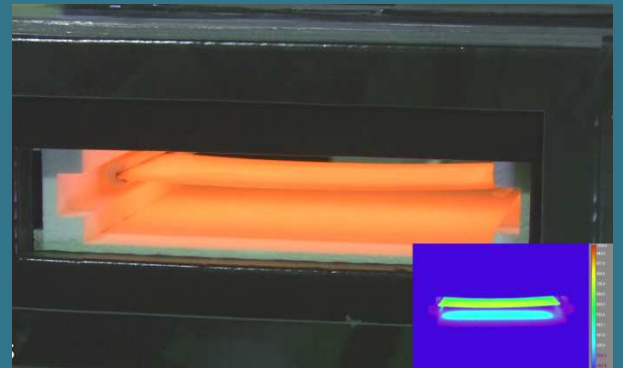


Contracted test service

Contact us by e-mail
info@d-kdn.co.jp



We hope this service will be useful as a prior verification to consider installing equipment. You can also request contract production of small lot.

Ultra high temperature furnace High temperature heating at 3000 °C	High temperature melting furnace 50kg of raw material can be dissolved at 2300°C
Large type unidirectional solidifying furnace Dissolution coagulation test of maximum 400kg	Atmosphere firing furnace Heating □1000 × 900L material at 950°C
Hybrid type sintering machine (batch type) Could be applied as electric sintering or hot press	Bridgman furnace Unidirectional solidification at 1650°C
Hybrid type sintering machine (continuous type) Continuous sintering by our proprietary method	Hot stamping equipment Hot forming by induction heating
Horizontal tubular furnace Heating in vacuum, inert gas, atmosphere	

※ The cost varies depending on the experiment, please feel free to consult us.

| Main specification



Ultra high temperature furnace

Power supply	HF induction power supply、20kW、10kHz
Atmosphere	Vacuum or inert atmosphere (Ar)
Temperature	Max. 3500°C
Heating rate	Up to 3000°C at 75°C/min, up to 2000°C at 100°C/min
Measurement	2 color radiation thermometer
Crucible	Carbon crucible、Φ70×Φ50×60L×48H



Large type unidirectional solidifying furnace

Heating source	Carbon heater, Pressure control (65 to 95 kPa)
Atmosphere	Vacuum or inert atmosphere (Ar)
Temperature	Max. 1650°C
Crucible size	1000mmsg × 400H
Measurement	Two color radiation thermometer
Crucible driving part	0.1 to 5mm/min, 2 to 200mm/min, Stroke 220mm



Hybrid type sintering machine (batch type)

Target size	Φ20 (100MPa)
Atmosphere	Vacuum or inert atmosphere (Ar)
Temperature	1500°C
HF power supply	10kW, 13kHz
Pulsed power	Current 8000 A, voltage 7V
Servo press	Maximum thrust 50kN (continuous 50KN) Load speed 0.12~53mm/sec



Hybrid type sintering machine (continuous type)

Process	8 times consecutive
Target size	Φ50 (25MPa) or Φ20 (100MPa)
Atmosphere	Vacuum or inert atmosphere (Ar)
Temperature	2000°C
Heating rate	Up to 1500°C, 100°C/min
HF power supply	20kW, 12.5kHz
Pulsed power	2000A, 15V, Pulse width 1~999msec
Servo press	Maximum thrust 50kN (continuous 50KN) Load speed 0.12~53mm/sec



Horizontal tubular furnace

Furnace tube	ID Φ55 × 700L, alumina dense
Atmosphere	Vacuum or inert atmosphere (Ar)
Temperature	1300°C
Heater	Canthal 1500, 3 zone Medium heater control (Bias at both ends)

High temperature melting furnace

Crucible size	Φ270 × 280H, 10t
Atmosphere	Ar substitution after evacuating
Temperature	Max. 2200°C
Heating source	Carbon heater, 2 zones (independent control)
Seed shaft drive	Vertical mechanism, rotation speed 0.1~10.0rpm Low speed 0.1~5.0mm/hr, High speed 2.0~200mm/min
Upper shaft	Possible to hang about 150 Kg (with load cell)



Atmosphere firing furnace

Inside dimensions	1100mmsg × 1000H
Atmosphere	Air
Temperature	950°C
Drive section	Floor lifting mechanism



Bridgman furnace

Crucible size	245mm × 220mm × 220H
Atmosphere	High vacuum or inert atmosphere
Temperature	1700°C
Crucible drive	low speed 1 to 100mm/hr, high speed 6 to 600mm/min, Stroke 280mm
Stirring mechanism	Stirring shaft 10~100rpm, stroke 350mm



Hot stamping equipment

Press machine	Hydraulic 20 ton(with super unit), Stroke 250mm, die height 500mm, Mold dimensions 600mm × 500mm
HF power supply	Max. output 30kW, frequency 30~250kHz, Using SiC-FET (module)
Temperature	Max. 1000°C (depending on material)
Transport mechanism	Electric actuator X axis: transport speed Max. 1100mm/sec, stroke 500mm Y axis: transport speed Max. 500mm/sec, stroke 500mm Work clamp: transport speed Max. 100mm/sec, stroke 14mm

※ The cost varies depending on the experiment, please feel free to consult us.