

# HC Dispensing, Coating & Potting

## Specifications

- Dimensions:** LxWxH 1000 x 1200 x 1800 mm + 500mm for signal light
- Axis:** HC-100 3 Axis + tilt, HC-200 4 Axis + tilt
- Work area:** 600 x 600 mm without tilt, Z movement 150mm (50mm with Z slide)  
In line chain 355 x 600mm (wider as option)  
Belt 400 x 600mm (wider as option)
- Clearance:** Top 100mm / Bottom 100mm
- Rotation:** 380 degrees (HC-200 only)
- Motion:** Stepper motor in combination encoder, with ball-screw and linear bearings and spline-axis  
X and Y 0,0125mm, Z 0.01mm resolution
- Controller:** Integrated Microprocessor controller
- User interface:** PC controlled running on Windows XP™ with DIMASOFT® user interface
- Revolver head:** 4 Positions individual software configuration. Total weight 10Kg (HC-200 Only. For HC-100 mounting plate for multiple valves)
- Camera:** Teach In / Fiducial camera with CCD Chip
- Power :** 230 VAC / 50 - 60 Hz / 2500 Watt
- Air:** 6 Bar / 85 PSI / 100 L/min
- Extraction:** 250 m<sup>3</sup>/h
- Temperature:** Machine 18 - 30 degree Celsius  
For coating applications only small variations are allowed
- Noise :** In operation < 70 dB(A)
- Weight:** 440Kg without tanks

*For material handling, flow metering, valve and container heating, scales, material crossover systems, curing ovens and other unlisted options please contact your distributor.*



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Specifications are subject to change without prior notice.



HC 0810E

# HC Dispensing, Coating & Potting



**The complete solution for Potting or Dispensing of Dots or Lines, Glob Top and Under Fill or Conformal Coating**  
*- backed with years of experience.*



*To improve your productivity*



# The Dispensing and Coating Solution

The **HC-100** Robot is equipped with an X, Y and Z axis. The 3 axis robots can handle up to 4 different tools. Tools can be dispense valves, spray valves, grippers etc. They have to be mounted onto a Z slide or a Z slide combined with a fixed tilt as the fourth axis. This combination has to be mounted onto an adapter for 1, 2, 3 or 4 valves. Tools and Valves can be configured outside the machine and can be put onto the robot as one unit. The 3 axis robot comes with a camera on the Z axis, computer with DIMASOFT user software, a base for adapter plates (for up to 4 tools), one electronic pressure sensor for the mains air supply, a sensor for detection of exhaust air and illumination inside the machine.

The **HC-200** Robot is equipped with an X, Y, Z and  $\Phi$  Axis. The 4 axis robots can handle up to 4 different tools. Tools can be dispense valves spray valves, grippers etc. They have to be mounted onto a valve mount. Tools and valves can be configured outside the machine and can be put onto the robot as one unit. The 4 axis robot comes with a camera on the Z axis, computer with DIMASOFT user software, a base for up to 4 valve mounts, one electronic pressure sensor for the mains air supply, a sensor for detection of exhaust air and illumination inside the machine. Both robots can be configured as a batch or in line machine and can be reconfigured in the field at any time. Several work holders are available.

To complete the configuration you have to decide on which valves you are going to use, how many different materials you have, in what quantity you want to put them to the machine, what you want to monitor, how you want to handle the product and if you want automatic alignment of the product. The machine is equipped as standard with PE material feed tubes. Other material feed tubes, grippers or special pumps are available on request.

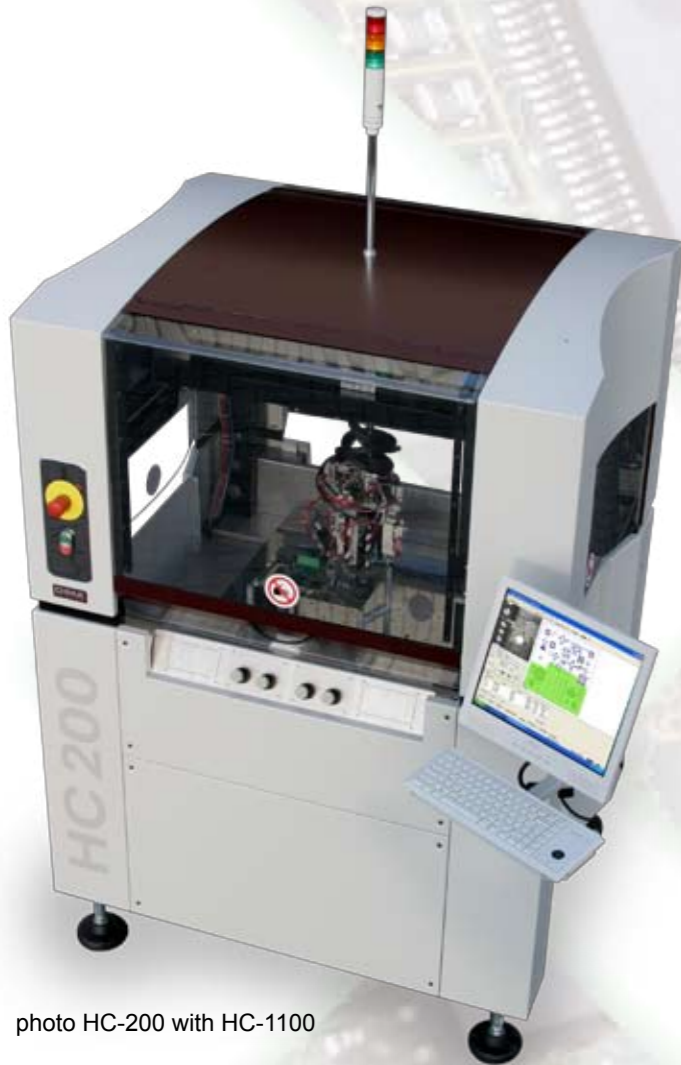


photo HC-200 with HC-1100

## Key Features

- Electronic air pressure control
- Teaching camera standard
- DIMA Soft rewarded user interface
- Offline teaching standard
- Wide range of valves
- Standard up to 4 heads
- Modular system free to configure
- Optional fiducial alignment



## DIMASOFT

All units use the DIMASOFT user interface in combination with the built in CCD camera. Special tools in the software like component library for dispense points and special coating teach tools make sure that programming is done quickly. To program boards off-line or to manage the data the software can be installed free of charge on another computer. On a board photo it is easy to define off-line the coating area. Fiducial alignment software is available as an option.

## Valves

The robot is a must but the valves as a tool combined with process knowledge are the key to successful dispensing and coating. Of course you need a good robot with user-friendly operator software but without the right valves and our process knowledge you will not get satisfying results. DIMA offers a wide range of valves, process knowledge and test facilities to make your application work. You can find more information about our valves in our separate valve catalogue.

## Adapter for Valves

If you want to mount a valve onto the head you must first fit a valve adapter with Z slide or Zslide and tilt.

For the HC-100 this is an adapter for 1, 2, 3 or 4 valves plus a Z slide and a tilt unit.

For the HC-200 we have a complete unit that has only a Z slide or a combination of Z slide and tilt.

Air valves and connection cables are included.

Item	Product
For	<b>HC-100</b>
HC-1021	Adapter mount for 1 valve
HC-1022	Adapter mount for 2 valves
HC-1023	Adapter mount for 3 valves
HC-1024	Adapter mount for 4 valves
HC-1030	Valve mount assembly including pneumatic Z-slide
HC-1031	Valve mount assembly including pneumatic Z-slide & Tilt movement
For	<b>HC-200</b>
HC-1000	Valve mount incl. pneumatic Z-slide
HC-1010	Valve mount incl. pneumatic Z -slide & Tilt



## Pressure reducing Valve and Sensors

The Robots come with one electronic sensor for the mains air supply. Normally spray valves need an extra air supply. Also material tanks need to be pressurised. Therefore extra pressure reducing valves with electronic pressure sensors are available.

Item	Product
HC-1050	Pressure reducing valve with electronic sensor up to 6 Bar
HC-1051	Pressure reducing valve with electronic sensor up to 2.5 Bar

## Work Holder

To hold your products a variety of systems can be offered from a static fixture up to an automatic in line transport.

Item	Product
HC-1100	Static work holder 600 x 500mm with M5 inserts on 50mm pitch
HC-1101	4 Adjustable Clamping blocks with M5 screw
HC-1110	Adjustable product fixture max. 600 x 600mm
HC-1120	Drawer with static work holder for HC-1100 and HC-1110
HC-1150	Transport conveyor with 3,5mm belt + opt.sensor and dual stopper
HC-1160	Transport conveyor with chain 5mm pins (3mm option) + opt.sensor and dual stopper
HC-1170	Transport conveyor with belt and product clamping + opt.sensor and dual stopper



HC-100 head



## Material Handling

For each type of material you want to process, you need a separate material tank. Mostly the material is pushed out of the container by compressed air. The choice of container is influenced by the amount of material you process per day. In rare situations some times external pumps have to be used to feed the material to the dispensing head. To determine the amount of material that is left inside the material tank there is the choice between a floater inside the tank or a scale to determine the weight of the tank. To avoid variations in viscosity you can heat the material tank or work with an automatic temperature regulation on the valve. Other options like Flow monitoring, Material crossover systems, Automatic calibration and Automatic fiducial alignment software are available.

