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PEOPLE DRIVEN INNOVATION

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ELECTRIC**  
*Changes for the Better*

# SMART MOBILE ROBOTICS

Wherever needed, whenever necessary



Enables smart factories

Reduced changeover  
times

Easily integrates into any  
production process

Maximises return on  
investment

# SMART MOBILE ROBOTICS

The combination of Mitsubishi Electric's MELFA ASSISTA collaborative robot (cobot) with Ontec's Smart Trolley provides an ideal solution to the challenges of modern manufacturing, enabling flexible production where a number of different work stations can be operated by a single cobot.

The Smart Trolley enables the cobot to be easily integrated into existing processes, and quickly relocated and redeployed with reduced changeover times, enabling you to maximise your return on investment. And with easy integration into the wider automation platform, it is a key enabler in the digital transformation of the enterprise.



The MELFA ASSISTA with Smart Trolley can play a key role in the move towards the digitalization of production.

Cobots have rapidly grown in popularity but, to date, a missing piece of the puzzle has been a cobot that can be quickly and easily redeployed as required. Mitsubishi Electric and Ontec have addressed exactly that, with a mobile cobot solution bringing increased flexibility to handling, assembly and test operations.

## AGILE APPROACH

The combination of the MELFA ASSISTA cobot with the Smart Trolley enables you to take an agile approach to the evolution of the production environment, confident that you are embracing a solution that will deliver the highest levels of flexibility on the plant floor.

It provides a mobile solution that can make it easier to automate workflow, reduce changeover times and optimise the utilisation of the workspace. And it makes it easy for you to adapt the workspace as production requirements change over time.

## SIMPLE INTEGRATION

Height adjustable, the MELFA ASSISTA with Smart Trolley can be easily integrated into existing processes at different locations. Adjustable between 800mm and

1150mm, it can be perfectly adapted to the required working height of any workstation.

The height of the Smart Trolley can be adjusted either on the trolley itself or within the RT VisualBox programming environment.

- Servo controlled 350mm of height adjustment, with a precision of  $\pm 0.01\text{mm}$
- 2-hand push button manual operation for assured safety
- Automatic height control through the robot program

## INTUITIVE PROGRAMMING

The MELFA ASSISTA cobot combines 'direct teach functionality' with visual programming to reduce set-up times, enabling the cobot to be quickly adapted to a wide range of applications. Guided teaching allows the operator to move the cobot's gripper to the required position, which is then saved as the target position for the robot movement.

The RT VisualBox programming environment allows the cobot to be programmed using drag-and-drop icons that clearly indicate individual operations. The environment can also be used to simulate proposed robot programs.



The MELFA ASSISTA cobot enables users to realise more efficient production and reduce total cost of ownership of robotic manufacturing systems.

### SAFETY FIRST

Safety with regard to cobots is covered by the international standard ISO/TS15066, enabling them to operate alongside human operators in a collaborative working environment. A mobile cobot, however, adds a new dimension to safety considerations.

The MELFA ASSISTA and Smart Trolley incorporate on-board safety sensors and enable full integration in to the safety control system, without the need for any additional control hardware.

Further, MELFA ASSISTA cobots have the ability to operate at industrial speeds when humans are outside of the working area. Equipping the Smart Trolley with an optional safety scanner to detect the approach of humans enables you to take full advantage of these two modes of operation to drive up productivity on the plant floor.

Where there is less emphasis on collaborative working, the safety scanner also allows the Smart Trolley to be equipped with one of Mitsubishi Electric's industrial robots.



View real life application video on our YouTube channel [here](#)

### HYGIENIC DESIGN

Meeting the needs of a wide range of industries to provide flexible handling, assembly and inspection solutions, the hygienic design of the Smart Trolley means the mobile MELFA ASSISTA can also be used in environmentally sensitive applications, such as in Food & Beverage, Pharmaceuticals and Life Sciences.

- Constructed from stainless steel
- Brush clean design
- IP54 environmental protection

### Additional features:

- Tray for laptop or tablet
- WiFi mobile device connection
- Ethernet, power and USB socket
- CE certification

## MELFA ASSISTA MOVES



Height adjustable between 800mm and 1,150mm, the MELFA ASSISTA with Smart Trolley can be perfectly adapted to the required working height of any workstation for flexible integration into existing processes at different locations



Equipping the Smart Trolley with an optional safety scanner to detect the approach of humans enables you to take full advantage of the MELFA ASSISTA's high speed mode to drive up productivity on the plant floor.

# SPECIFICATIONS

With four models to meet the needs of different applications, the mobile robotics solution addresses manufacturing priorities such as the ultimate safety and wellbeing of employees, the assured quality of components and final products, and the optimisation of production speed and output. Mitsubishi Electric provides a 'one-stop-shop' for ordering all of the required components.

Order Information		
Art.no.	Article	Description
579062	Trolley Basic	Basic trolley for robots
608206	Trolley Basic incl. MELFA ASSISTA	Basic trolley including preinstalled MELFA ASSISTA
579064	Trolley Basic + LS	Trolley with safety laser scanner for enabling robot operation with industrial speed
608207	Trolley Basic + LS incl. MELFA ASSISTA	Basic trolley + LS including preinstalled MELFA ASSISTA
579065	Trolley Basic + HV + LS	Smart trolley with electrical height adjustment and safety laser scanner for enabling robot operation with industrial speed
608208	Trolley Basic + HV + LS incl. MELFA ASSISTA	Basic trolley + HV + LS including preinstalled MELFA ASSISTA
502852	Cobot RV-5AS-D	Industrial Cobot MELFA ASSISTA RV-5AS-D 6-axis; 5kg; 910mm; CR800
502313	Cobot RV-5AS-D-S01	Industrial Cobot MELFA ASSISTA RV-5AS-D 6-axis; 5kg; 910mm; CR800; Food grade H1 grease in all gears and joints
572866	Gripper Co-act EGP-C 40 N-N-ASSISTA	SCHUNK Co-act gripper for MELFA ASSISTA Cobot; Co-act EGP-C 40
588054	Vacuum gripper ECBPMi Assista ROB-SET 1	SCHMALZ CobotPump Vacuum gripper set for MELFA ASSISTA
588054	Vacuum gripper ECBPMi Assista ROB-SET 2	SCHMALZ CobotPump Vacuum gripper set for MELFA ASSISTA incl. adapter for force sensor

Please contact your local Mitsubishi Electric representative for additional robot models which can be used with the Smart trolley or any further questions.



Mitsubishi Electric's e-Factory concept utilizes both FA and IT technologies, to reduce the total cost of development, production and maintenance, with the aim of achieving manufacturing that is a "step ahead of the times". It is supported by the e-Factory Alliance Partners covering software, devices and systems integration, creating the optimal e-Factory architecture to meet the end users needs and investment plans.



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