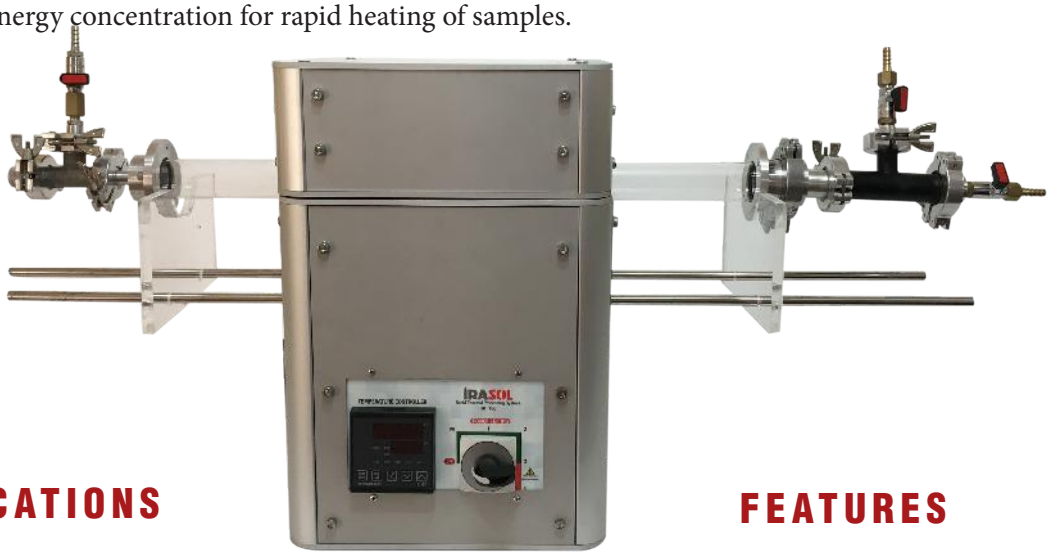
RAPID THERMAL PROCESSING (RTP)

Rapid visible/IR light heating for lab-scale samples

OVERVIEW

RTP-1SS is a tube furnace with irradiation heating of samples and low heat capacity body, facilitating rapid heating and cooling of samples. The heating temperature and time can be set, and the atmosphere can be controlled, i.e. inert gas or vacuum. The irradiation is provided by maximum 4 halogen lamps, each 1000 W. The trapped light inside the tube provides high energy concentration for rapid heating of samples.



SPECIFICATIONS

	RTP Technical Specifications
Model	RTP-1SV
Furnace structure	Double layer aluminum casing with air cooling
Heating Elements	1000 W halogen lamps (4x) Dia. = 10 mm, L=190 mm Standard working life: 2000 hrs (halogen lamp is consumable)
Heating zone	150 mm length with 100 mm constant temperature zone within ± °5 C uniformity
Working Temperature	< 700 °C (Prolonged heating may increase the walls temperature)
Max heating rate	900 °C/min
Cooling rate	Max 250 °C/min
Temperature control	PID controller
Quartz Tube	Quart Tube Size: 38 mm O.D (36 mm I.D) x 225 mm Length.
Sample holder	Optional: Graphite sample holder for samples not larger than 1.4 cm in size.
Max sample size	19× 14 mm^2 (for direct use without sample holder: smaller than quartz tube diameter)
Electrical input	220 VAC, max 4200 W, Single phase (WARNING: Current ~ 18 A at max power) Circuit breaker: 220 VAC, 25 A Safety switch 220 VAC, 25A
Vacuum input flange	
Gas input flange	

FEATURES

- Heating rate up to 900 °C/min
- Max temperature up to 700 °C
- Easy replace of heating elements
- Heating in controlled atmosphere or in vacuum
- Selection of heating power up to 4000 W

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