

真空滲氮爐



原理：

藉由抽氣系統置換腔內氣體，將氧氣濃度降至接近真空狀態，最終在無氧的環境下進行滲氮製程。

用途與效益：

在工件表面產生硬化層，提升其耐磨耗性質。

規格一覽表

規格		型號	VPN-600
安裝尺寸	Width		4500 mm
	Length		4500 mm
	Height		4000 mm
加熱區尺寸			Ø 900 x L 1300 mm
工作區尺寸			Ø 600 x L 900 mm
載重限制			600 Kg
加熱體功率			100 Kw
絕熱系統			外加熱腔襯陶瓷纖維板/棉
最高溫度			650°C (超溫限制700°C)
冷卻系統			2HP 鼓風機*2
分壓氣體選擇			N ₂ / NH ₃ / CO ₂
備壓氣體選擇			N ₂
均溫性			600°C 9點均溫測試 ±5°C
最終真空度			5 × 10 ⁻¹ Torr
抽氣速率			清潔空爐，精抽 30min至少達5 × 10 ⁻¹ Torr
腔體漏率			5 × 10 ⁻³ Torr L / Sec
最大冷卻速率			空爐下650°C冷卻至150°C，150分鐘內
回充分壓設定範圍			800 Torr

Vacuum Nitriding Furnace



Features:

Introducing atomic nitrogen into the surface of a ferrous alloy is achieved by heating and introducing a specific atmosphere, aiming to obtain the desired mechanical properties.

Applications:

1. Generate a hardened layer on the surface of the workpiece to enhance its wear resistance properties.

Vacuum Nitriding Furnace-Specs

SPEC		Model	VPN-600
Installation Dimensions	Width		4500 mm
	Length		4500 mm
	Height		4000 mm
Heating Area			Ø 900 x L 1300 mm
Effective Radiation Work Zone			Ø 600 x L 900 mm
Load Capacity			600 Kg
Heater Power			100 Kw
Insulated System			Ceramic Fiber Lining for External Heating Chamber
Maximum Temperature			650 °C (Temperature Limit 700 °C)
Cooling System			2HP Blower*2
Partial Pressure System			N ₂ / NH ₃ / CO ₂
Backfill gas			N ₂
Temperature Uniformity			Temperature uniformity is within ±5 °C by taking 9-point with PTCR at 650 °C
Ultimate Vacuum Level			The empty furnace is performed at normal temperature during dry run cycles. 5 ×10⁻¹ Torr
Pumping Rate			During dry run cycles · Pump down to 5 ×10⁻¹ Torr range in 30min
Chamber Leak Rate			5 ×10 ⁻³ Torr L / Sec
Maximum Cooling Speed			Cool down from 650 °C to 150 °C during dry runs in 150min
Setting Range of Partial Pressure for Venting			800 Torr