative design to prevent corrosion and splashing



LabTech

Speed 200    Vacuum 1000 mbar  
Rpm 0    Pressure 999 mbar  
Water Temp 25.8 °C    Monitoring On/Off  
Time 00:00:00

EV400-VAC

21 °C  
10 min

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## Vacuum solutions for laboratory needs

Totally oil free, mechanical vacuum pumps with features of advanced design, low noise level, high efficiency and long lifespan. The LabTech vacuum pumps are specially designed for laboratory operations to meet the highest expectations of precision, reliability and ease of use. They can be used in a multitude of applications, such as vacuum filtration, degassing, impregnation, drying chambers, rotary evaporations, distillation, gel dryers, gas analytical systems and roughing of wide-range turbo molecular pumps.

## Main Applications

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- Rotary evaporation
  - Liquid transfer
  - Solid Phase Extraction (SPE)
  - Liquid dosing
  - Fluid aspiration
  - Filtration
  - Degassing
  - Dessication
  - Vacuum ovens
  - Chemical engineering
-





# AIR COMPRESSORS

## Tireless workhorses

Air compressors are low-tech instruments widely used. In spite of being humble instruments it is extremely important they generate a clean air and provide a good and constant compression. The all new air compressors perfectly fit the existing LabTech portfolio. Two models capable of covering the large majority of the needs of a medium lab are available: 4 and 5 bars.

- Oil-free
- Low noise
- Compact foot print
- Built-in humidity removal system
- Automatic water drain
- Self-protection function
- Intuitive and simple operation
- Easy maintenance

## Main Applications

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- AAS
  - ICP-OES
  - MS
  - Evaporation
  - Zero Air Generator and Nitrogen Generator
-



## HOTPLATES & HOTPLATE STIRRERS

## LabTech EH and EG heating solutions

The LabTech EH and EG hotplates are designed to meet laboratory daily heating requirements.

Their unique features include different digital temperature controller and anticorrosive heating surface.

LabTech hotplates are the perfect choice for heating digestion, evaporation and acid distillation.



## LabTech ES hotplates stirrers

The LabTech hotplate magnetic stirrers are designed to provide users with high quality, durability, low cost and heating/stirring options for routine applications.



## Main Applications

- 
- Medical
  - Pharmaceutical
  - Food
  - Environment
  - Mining
  - Research
-

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## **LabTech, your reliable laboratory solution provider.**

LabTech is a leading manufacturing company with skill and passion devoted to provide advanced laboratory solutions to the analytical community. We are located in Sorisole, northern Italy, with facilities in USA and China. Incorporated with global branches, LabTech is organized into R&D, production, marketing & sales and customer support. Major LabTech products include organic/inorganic sample preparation systems, laboratory cooling/heating/temperature control equipments, analytical instruments and gas generators. With knowledgeable scientists and experienced engineers, our R&D team has developed and released a series of new lab equipments and instruments dedicated to the modern analytical laboratories. With all of these accomplishments and our endless research and development efforts, we are proud to be your professional partner.



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