



# YASKAWA

## Customized High Precision Positioning Stages Designed for Semiconductor Applications

YASKAWA Europe Technology is the European semiconductor branch of Yaskawa Electric Corporation from Japan.

Since 1915, YASKAWA Electric has pioneered cutting-edge technologies, specializing in motion control, robotics automation, system engineering and semiconductor solutions.

With professional expertise and knowledge of many years, together with Yaskawa's high-end motion control components, we provide customized design positioning stages considering high accuracy, repeatability straightness and flatness.

We offer positioning stages with granite for best accuracy and repeatability performance that are highly required in the semiconductor market.

### **Our customized stages are implemented with Yaskawa's advanced solution ideal for smart fabs:**

- ✓  **$\Sigma$ -X** is a key-factor in real-time data collection. The servo motor also acts as a sensor and collects various data. Motion and sensor data are collected on the same time by using  $\Sigma$ -LINK II fast communication, at 32KHz frequency.
- ✓ **i<sup>3</sup>-Mechatronics** is Yaskawa's digital data operation solution management that determines equipment status.

#### **i<sup>3</sup>-Mechatronics uses three "i" steps:**

##### **1. Integrated – Data Collection & Visualization**

Our smart products enable our customers to collect and analyse real-time data, as well as specialized Big Data analysis and AI learning.

##### **2. Intelligent – Utilization of Sensing Data**

Big Data analysis and AI are learning from collected production site data and offer new ways of optimizing the production process at every level.

##### **3. Innovative – Evolution through Technological Innovations Insights** gained from the in-depth analysis of the production process are used to trigger improvements and create a better level of production and quality.



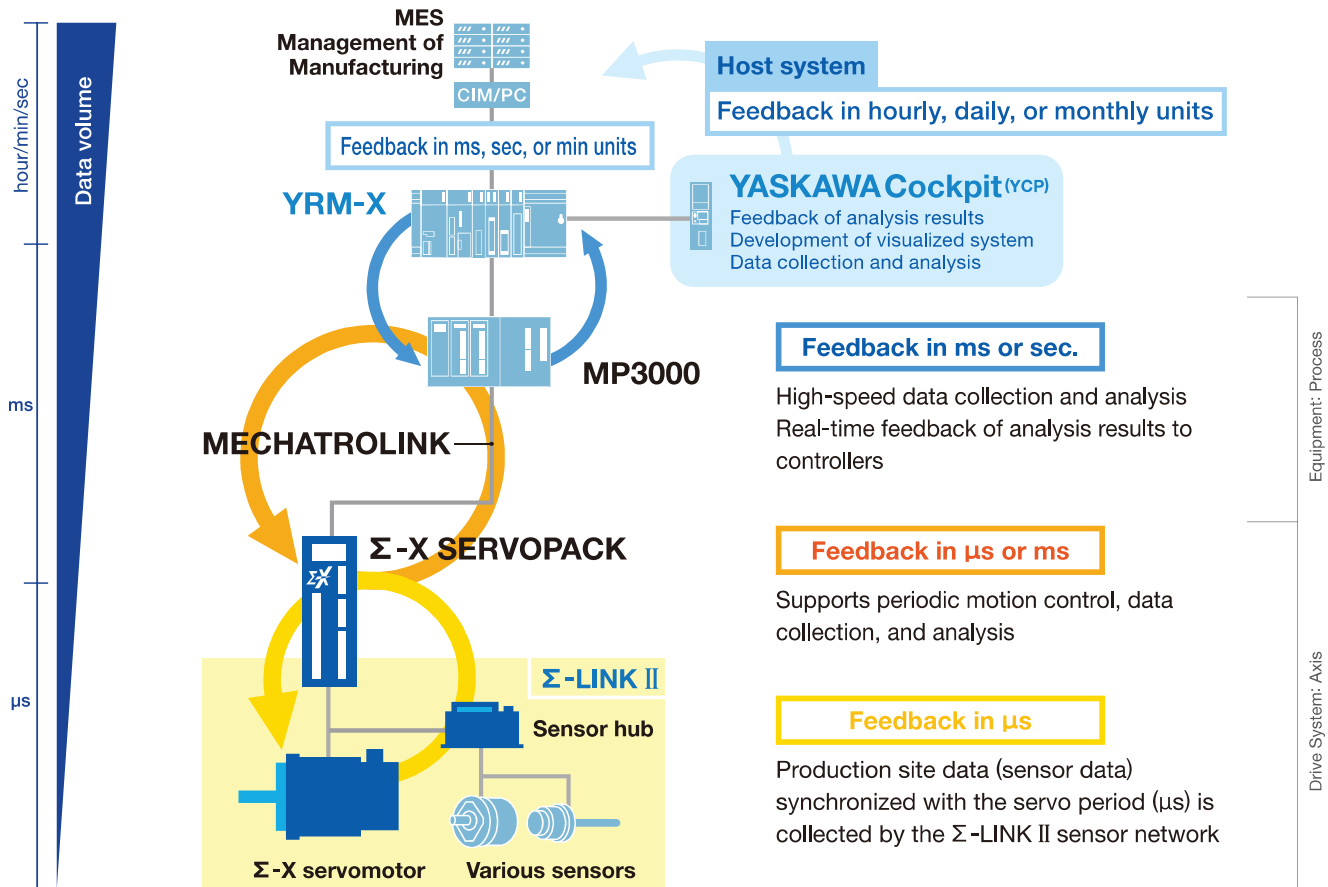
# i<sup>3</sup>-Mechatronics

integrated intelligent innovative

Evolution of Mechatronics through Data Utilization

## Smart Fabs work with Yaskawa's i<sup>3</sup>- Mechatronics Advanced Digital Solution integrated with $\Sigma$ -X Series

### Components that bring i<sup>3</sup>-Mechatronics to life

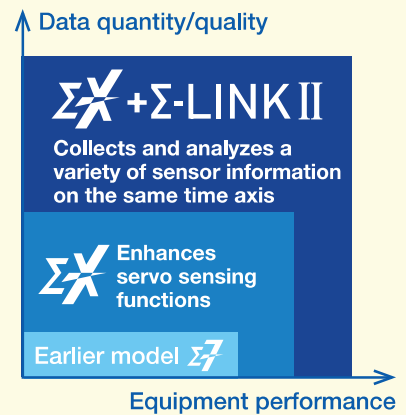


## $\Sigma$ -X: Becoming a key factor in collection of real-time data

$\Sigma$ -X features enhanced servo sensing functions. What's more,  $\Sigma$ -LINK II sensor networks can be used to collect sensor information at the same time, for equipment offering higher performance and functionality than ever.

### What is $\Sigma$ -LINK II?

A network providing integrated collection of servo and sensor information. Maintains advanced, highly reliable communication between SERVOPACKS and servomotor encoders while enabling cascaded connections of sensors and I/O devices.



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