



HAO精密节能垂直固化炉

更精密 更节能 更可靠

HAO PRECISION ENERGY-SAVING VERTICAL CURING FURNACE

More precise, energy-saving, and reliable



产品介绍 PRODUCT INTRODUCTION

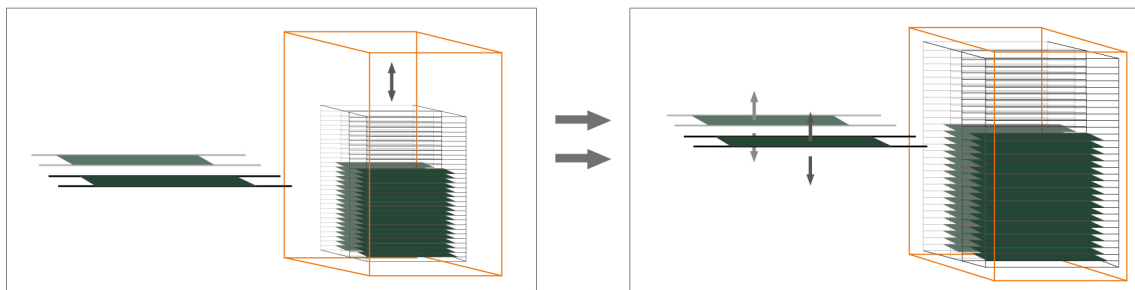
- 浩宝是国内第一家自主研发垂直固化炉的公司，HAO系列固化炉是浩宝公司针对高要求，高精度的高端设备打造的高效精密垂直固化炉，具有结构先进，占地少，能耗低，运输精准平稳，固化品质高等特点。设备可对接MES系统，实现工业互联网4.0管理。
- 应用范围：广泛运用于摄像头、毫米波传感器、Mini LED、PCB/FPC等领域的点胶、涂覆后的烘干固化或老化。
- HB is the first company in China to independently develop a vertical curing furnace. The HAO series curing furnace is an efficient and precise vertical curing furnace designed by HB for high-end equipment with high requirements and precision. It has the characteristics of advanced structure, small land occupation, low energy consumption, precise and stable transportation, and high curing quality. The device can interface with the MES system to achieve industrial Internet 4.0 management.
- Application scope: Widely used for dispensing, drying, curing, or aging in fields such as cameras, millimeter wave sensors, Mini LEDs, PCB/FPC, etc.

核心技术及优势 CORE TECHNOLOGY AND ADVANTAGES

■ 产能高, 炉膛小, 更节能

High production capacity, small furnace, more energy-saving

- 浩宝先进固定式料框结构，炉膛空间使用率高，可以更小的炉膛容纳更多的产品，热能利用率高，生产总耗能少。
- 可选双轨双通道独立进出板，与单轨相比进出板时间节省60%以上。
- HB advanced fixed material frame structure, high utilization rate of furnace space, can accommodate more products in a smaller furnace, high heat energy utilization rate, and low total production energy consumption.
- Optional dual track dual channel independent entry and exit board, saving over 60% of entry and exit time compared to monorail.

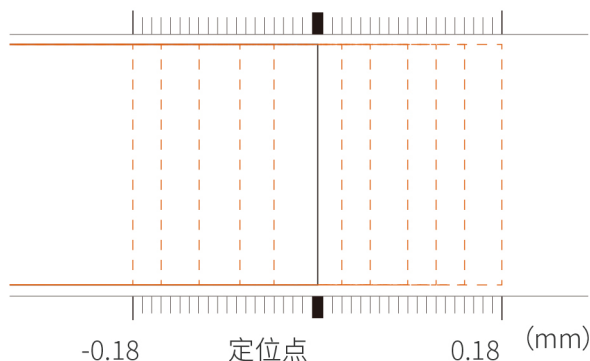


固定式料框，大幅度提升炉膛使用率
Fixed material frame, greatly improving furnace utilization rate

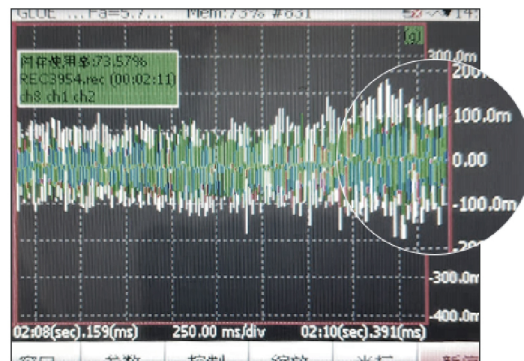
■ 定位精准, 运输平稳

Precise positioning, stable transportation

- 采用浩宝智能定位技术，定位精度高达 $\pm 0.18\text{mm}$ ；采用新型滚针传动，传输时震动幅度降至 $\pm 100\mu\text{m}$ 以内，升降夹紧精度可达 $\pm 18\text{mm}$ ，满足高端产品的精密生产需求。
- Using intelligent positioning technology, the positioning accuracy is as high as $\pm 0.18\text{mm}$. Using the new needle drive, transmission vibration amplitude is reduced to within $\pm 100\mu\text{m}$. The accuracy of lift and clamping can reach $\pm 18\text{mm}$ to meet the precision production needs of high end products.



传动定位精准
Accurate transmission positioning

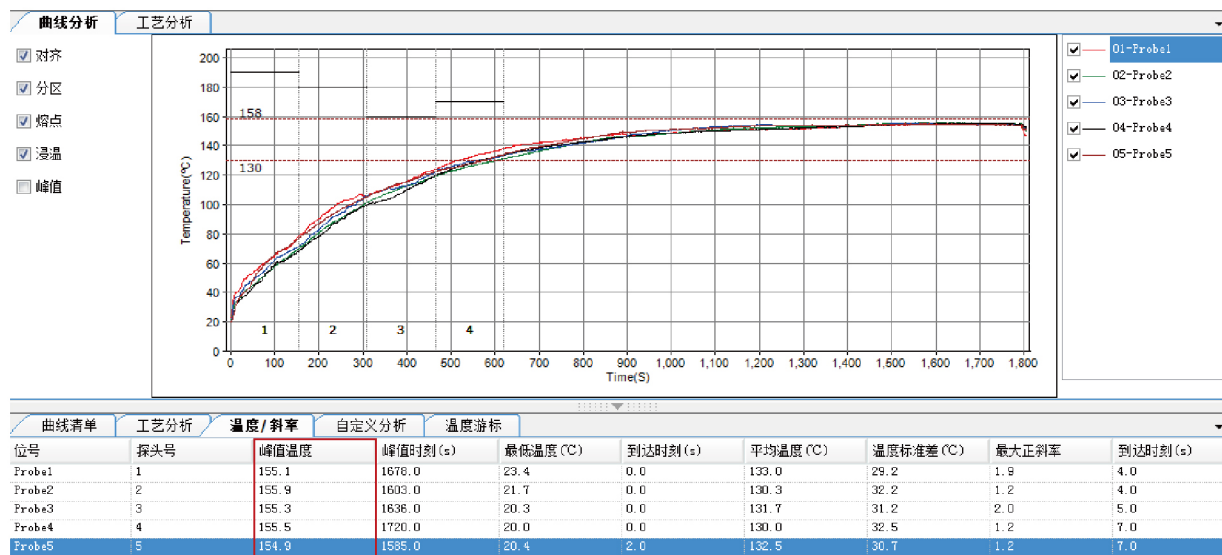


传输平稳震动低
Smooth transmission with low vibration

■ 控温精准, 固化品质高

Temperature control precision, improved the curing quality results

- 浩宝先进控温技术控温精度高达 $\pm 1^{\circ}\text{C}$ 。炉内温度均匀性好, 固化品质高, 品质稳定。
- Temperature control accuracy at $\pm 1^{\circ}\text{C}$. Perfect temperature uniform in the oven. Good results for curing quality to make products quality.



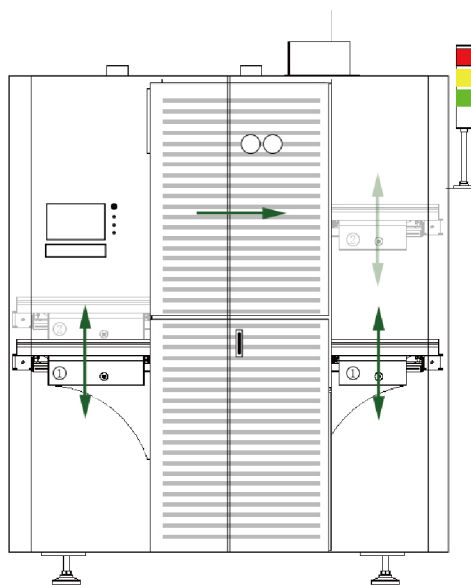
温度测试图

Temperature test profile

■ 更出色, 更稳定, 更智能

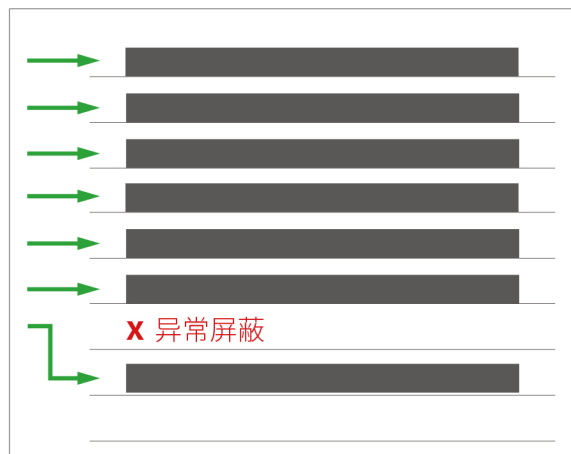
Better Stable Smarter

- 浩宝先进炉膛结构、科学风道设计, 设备性能更加出色, 运行更稳定, 不易故障、掉板等。
- 采用浩宝智能控制系统, 可屏蔽异常层 (屏蔽后, 异常层不再进板)。
- HB's advanced furnace structure and scientific air duct design make the equipment perform better, operate more stably, and are less prone to malfunctions, plate failures, etc.
- Adopting the HB intelligent control system, the abnormal layer can be shielded (after shielding, the abnormal layer will no longer enter the board).



设备结构示意图

Equipment structure diagram



屏蔽后, 进板自动跳过异常层

After shielding, the inlet board automatically skip the abnormal layer

参数规格 PARAMETER SPECIFICATION

浩宝HAO精密节能垂直固化炉 HAO Precision Energy-saving Vertical Curing Furnace

系统 System	项目 Item	HAO-250D
机身 Body	最大外形尺寸(mm) Max. Demension (mm)	L2000*W2000*H2100
	设备重量 Weight	≤2500kg
	整机功率 Total power	40KW
	运行功率 Operating power	约16KW About 16KW
	控制方式 control mode	PLC+PC
	电源 power supply	3P 5W 380V(AC)
板处理 Board Handling	过板尺寸 (mm) Max. PCB size (mm)	L50~300*W160~250
	产品单重 Products Weight	≤5KG
	产品高度 Space height for products	≤8mm
	工艺边尺寸 Process side	5mm
	总层数 Total layers No.	60
	单层产品容量 Capacity per layer	1
	最大产品容量 Maximum product capacity	60
	层间距 (mm) Layer spacing (mm)	40
	层间有效高度 (mm) Effective height between layers (mm)	37
	入板高度 Coveyor Height	900±30mm
	工作节拍 Cycle time	≥15s
	前后接驳 In / Out Feed Conveyor	无接驳 Not Available
	轨道数 Number of conveyor	2
	轨道调节方式 Conveyor Rail Width Adjust	手动 Manual
加热系统 Heater System	温度设置 Set Temperature	≤200℃
	发热丝功率 Heating Power	36KW
	控温精度 Temperature Control precision	±1℃
	板温均匀度 PCB Temperature Difference	±5℃
冷却系统 Cooling System	冷却模式 Cooling Mode	可选配 Option
氮气系统 N ₂ System	氮气配置 N ₂ configuration	无 Be without
洁净系统 Clean System	洁净要求 Clean Class	可选配(具备万级, 十万级) Option(level 10000, 100000)
气体检测 Gas Detection	危险气体检测 Hazardous Gas Detection	可选配 Option

注：参数若有更改，恕不另行通知！The above contents are subject to change without further notice!



浩宝微信公众号



浩宝微信视频号

深圳市浩宝技术有限公司
SHENZHEN HB TECHNOLOGY CO.,LTD.

地址：深圳市宝安区松岗街道田洋六路1号浩宝工业园

电话：400-063-8899 传真：0755-27271140

网址：www.szhaobao.com

2023年9月版