



# Accelerating Rate Calorimeter

## TAC-500AE

**A Convenient**  
Automatic lid lifting and lowering  
and one-touch operation

**Countertop**  
Small-sized, so it is easy to  
place and operate

**Accurate**  
Temperature resolution 0.001 C,  
detection threshold <0.01 C/min

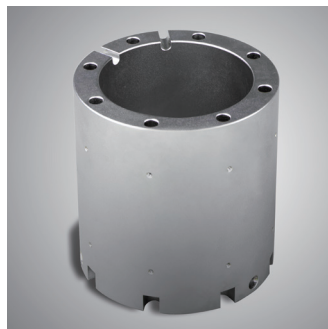
**Safe**  
Multiple overheating or  
overpressure protection



## Product Description

As an Accelerating Rate Calorimeter, TAC-500AE with low cost is easy to operate and it can produce accurate test results and support all main calorimetric modes. Responsive, sensitive and accurate adiabatic tracking performance ensures true and complete thermal and pressure change data and accurate key indicators of thermal safety such as TD24, TMRad, and SADT.

Application field: synthetic development, chemical risk assessment, thermal stability assessment of chemical storage and transportation, and chemical thermodynamics' studies in the field of petrochemicals, pharmaceuticals, polymers, energy-containing materials, new energy, etc.



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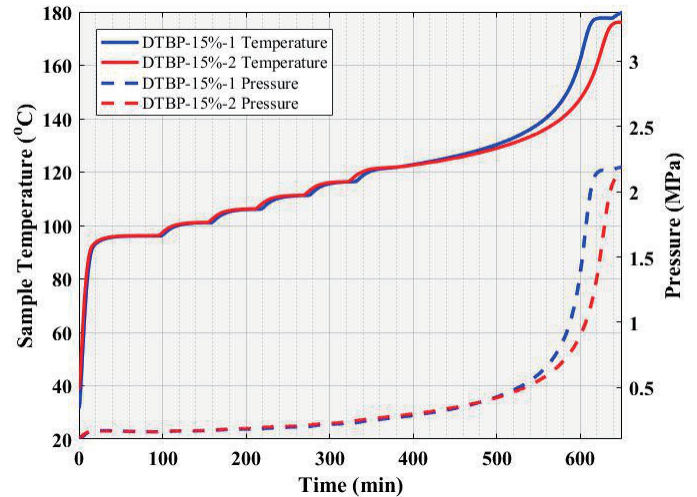
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## Product Features

- Heat-wait-search (HWS) mode, thermostatic mode, iso-speed scanning mode, etc
- Equipped with professional data analysis software, can achieve the starting temperature of heat release, insulation temperature rise, activation energy, finger forward factor and other parameters of automatic calculation
- Integrated Emergency Management Department, Fine Chemical Reaction Safety Risk Assessment Guidelines Safety risk assessment methods and standards to achieve a one-stop assessment of the risk of the reaction process
- Key components are internationally renowned brands to ensure long-term stability
- Use inert gas to cool the furnace body after the experiment
- Experimental status indication and overpressure and overshoot alarm
- The automatic lifting function of the furnace cover ensures safe and convenient operation
- Data analysis software combines the thermal dynamics calculation method of conversion rate, such as differential, and has significant advantages in the calculation of thermal decomposition dynamics and thermal risk prediction of mixed materials

## Technical Specification

Working Environment	5°C to 40°C, <85%RH
Temperature Range	RT to 500°C
Temperature Detection Threshold	0.005°C/min to 0.02°C/min
Temperature Tracking Rate	0.005°C/min to 40°C/min
Temperature Resolution	0.001°C
Pressure Detection Range	0 to 20000kPa
Pressure Resolution	1kPa
Sample Test Amount	8mL
Material of Test-cell	Stainless Steel, Titanium Alloy, Hastelloy (optional)
Phi	≤1.35
Interface	USB or RJ45
Power Supply	AC220V/50Hz
Power	≤3000W
Dimensions	620mm x 470mm x 670mm
Weight	Approx. 78kg



Analytics software

