



# GiboSmartSolutions



## GiboHandling

GiboHandling is based on known technology and experience from previous projects. The solution is offered as a ready-made turnkey solution as described on the back and can be easily adapted to customer-specific requirements as needed with cobot or conventional industrial robot.



### Robot

Omron TM, KUKA, Fanuc



### Gripper

Standard or application specific defined by the task



### Jobs

All jobs requiring placing a pallet on a shelf



### Safety

May be delivered as cobot, cobot with safety scanner or with fence



### Solution

May be combined with Omron AMR or integrated towards a third party equipment

## ADVANTAGES

- Well-known technology tailored to your production
- Large variation in product size is now controlled by the robot rather than manual systems
- Possibility of higher throughput for future growth
- Profit from less waste of casting material
- Reduction of one-sided repetitive work (heavy equipment)
- Reducing time for handling, releasing employees to other tasks
- Greater job satisfaction for increased productivity



## INCLUDED

- Omron TM12 robot inkl. controller
- 1 gripper designed for lifting palettes with varying hole patterns
- 1 zero positioning fixture
- 1 customized casting gun holder with built-in waste tray
- 2 portable palette racks
- 2 pick and drop stations for AMR (Autonomous Mobile Robots)
- 5 fixed storage racks for palettes
- 1 customer designed HMI Touchpanel with user friendly interface
- Integration of existing 3rd party mobile robot
- Integration against existing 3rd party molding machine's associated interface
- Complete safety solution
- Electrical cabinets and necessary electrical components
- Installation and commissioning of robotic systems at Gibotech A/S with FAT test
- Installation and commissioning of the entire cell at customer with SAT test
- Complete documentation package including CE marking

## FUNCTIONALITY

GiboHandling combines a cobot's easily accessible programming with a full safety solution allowing you to work with shorter cycle times than in full collaborative mode.

The functionality of the solution starts with an AMR (Autonomous Mobile Robots) that delivers a rack with a palette on which items are set for casting. The robot's integrated camera finds the exact location of the rack and counts the number of filled shelves. One by one, the palettes are retrieved and held under a casting gun that moulds all the way to the edge of the workpiece. When the items are cast, the robot selects an empty shelf on the storage racks and places the palette with the fully filled items for hardening. After hardening, the robot calls on an empty rack. The hardened items are placed in the empty rack and can be picked up by AMR.

The robot controls the delivery and collection of empty racks. It reads quantity on a new order and keeps track of the placements and curing time in the shelf store. In addition, the robot is the master of the casting equipment, where a casting quantity is called according to which workpiece to be cast.

The entire solution is compact within the robot's reach and it is all controlled from user-friendly HMI located easily accessible outside the safety fence.