

MAJ : 08/11/2018



ISP System Cartesian robots are based on technologies developed since 1997 by our engineering departments. They fulfill high requirements in precision, rate and reliability expected by manufacturers.

## 1 - Applications

- Precision positioning and assembly
- Precision machining with moderate cutting force
- Robotic handling

## 2 – Main advantages

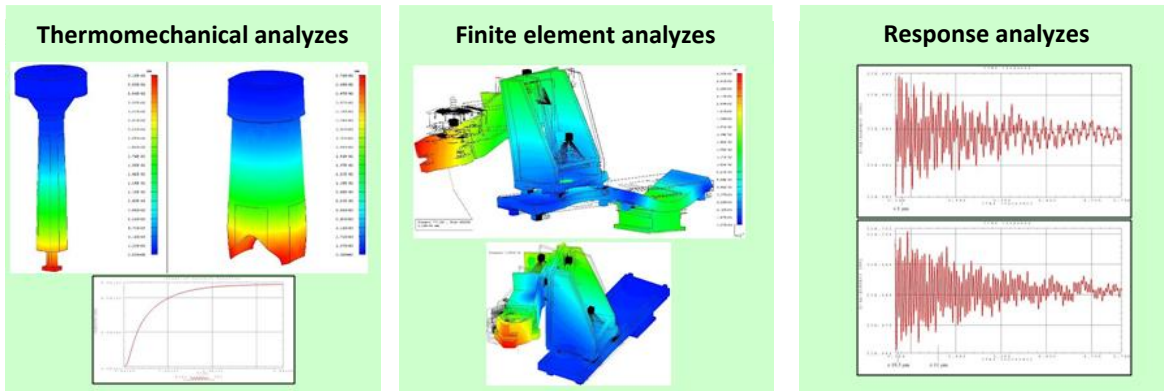
The oversized profiles provide maximum stiffness and maximum load.

To obtain the desired performance and ensure it in the long term, the ISP System robots are made from “linear motor” technology, which offer the following advantages:

### Drive by linear motors

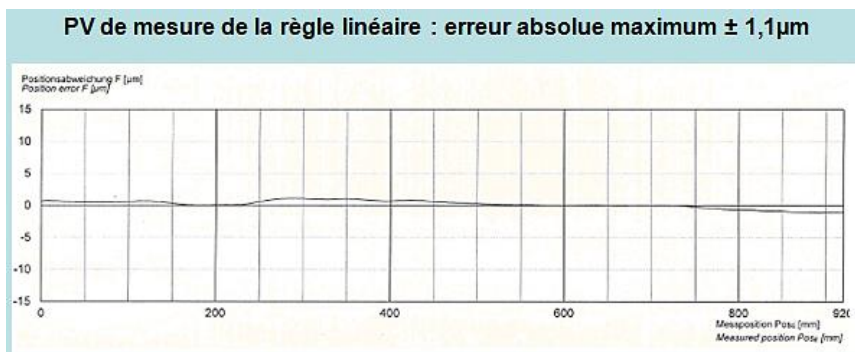
- High speed and acceleration levels
- Closed loop positioning on absolute measurement rule
- Frictions limited to only guide rails and pads
- Absence of wear and grip
- Minimum maintenance

To ensure the robot’s performance and the rigidity of the axes, the following simulations are also performed :



For greater precision, the ISP System robots incorporate « absolute linear rules » of high precision: no position loss, carriage positions obtained at 0.1 µm.

The positioning accuracy of the robot is checked using a laser tracker according to ISO 9283 (Industrial manipulator robots - Performance criteria and corresponding test methods).



### 3 – Technical datas

CHARACTERISTICS	SPECIFICATIONS
Payload:	100 kg
Working strokes (X, Y, Z) :	X : 3000mm Y : 5000mm Z : 150mm
Rotation (optinal) :	+/- 180 ° torque motor drive
Positioning accuracy:	+/- 50µm over the entire work area
Travel:	2 m/s
Guide :	Robust and accurate guide DUO-rail

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