

ISP System process layout

## 1 - Application

### Special environment assembly process:

- Medical
- Photonic
- Clean industry

## 2 - Description

### 1. Operator workstation:

- Preparation of pallet with components
- Control by vision
- Intermediate manual operation
- Assembly product picking
- Clean air environment

### 2. Dynamic storage:

- 48 locations for product pallets
- Transfer to assembly workstations
- Transfer to/from operator workstation
- Transfer from final workstation
- Nitrogen or Argon environment

### 3. Assembly workstations:

- Sequential operations on pallet
- In-situ metrology
- Insertion without contact, screwing, welding
- Vacuum or nitrogen or Argon environment

### 4. Final workstation:

- Robots to manipulate products
- Cleaning, lubricating, annealing
- Exit product and/or pallet to storage
- Nitrogen or argon environment
- Product exit SAS

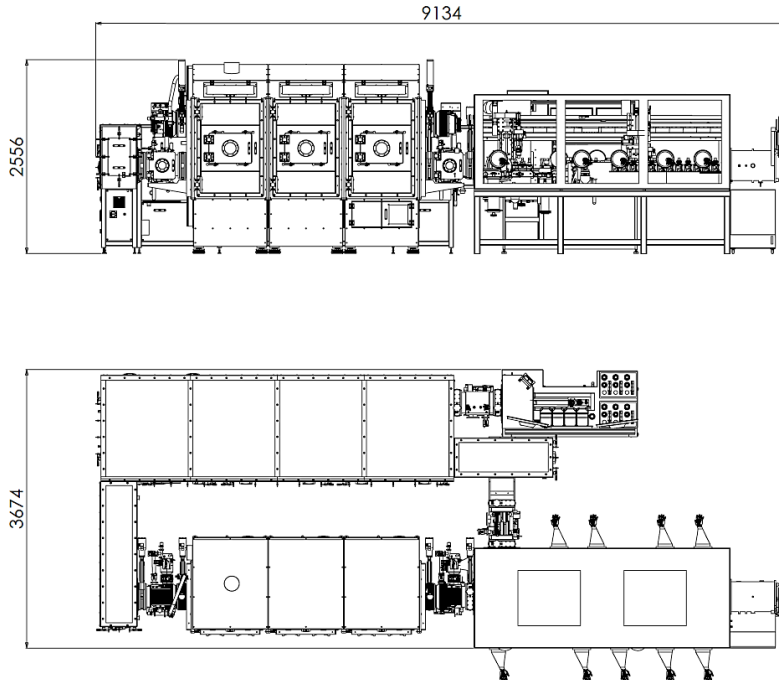
**5. Supervisor software:**

- IHM at operator workstation
- IHM for environments management
- IHM at final workstation
- Manage products recipes
- Control of component before entry in storage
- Manage storage:
  - Sized for continuous production
  - Custom priority of assembly
  - Calibration pallet
- Edit assembly reports

**3 – Technical Data**

CHARACTERISTIC	SPECIFICATIONS
Dynamic storage module	8H autonomy, motor for each location
Environments control	Air, oxygen, pressure, T°
Transfer axes	Standard or custom solution
Linear assembly axes	0,1µm resolution, 1 to 10 µm accuracy
Rotary assembly axes	0,001° resolution, 0,01° accuracy
Gripper	Custom design, 3 fingers
Vision	High resolution cameras
Metrology	Confocal, laser, force sensors

**4- Dimensions (mm)**



*Given as example, adapted to application*

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