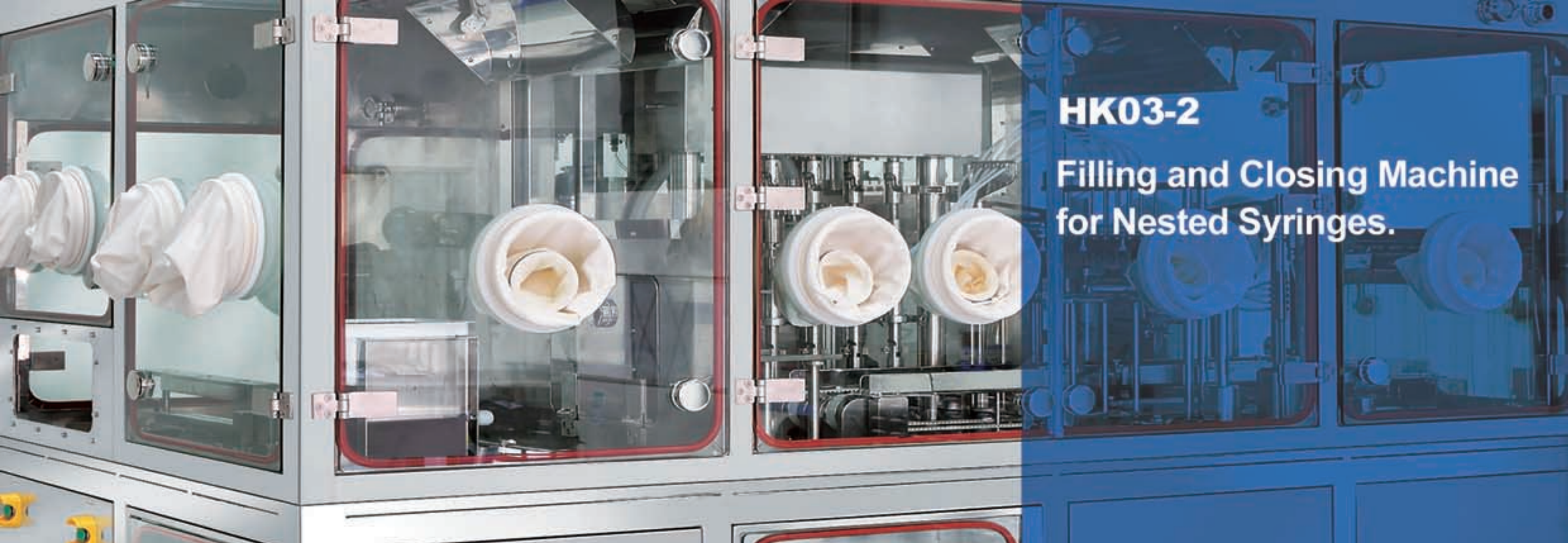




HK03-2

Filling and Closing Machine
for Nested Syringes.

■ 機械規格 / Specifications

MODEL 型 號	HK03-2高壓無氣泡自動充填設備
Filling stations 充填站數目	2
Piston pump Piston幫浦SUS 316L	3
Pneumatic filling nozzle 氣動充填嘴SUS 316L	5ml X 4 OR 其它 X 5
Filling capacity 充填容量	BD針劑管 1 / 3 / 5 ml 公差 ± 3%
Dropper insertion stations 入塞站數目	1
Filling speed (Max.) 最快充填速度	1000支/hour
Capacity 設備產能	10 bph
Laminar flow equipment 層流設備	HEPA過濾效率99.99% (0.3um)
Vacuum pump 真空泵	120 立方米/小時 0.5 mbar
Hopper with agitator speed 料桶附攪拌器轉速	200 - 500 r.p.m
Barrel electronic polishing inside 料桶內部電子拋光	Ra□0.2μm以下
Power consumption 電力消耗	3.5 Kw
Electricity demand 電力需求	A220 / 380 V , 50 / 60 Hz 三相
Mechanical weight 機械重量Approx	2500 Kgs
Mechanical size 機械尺寸	2900mm(L) X 1500mm(W) X 2000+300mm(H)
Optional 可選配	VHP滅菌設備

SAM

群藝自動化機械有限公司
Smart Auto Machine Co., Ltd.

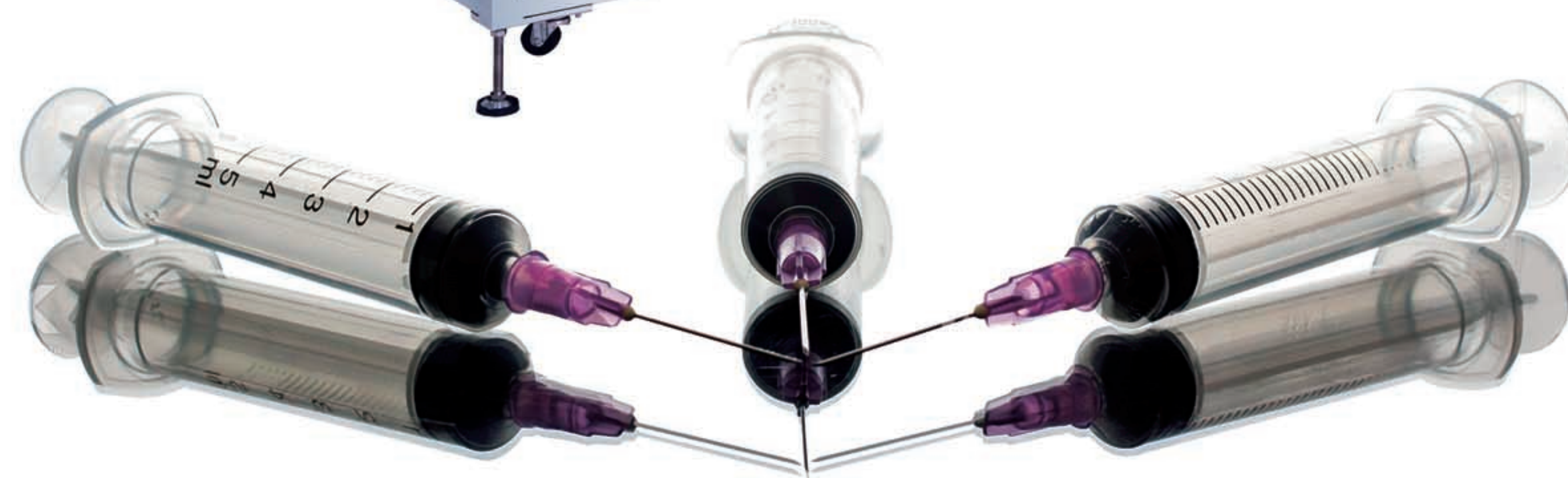
43342台中市沙鹿區台灣大道六段870巷31號
No.31, Ln.870, Sec. 6, Taiwan Blvd., Shalu Dist., Taichung City 43342, R.O.C.
TEL:886-4-26336531 FAX:886-4-26336530
E-mail:smartauto@aptg.net Sky-PE:smartauto1



HK03-2

高壓無氣泡自動充填設備

HK03-2 Filling and Closing Machine for Nested Syringes.



HK03-2 高壓無氣泡 自動充填設備

Filling and Closing Machine for Nested Syringes

適用範圍： HK03-2高壓無氣泡自動充填設備用於生技和醫療cGMP臨床和商業規模生產0.5ml至5ml注射器。
HK03-2 syringe filler; for Biotechnology and medical cGMP clinical and commercial production: 1ml to 5ml syringes.

機械特點：

1. 設備可使用於無菌針劑充填 / 上塞。
2. 旋轉幫浦、充填嘴等與針劑液接觸面全部採用SUS 316L 製造。
3. 快速自動拆卸及撕膠膜設計，拆卸後利用密閉式薰蒸滅菌 (VHP) 功能進行滅菌，全程採無菌製程。
4. 伺服馬達控制，能非常精確的自動位移、定位、充填、上塞作業，高產出率。
5. 具缺料、異位檢知功能，以及具有回抽功能不會有垂滴現象。
6. 充填數量範圍 1ml – 5ml。
7. NEST一盤100支，完成充填時間為6 min。
9. 採用鐵氟龍管及矽膠管，符合藥品級安全規範。
9. 符合100 Class A級無塵等級。

Features :

1. The equipment is suitable for sterile injection filling /plug.
2. The contact surface between rotating pump/ filling and injection is made by SUS316L.
3. We adopt the design of automatic removal and dyestripping. After removing, we use VHP to sterilize and adopt aseptic process within complete process.
4. Use servo motor to precisely control auto-shift, positioning, filling and plug operations for high product yield.
5. The machine owns the function that is lack of material, ectopic detection and retraction but doesn't appear the trickle-down phenomenon.
6. The range of filling: 1ml – 5ml
7. There are 100 syringes of NEST, and the filling time is 6 min.
8. We adopt Teflon and Silicone Tube and conform to pharmaceutical safety specification.
9. we conform the 100 class A grade cleanliness

為什麼要用預充式注射器：

預填充注射器為患者、醫療護理人員和製藥廠商提供了許多優勢。

- 安全** – 減少針刺的風險傷害、觸摸污染和交叉感染
- 簡單** – 易於使用，最少的管理步驟。
- 安全性** – 精確的高劑量和密封度，可以支持系統的完整性。

對於製藥和生物技術公司，預充式注射器增強：

- 節省** – 優化的API使用，減少過量填充，減少材料需求，並減少藥物浪費在臨床試驗 (vs小瓶)
- 簡單** – 簡單的存儲和處理
- 差異化** – 在市場上的瓶子競爭優勢

Why a prefilled syringe?

Prefilled syringes offer many advantages to patients, health care professionals, and pharma manufacturers. For patients and health care professionals, prefilled syringes provide :

- Safety** – reduced risk of needle stick injuries, touch contamination, and cross-infectionn.
- Simplicity** – easy to use with minimal administration steps.
- Security** – high dosage accuracy and possible usage of tamper-evident closures, which can support integrity of the system.

And for pharma and biotech companies, prefilled syringes enhance :

- Savings** – optimized API use with less overfill, reduced material requirements, and less drug waste in clinical trials (vs vials).
- Simplicity** – simple storage and disposal.
- Differentiation** – competitive advantage over vials in the marketplace.



撕膜 / 移位 / 定位



自動充填



打塞密封