

# DR Dispensing, Coating & Potting

## Specifications

- Dimensions:** LxWxH 1000 x 1200 x 1800 mm + 500mm for signal light
- Axis:** DR-050 3 Axis + tilt, DR-060 4 Axis + tilt
- Work area:** Stand alone 500 x 440mm without tilt, with one valve  
In line chain 500 x 410mm, Belt 500 x 410mm  
Z movement 105mm
- Clearance:** Top 100mm / Bottom 100mm
- Rotation:** 370 degrees (DR-060 only)
- Motion:** Close loop servo drive with linear encoder 1.000mm / Sec.  
X and Y 0,001mm, Z 0.001mm resolution
- Controller:** Integrated Microprocessor controller
- User interface:** PC controlled running on Windows™ with DIMASOFT® user interface
- Head:** 3 Positions individual software configurable. Total weight 4Kg
- 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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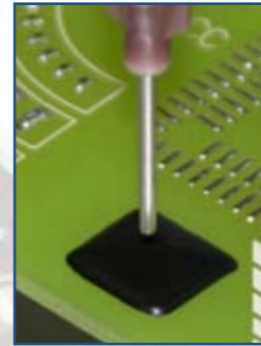
Your Distributor

Specifications are subject to change without prior notice.

DR 0911E



# DR Dispensing, Coating & Potting



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



To improve your productivity

# The high speed Dispensing and Coating Solution

The **DR-050** Robot is equipped with an X, Y and Z axis while the DR-060 also can be equipped with modules carrying out the Z and  $\Phi$  Axis. The 3 or 4 axis robots that you configure this way can handle up to 3 different modules. Each module can handle one tool. Tools can be dispense valves spray valves, grippers etc. Tools and valves can be configured outside the machine and can be put onto the robot as one unit. The DR series of robots come with a camera, computer with DIMASOFT user software, a base for up to 3 modules, one electronic pressure sensor for the mains air supply. A sensor for detection of exhaust air is as an option available. The robot can be configured as a batch or in line machine and can be reconfigured in the field at any time. Several work holders and transport systems are available.

All these features make the Elite Dispense Robot DR-050/060 the most flexible to configure and easy to reconfigure robot available for fast Coating, dispensing and assembly jobs. Together with the unbeatable DIMA Easy track<sup>®</sup> offline programming software and the DIMASoft User interface DIMA has created the ultimate machine.

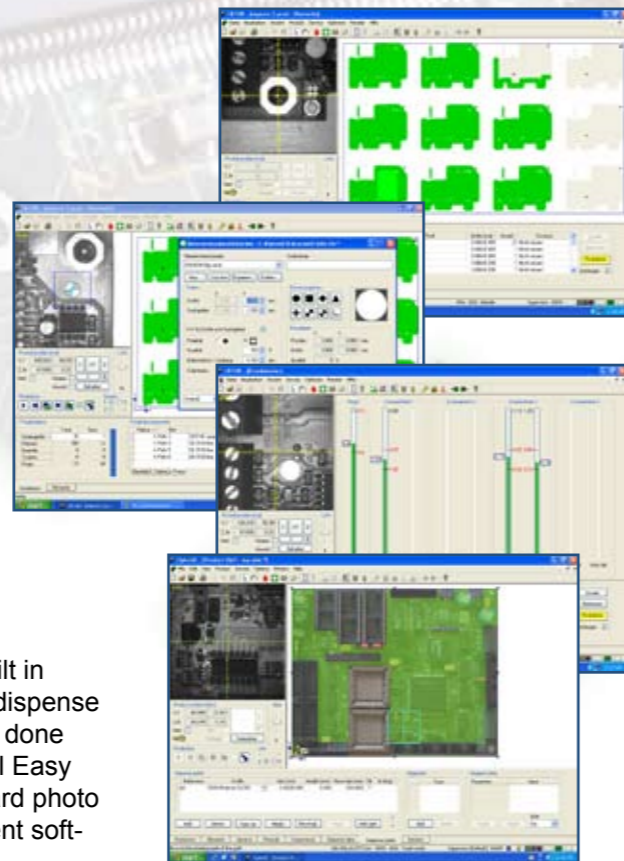
The DR series is a modular concept which allows you to choose between Work holders, Valves, Material tanks and Software options. The options will be factory mounted but the flexibility of the modular concept allows you to re-configure you machine in the field at any time.



photo DR-050 stand alone

## Key Features

- High speed
- High accuracy
- Teaching camera standard
- Electronic air pressure control
- DIMA Soft rewarded user interface
- Easy track<sup>®</sup> off-line teaching
- Wide range of valves
- Standard up to 3 heads
- Modular system free to configure
- 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 optional Easy track off-line software can be installed on another computer. On a board photo it is easy to define off-line the coating area. Automatic 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.

## Valve mount assembly

Valve mount assemblies are available in several different models depending on your requirements. DIMA offers them with a Z- movement, a Z-movement with integrated rotation and if required both with a tilt.

**For materials where extraction is a must, an Exhaust activity detection sensor is available.**

## Z movement

One important feature of the DR series is that all valves can move independently up and down with a stroke of 105mm. In this case programming a board is easier than when valves have only a 50mm height difference from each other (like competing machines).

Item	Product
For	<b>DR-050 DR-060</b>
DR-2000	Z slide unit for DR-050 and DR-060
DR-2010	Z slide + Rotation unit for DR-060
DR-2020	Tilt for DR-2000
DR-2030	Tilt for DR-2010
DR-2300	Automatic X-Y-Z calibration
DR-2310	Exhaust activity detection sensor
PP-1000	Cabinet for DR-050 / PP-050
SWOP-0100	Easy track <sup>®</sup> off-line programming software

## Easy track<sup>®</sup> real offline programming software

Easy track is the worlds only offline programming software that really works! It is based on a photograph from your application and load it into the software. Than work in the comfort of your office on programming your application. Please ask for a demo so that we can convince you that this software really works.



## 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
DR-2200	Pressure reducing valve with electronic sensor up to 6 Bar
DR-2210	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
DR-2100	Static PCB holder 350 x 450mm
DR-2105	Static work holder 600 x 500mm with M5 inserts on 50mm pitch
HC-1101	4 adjustable clamping blocks with Mr screws
DR-2110	Transport conveyor with chain 5mm pins + opt.sensor and dual stopper
DR-2110-3	Transport conveyor with chain 3mm pins + opt.sensor and dual stopper
DR-2120	Transport conveyor with belt and product clamping + opt.sensor and stopper



DR-050 head



## Material Handling and features

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, Automatic Optical Inspection and Automatic fiducial alignment software are available.

