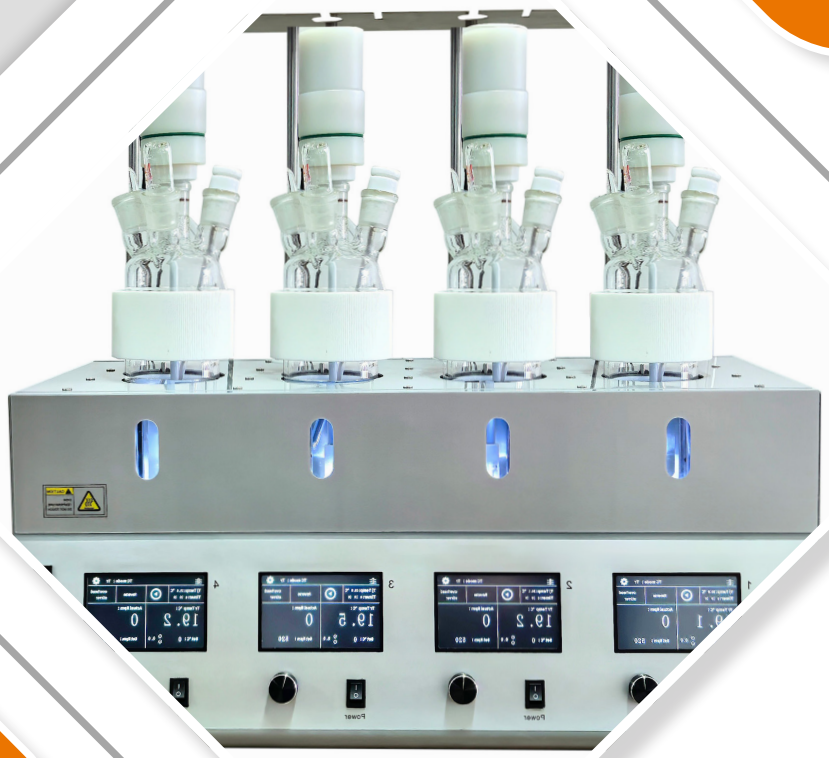


Tensil Labglass

Shaping Solutions

ORGANIC SYNTHESIZERS

Tensil Labglass

Shaping Solutions

Tensil Labglass
Shaping Solutions

ABOUT THE COMPANY

Tensil Labglass – Precision in Every Piece, Excellence in Every Lab

With over 45 years of industry leadership, Tensil Labglass stands as a trusted name in high-precision scientific laboratory glassware. Our products are known worldwide for their exceptional quality, durability, and adherence to international standards, making us a preferred partner for top-tier research institutions, universities, and pharmaceutical laboratories across the globe.

Organic Synthesizers
Expanding our legacy of innovation, we are proud to introduce Organic Synthesizers as a new product category. Engineered for advanced chemical synthesis, this line represents our continued commitment to supporting the evolving needs of modern laboratories.

We offer a wide portfolio of both standard and customized solutions, tailored to meet the demands of large-scale production as well as specialized research environments. From precision-ground glass joints to complex glass assemblies, each product is crafted with meticulous attention to detail and undergoes rigorous quality assurance testing.

At Tensil Labglass, we don't just manufacture glassware, we forge partnerships built on trust, reliability, and a shared commitment to scientific excellence.

OUR VISION

To be the global benchmark in scientific glassware, empowering laboratories and research institutions with uncompromising precision, innovation, and reliability.

OUR MISSION

Our mission is to manufacture world-class laboratory glassware that adheres to the highest international standards of quality and performance. We are driven by a commitment to continuous innovation advancing our designs, materials, and manufacturing processes to support the frontiers of scientific discovery. We strive to build long-term partnerships by delivering customized, durable, and dependable solutions tailored to every laboratory's needs. Through every stage, from concept to delivery and beyond we uphold a culture rooted in craftsmanship, accountability, and unwavering customer satisfaction.

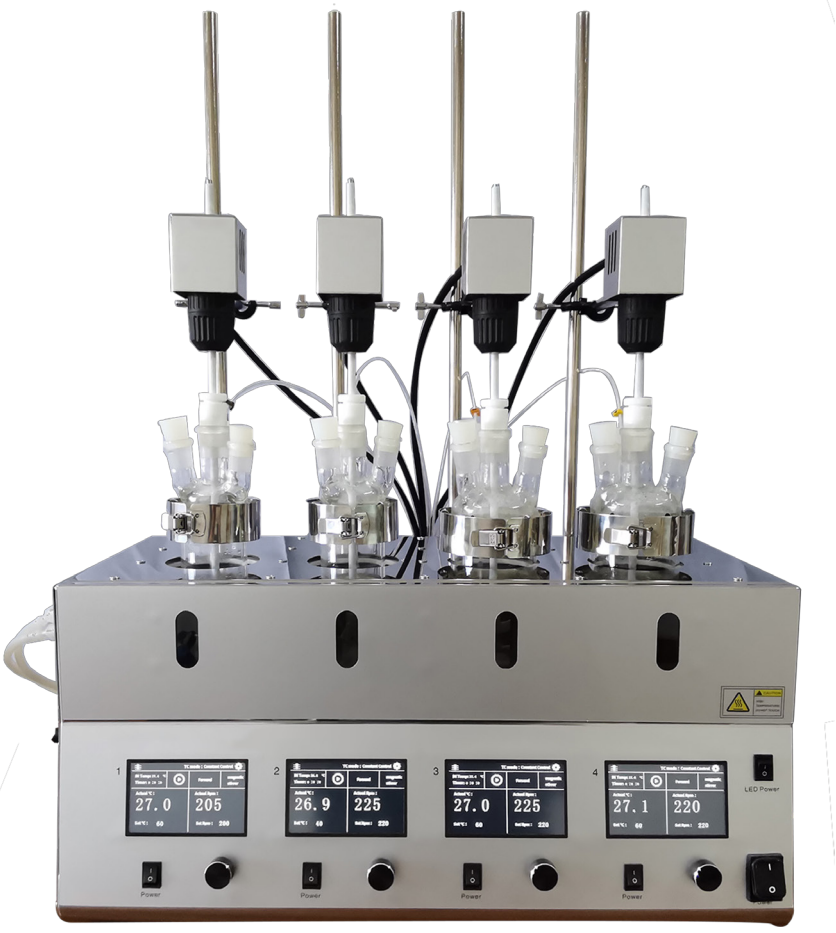
ABOUT THE PROJECT

Molecura specializes in chemical synthesis, process development, and downstream processing, with a focus on the research, development, and customization of integrated process equipment. It delivers comprehensive solutions spanning laboratory validation to industrial-scale production.

Leveraging a deep integration of chemical process technology, precision engineering and A technology, Molecura has established an innovative product portfolio centered on safety, cleanliness, and environmental sustainability.

Its product range encompasses Multi-purpose Heating Stirrer, multi-functional synthesis platforms, integrated high-low temperature parallel organic synthesizer, personal parallel organic synthesizer, and automated parallel synthesis workstations. Through continuous advancements in reaction control precision, energy efficiency, and operational safety, Molecura's engineering-driven innovation model propels the evolution of synthesis instrumentation toward intelligent and modular designs.

This approach significantly enhances experimental efficiency for both academic and industrial users, positioning the company as a leader in driving technological breakthroughs in the field of chemical synthesis. Through the application of advanced AI technologies, continuously optimizes reaction control precision, energy efficiency, and operational safety, substantially enhancing experimental efficacy for both academic and industrial users, thereby catalyzing transformative technological advancements in the domain of chemical synthesis.



CONTENTS

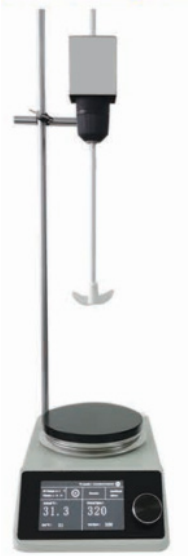
Organic Synthesizers

Organic Synthesizers

Engineered for modern chemistry, Tensil Labglass Organic Synthesizers combine innovation with precision to streamline synthesis workflows. Our lineup spans versatile dry block baths, multi-purpose synthesizers, and advanced automated workstations, empowering researchers with control, efficiency, and scalability. Whether for single reactions or high-throughput parallel synthesis, our systems deliver reproducible results and unmatched reliability, driving progress in labs worldwide.

Multi-purpose Heating Stirrer

About



This is a smart heating and stirring system engineered for organic synthesis and fine chemical applications. It features dual-mode stirring, magnetic and mechanical, alongside wide-range temperature control from -40°C to 350°C. Designed to handle high-viscosity samples and complex reaction parameters, it provides reliable performance across laboratory research, scale-up, and preprocessing stages.

Features

1. Dual Stirring System
Versatile Stirring: Effortlessly switch between strong magnetic stirring and mechanical agitation with one-touch control, covering a full speed range of 50-1600 rpm.
Efficient Mixing: Powered by high-energy magnetic modules to ensure consistent, uniform mixing, even with high-viscosity or complex samples.

2. Precision Temperature Control
Wide Thermal Range: Supports temperatures from -40°C to 350°C via an integrated refrigerant circulation system with rapid, precise, and programmable control modes ideal for diverse synthesis needs.
Smart Regulation: AI-driven algorithms continuously adjust heat transfer in real time, maintaining fluctuations within ±0.5°C and preventing temperature overshoot.

3. Safety and Durability
Advanced Safety Features: Equipped with dual leakage protection, overload safeguards, self-diagnostics, and auto shutoff with alerts if the heating plate exceeds 50°C.
Robust Construction: Built with high-conductivity ceramic/alloy panels, offering enhanced resistance to acids, alkalis, and wear boosting durability by 50%.

4. Intelligent Interaction & Scalability
User-Friendly Interface: Features an intuitive touchscreen and control knob with support for 10-step programmable temperature profiles, ideal for complex workflows.
Modular Expansion: Compatible with optional modules such as refrigerant circulation and pressure-resistant vessels, enabling customization for specialized processes like gas displacement.

Corrosion-Resistant Structure: High thermal conductivity ceramic/alloy panels offer excellent resistance to acid and alkali corrosion, with wear resistance improved by 50%.

Powerful magnetic stirring for high-viscosity samples and mechanical stirring, easily switchable with one-touch control.

Applications

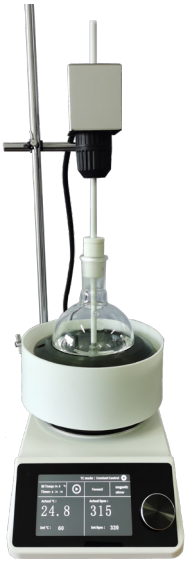
Application	Typical applications
Organic Synthesis	Catalyst screening/reaction optimization
Pharmaceutical R&D	Preparation of Pharmaceutical Intermediates, Optimization of ADC Conjugation Reactions
Fine chemistry	Nanomaterial Dispersion / High Polymers Polymerization Reactions
Industrial Preprocessing	High viscosity material mixing, raw material pre-dispersion

Specifications

Classification	Parameter Description
Configuration	Stirring method: magnetic stirring (standard) + Mechanical stirring (optional) Controller: Touch screen display Operation method: Touch screen (temperature setting) + Knob (speed setting)
Performance	1. Stirring system Magnetic stirring 100~1600 rpm (25W DC brush-less motor, four-pole neodymium-iron-boron permanent magnet) Mechanical stirring 100~1100 rpm (optional, 25W brush-less motor, maximum torque 027Nm) Stirring rod Compatible diameter 1~8mm (optional) Stirring capacity >20L (water) 2. Heating system Temperature range: Room temperature + 5°C ~ 350°C Temperature control accuracy: ±05°C Heating power >650W
Temperature control	Control method: neural network-based algorithm + PID Temperature control mode: 3 types (fast heating, precise heating, program control, supports 10-segment program)
Safety	Self-test function upon power-on Dual-temperature overheat protection + Crystal electric protection Protection grade: IP42
Structure	Material: Aluminum alloy (ceramic coating) Stirring platform dimensions: 135mm Sensor interface: PT1000 (probe)
Communication & Environment	Communication interface: RS232 | Mechanical stirrer interface (optional), PT1000 interface Power supply: 220-240V AC | 50-60Hz Environmental requirements: Temperature 5-40°C | Humidity <80% RH (non-condensing) Dimensions: 220 × 260 x 590mm (W X D X H) | Weight: 35kg

Dry block bath with Stirrer

About



This is a modular experimental platform engineered for chemical synthesis and pharmaceutical research. It features oil-free dry heating technology paired with a high thermal conductivity aluminum alloy module, offering precise temperature control from ambient to 250°C. Integrated with a dual stirring system (magnetic and mechanical) and a versatile spherical flask adapter (25mL to 2000mL), the system is designed for both microscale and small-scale pilot experiments. Enhanced with Teflon-based safety protection, This sets new benchmarks for safety, flexibility, and efficiency in laboratory heating and stirring.

Features

1. Precise Temperature Control & High-Efficiency Heating
Dry Heating Technology: Replaces traditional oil baths, eliminating leakage and fire risks for safer, eco-friendly operation.
Wide Temperature Range: High-conductivity aluminum alloy modules provide rapid, even heating from room temperature up to 250°C, supporting continuous operation for up to 72 hours.
Modular Design: Accommodates 25mL to 2000mL round-bottom flasks (customizable) and supports reflux, gas exchange, and other advanced experimental setups.
Teflon safety cover is standard, high temperature and corrosion resistant, safe and environmentally friendly.

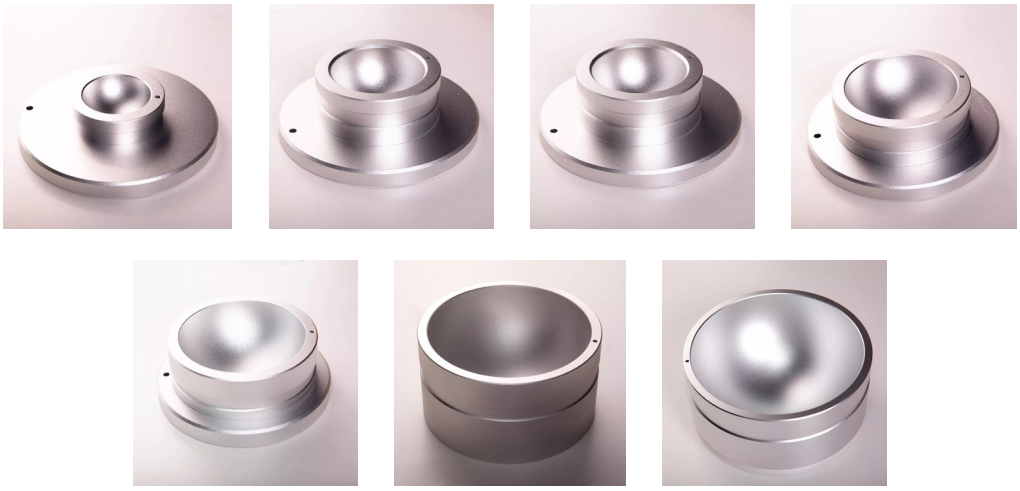
2. Dual Stirring System
High-Torque Magnetic Stirring (50-1600 RPM): Ensures efficient mixing of high-viscosity samples such as colloids and polymers.
Mechanical Stirring (Large-Scale Reactions): Compatible with the stirrer for enhanced performance in reactions exceeding 2000mL.

3. Safety & Durability
PTFE Safety Shield: Heat- and corrosion-resistant up to 260°C, protecting against chemical splashes and cross-contamination.
Hardened Coating Module: Features an insulated, wear-resistant surface that withstands harsh solvents like concentrated sulfuric acid and organic amines.
Multi-Layer Protection: Equipped with overheat shutoff, leakage protection, and real-time alarms to ensure full laboratory safety compliance.

4. Expandability & Compatibility
Optional Add-Ons: Includes cooling reflux condensers for rapid quenching and customizable pressure-resistant reaction vessels.
SeamLess Integration: Fully compatible with stirrers for smooth transition from high-throughput screening to pilot-scale experimentation.

Applications

Application	Typical applications
Drug Synthesis	High-Temperature Catalytic Reactions & ADC Drug Intermediate Preparation
Materials Development	Nano-Material Dispersion & Polymerization Reaction
Process Validation	Scale-up Production Optimization (Custom 2000mL Module)
Safety-Sensitive Experiment	Strong acid/base system reaction volatile solvent treatment



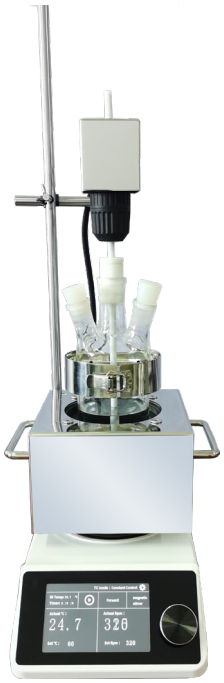
Flexible Heating Module Configuration Reaction Scale: 25mL -2000mL.

Specifications

Classification	Parameter Description
Heating stirrer	Stirring method: High-Torque magnetic stirring (standard) + mechanical stirring (optional) Magnetic stirring: 100~1600 rpm (25W DC brush-less motor, four-pole neodymium-iron-boron permanent magnet) Mechanical stirring: 100~1100 rpm (optional, 25W brush, Less motor, maximum torque 0.27Nm) Temperature control accuracy: ±0.5°C Heating power: >650W
Heating Module	Optional Round-Bottom Flask Compatibility: 25mL, 50mL, 100mL, 250mL, 500mL, 1000mL, 2000mL Temperature Control Range: Ambient to 250°C (±0.5°C) Safety Protection: High-temperature & corrosion-resistant safety shield (PTFE coated) Advantages: water-free and oil-free heating/cooling, aviation aluminum, corrosion-resistant coating (high thermal conductivity, environmental protection)
Structure	Material: Aluminium alloy + Tektronix External sensor: PT1000 probe
Environment & Power	Ambient temperature: 5~40°C Humidity: 80% Power supply: 220-240V, 50/60Hz Dimensions: 220x260x590mm (width x depth x height), maximum weight: 9.5kg

Delta - MTS Multi-purpose Organic Synesizer

About



The Delta - MTS is a versatile synthesis platform that supports seamless switching between 1mL to 1000mL reactors (expandable up to 2000mL). It integrates a high-performance heating module, dual stirring system (magnetic + mechanical), and refrigerant circulation for precise temperature control across a broad range of -40°C to 350°C. Designed to meet the demands of everything from micro-scale screening to small-scale testing, the Delta - MTS offers flexibility, control, and scalability in a single compact system.

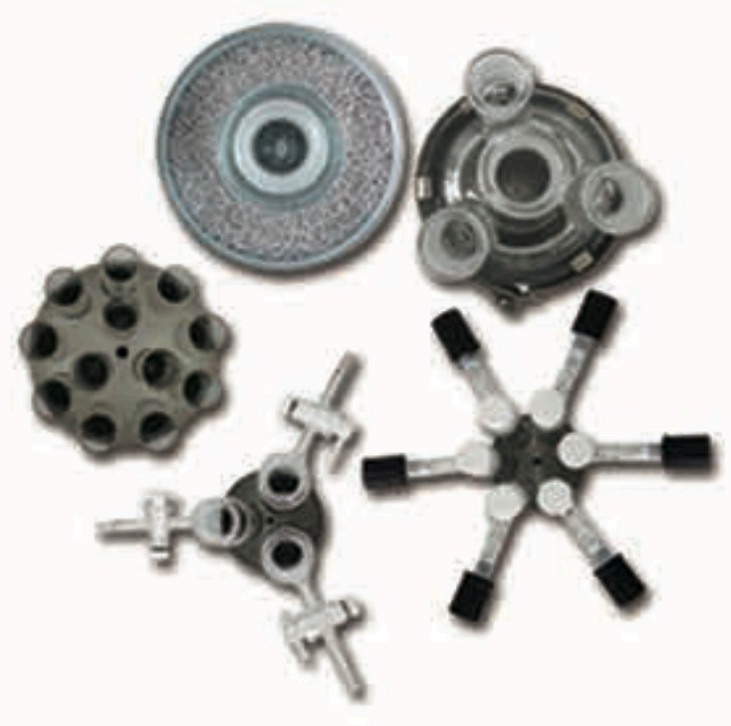
Features

1. Modular Flexibility
Adaptable Volume Range: Supports reactors from 1mL to 1000mL, expandable to 2000mL via customization, ideal for high-throughput screening and scalable process optimization.
Mechanical Stirring Compatibility: Accepts custom stirring paddles for efficient handling of large-volume reactions, such as antibody conjugation.

2. Intelligent Temperature Control
Precision Management: Combines refrigerant circulation with AI-based algorithms for accurate thermal control.
Multiple Modes: Offers rapid, precise, and programmable settings with an accuracy of ±0.5°C.
Broad Temperature Range: Operates from -40°C (with optional module) to 350°C, suitable for both low- and high-temperature applications.

3. High-Efficiency Stirring System
Dual Stirring Modes: High-torque magnetic stirring for viscous samples and mechanical extension for demanding reactions, switchable with a single button.
Corrosion-Resistant Build: Fully coated structure resists acids, alkalis, and solvents, ensuring long-term operational stability.

4. Safety & User-Friendly Design
Comprehensive Protection: Features dual over-temperature safeguards, self-diagnostic alarms, and automatic shutdown if the heating module exceeds 50°C.
Smart Interface: Touchscreen and rotary knob control with programmable settings, including complex multi-stage temperature profiles.



The Delta - MTS Multi-Purpose Organic Synthesizer supports a wide range of reaction vessels, including reaction tubes, sample vials, flasks, and reactors. Its main heating module is versatile, functioning as a water bath, oil bath, or metal sand bath, and can be paired with specialized small-scale heating modules for additional applications. It accommodates reaction volumes from 1mL to 1000mL.

Applications

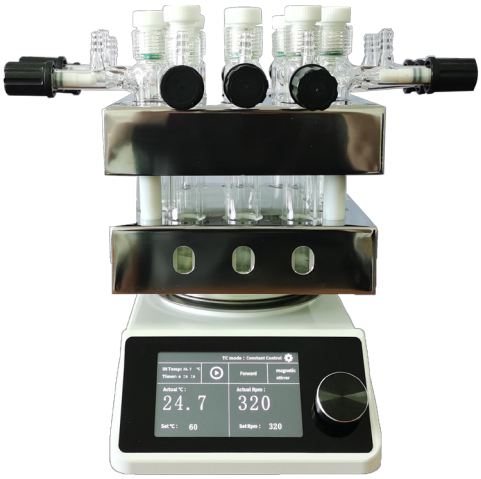
Application	Typical applications
Microscale Synthesis	Lead Compound Screening, ADC/FDC Conjugation Reaction
Process Development	Crystallization Studies, Polymorph Screening, Exothermic Reaction Control
Pilot Scale-Up	Catalyst/Solvent Screening, 1 L-2 L Process Validation
High-Throughput Experimentation	Parallel Synthesis, Reagent Library Rapid Screening

Specifications

Classification	Parameter Description
Stirring System	Stirring Method: High-torque magnetic stirring + mechanical stirring (optional) Magnetic Stirring Speed: 100~1600 rpm (25W DC brush-less motor, four-pole neodymium-iron-boron permanent magnet) Mechanical Stirring Speed: 100~1100 rpm (25W DC brush-less motor, maximum torque 0.27 Nm) Stirring Bar Size: Diameter 1-8 mm Stirring Capacity: >20L (water)
Heating & Temperature control	Temperature Range: -40°C to 250°C (low-temperature operation requires an external low-temperature circulation pump) Temperature Control Accuracy: ±0.5°C Heating Power: >650 W Temperature Control Method: PID + neural network algorithm + refrigerant circulation (requires external chilled water) Temperature Control Modes: 3 modes (Fast /Precise / Programmed Temperature Control, supports 10-segment programming)
Structure	Controller: Touchscreen display Operation Method: Touchscreen (temperature setting) + knob (speed setting) Communication Interfaces: RS232, PT1000, mechanical stirring interface
Reaction Vessel	Reactor: 500mL/250mL split reactor (reactor body and lid separable) Glass Reaction Tube: 100mL/50mL/25mL/10mL. (Standard pressure, optional pressure-resistant tubes) High-Pressure Reactor/High-Pressure Reaction Tube: (Customized)
Safety	Safety Features: Power-on self-test, dual overheat protection, leakage protection Protection Rating: IP42
Structure	Material: Aluminum alloy (ceramic coating) Stirring platform size: 135mm External sensor: PT1000 probe Cooling interface: Standard reflux piping
Environment & Power	Ambient Temperature: 5-40°C Humidity: <80% RH Power Supply: 220-240V AC, 50/60Hz Dimensions: 195 x 290 x 265mm (W x D x H) Weight: 8.5kg

Gamma - CXS Parallel Synthesizer

About



The Gamma - CXS is a modular, multi-station synthesis platform tailored for high-throughput screening and process development. Available in flexible configurations of 6, 7, 12, or 15 reaction stations, it features integrated refrigerant circulation (-40°C to 250°C) and a high-torque magnetic stirring system. Engineered for versatility, it supports complex operations such as reflux, gas exchange, and pressure-resistant reactions, making it ideal for applications ranging from micro-scale screening to pilot-scale testing.

Features

1. Modular High-Efficiency Operation
Parallel Multi-Station Setup: Supports 6 to 15 reaction stations for simultaneous heating, stirring, and cryogenic tasks, maximizing throughput.
Customizable Modules: Offers five configurable reaction modules to accommodate a wide range of synthesis applications.

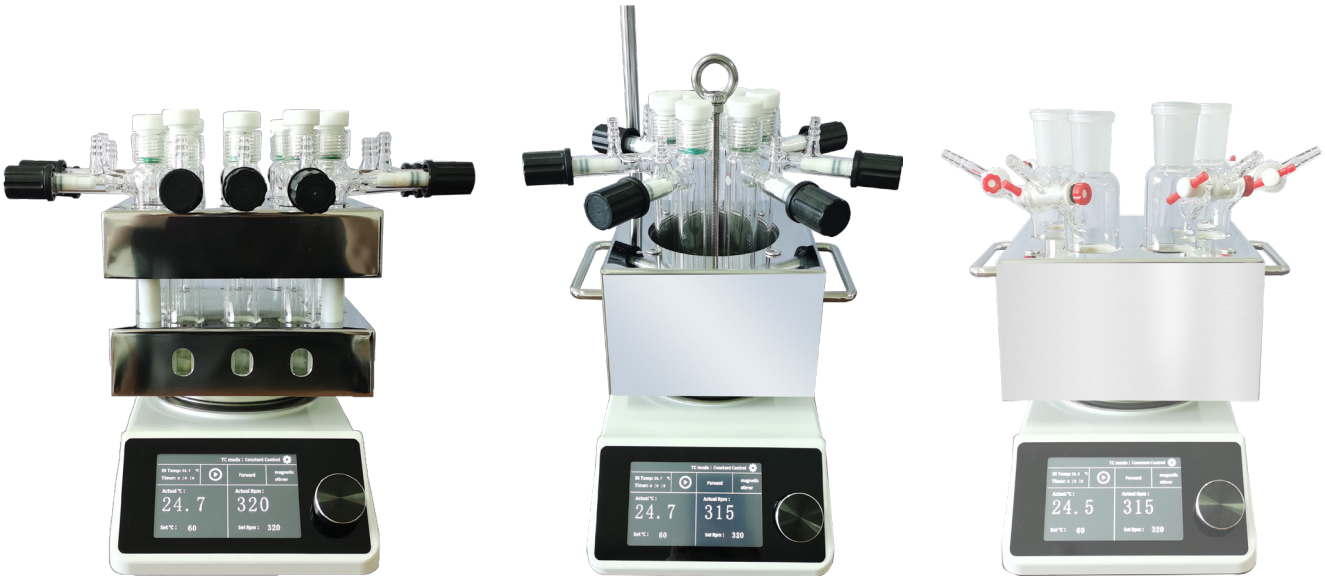
2. Advanced Temperature Control
Wide Temperature Range: Operates from -40°C to 250°C via external refrigerant circulation, supporting complex thermal processes.
Precision Control Modes: Includes fast heating, precise regulation, and programmable temperature profiles with ±0.5°C accuracy.

3. Efficient Stirring & Real-Time Monitoring
High-Torque Magnetic Stirring: Integrated stirrers deliver reliable mixing, even with high-viscosity samples like suspensions or colloids.
Live Observation: Built-in viewing window allows continuous monitoring and real-time adjustment of reaction parameters.

4. Robust Safety & Durability
Chemical-Resistant Design: Fully enclosed and corrosion-resistant, built to withstand acidic and alkaline solvents for extended operational life.
Multi-Level Protection: Includes over-temperature shutdown, self-diagnostics, and auto alerts with heating cut-off if temperatures exceed 50°C.

Gamma - CXS Parallel Synthesizer

Reaction Module Design: All reaction modules are equipped with integrated coolant circulation pathways, enabling low-temperature operations through coolant cycling. The modules feature a high-temperature-resistant, fully enclosed coating design, offering superior thermal insulation, as well as excellent corrosion and heat resistance.



Flexible Configuration: Equipped with 6/7/12/15 positions, allowing modular setup based on actual reaction volumes. Supports various reaction tube formats to meet specific experimental requirements.

Applications

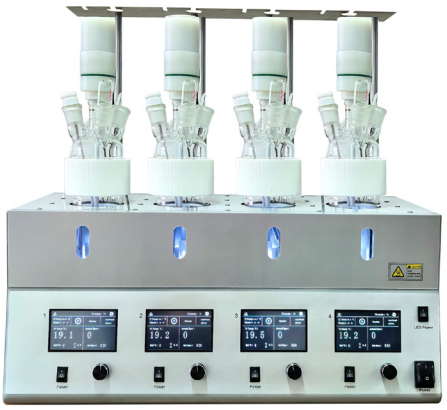
Application scenarios	Typical applications
Pharmaceutical R&D	Lead Compound Screening and ADC Conjugation Reaction Optimization
Process Development	Catalyst Screening, Crystallization Studies, and Polymorph Synthesis
High-Throughput Experimentation	Construction of Small Molecule Libraries and Rapid Reagent Screening
Safe Synthesis	Volatile Solvent Treatment, Exothermic Reaction Control

Specifications

Classification	CX-3166	CX-3126	CX-3156
Stirring System	Powerful Magnetic Stirring (DC Brush-less Motor, 25W) Speed Range: 100-1600 rpm Capacity >20L (water)	Powerful Magnetic Stirring (DC Brush-less Motor, 25W) Speed Range: 100-1600 rpm Capacity >20L (water)	Powerful Magnetic Stirring (DC Brush-less Motor, 25W) Speed Range: 100-1600 rpm Capacity >20L (water)
Temperature Control	Temperature range: -40°C~250°C (below room temperature, external cooling water required)	Temperature range: -40°C~250°C (below room temperature, external cooling water required) Accuracy: ±5°C Power >650W	Temperature range: -40°C~250°C(be- low room temperature, external cooling water required) Accuracy: ±5°C Power >650W
Control Modes	3 modes (fast heating, precise heating, program temperature control, supports 10-segment program) Algorithm: PID+ ANN	3 modes (fast heating, precise heating, program temperature control, supports 10-segment program) Algorithm: PID+ ANN	3 modes (fast heating, precise heating, program temperature control, supports 10-segment program) Algorithm: PID+ ANN
Reaction Tube	12 Position (26x150mm) Synthesis volume 3-25mL Optional pressure tube <50psi (about 4kg)	6 Position (40x150mm) Synthesis volume 10-100mL Optional pressure tube <50psi (about 4kg)	6 Position (60x170mm) Synthesis volume 30-250mL Optional pressure tube <50psi (about 4kg)
Structure	Mixing table size: 135mm Aluminum block size: 165x165mm	Stirring Plate Dimension: 135 mm Aluminum Block Size: 195x195 mm	Stirring Plate Dimension: 135 mm Aluminum Block Size: 265x265 mm
Safety	Double overheating protection, leak- age protection, POST temperature overrise preventer	Double overheating protection, leak- age protection, POST temperature overrise preventer	Double overheating protection, leak- age protection, POST temperature overrise preventer
Operation	Touch screen + Knob	Touch screen + Knob	Touch screen + Knob
Monitoring	Heated aluminium block viewing window	Heated aluminium block viewing window	Heated aluminium block viewing window
Communica- tion	RS232 PT1000, Mechanical stirring connector	RS232, PT1000, Mechanical stirring connector	RS232, PT1000, Mechanical stirring connector
Dimension	225x290x265mm (WxHxD) Weight:8.5kg	235x260x265mm (WxHxD) Weight:10.5kg	285x280x335mm (WxHxD) Weight:11.5kg

Beta - PXS Personal Organic Synthesizer

About



The Beta - PXS Personal Organic Synthesizer is a compact, high-performance platform featuring 4 to 5 independent reaction units, with flexible reactor compatibility ranging from 0.5mL to 500mL (customizable up to 1000mL). It combines a dual stirring system (magnetic + mechanical) with coolant circulation to deliver precise temperature control across a wide range of -40°C to 250°C. Each unit offers independent temperature regulation, fully programmable automation, and built-in safety protections, making it an ideal solution for efficient high-throughput screening and process development.

Features

1. Precision Temperature Control
Wide Temperature Range: Operates from -40°C to 250°C, supporting simultaneous high- and low-temperature reactions.
Flexible Control Modes: Offers high boiling, low boiling, and programmable temperature modes, with 10-step gradient programming and ±0.25°C precision, powered by AI-optimized heating curves.
Emergency Cooling: Real-time temperature monitoring automatically activates high-flow refrigerant circulation to prevent thermal runaway.

2. Modular Reaction Flexibility
Volume Versatility: Supports reactors from 0.5mL to 500mL (expandable to 1000mL), making it ideal for micro-scale screening and process validation.
Real-Time Observation: Each unit includes LED lighting and an observation window for continuous visual monitoring.

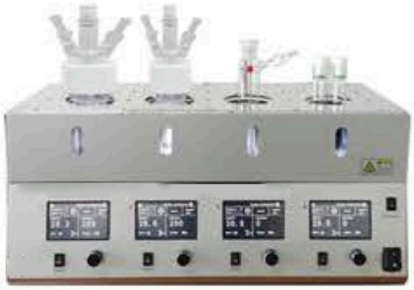
3. Dual-Mode Stirring System
High-Energy Magnetic Stirring: Delivers up to 1600 rpm, ensuring efficient mixing even with viscous samples like polymers or colloids.
Mechanical Stirring Compatibility: Supports custom stirrers for larger volumes and specialized applications such as antibody conjugation.

4. Intelligent Safety & User Interaction
Comprehensive Protection: Features dual over-temperature cutoffs, over current protection, and real-time diagnostic alarms. Automatic heating shutdown is triggered if the module exceeds 50°C.
User-Friendly Interface: Touchscreen and knob controls enable easy stirring mode switching and programmable workflows, including multi-stage temperature profiles.

Applications

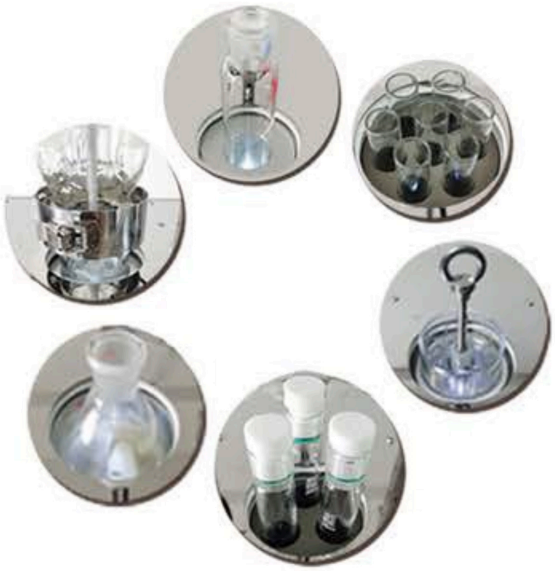
Application scenarios	Typical applications
Synthetic Optimization	Lead Compound Screening, ADC/FDC Conjugation Reaction
Process Development	Crystallization Studies, Polymorph Screening, and Exothermic Reaction Control
Safety Testing	Volatile Solvent Handling and High-Reactivity Reagent Synthesis
Pilot Scale-Up	Catalyst/Solvent Screening, 1 L-2L DoE

For Processing



For Pilot-Scale Testing

For Pilot-Scale Testing



Compatible with 0.5mL~500mL reaction vessels, equipped with quick-connect adapter components to achieve switching between normal pressure and high pressure synthesis conditions

Specifications - Beta - PXS I

Classification	Beta - PXS I
Basic Parameters	Reaction Channels: 4 (Independent temperature control, no interference) Temperature Control Range: -50°C to 250°C (350°C on request) Synthesis Volume Range: 0.5~500mL/channel
Temperature Control System	Temperature Control Algorithm: AI fusion algorithm + refrigerant circulation + AI auto-flow valve Temperature Control Modes: 3 (high boiling point, low boiling point, programmed control) Emergency Cooling: Real-time internal temperature monitoring, automatic switch to high-flow refrigerant on overheat Dual Temperature Monitoring: Module temp 12/16 material temperature real-time feedback Temperature Control Accuracy: ±0.25°C (refrigerant circulation)
Stirring System	Stirring Methods: Dual stirring (High-torque magnetic + Mechanical) Magnetic Stirring Speed: 50~1600 rpm Mechanical Stirring Speed: 100~1000 rpm Stirring Paddle Design: PTFE crescent paddle (7mm diameter, vacuum-compatible) Standard Stirrer: Cross-shaped high-temperature resistant magnetic stirrer
Reaction System	Reactor Configuration: Standard: 500mL/250mL glass split reactor (removable lid) + 100/50/25/10mL glass tubes Optional: Glass pressure reactor /316L stainless steel High-pressure reactor/316L stainless steel reaction tubes Observation Design: LED light + large observation window (real-time material status monitoring)
Safety	Leakage/overload protection Independent temperature limit setting per channel Self-diagnostic fault detection + alarm Overheat warning (alarm triggered when >50°C after heating stops) Over-temperature preventer (independent per channel)
Operation & Data Management	Data Management: Supports real-time recording of temperature/speed data Supports LAN remote control Operation Interface: Touchscreen + knob (temperature/ speed)
Extend Function	Programmed Temperature Control: 10-segment temperature gradient programming (automatic heating/cooling) Pre-freezing Function: Low-temperature program for direct sample pre-freezing (pre-treatment for freeze-drying) Refrigerant Compatibility: Requires optional low-temperature pump (for low-temperature control)
Structure	Materials: Stainless steel + aluminum alloy + PTFE + fluororubber External Sensor: PT1000 probe Cooling Water Interface: Standard reflux pipeline
Environment	Ambient Temperature: 5~40°C Humidity: <80% Power Supply: 220-240V, 50/60Hz Dimensions: 610 x 320 x 765mm (L x D x H) Weight: 38.5kg

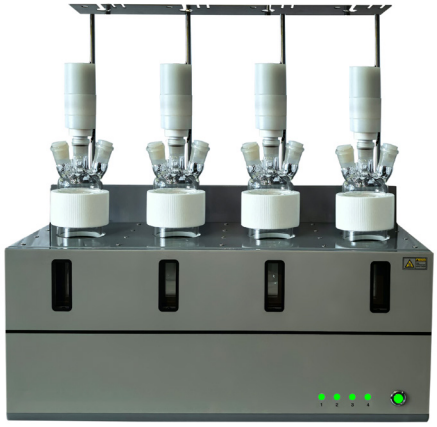
Specifications - Beta - PXS II

Classification	Beta - PXS II
Basic Parameters	Reaction Channels: 5 (Independent temperature control, no interference) Temperature Control Range: -50°C to 250°C (350°C on request) Synthesis Volume Range: 0.5~500mL/channel
Temperature Control System	Temperature Control Algorithm: AI fusion algorithm + refrigerant circulation + AI auto-flow valve Temperature Control Modes: 3 (high boiling point, low boiling point, programmed control) Emergency Cooling: Real-time internal temperature monitoring, automatic switch to high-flow refrigerant on overheat Dual Temperature Monitoring: Module temperature + material temperature real-time feedback Temperature Control Accuracy: ±0.25°C (refrigerant circulation)
Stirring System	Stirring Methods: Dual stirring (High-torque magnetic + Mechanical) Magnetic Stirring Speed: 50~1600 rpm Mechanical Stirring Speed: 100~1000 rpm Stirring Paddle Design: PTFE crescent paddle (7mm diameter, vacuum-compatible) Standard Stirrer: Cross-shaped high-temperature resistant magnetic stirrer
Reaction System	Reactor Configuration: Standard: 500mL/250mL glass split reactor (removable lid) + 100/50/25/10mL glass tubes Optional: Glass pressure reactor /316L stainless steel High-pressure reactor/316L stainless steel reaction tubes Observation Design: LED light + large observation window (real-time material status monitoring)
Safety	Leakage/overload protection Independent temperature limit setting per channel Self-diagnostic fault detection + alarm Overheat warning (alarm triggered when >50°C after heating stops) Over-temperature preventer (independent per channel)
Operation & Data Management	Data Management: Supports real-time recording of temperature/speed data Supports LAN remote control Operation Interface: Touchscreen + knob (temperature/ speed)
Extend Function	Programmed Temperature Control: 10-segment temperature gradient programming (automatic heating/cooling) Pre-freezing Function: Low-temperature program for direct sample pre-freezing (pre-treatment for freeze-drying) Refrigerant Compatibility: Requires optional low-temperature pump (for low-temperature control)
Structure	Materials: Stainless steel + aluminum alloy + PTFE + fluororubber External Sensor: PT1000 probe Cooling Water Interface: Standard reflux pipeline
Environment	Ambient Temperature: 5~40°C Humidity: <80% Power Supply: 220-240V, 50/60Hz Dimensions: 610 x 320 x 765mm (L x D x H) Weight: 38.5kg

Alpha - MAP Automated Synthesis Workstation

About

The Alpha - MAP is a high-performance parallel synthesis platform designed for drug screening and high-throughput chemical synthesis. It features Peltier + AI dual-core temperature control (-40°C to 180°C) across four independently controlled channels. Fully automated modules, feeding, dripping, pH adjustment, and NTU monitoring, enable seamless, hands-free operation. With rapid emergency cooling and a modular, scalable design, Alpha - MAP streamlines workflows from development to pilot-scale production.



Features

1. Precise Temperature Control System
Four-Channel Independent Temperature Control: Peltier technology enables independent temperature control for each channel (with up to 200°C temperature difference between adjacent channels), supporting simultaneous differentiated reactions (e.g., low-temperature and high-temperature reactions in parallel).
Intelligent Dual-Mode Monitoring: Real-time display of block and in-vessel temperature, dynamically calibrating the heat transfer model, temperature control accuracy reach to ±0.25°C.
Emergency Cooling Mechanism: Automatically activates semiconductor cooling when temperature exceeds the threshold, with a maximum cooling rate of >25°C/min, effectively suppressing exothermic runaway reactions.

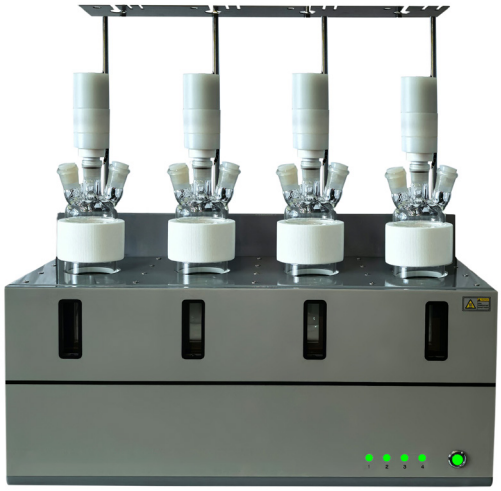
2. High-Efficiency Reaction System
Modular Reactor Compatibility: Each channel supports 500mL standard reactors (customizable for larger capacities) and is compatible with high-pressure, reflux, and gas-purging reactors.
Dual Stirring System: Combines intelligent switching between high-torque magnetic stirring (50 - 1600 rpm) and mechanical stirring (100-1100 rpm), accommodating complex systems such as viscous colloids and suspensions.
Real-Time Visualization: Equipped with a 70mm high-transparency observation window and LED illumination for real-time monitoring of reaction states (e.g., crystallization processes).

3. Intelligent Control and Safety
Programmable Temperature Protocols: Supports 10-segment temperature gradient programming per channel with non-linear heating/cooling profiles (maximum ramp rate of 20°C/min), optimized by AI to reduce energy consumption by 30%.
Dual-Mode Remote Operation: Features a wireless touchscreen controller (effective distance >15m) for remote management of complex experiments.
Comprehensive Safety Mechanisms: Includes over-temperature power cutoff, self-diagnostic alarms, and synchronized refrigerant flow-limiting valves, ensuring millisecond-level safety responses.

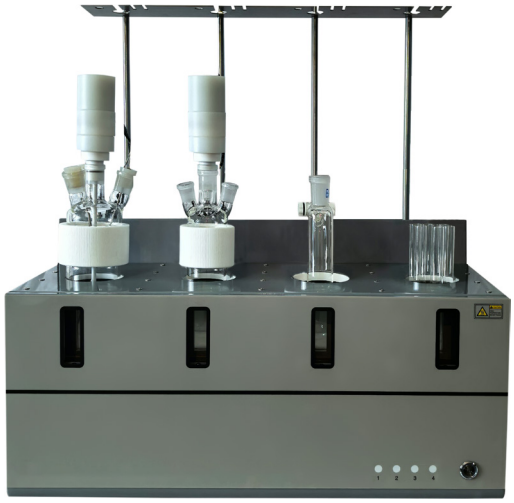
4. Scalability and Upgradability
Open Modular Architecture: The control software supports lifetime free upgrades. Optional modules include multi-channel peristaltic pumps for feeding.

Syringe pumps for dropwise addition, automated pH adjustment, NTU-based crystallization detection, and in-situ IR spectroscopy, enabling transformation into a fully automated workstation.

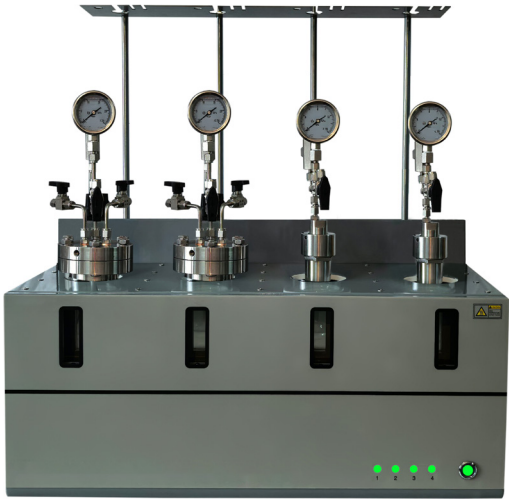
Integrated Experimental Workflow: Seamlessly connects with CX/MTS/HTS series equipment, facilitating a streamlined process from high-throughput screening to process validation and pilot-scale production.



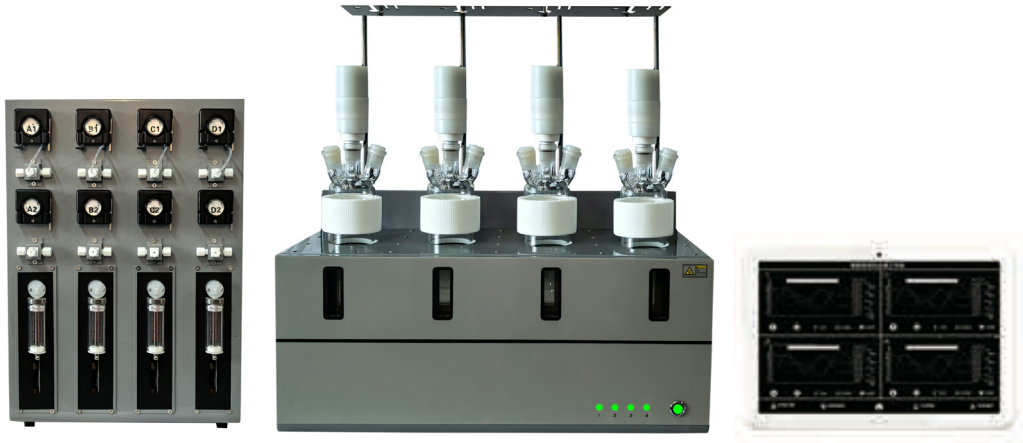
For Processing



For Pilot-Scale Testing



High pressure configuration



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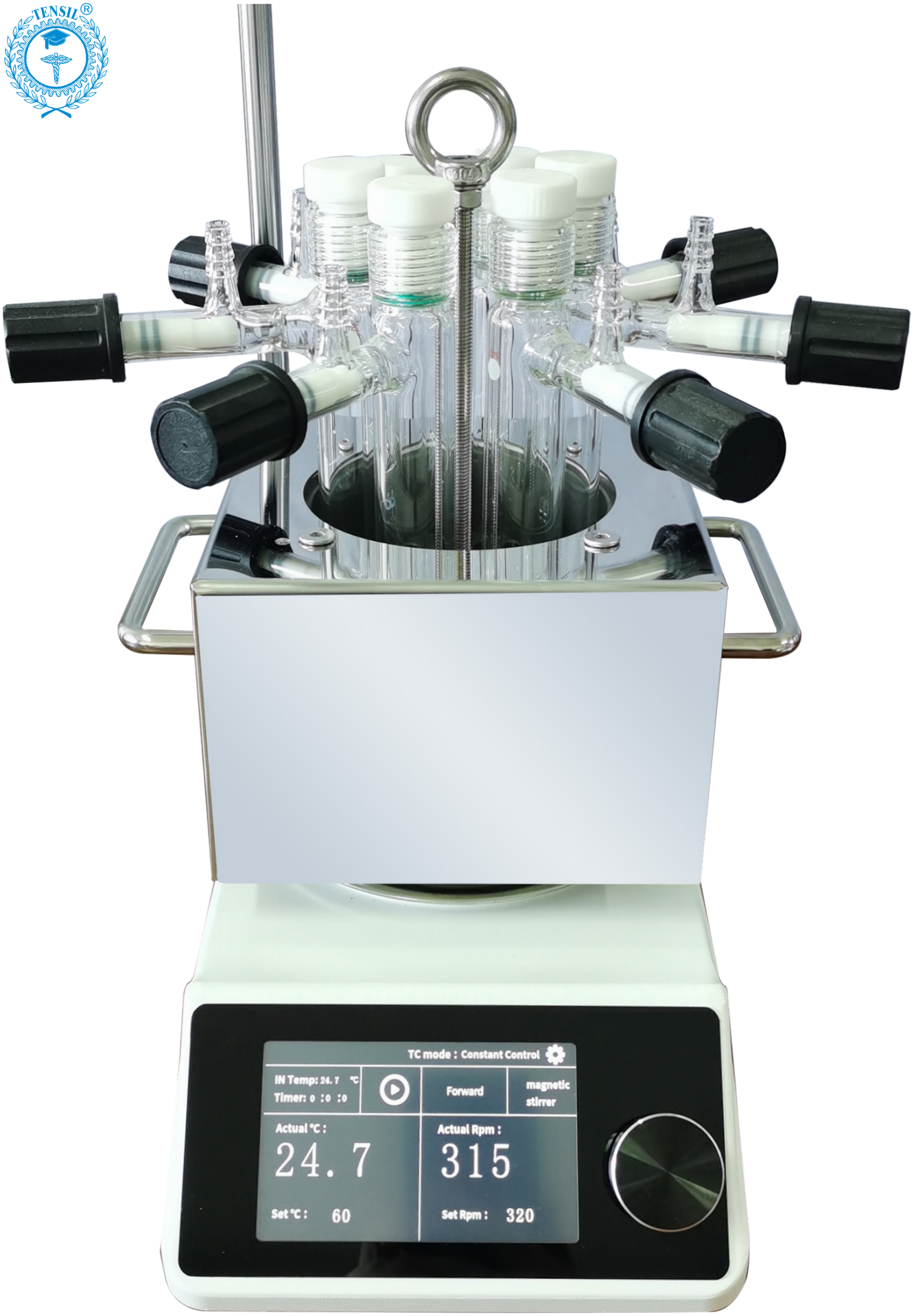
Optional Modules: Configurable with multi-channel peristaltic feeding pumps, dripping syringe pumps, automatic pH adjustment, NTU crystallization detection, and in-situ IR characterization modules, enabling upgrade to a fully automated workstation.

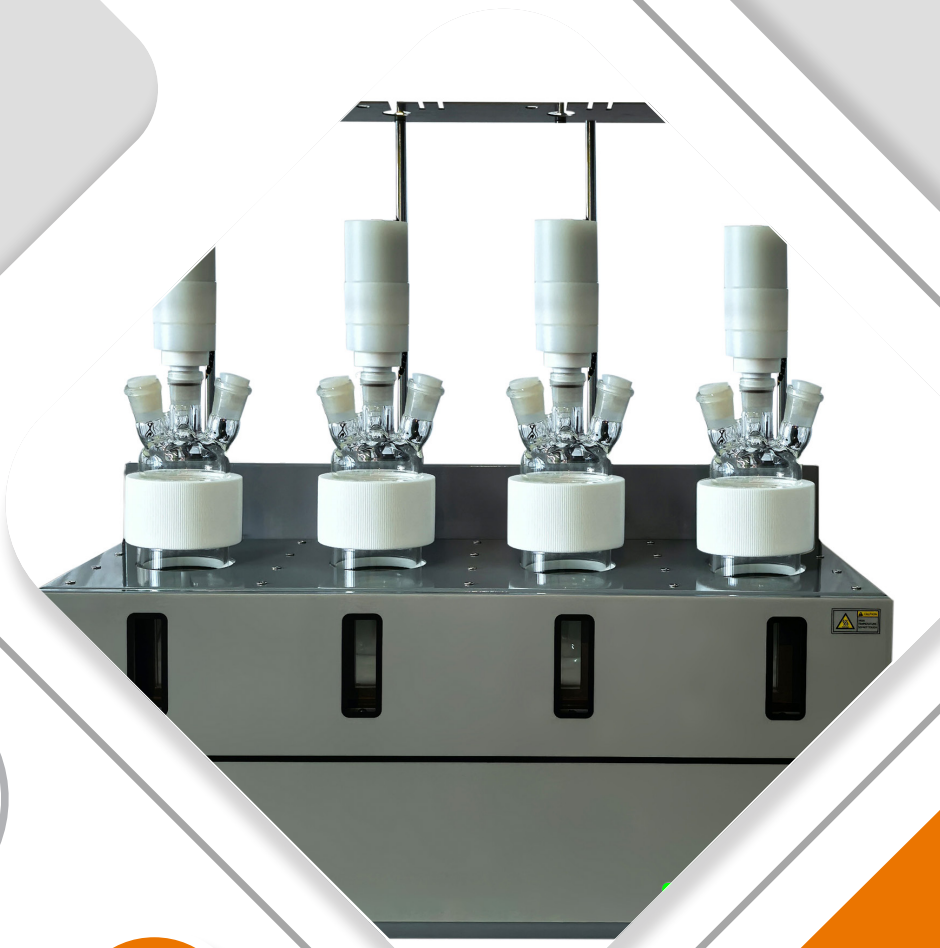
Applications

Application scenarios	Typical applications
Drug Screening	Lead compound library construction, ADC conjugation Reaction optimization
Processing Development	Catalyst screening, polymorph studies, exothermic reaction parameter validation
High-Throughput Synthesis	Parallel synthesis of small organic molecules,rapid reagent screening
Safety-Sensitive Experiment	Preparation of highly active intermediates, volatile solvent treatment

Specifications

Classification	Parameter Description
Stirring System	Stirring System: Strong magnetic stirring + mechanical stirring(optional) Magnetic Stirring Speed: 100-1600 rpm (25W DC brush-less motor, four-pole neodymium-iron-boron permanent magnet) Mechanical Stirring Speed: 100-1100 rpm (25W DC brush-less motor, max torque 0.27 Nm) Stirring Bar Size: Diameter 1-8mm Stirring Capacity: >20L (water)
Temperature Control	Temperature Range: -40°C to 250°C (low-temperature operation requires external low-temperature circulation pump) Temperature Control Accuracy: ±0.25°C Heating Power: >650W Temperature Control Method: PID + ANN algorithm + refrigerant circulation (requires external chilled water) Temperature Control Modes: 3 (rapid, precise, programmed control with 10-segment programming)
Operation	Operation Interface: Touchscreen display Operation Method: Touchscreen (temperature setting) + knob (speed setting) Communication Interfaces: RS232, PT1000, mechanical stirring interface
Reactor	Standard: 500mL/250mL separable reactors (body and lid detachable) Glass Reaction Tubes: 100mL/50mL/25mL/10mL (atmospheric pressure optional pressure-resistant tubes) High-Pressure Reactors/Tubes: Customizable
Safety	Safety Features: Power-on self-test, dual overheat protection, Leakage Protection Rating: IP42
Structure	Materials: Aluminum alloy (ceramic-coated) Stirring Plate dimension: 135 mm External Sensor: PT1000 probe Cooling Water Interface: Standard reflux pipeline
Environment & Power	Ambient Temperature: 5-40°C Humidity: <80% Power Supply: 220-240V, 50/60Hz Dimensions: 195x290x265mm Weight: 8.5kg


TC mode : Constant Control
IN Temp: 24.7 °C
Timer: 0 :0 :0
Forward
magnetic stirrer
Actual °C :
24.7
Actual Rpm :
315
Set °C : 60
Set Rpm : 320



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