

Module	Technical Parameters & Features Description		
High-Temperature System	Heating Mode	Cold wall heating	only the sample is heated. The reaction vessel and observation window are kept near room temperature
	Working Temperature	Room temperature to 1300°C	
	Heating Rate	500°C/min	
	Cooling Rate	100°C/min	
	Gases	Multiple gas atmospheres, including Ar, H ₂ , CH ₄ , C ₂ H ₂ , etc.	Achieves reducing conditions at temperatures above 1000°C and combustible gas atmospheres
Microscopic Observation System	Sample Size	25 x 25 mm	
	Observation Area	Diameter = 10 mm	
	Sample Stage	X/Y = 7 mm, Z = 15 mm	Integrated heating module with XYZ manipulation in the chamber for sample movement in XYZ directions
	Sample Stage XYZ Auto Control	Repeatability ±5 μm	
	Optical Resolution	0.5 μm	With proprietary optical design for improved image contrast
	Objective Lens 20X	WD = 32 mm, NA = 0.34,	Depth of Field = 3.2 μm, Working Distance = 10 mm, View Area = 750 μm x 750 μm
	Objective Lens 50X	WD = 21.4 mm, NA = 0.5	Depth of Field = 0.9 μm, Working Distance = 4 mm, View Area = 260 μm x 260 μm
	Camera Resolution	0.3 μm, 2048 (H) x 2048 (V)	
	Autofocus for Microscope	Z-axis repeated positioning accuracy ±5 μm	
Water Cooling	Cooling capacity	3000 W	
Vacuum	Vacuum level	1 Pa, pumping speed 360 L/min	
Overall Dimensions	1600 mm (L) x 700 mm (W) x 2000 mm (H)		
Vibration Isolation Platform	Suggested if factory vibration level is VC-D or below.		