

1200°C Batch Operation Rotary Tube Furnace

SH-FU-120RTG300 (STS 310S 114mm or Quartz 120mm tapered-end tube)

SH-FU-200RTG300 (STS 310S 216mm or Quartz 200mm tapered-end tube)

SH-FU-250RTG300 (STS 310S 267mm or Quartz 250mm tapered-end tube)

For serious researchers working with highly dispersible powders, delicate nanotubes, or fine particulate samples, our batch-type rotary tube furnace offers a purpose-built solution informed by real laboratory challenges—not textbook theory.

Traditional rotary furnaces relied on high-angle tilting to remove samples, and removing the tube itself was often a complicated, time-consuming task in the lab. We simplify the entire process with a tapered-end tube, quick-open end caps, and a user friendly removable stainless steel tube and optional quartz tube. Accessing materials is easy at every stage, and once the process is complete, the entire tube can be smoothly removed and gently tapped to release even the finest materials.

An optional barrier system enhances control, while internal baffles ensure consistent mixing and exposure—preserving the integrity of every batch with less effort.



SS310S/Quartz Tube
with Tapered Ends

Maximum Temperature: 1200 °C

Recommended continuous operation at 1000 °C or below

Tube Type:

Tapered-end stainless steel (SS310S)

Optional: Tapered quartz tube

Tube Diameter:

STS 310S 114mm or Quartz 120mm tapered-end tube

STS 310S 216mm or Quartz 200mm tapered-end tube

STS 310S 267mm or Quartz 250mm tapered-end tube

Heating Length:

Center hot zone 220mm + Reduced hot zone 40mm. 260mm

Rotation Speed: Adjustable from 2 to 30 rpm

Vacuum Sealing & Gas Ports: Perfect vacuum sealing with inert gas inlets/outlets and outgassing features

Gas Ports: 1/4" inert gas inlet/outlet ports

Steam Inlet Port: Optional

Programmable Controller: 2 patterns, 15 segments per pattern (30 total segments)

Safety: Low surface temperature housing (29-30 °C at 800 °C), built-in over-temperature protection, and easy tube replacement

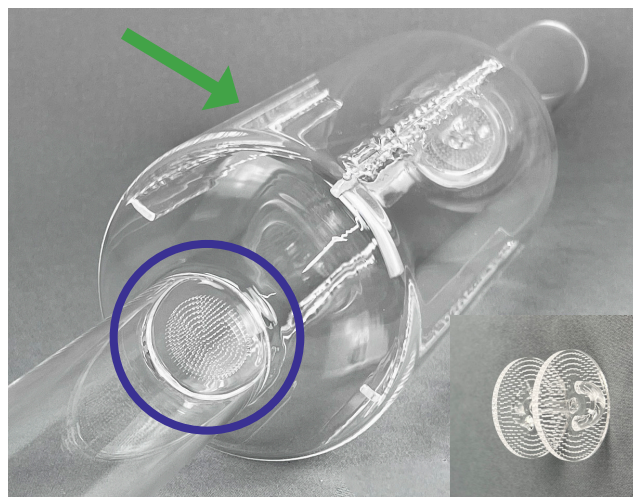
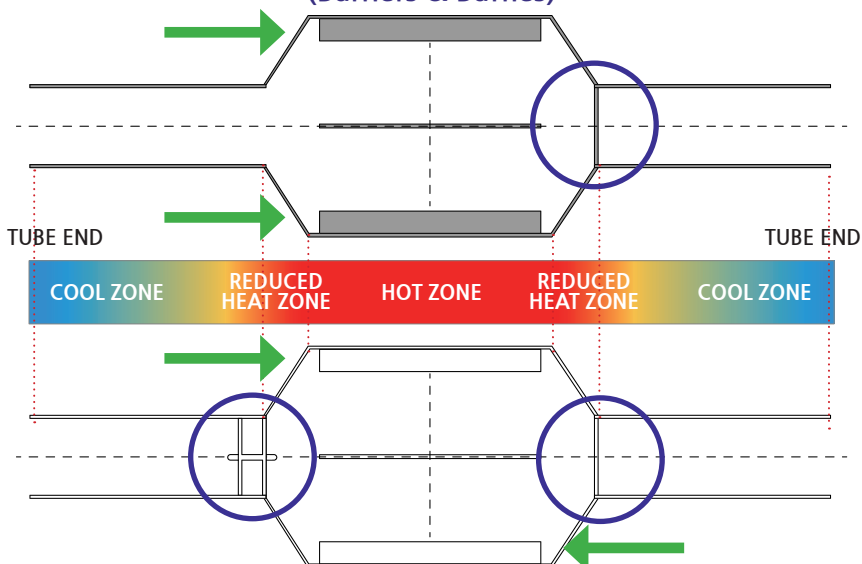
Optional Add-ons:

Tapered quartz tube, Mass flow controller

Back pressure regulator, Barrier System

Key Your Batch Contained & Mixed in Hot Zone

(Barriers & Baffles)



Key Features for Dispersible Material Handling

► Tapered-End Stainless Steel & Quartz Tube

Custom-engineered to handle ultra-fine powders and nanotubes—concentrates materials in the hot zone and enables fast, complete sample discharge with a simple tap.

► Quick-Open End Caps & Tube Release

Streamlined access for both loading and removal—no tube inversion or complex disassembly required.

► Integrated Barrier System (Stainless Steel and Quartz) for preventing material drift

Precision-engineered barriers with optimized hole diameters (1 mm for stainless steel, 0.5 mm for quartz) effectively prevent material drift. Ideal for processing highly dispersible materials.

► Internal Baffles for Uniform Mixing

Promote consistent tumbling and break apart bonded materials. Critical for high-dispersibility samples where simple rotation isn't enough.

► Optional Steam Injection Capability

Enables reactive gas environments using ultra-pure water—boosts thermolysis reactions and supports controlled oxidation/reduction cycles.

► Precision Batch Processing Design

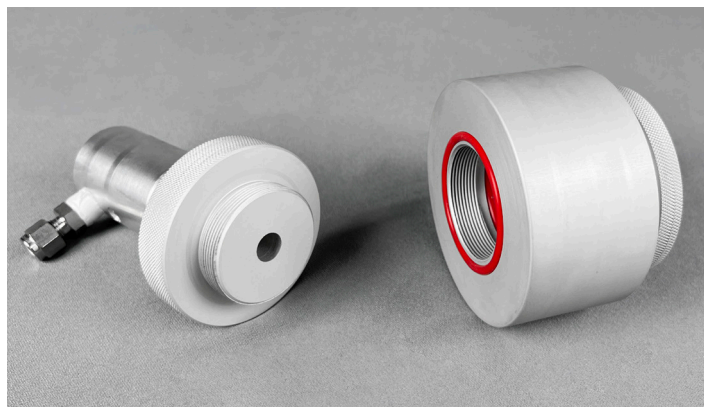
Ideal for R&D and low-to-medium production volumes where material control and repeatability are paramount.

► Controlled Heating Environment

Vacuum, inert gas, or pressurized processing support for specialized thermal applications.

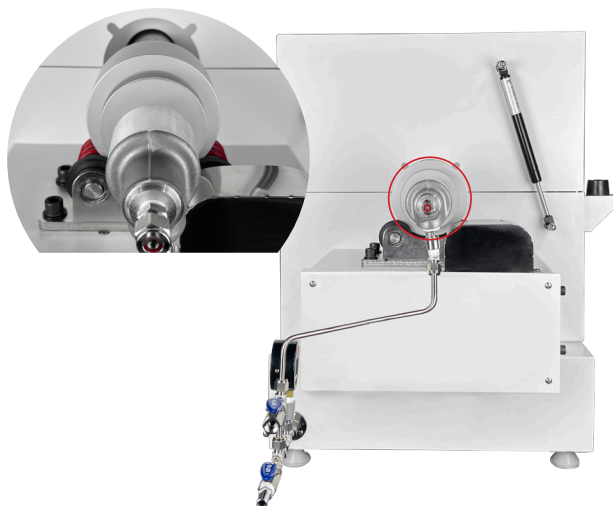
Quick-Open End Caps

(No tedious disassembly required at the end of each run. Tube easily slides out)



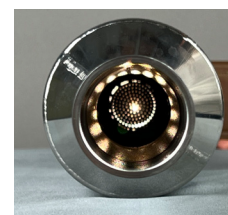
Steam Generator Port *option*

(Injecting separated H₂ and O₂)



Controlled Atmosphere & Vacuum Operation

Optional Mass flow controller & back pressure regulator & Steam generator port



Model		SH-FU-120RTG300	
Max Temp		1200°C (2192°F)	
Temp Controller		Programmable Controller (SP570)	
Tube Diameter & length(Fuse Type) total length(700mm)	Heating Middle	114.3 Φ x 3T x 220mm (STS310S) 120 Φ x 3T x 220mm (Quartz)	
	Heating Reduce	114.3 Φ x 3T > 60 Φ x 2.8T x 40mm (STS310S) 120 Φ x 3T > 60 Φ x 2.5T x 40mm (Quartz)	
	Cooling End	60 Φ x 2.8T x 200mm (STS310S) 60 Φ x 2.5T x 200mm (Quartz)	
Dimension External (WxDxH)		940 x 390 x 640 mm	
		37.0 x 15.3 x 25.2"	
Heater Capa		4.0 kW	
Tube Rotation Speed		2 ~ 30rpm	
Heater element		Kanthal A-1	
Insulation		Ceramic Board	
Gas Inlet Port		1/4" tube Lock & valve	
Gas Exhaust Port		1/4" tube Lock & valve & gauge	
Electronic Power 220V, 50/60Hz, 1 Φ		18.5 A	
Model		SH-FU-200RTG300	SH-FU-250RTG300
Max Temp		1200°C (2192°F)	
Temp Controller		Programmable Controller (SP570)	
Tube Diameter & length(Fuse Type) total length(800mm)	Heating Middle	216.3 Φ x 4T x 220 mm (STS310S) 200 Φ x 5T x 220 mm (Quartz)	267.4 Φ x 4T x 220 mm (STS310S) 250 Φ x 5T x 220 mm (Quartz)
	Heating Reduce	216.3 Φ x 4T > 60 Φ x 2.8T x 40mm (STS310S) 200 Φ x 5T > 60 Φ x 2.5T x 40mm (Quartz)	267.4 Φ x 4T > 60 Φ x 2.8T x 40mm (STS310S) 250 Φ x 5T > 60 Φ x 2.5T x 40mm (Quartz)
	Cooling End	60 Φ x 2.8T x 250mm (STS310S) 60 Φ x 2.5T x 250mm (Quartz)	60 Φ x 2.8T x 250mm (STS310S) 60 Φ x 2.5T x 250mm (Quartz)
Dimension External (WxDxH)		1040 x 520 x 710mm	1040 x 570 x 760 mm
		40.9 x 20.5 x 27.9"	40.9 x 22.4 x 29.9"
Heater Capa		6.0 kW	8.0 kW
Tube Rotation Speed		2 ~ 30rpm	
Heater element		Kanthal A-1	
Insulation		Ceramic Board	
Gas Inlet Port		1/4" tube Lock & valve	
Gas Exhaust Port		1/4" tube Lock & valve & gauge	
Electrical Power 220V, 50/60Hz, 1 Φ		28.0 A	37.0 A
Electrical Power 380V, 50/60Hz, 3 Φ		NA	12.5 A

• Standard Accessory



Stainless Steel Funnel

• Safety Device

- Electric Leakage Circuit Breaker(E.L.B)
- Over Temp Controller