

S1 SPS Sintering System

Published catalogue configuration | 26 September 2026

S1 furnace configuration data organized for engineering review and quotation preparation.

Use these published values for initial comparison. Final work zone, simultaneous temperature-pressure capability, atmosphere, utilities and acceptance limits are confirmed in the project specification.

Model specifications

Parameter	Published value
Equipment Model	S1
Equipment Type	Horizontal, All-in-one, Side Discharging
Overall Equipment Dimension (mm)	1100(L)x 1290(W)x 1775(H)
Equipment Weight (T)	Approx.1.2
Maximum Product Dimension (mm)	Diameter 20-30 mm
Heating Element	Spark Plasma
Heating Power (KW)	30
Heating Voltage (V)	10
Heating Current (A)	3000
Maximum Temperature (C)	2400
Empty Furnace Ultimate Average Heating Rate (C/min)	50-500
Temperature Measuring Sensor	1000C: Type K Thermocouple (Inserted into mold, contact type) >=1000C: Dual-color Infrared monitor (Side, non-contact type)
Standard Vacuum Unit	Direct Connection Pump
Ultimate Vacuum Degree (Pa)	5 (Empty Furnace, Cold State, Purified)
Vacuum Pumping Speed	Atmospheric Pressure to 10 Pa <= 10min
Pressure Rise Rate (Pa/h)	<=2
Protective Atmosphere	Ar or N2
Atmosphere Pressure (MPa)	<=0.03 (Gauge Pressure, Slight Positive Pressure)
Maximum Pressure (T)	5

Parameter	Published value
Pressurization Mode	Bottom Pressurization (Bottom to Top)
Pressure Components	Servo Electric Cylinder
Pressure Control Accuracy	+/-1 per mille FS (starting from 0.5t)
Pressure Head Stroke (mm)	100
Pressure Head Open Height (mm)	120
Pressure Head Parallelism (mm)	+/-0.1
Pressure Head Coaxiality (mm)	+/-0.5
Displacement Display Accuracy (mm)	005
Pressure Head Sealing	Corrugated pipes sealing
Pressure Head Material	Copper Alloy (Water-cooling)

Official specification table

Catalogue row	Published values
1	No.: S1 Model: VHPsp-6-18-2400 Chamber Size: $\Phi 60 \times 180 \text{mm}$ Sample Dia.: $\Phi 20\text{-}30 \text{mm}$ Pressure: 50kN Vacuum: 5Pa Heating Power: 30kW Voltage: 10V Current: 3000 A Temperature: 2400 C
2	No.: S2 Model: VHPsp-8-25-2400 Chamber Size: $\Phi 80 \times 250 \text{mm}$ Sample Dia.: $\Phi 30\text{-}50 \text{mm}$ Pressure: 100kN Vacuum: 5Pa Heating Power: 50kW Voltage: 10V Current: 5000 A Temperature: 2400 C

Catalogue row	Published values
3	No.: S3 Model: VHPsp-10-25-2200 Chamber Size: $\Phi 100 \times 250$ mm Sample Dia.: $\Phi 50$ -80mm Pressure: 200kN Vacuum: 5Pa Heating Power: 100kW Voltage: 10V Current: 10000 A Temperature: 2200 C
4	No.: S4 Model: VHPsp-14-50-2200 Chamber Size: $\Phi 140 \times 500$ mm Sample Dia.: $\Phi 100$ -120mm Pressure: 500kN Vacuum: 5Pa Heating Power: 200kW Voltage: 10V Current: 20000 A Temperature: 2200 C

Prepare a technical review

Send your material, desired result, sample/workpiece size, temperature, atmosphere, load or pressure, throughput, destination country and required standards.

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<https://www.haoyuefurnace.com/products/s1-sps-sintering-system>

Catalogue provenance: <https://www.haoyue-group.com/product/s1-sps-sintering-system>