

Vacuum Heat Treatment Furnace

PQ Series

Pressurized Gas-cooling Horizontal Vacuum Furnace



■ Application

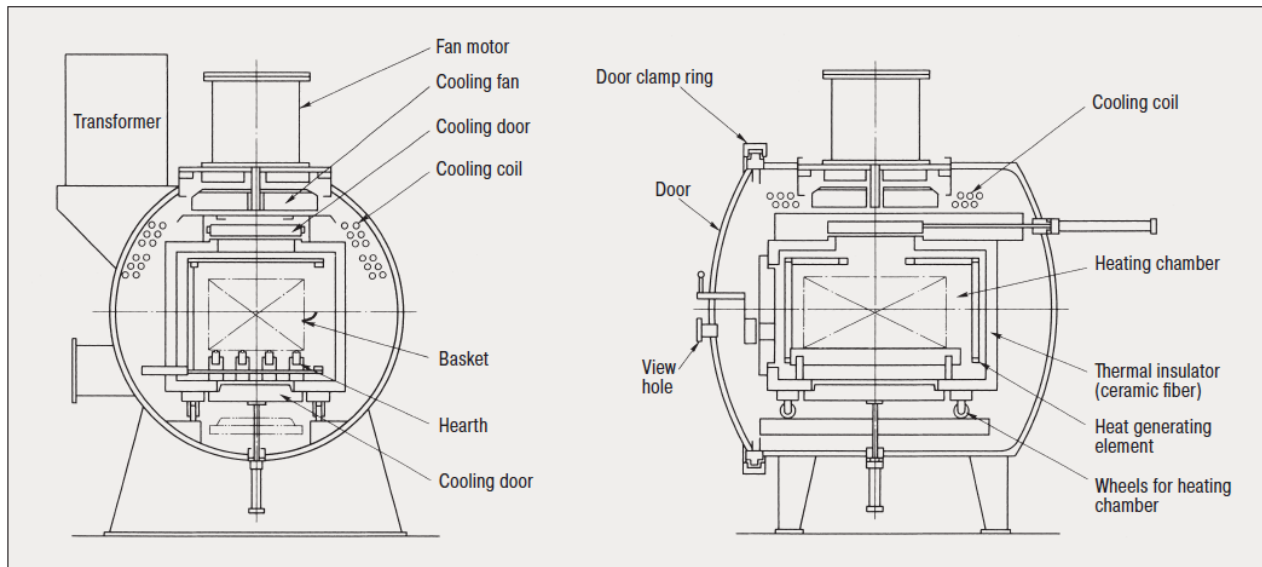
- Quench Hardening, Tempering (540°C or more), Solution Treatment, Age Hardening, Magnetic Treatment, Annealing, Soldering

■ Features

- Heating chamber inside lined with molybdenum plate, boosting efficiency inside the chamber while enhancing the temperature distribution uniformity and uniform radiation performance
- External surface temperature of internal chamber maintained at 200°C or less to enhance energy saving
- Rapid cooling possible by applying pressure of 2(2.8)bar
- Heater arranged on total four sides at the top, bottom and both sides, ensuring uniform heating over wide range from low to high temperatures.
- Clutch type open/close door, improving safety under pressure

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Standard Performance

Temperature(Max)	540-1300°C(1320°C)
Ultimate Pressure	High vacuum from 7×10^{-3} Pa(5×10^{-5} torr)
Exhaust Rate	Within 12minutes (from atmospheric to 1×10^{-2} Pa(1×10^{-4} torr), empty furnace,normal temperature)
Heating Rate	Within 25 to 35 minutes from normal temperature until 1150°C,empty furnace
Cooling Rate	Within 15 to 20 minutes from 1150 to 150°C,200KPa (1500torr),empty furnace,N ₂ gas,gas fan cooling

Standard Specifications

Model	Furnace Outside dimension (mm) (W×H×D)	Effective Work Area(mm) (W×H×D) ±5°C	Heater Input (kW)	Power (kVA)	Hydraulic Rotation Pump (L/min)	Roots Vacuum Pump (m ³ /Hr)	Oil Dispersion Pump (L/sec)	Max charge Weight (kg/gross)	Cooling Gas Rate (m ³ /syste)	Cooling Water Flow (ton/Hr)	Total weight (ton)
34/22/42	2500×2800×3600	340×220×420	40	75	1500	600	1700	60	2.3(1.3)	9	4.0
42/33/65	3200×3000×4000	420×330×650	60(90)	80	2500	600	5000	180	5.3(3.0)	15	6.0
65/50/100	3750×3100×4500	650×500×1000	135 (180)	170	3700	1500	7000	450	10.6(6.0)	20	8.1
80/80/130	4380×3500×4730	800×800×1300	225 (300)	280	7500	2500	13000	800	19.1(10.8)	25	12.5
100/100/140	7200×4400×11500	1000×1000×1400	300 (360)	370	15000	5000	39000	1000	25(14.1)	30	22.0

(NOTE)Cooling Gas Flow:Values in parentheses show cases at reduced pressure
 Effective Work Area:Basket outside size
 Heater Input:Values in parenthese for rapid heating

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