

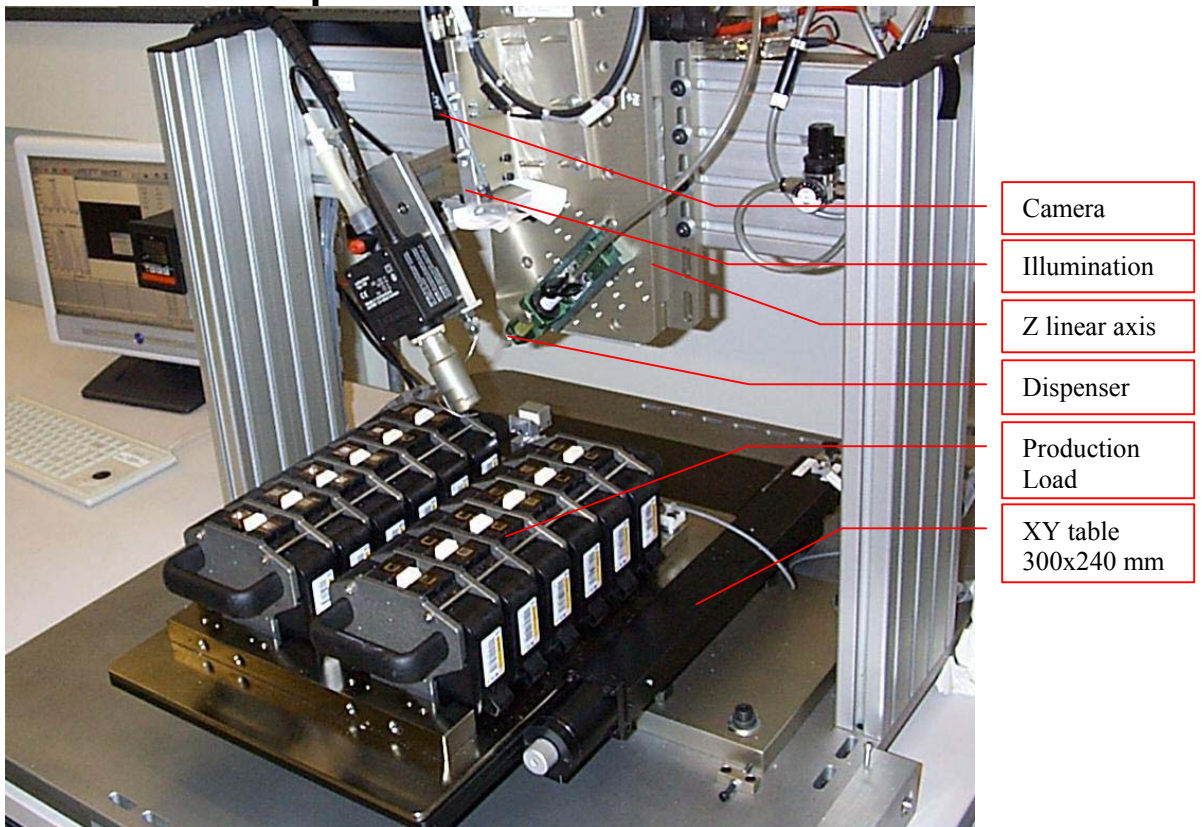
# STVision S.A.

CH-2300 La Chaux-de-Fonds  
Allée du Quartz 1  
SWITZERLAND

TEL. ++41- 32 – 922 68 00  
FAX ++41- 32 – 922 68 04



## Dispenser Model DSC Dispensing with Integrated Vision Control Sept 2004 STVision SA



- Camera
- Illumination
- Z linear axis
- Dispenser
- Production Load
- XY table  
300x240 mm

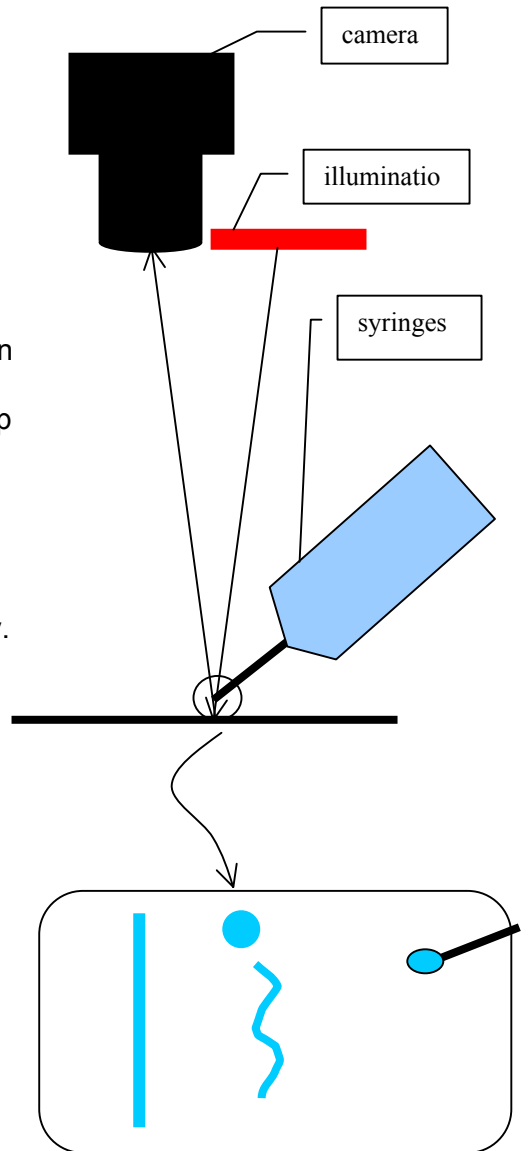
- Precision XY Positioning – 5 Micron repeatable
- Max. 300x300 mm positioning area
- Precision Z Positioning and focus – 100 mm range
- Uses standard plastic cartridge with steel tip for dispensing
- Auto calibrates the tip length and position after every cartridge change
- Online camera control of every dispense activity
- Dynamic dispense correction
- Automatic calibration after every cartridge change
- Extensive software: Auto Learning from a golden reference pattern
- Interactive editing of teach pattern
- Saves any teach pattern
- High resolution megapixel camera
- Automatic camera alignment of the devices
- Automatic volume verification after dispensing
- Automatic remote controlled illumination

## Operation Mode

The dispenser tip is oriented at a 45 degree angle. This allows the camera (vertical mount) to inspect both the tip and the substrate. For very small dispense volume, the system ejects and measure a drop on the tip before strip-off to the substrate. This method allows very precise control.

The camera has two functions:

- Before dispensing, the system must localize the substrate position with maximum accuracy (correction of placement),
- During dispense process, the tip is measured for drop size before and after stripoff,
- After dispensing, the camera measures the result quality,
- The measurements auto correct the dispenser parameters,
- The system is able to correct for changes in viscosity.



## Technical Data

Camera		
Resolution	1300 x 1040	Pixel
Image	10 x 7	Mm
Measurement accuracy	+/- 5	Micron
Dot size measurement	+/- 5	%
Speed	100	msec

XYZ		
Table working area max	300 x 300	mm
Table working area min	150 x 100	Mm
Z motion	100	Mm
Position repeatability	5	Micron
Speed	100	Mm / sec
Motors	Brushless DC, planetary gear, encoder	
Min step size	1.3	Micron
Axis control	Xyz interpolated	

Dispenser		
option	Time / pressure / temperature	
option	Volumetric	
Pressure control	0 - 6	bar
Time control	0.05 - 10	Sec
Temperature control	30 - 200	Degrees
Material	1 or 2 components	
viscosity	100 - 5000	MPaS
Dot size	0.1 - 2	Mm
Dispense structure	Dot, line, circles, rectangles, fill shape, user defined shape	
Performance	2 - 4	Dots / sec