

APPLICATION GALLERY

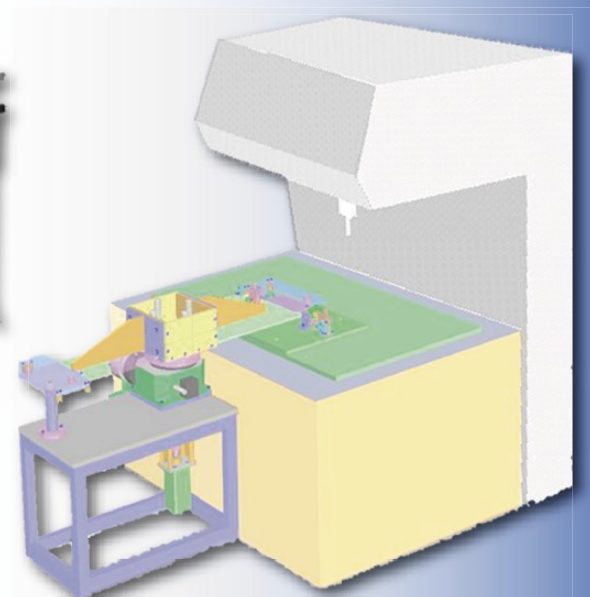
MANUAL SYSTEM

FOR LABORATORY CONTROL
ON PORTAL CMM



MOTORISED SYSTEM

FOR ON LINE INSPECTION
ON MEASUREMENT ROBOT



QUICK LOADING-UNLOADING SYSTEM FOR CMM

EasyLoad™ is aimed to maximize performance and productivity of your CMM.

EasyLoad™ is available in different configurations and dimensions for perfect fitting to every 3D metrology system.

EasyLoad™ represents, thanks to its simple and ergonomic design based on light components, a low-cost solution assuring high functionality and handiness.

It is available in two versions:

- **Manual**, with sliding rollers or on standard grinded slides.

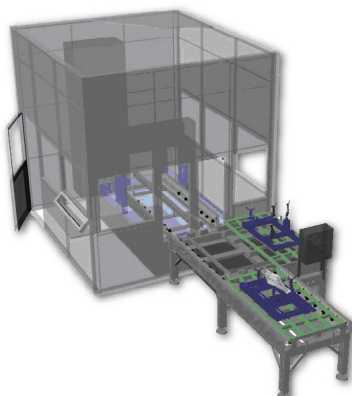
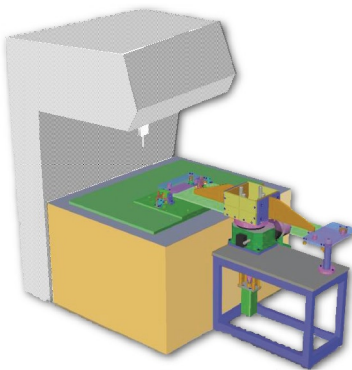
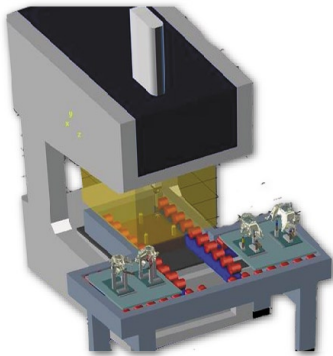
It represents a very simple and cost-effective solution, due to the absence of complex motorized movements and to the unique iso-static receiving system of the pallet on the CCM base plate. For highly dynamic applications, external rollers integrated with the system are foreseen, equipped with swivelling and braking rollers and including interlocking safety devices

- **Motorised**, with motorized movements and electronic or electro-pneumatic control units, interfaced with your equipments, in order to create fully automated control cycles.

EasyLoad™ main advantages:

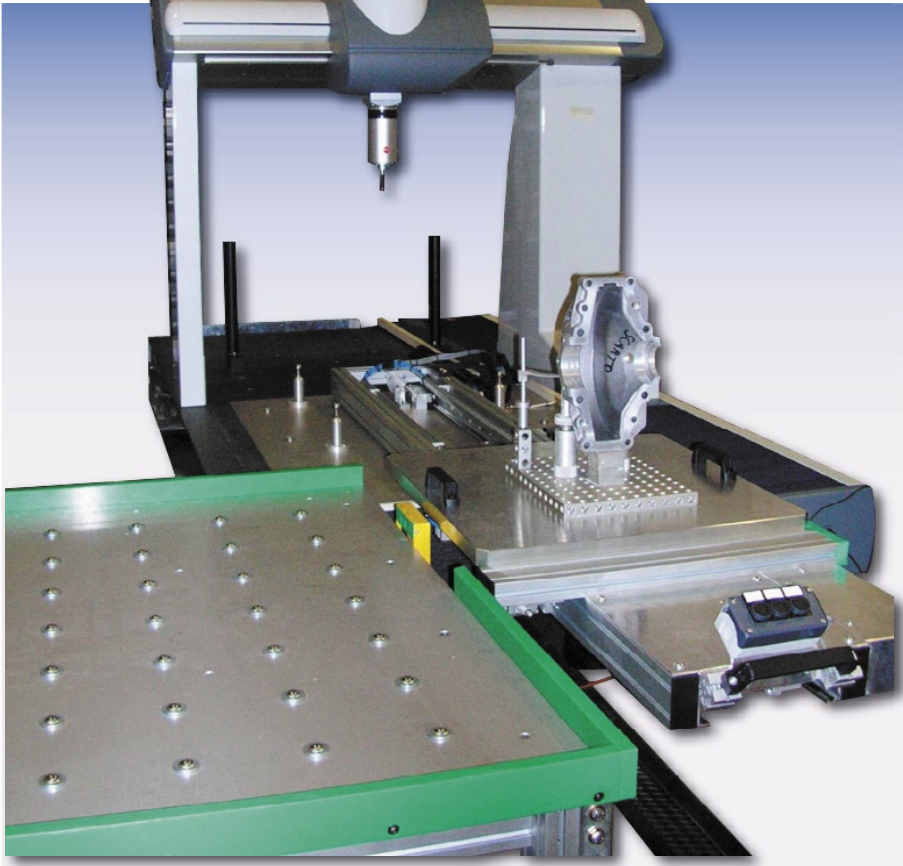
- **CMM productivity increase**, since retooling downtime is almost removed.
- **Safety and ergonomics**, to reduce risks owed to manual raising and positioning operations of the measured parts.
- **Reduced installation time**, as all modules are supplied preassembled and pretested to avoid prolonged implementation activities.
- **Compatibility with MODYBOX™ modules**, CMM loading/unloading systems can be integrated with our building modules to create control stations with protected climate.

Our worldwide assistance network provides an accurate assembling activity at the customer's site and guarantees continuous technical support.

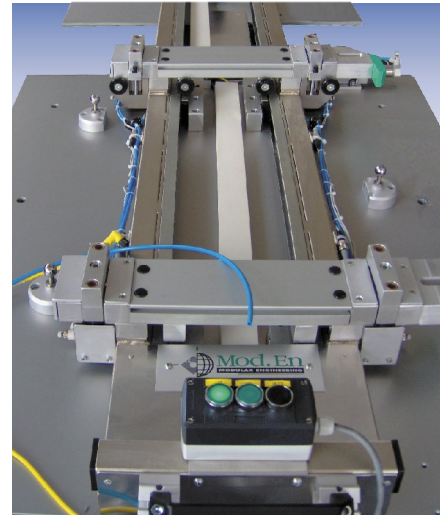


MANUAL TRAY SYSTEM WITH BALL BEARINGS EXTERNAL TABLE

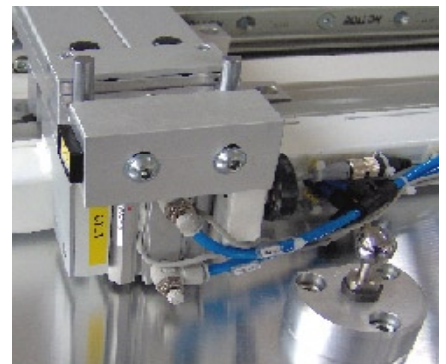
Removing pallet from the measurement position to the external table



Extractor moving part



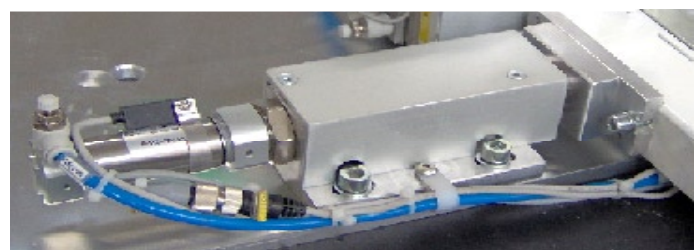
Lifting unit with pneumatic cylinder



Electronic and pneumatic control units



Pneumatic shutter for tray lock

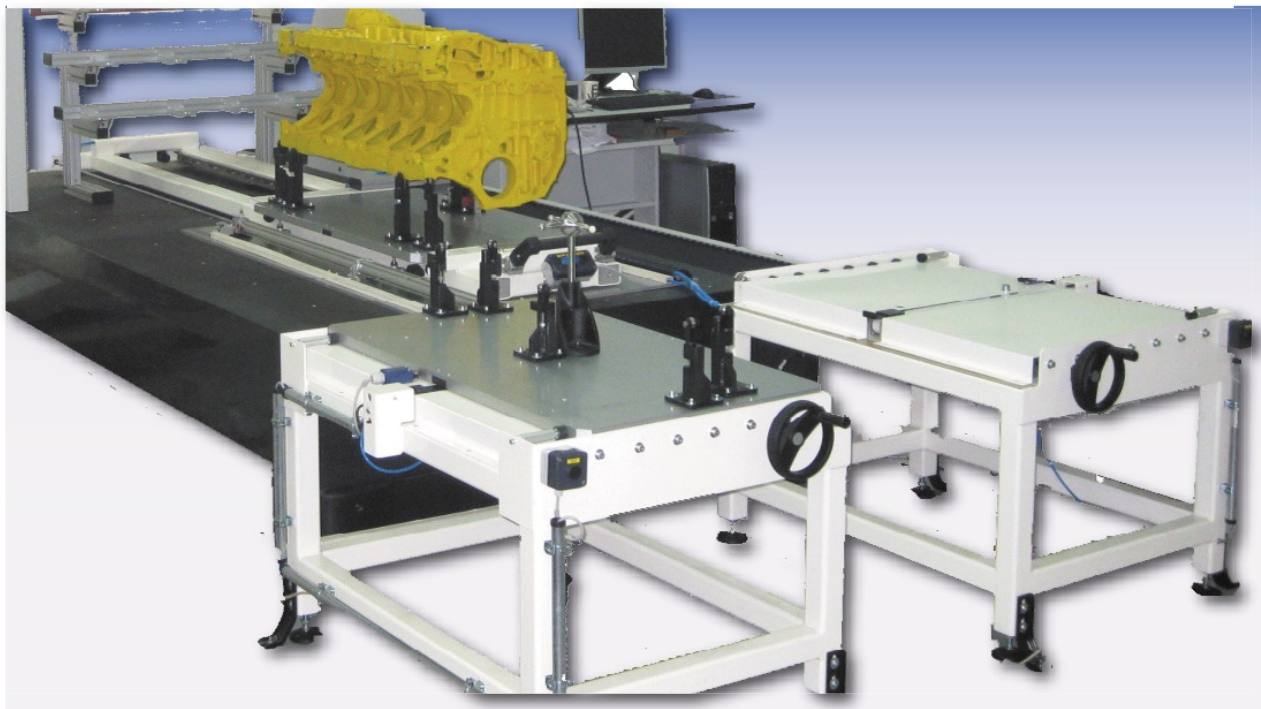


Specifications:

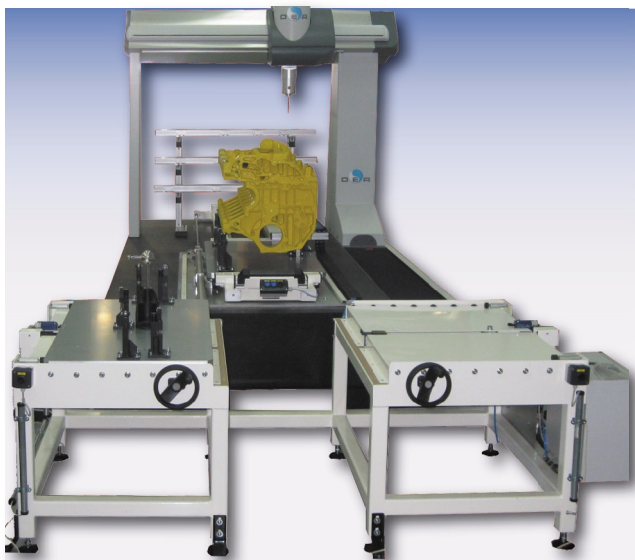
- System with 1 sliding tray on heavy-duty roller guides. Size as dimensioned according to customer's request, max. movable load 250 Kg (tool + part).
- 2 pallets foreseen on standard version => 2 pallets dim. 500 x 500 mm.
- Pallets lifting system obtained by inflation of low pressure pneumatic cushions (1.5 bar).
- Repeatable pallet centering system on CMM plate by isostatic system.

MANUAL TRAY SYSTEM WITH DOUBLE CHANGING STATION

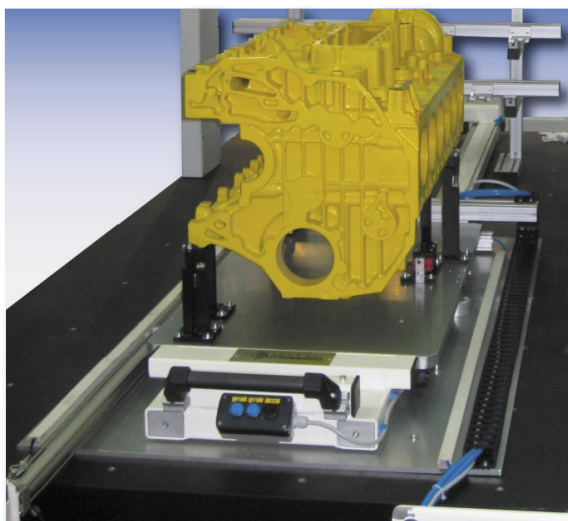
EasyLoad™ system with two stable external positions



Rapid handle for pallet advancement



Pallet **position** during measurement phase



Specifications:

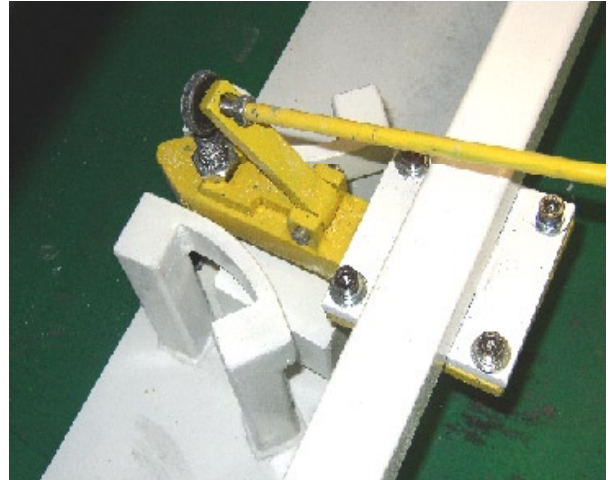
- System with 1 sliding tray on heavy-duty roller guides. Size as dimensioned according to customer's request, max. movable load 500 Kg (tool + part).
- 2 pallets foreseen on standard version => 2 pallets dim. 1000 x 600 mm.
- Pallets lifting system obtained by inflation of low pressure pneumatic cushions (1.5 bar).
- Repeatable pallet centering system on CMM plate by isostatic system.

MANUAL SYSTEM WITH EXTERNAL TROLLEY

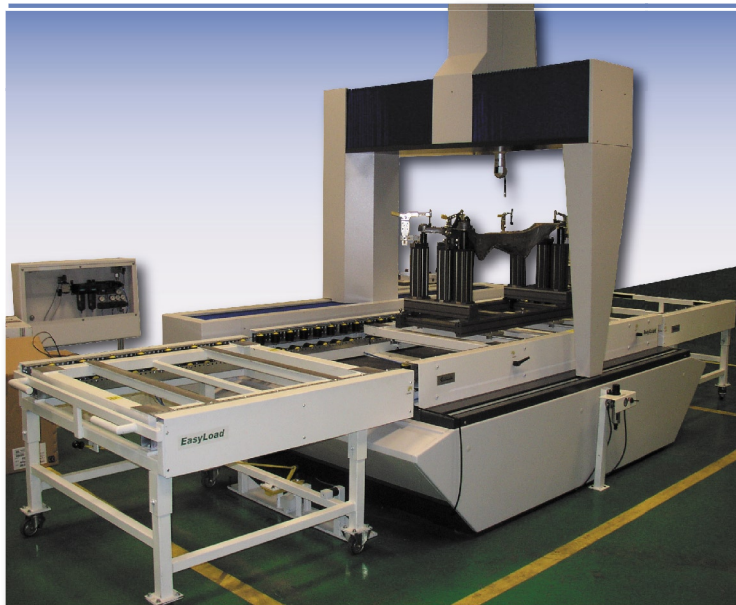
Front view of the **EasyLoad™** system with **two trolleys**



Docking station on floor



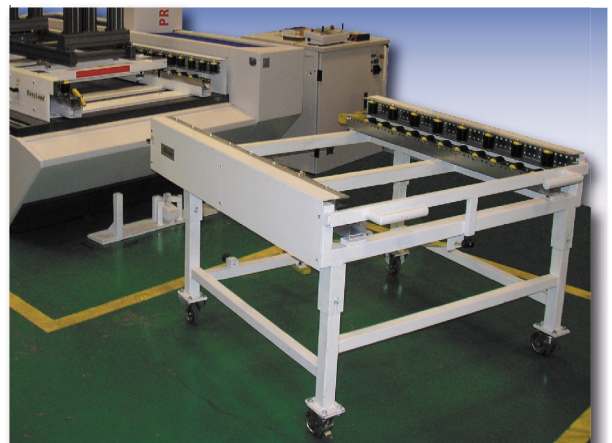
System rear view



Lifting with **air-cushion**



Detail of the **released movable trolley**

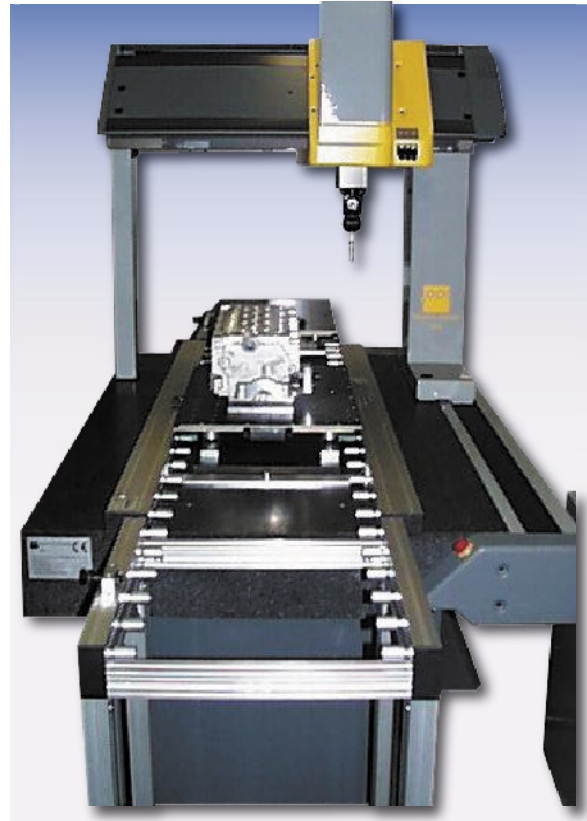


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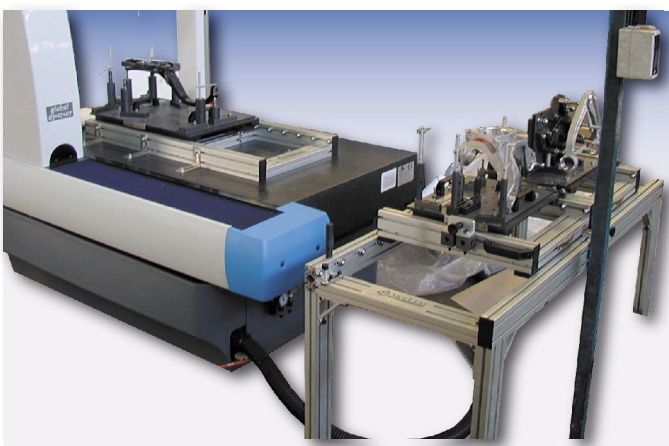
- System with 2 or more movable trolleys on rubber wheels, size as dimensioned according to customer's request, max. movable load 800 Kg (tool + part) with 20 daN operator push.
- Floor docking system of the trolley, with lever quick release.
- Pallets lifting system obtained by inflation of low pressure pneumatic cushions (1.5 bar).
- Repeatable pallet centering system on CMM plate by isostatic system.

DOUBLE-PALLET MANUAL SYSTEM ON ROLLERS

Alternate linear exchange pallet system, with 2 positions



“T” cross exchange pallet system



Specifications:

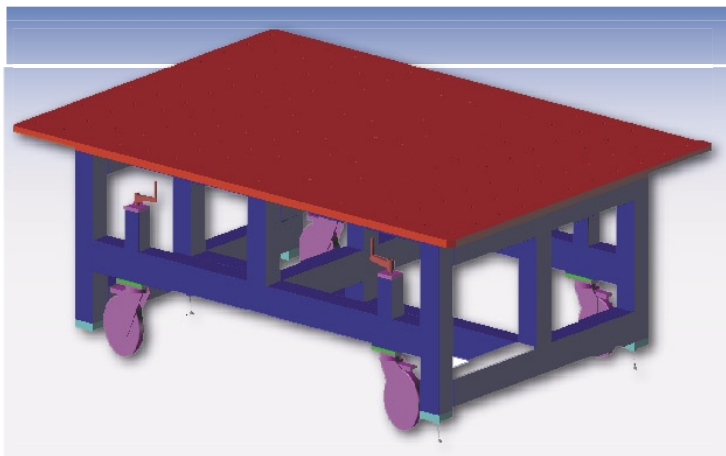
- “Fixed” system for exchange of 2 pallets (max. 700 x 700 mm according to customer’s request, and max. movable load 500 Kg (tool + part).
- Available in “LINEAR” or “CROSS” versions.
- Pallets lifting system obtained by inflation of low pressure pneumatic cushions (1.5 bar).
- Repeatable pallet centering system on CMM plate by isostatic system.

MOBILE SUPPORT TABLES FOR MEASUREMENTS

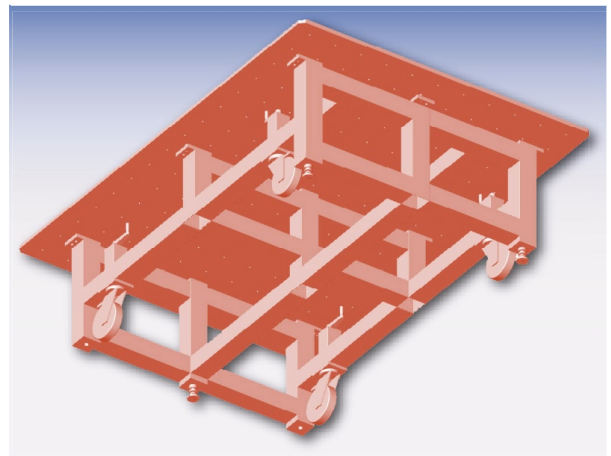
Support table for dual horizontal arm CMM



Controls for lifting and handling equipment



Structure and ground feet support



Specifications:

- Table for check iron horizontal CMM or articulated measuring arm.
- High precision surface pallet with threaded holes and / or centering bushings for repeatable joints.
- Isostatic support system with auto adjusting.
- Moving structure on braked swivelling wheels.

TROLLEYS FOR ARTICULATED MEASURING ARM WITH INTEGRATED FIXTURING

Complete measuring trolley for “on-site” metrological control



Integrated trolleys with measuring arm and modular **EasyFix®** fixturing system

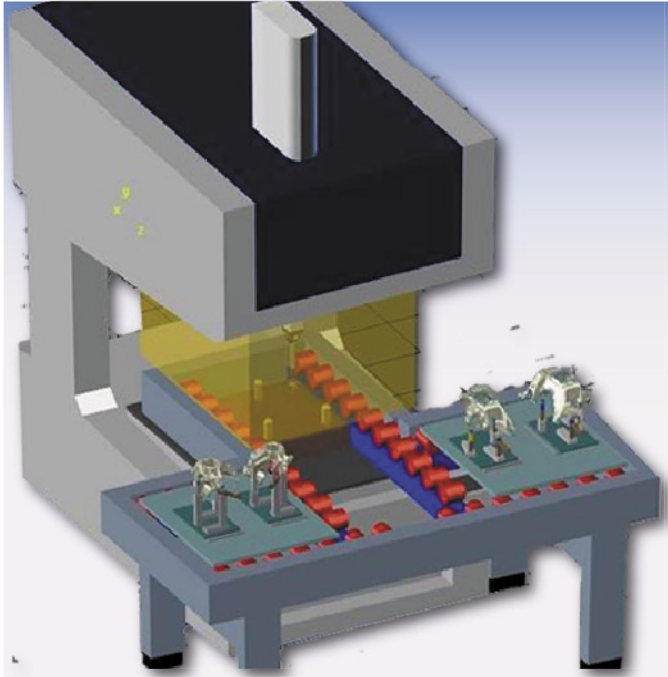


Specifications:

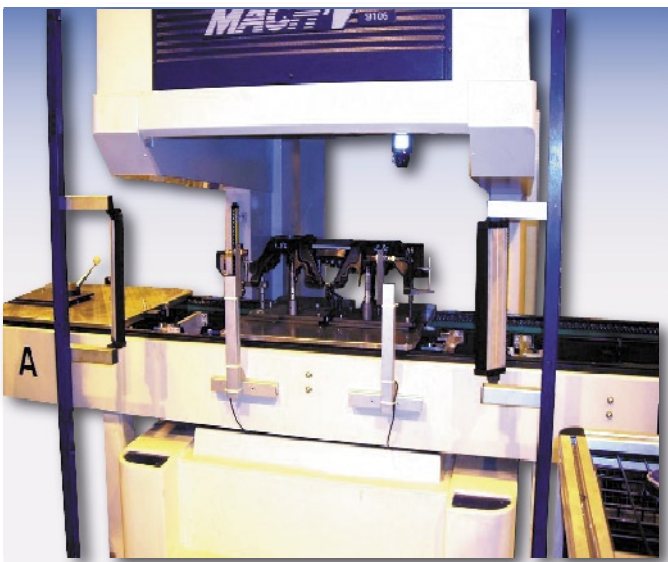
- Heavy-duty light alloy structure.
- Isostatic support system with auto-adaptive feet, movement on braked swivelling wheel.
- Compatible with all components of modular **EasyFix®**.
- Housing tray for fixturing component.
- Compatible with any portable measuring arm with screwed or magnetic base.

AUTOMATIC LOADING SYSTEM WITH 2 ALTERNATE PALLET LINEAR STRUCTURE

3D Studio of Complete System



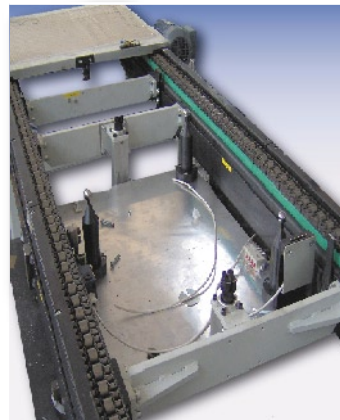
EasyLoad™ CNC system with 2 pallet,
800x700 mm



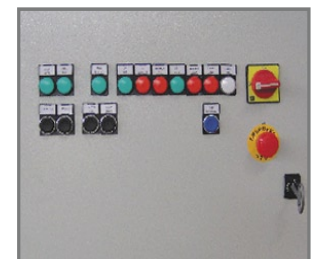
EasyLoad™ CNC system with 2 pallet,
400x400 mm



Detail of the **pallet group receiver**



Electronic Unit
model IC-2001

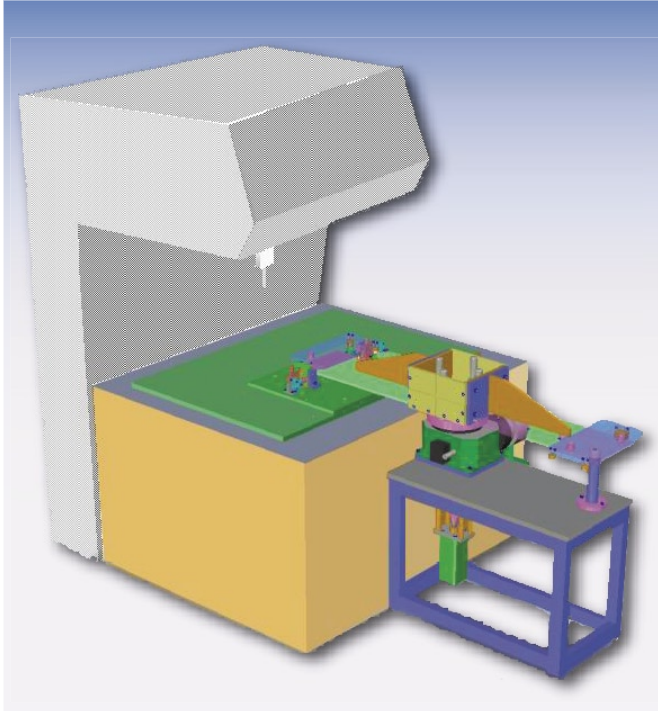


Specifications:

- System for CNC measuring machines with “cantilever” structure.
- Standard supply with 2 moving pallet, size according to customer’s request, and max. movable load 500 Kg (tool + part).
- Pallet change time: approximately 20 sec.
- Dedicated IC-2001 electronic control unit designed specifically for the application. It can be integrated with the control units of Measuring Machine and eventual external loading Robot.

AUTOMATIC LOADING SYSTEM WITH 2 ROTATING PALLET STRUCTURE

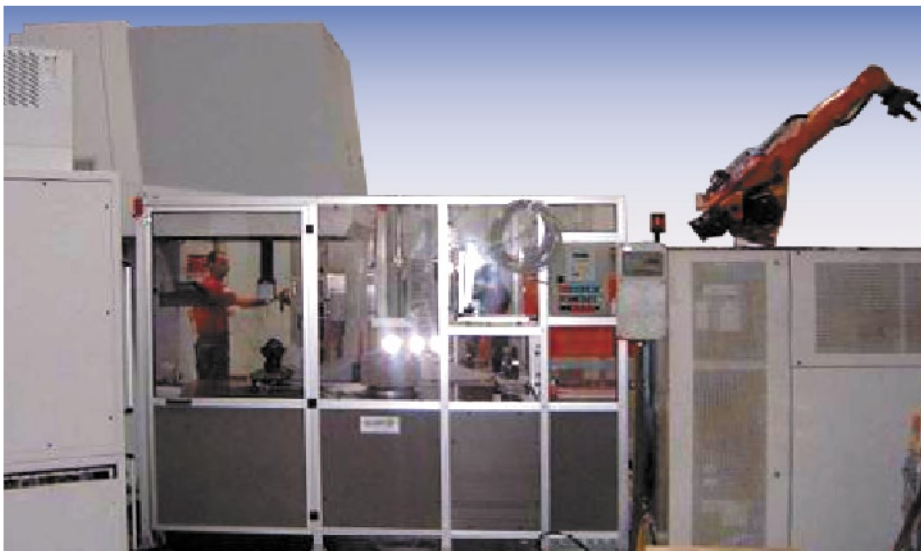
3D Studio of Complete System



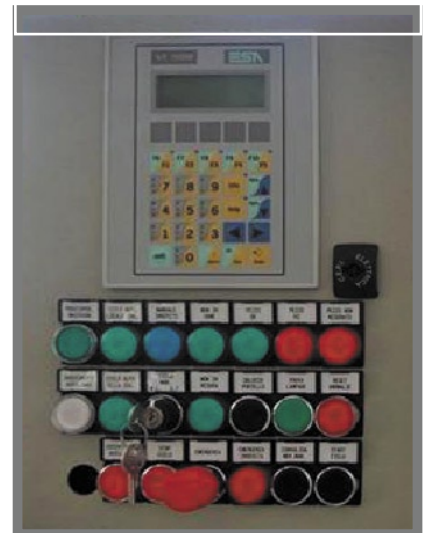
EasyLoad™ CNC Rotating system with 2 pallet



EasyLoad™ CNC system integrated in automatized area



Electronic Unit with programmable panel

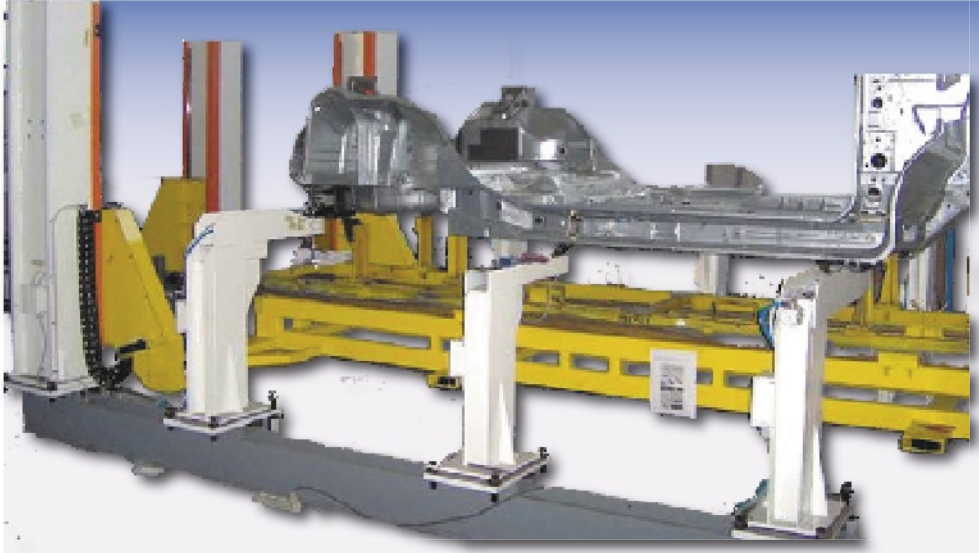


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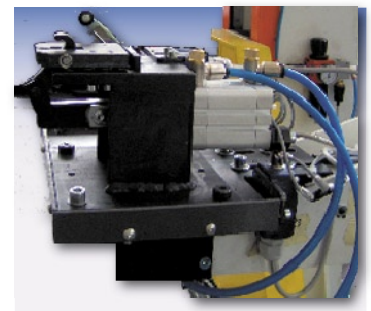
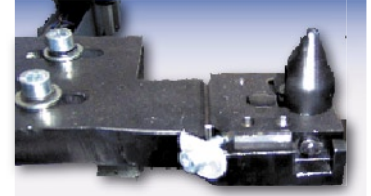
- System for CNC measuring machines with “cantilever” structure.
- Standard supply with 2 moving pallet, size according to customer’s request, and max. movable load 100 Kg (tool + part).
- Pallet change time: approximately 8 sec..
- Dedicated electronic control unit designed specifically for the application. It can be integrated with the control units of Measuring Machine and eventual external loading Robot.

AUTOMATIC LOADING SYSTEM WITH STRUCTURE FOR LIFTING AND REFERENCE OF CHASSIS AND CAR-BODY

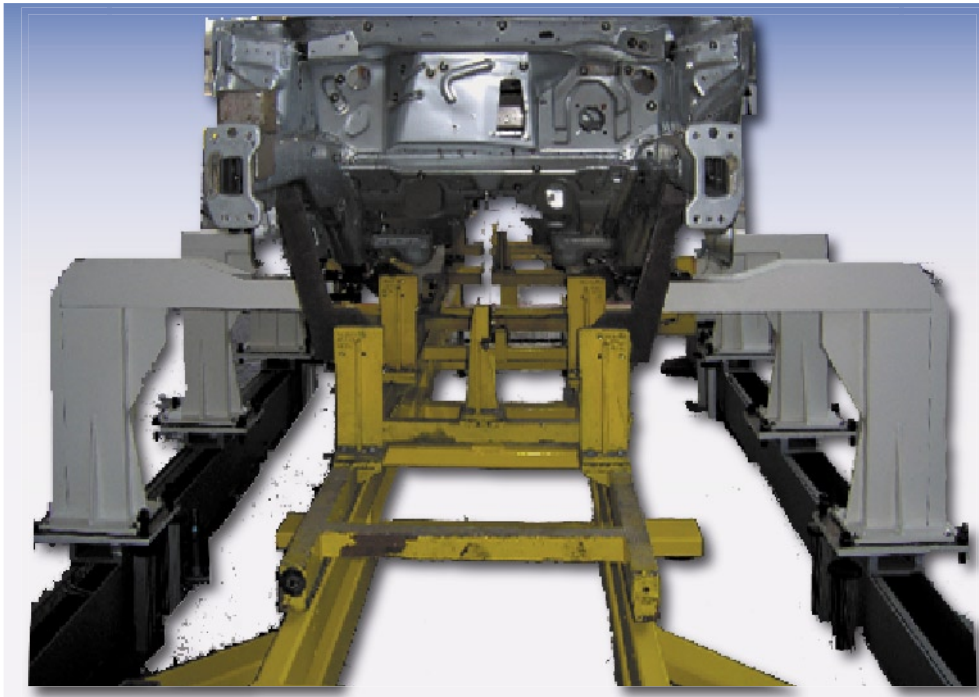
Side view of the **SKID lifting** and **body reference** system



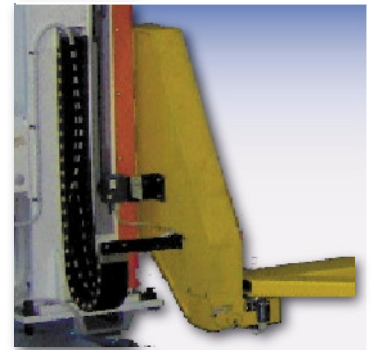
Front and rear **reference** and **clamping** groups



System front view



Lifting riser and **control** unit

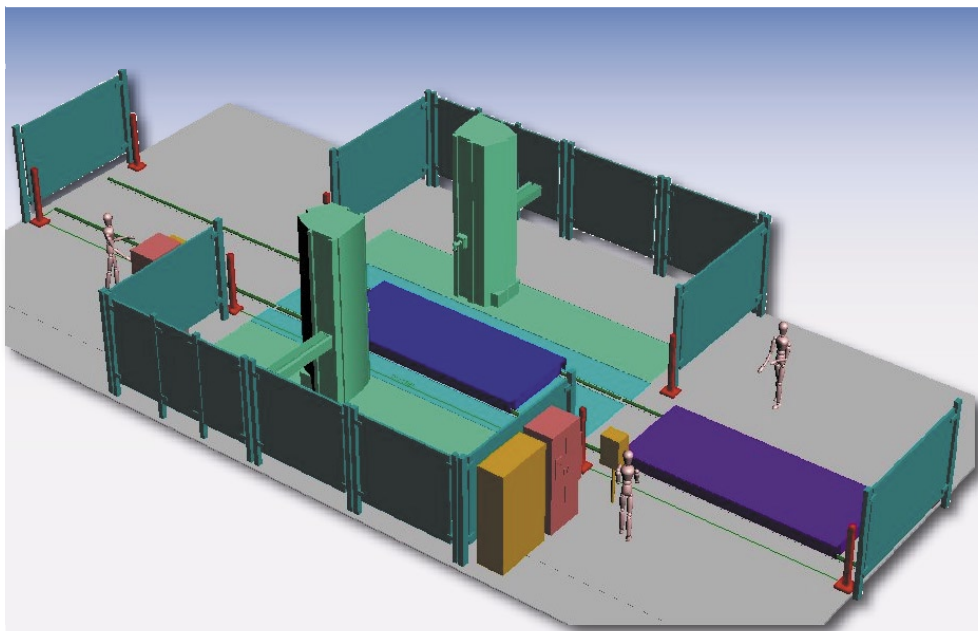


Specifications:

- System for large CNC measuring machines with “dual horizontal arm” structure.
- Allows the receipt of different types of SKID thanks to an adaptation interface.
- References with automatic lever locks with 0.1 mm MAX repeatability and 0.2 mm MAX bending.
- SKID change time: approximately 60 sec.
- Dedicated electronic control unit designed specifically for the application. It can be integrated with the control units of Measuring Machine and and external AGV shuttle.

AUTOMATIC LOADING SYSTEM WITH 2 ALTERNATE LINEAR STRUCTURE FOR BIG PARTS

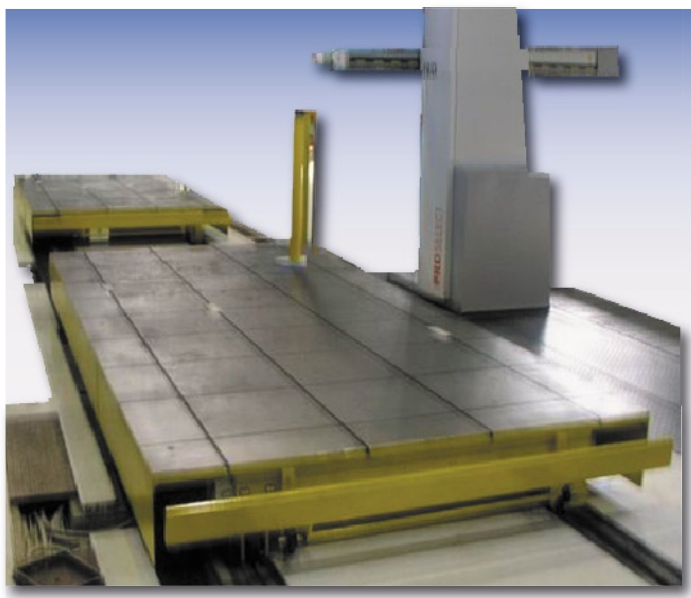
3D Studio of Complete System



Electronic unit and security device



EasyLoad™ CNC system with 2 alternate trolleys,
4500 x 2000 mm



Complete system front view



Specifications:

- System for large CNC measuring machines with “dual horizontal arm” structure.
- Standard supply with 2 moving pallet, size according to customer’s request (example: 4500 x 2000 x 350 mm), and max. movable load 3000 Kg (tool + part).
- Pallet change time: approximately 60 sec.
- Dedicated electronic control unit designed specifically for the application. It can be integrated with the control units of Measuring Machine and eventual external loading Robot.

Distributed by:

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