



Crystal[®] L1 Robot Line **Laboratory Equipment for AT-Closed Vials[®]**

Filling process

The Laboratory **Crystal[®] L1** Robot Line is designed to meet small scale pharmaceutical filling with a capacity going up to 600 vials/hour. Typical batch size ranges from a few hundred up to 5,000 vials per shift.

Fully compliant with cGMP requirements, the Laboratory **Crystal[®] L1** Robot Line is able to process all ready-to-fill **AT-Closed Vials[®]** (from 1 to 50 ml) with minimum format change. As an option, glass vials can also be filled and stoppered.

The full process is made of the following steps:

1. Filling

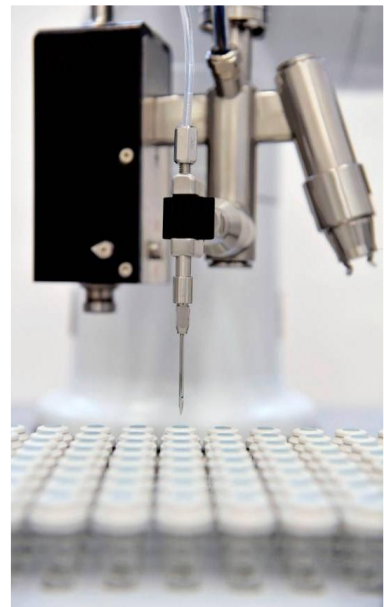
- Ready-to-fill AT-Closed Vials[®] are organized in racks manually positioned and locked.
- Filling performed by the robot, by means of a specially designed needle that pierces the stopper and dispenses the liquid inside the vial.

2. Laser resealing

- The robot re-places the needle on its support, and activates its laser tool.
- The puncture trace is re-sealed by a laser shot on the stopper surface.

3. Capping

- Using its third tool, the robot performs capping inside the barrier, by simple snap-fit of a plastic cap.



Crystal[®] L1 Robot Line in a CVFS¹



Crystal[®] L1 in a SKAN PSI-M isolator

¹ "CVFS - Closed Vial Filling System" is defined as "An aseptic filling system providing an environment achieving uncompromised Class ISO 5 protection that surrounds containers which are delivered closed and sterile inside, are filled through their stoppers and then immediately re-sealed to preclude the possibility of microbial ingress".

Key facts

Laboratory Crystal [®] L1 Robot Line	
Applications	Aseptic filling of liquid and freeze-dried parenterals. All types of products (including cytotoxics and biohazard).
Output (1ml vials)	Up to 600 vials/hour.
Filling volume	0.1 ml to 50 ml + overfill.
Filling accuracy	Typically 1%, depends on filling pump selected.
Dimensions (L x W x H)	mm: 1190 x 760 x 930 (clean room arrangement). in: 47 x 30 x 37
Utilities	Electricity only. No water, no compressed air.
Materials	AISI 316L for product contact parts.

Versions

Upon your project specifications, the Laboratory **Crystal**[®] L1 Robot Line can be provided in various versions:

Containment

- As a sub-system, to be installed in a third party barrier;
- Safety barrier for installation in a clean room;
- CVFS¹ for installation in Grade C;
- Isolator - allowing washing and decontamination – for highly potent and biohazard products.

Material entry/exit systems

- Mousehole;
- RTP (Rapid Transfer Port);
- H₂O₂ decontamination airlock.

Vial formats

- Closed Vials only (1 to 50 ml);
- Closed Vials and classical open vials (glass or polymer).



Crystal[®] L1 Robot Line
for clean room



More information available on www.aseptictech.com

Aseptic Technologies S.A. reserves the right to make any changes to the described equipment and characteristics without notice.

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